Abstract

This thesis is concerned with the ways in which quality is used to condition processes of beef production, distribution and consumption. Utilising a framework that integrates Dixon's (1999) cultural economy model, with a phenomenological methodology and an actor network theory inspired line of inquiry, it explores conceptualisations of quality along beef commodity chains in Central Queensland, Australia. For producers, processors and retailers, quality was adopted as a strategy to underpin the safe production and distribution of beef in order to remain competitive and maintain markets. Quality was further used to differentiate beef products from one another. By producing and marketing a 'safe and tender' product, producers and retailers believed that they were meeting 'consumer demands' for quality. This belief was substantiated through statistics indicating an increase in beef consumption. However, consumers had very little input into making decisions regarding the production and distribution of beef. Although quality was used to justify the decision to purchase and consume beef, consumers believed that quality beef was difficult to obtain and that they had little choice but to purchase what was on offer. As beef production, distribution and consumption are an integral part of Australian society in regards to culinary culture and economic development, the knowledge generated from this research provides valuable insights for sectors within the beef industry. An understanding of quality is imperative to maintain a sustainable beef industry. As such, an awareness of factors that influence the production, distribution and consumption of quality beef may contribute to the development of a more environmentally, socially and economically sustainable beef commodity.

From "Paddock to Plate": Quality and Beef Commodity Chains in Central Queensland

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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List of Abbreviations and Acronyms

ABARE	Australian Bureau of Agriculture and Research Economics
ABS	Australian Bureau of Statistics
ALFA	Australian Lot Feeders Association
AMC	Australian Meat Council
AMPC	Australian Meat Processors Corporation
ANT	Actor Network Theory
AQIS	Australian Quarantine Inspection Service
ARC	Australian Research Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
AUSMEAT	Australian Uniform Specification of Meat and Livestock
BFA	Biological Farmers Australia
BFGAA	Biodynamic Farming and Gardeners Association in Australia
BRI	Bio-Dynamic Research Institute
BSE	Bovine Spongiform Encephalopathy
CALM	Computer Assisted Livestock Marketing
CAQDA	Computer Assisted Qualitative Data Analysis
CCA	Cattle Council of Australia
CCB	Channel Country Beef
CEM	Cultural Economy Model
CQ	Central Queensland
CQCA	Central Queensland Central Abattoirs
CQU	Central Queensland University
CRC	Cooperative Research Centre
CSA	Commodity Systems Analysis
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DPI	Department of Primary Industries
E. Coli	Escherichia Coli
EPA	Environmental Protection Agency

EU	European Union
FSANZ	Food Standards Australia New Zealand
GCC	Global Commodity Chains
GGB	Green Grass Beef
HACCP	Hazard Analysis Critical Control Point
IFOAM	International Federation of Organic Agriculture Movements
ISO	International Organisation of Standardisation
MLA	Meat and Livestock Australia
MOP	Mode of Provision
MRC	Meat Research Corporation
NASAA	National Association for Sustainable Agriculture in Australia
NFF	National Farmers Federation
NLIS	National Livestock Identification Scheme
NPB	Natural Pastures Beef
NVD	National Vendor Declaration
OESR	Office of Economic Statistical Research
Pty Ltd	Propriety Limited
QBII	Queensland Beef Industry Institute
QFF	Queensland Farmers Federation
RIRDC	Rural Industries Research and Development Corporation
SOP	System of Provision
TBC	Tropical Beef Centre
TNC	Transnational Corporations
U.K.	United Kingdom
U.S.	United States
USDA	United States Department of Agriculture
WHO	World Health Organisation

Dedication

In memory of Oma and Opa Visser

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Declaration

I certify the following thesis is my original work. Any material contained in the thesis that has been used before and the main text of the thesis is an original work.

Except where due acknowledgement has been made, this thesis contains no material printed elsewhere or extracted in whole or in part from other documents.

This thesis has not been submitted previously, in whole or in part, to qualify for any other award in any other tertiary institution.

The content of this thesis is the result of work that has been carried out since the official commencement date of the approved research program.

Signature Redacted

Julie Anne Reis

January 2008

Chapter One

Introduction

> Quality… you know what it is, yet you don't know what it is. But that's self-contradictory. But some things *are* better than others, that is, they have more quality. But when you try to say what the quality is, apart from the things that have it, it all goes *poof*! There's nothing to talk about. But if you can't say what quality is, how do you know what it is, or how do you know that it even exists? If no one knows what it is, then for all practical purposes it doesn't exist at all. But for all practical purposes it really *does* exist. What else are the grades based on? Why else would people pay fortunes for some things and throw others in the trash pile? Obviously some things are better than others…but what's the betterness?…So round and round you go, spinning mental wheels and nowhere finding anyplace to get traction. What the hell is quality? What *is* it? (Pirsig, 1974, 184).

What is quality? This question lies at the heart of this thesis as it explores how quality is conceptualised in relation to beef production, distribution and consumption in Central Queensland, Australia. As Pirsig (1974) suggests, understanding quality is problematic as it can be conceptualised and utilised in a variety of ways and in relation to a variety of phenomena. One such phenomenon, that has enjoyed a surge of interest in quality-related issues, is food. This is no coincidence. The increasing attention paid to quality issues in regards to food in recent years has, in fact, corresponded with important changes in the ways in which food is produced, distributed and consumed.

It is widely acknowledged that the post second World War period has witnessed major transformations in the structure of agriculture and food production (Arce and Marsden, 1993; Illbery, Chiotti and Rickard, 1997; Marsden and Arce, 1995; Newby, 1983; Snell, 1996; Wilkins, 1995). These transformations include the globalisation and regionalisation of national economies (Marsden, Murdoch and Morgan, 1999), the intensification of agricultural production associated with increasing inputs of technology, synthetic fertilisers and chemicals and scientific expertise (Alexander and Fry, 1994; Allen, 1993; Arce and Marden, 1993; James, 1993; Straughan and Roberts, 1999), the increasing influence of off-farm agribusiness capital on agricultural production processes (Friedmann, 1991; Gouveia, 1994; McMichael, 1994; Sanderson, 1986), the vertical integration of food supply chains across national borders (Gereffi, Korzeniewicz and Korzeniewicz, 1994; Hopkins and Wallerstein, 1986), the redefinition of political and regulatory environments (Marsden et al., 1999), and the increasing influence of the food retail sector in mediating relationships between production and consumption (Atkins and Bowler, 2001; Dixon, 2000, 2002; Wrigley and Lowe, 1996). A key theme associated with several of these transformations is quality. Of particular significance is the way in which quality is used by producers, processors and retailers to remain competitive and to maintain market share within agricultural and food economies (Marsden, 1998; Morris and Young, 2000). In the past decade particularly, quality has served not only to differentiate food commodities from one another, but also to guide practices underpinning the production, processing and distribution of food commodities more generally. Just how quality acts on and within food commodity chains remains to be fully explored. However, the 'turn to quality' as a strategy for guiding practices of

food production and distribution, has been attributed by many commentators to an increase in public consciousness concerning the safety of food and the conservation of the environment (Alexander and Fry, 1994; Allen, 1993; Arce and Marsden, 1993; James, 1993; Shaw, 1999; Straughan and Robert, 1999).

In the past two decades, the attention paid to food related hazards, food safety risks and the impact of food consumption on human health has increased dramatically. This is particularly so in relation to meat. In the late 1970s, public debates about fat and cholesterol commenced between proponents of the beef industry and the medical professions. This debate continues. Nevertheless, controversies about meat intensified particularly in Europe and the United Kingdom (U.K.) during the 1990s, when debates about the use of growth hormones and the use of antibiotics in intensive livestock (particularly beef) production arose. Since then, debates concerning food safety and quality have been in response to the BSE crisis in the U.S. and the U.K., the dioxin crisis in Belgium and the outbreak of foot-and-mouth disease in several countries worldwide (Davidson, Schroder, Bower, 2003; Verbeke, 2001). In Australia, controversy has been particularly concerned with the use of chemicals and their effects on both human health and the environment (Herath, 1998; Lockie, 2001c). Specifically, the detection of chemical residues in beef carcasses and the subsequent rejection of Australian beef by the US sparked considerable debate in the middle 1980s regarding the safety of meat from cattle fed on cotton trash (Lockie, 2001c). Combined with further food scares of listeria, salmonella and E.Coli, and the emerging use of genetically modified organisms (GMOs), public concern worldwide regarding food quality and food safety appears only to have

gained momentum (Davidson, Schroder, Bower, 2003; Ilbery and Kneafsey, 2000; Verbeke, 2001).

As a result, it is argued, consumers have rapidly become more suspicious of the food industry, those who regulate it, and of the ways in which food is produced and processed (Banks and Bristow, 1999; Parrott, Wilson and Murdoch, 2002). These concerns have not only contributed to the increasing importance of food quality and food safety within the public arena but have also placed pressure on actors involved within food industries to ensure improved standards of production, processing and distribution (Banks and Bristow, 1999). As an additional consequence, the interest in quality by researchers involved in the study of food and agriculture has increased. This interest mirrors wider concerns with theorising relationships between the production, distribution and consumption of food.

Over the past decade, several attempts have been made to explore both how and where quality is constructed along food commodity chains and how quality may act upon relations of production and consumption within these chains. In all cases, results have indicated that quality is a complex concept. Indeed, the literature pertaining to issues of food quality has attributed to it a number of identities that relate to its conceptualisation either as a physical entity defined by measurable characteristics or, alternatively, a social construction and discursive practice.

Predominantly, the construction of quality as a measurable entity emerges from the disciplines of science and technology, psychology (consumer behaviour) and food marketing. In these sets of literature, the product is the sole focus of attention. The food science and technology literature has tended to emphasise quality as a set of product attributes associated with the objective measurability of certain characteristics classified as 'intrinsic' to the food product (Becker, 2000; Meiselman, 2001). In the food science and technology literature – particularly that pertaining to meat quality – the intrinsic cues are modelled around characteristics that indicate: 1. a nutritional value such as protein, fat and carbohydrate content; 2. a processing quality such as pH value, sheer-force, sarcome length and water binding capacity; 3. a hygiene or toxicological quality such as residues, contaminants and microbacteria; and 4. a sensory quality such as texture, flavour or odour, and colour or appearance (Becker, 2000).

Unlike the science and technology literature, the conceptualisation of quality in the consumer behaviour literature attempts to mediate between objective product characteristics and consumer preferences (Holm and Kildevang, 1996). Quality is characterised in accordance with consumer perceptions of what a quality product is. Like the science and technology literature, a quality product is assessed according to certain attributes or cues. These may include,

1. 'intrinsic cues' relating to the appearance of physical products such as colour, size and shape;
2. 'extrinsic' quality cues based around those characteristics that can be manipulated without changing the physical product such as price, brand name, country of origin and nutritional information;

3. ‘experience quality attributes’ based on previous experiences with the product, such as taste, freshness, convenience, flavour and texture; and
4. ‘credence quality attributes’ or those characteristics of the product which it is believed are desired by consumers such as healthiness, naturalness, environmental friendliness and animal welfare (Meiselman, 2001, 72).

Although this body of literature recognises that consumers have a role to play in conceptualising quality, and implies that assessments of food are personal and situational, the literature generally focuses on the characteristics of food products and pays little attention to the context within which foods are consumed.

The considerations of food quality issues by food marketing authors have also viewed quality as a set of characteristics. However, this literature indicates that these characteristics are attuned to different stages of production. For example, Henson (2000) describes three ‘orientations’ of quality:

1. ‘product-oriented quality’ relating to physical characteristics of food such as colour, texture and fat content;
2. ‘process-oriented quality’ relating to the characteristics of production such as organic, free-range and welfare-friendly; and
3. ‘user-oriented quality’ relating to the perception of the product by the consumer.

As with the food science and consumer behaviour literature, the food marketing literature views quality as measurable. ‘Product-oriented quality’ and ‘process oriented quality’ can be measured by objective means whilst ‘user-oriented

quality' can be linked to the experience of the consumer (Henson, 2000). Whilst this classification attempts to link quality to certain stages of the development of a product and implies that there are different contexts of production, processing and consumption, the literature provides little explanation as to how quality is linked to different contexts of production, processing and consumption (Parrott, et al, 2002).

The attempt to link quality to contexts of production, distribution and consumption first emerged in the early 1990s among scholars interested in theorising social relations along food commodity chains. Arce and Marsden (1993) introduced the idea that quality affects processes of food production and consumption within a globalised food system. Their work queried whether shifts in social behaviour affected the organisation of the food system in developed market economies. In particular, they questioned whether changes in consumer perceptions of nature, health and taste were contributing to the more widespread socio-political restructuring of food systems. Subsequent research conducted by Goodman and Watts (1994) and Marsden and Arce (1995) confirmed that changes in consumer perceptions and behaviour in regards to chemical-intensive farming methods, animal welfare, food labelling and safety and hygiene were at least partially responsible for the modification of food supply chains. According to Goodman and Watts (1994), the demands for 'high quality' food by consumers reinforced a shift in the balance of power from food producers and manufacturers towards distributors. Consequently, the redistribution of power affected relationships within food systems and thus contributed to the uneven development of spaces of food production. Although quality is conceptualised by

these authors as a phenomenon that is socially constructed by consumers, they argue that this cannot be separated from the materiality of food through both the classification of physical characteristics that are measurable and able to be standardised and the material affect of consumer perceptions and preferences on relationships of production (Mansfield, 2003a).

Food scares and the social movement politics that have emerged around them have done much to bring otherwise taken-for-granted relationships between the production, processing, distribution and consumption of food into the open. 'Quality' however is not just about the politicisation of food. It also is about changing tastes and cultures of consumption and the aesthetisisation of everyday life. Quality is constructed through the inter-relationships between different socio-cultural, economic and political contexts and a number of actors, all of whom embrace diverse perspectives on what quality is and how it may be measured (Ilbery and Kneafsey, 2000). In order to subject these relationships to critical scrutiny, agricultural and food theorists have advocated an examination of quality that considers the interrelationships between producers, processors, distributors, retailers and consumers (Banks and Bristow, 1999; Busch and Tanaka, 1996; Ilbery and Kneafsey, 2000; Marsden, 2004; Morris and Young, 2000; Parrott et al., 2002; Ventura and van der Meulen, 1994). Further, Marsden and Arce (1995, 1274) specifically suggest that it is necessary to 'follow, describe, and analyse specific food commodity networks, mapping out how they construct food quality' in order to gain a 'deeper understanding of how the combination of social, political, economic and social factors condition food

production and consumption'. Heeding the advice of Marsden and Arce (1995), this thesis utilises beef as a commodity for examination.

Research Context

As indicated, since the 1960s industrialised countries have seen a dramatic increase in conflict over the way food is produced, distributed and, arguably, consumed. This conflict has emerged around issues related to food safety, the environmental impacts of agriculture, animal welfare and genetic engineering (Braun and Castree, 1998; Lawrence, Lyons and Lockie, 1999; Lockie and Collie, 1999; Lockie and Kitto, 2000), and it has stimulated a 'questioning and re-shaping of the relationship between the human and the natural world' (James, 1993, 206). At the core of these concerns are moves to find new ways to conceptualise human-nature relations in order to create and maintain sustainable agricultural production systems (Braun and Castree, 1998). This has necessitated the formulation of new ways of theorising the relationships between the production and consumption of agricultural commodities (Braun and Castree, 1998; Lawrence et al, 1999; Lockie and Collie, 1999; Lockie and Kitto, 2000). This thesis aims to further understand relationships between production and consumption of food and agricultural commodities by examining ways in which quality is conceptualised in relation to beef commodities in Central Queensland.

Australia is one of the world's leading beef producers and the world's largest exporter. In 2001/2002, Australia exported 65.8 percent of it total beef production (Meat and Livestock Australia, 2004a). There are approximately 24.5 million

cattle in Australia, 11.3 million of which are located in Queensland (Department of Primary Industries, 2002). In 2001/2002, beef production in Queensland accounted for 48 percent of total beef production in Australia (Australian Bureau of Statistics, 2003). Of this, approximately 92 percent of cattle sales went towards the processing of beef for export markets, with Japan and the US accounting for 79 percent of those exports (Department of Primary Industries, 2004a). Central Queensland (see Appendix 1) accounts for approximately 26 percent of the Queensland beef herd (Garner, 1996).

Due to the high number of cattle produced in Central Queensland, the regional city of Rockhampton is characterised as the 'Beef Capital' of Australia (McDonald, 1988). It also hosts the main campus of Central Queensland University where the researcher was situated. Given the importance of the beef industry to the local community, the regional community and the nation of Australia, beef was selected as a possible commodity for investigation. However, the confirmation of beef as the focus for the study occurred following the realisation that quality was an issue of importance to those involved with the production, processing and retailing of beef. This became apparent following a scoping exercise that included discussions with representatives of the beef industry[1], reviewing beef industry publications and browsing numerous beef-related websites. All of these sources emphasised quality as a major influence on the choice of consumers to purchase beef and, therefore, of great importance to

1 These representatives included local historians, the Queensland Department of Primary Industries (DPI), the Tropical Beef Centre and representatives involved in the organisation of "Beef 2000" (a tri-annual beef exposition).

producers, processors and retailers. In addition, the scoping exercise revealed that while the term 'quality' was used with little qualification by those involved in the production, distribution and consumption of beef these actors assumed, nevertheless, that their own understandings of quality were shared among consumers and other industry participants.

Aims of the Thesis

In light of needs identified by the literature and the assumptions of the scoping exercise, this thesis aimed to explore the ways in which relationships within commodity chains were shaped by the symbolic and material construction of foods. The specific aims included:

1. Explore the ways in which actors involved in the production, distribution and consumption of beef commodity chains construct quality.
2. Identify how quality impacts upon the conceptualisation of beef commodity chains and its importance relative to other signifiers and concerns.
3. Determine the major factors that contribute to how the meanings of quality are constructed in relation to beef.

These aims were reflective of the purpose of the Australian Research Council (ARC) grant in which this study was embedded. The mains aims and objectives of the ARC project titled: *''Greening' food: agribusiness, producer and consumer strategies in the production, signification, and consumption of environmentally responsible foods.'* were to seek and explain relationships between the production and consumption of 'green' foods by tracing changing

production and consumption patterns, exploring the ways in which products move through commodity chains and examining the symbolic production of meaning in relation to foods.

Introduction to Research Procedures

The overall approach of the study is situated within the sociology of food and agriculture; however, it also draws upon insights from geography, political economy and history. The research is grounded in Central Queensland, Australia. This location provided an ideal arena, due to its strong connections to the beef industry, to examine processes of beef production, distribution and consumption.

As the purpose of the study coincided with the broad aims and objectives of qualitative research methods, a research design based upon the principles of phenomenology was utilised in order to ascertain the meanings of quality for actors along several distinct beef chains. The Cultural Economy Model (CEM) (Dixon, 1999), a recent adaptation of Commodity Systems Analysis (CSA) (Friedland, 1984), was utilised as an overarching framework to identify key actors, processes and activities that constituted beef chains.

Key actors involved in the production, distribution and consumption of beef were interviewed regarding their experiences with beef and their notions of quality. In order to gain a comparison of meanings of quality for these actors, and to gain insight into the conceptualisation of beef chains, the research utilised four case

studies that demarcated four differentiated beef chains. These beef chains included:

1. Central Queensland's main production-consumption chain (CQ Beef);
2. Green Grass Beef (GGB), a 'branded' beef chain supplying a 'high quality' grass fed product to the domestic market;
3. Natural Pastures Beef (NPB), a small beef chain offering organic beef to a small community;
4. The Channel Country Beef Chain (CCB), an alliance of beef producers exporting organic beef[2].

Organisation of Thesis

Having outlined the aims of the study in this Chapter, the following Chapter identifies, reviews and presents a discussion of literature relating to food production, distribution and consumption. The literature review introduces current issues of concern in relation to food and agricultural production. In particular, it emphasises that issues of food quality are in need of further research and, in addition, that there is a need also to theorise further relationships between production and consumption. Focusing on the ways in which quality has been studied in relation to food and how quality has been conceptualised, it is argued that an examination of quality needs to be included as part of the study of food commodities and commodity systems. In so doing, an overview of the theoretical approaches taken to the study of food production and consumption is undertaken

2 Pseudonyms have been used for all beef chains, with the exception of the main Central Queensland chain, in order to preserve the anonymity of participants as far as possible.

and the strengths and limitations of these approaches discussed. The Chapter proceeds to advocate approach that utilises an adapted version of Dixon's (1999) Cultural Economy Model as an overarching framework to guide the study of food commodities. It is also argued that an exploration of the meanings of quality can best occur by integrating an inductive methodology based on qualitative research methods and that phenomenology may be able to fulfil this role.

Based upon the identification of key players by the use of the adapted CEM framework, Chapter Three outlines the selection of participants and beef chains included in the study. It then proceeds to articulate the fieldwork processes, data collection and data analysis methods. Issues pertaining to ethics and rigour are also addressed in this Chapter.

Chapter Four provides a background for the presentation of the research data. In drawing upon past and present issues for the beef industry, this chapter examines how the four identified beef chains are theoretically conceptualised utilising the adapted CEM framework. The chapter begins with a brief history of beef in Australia and the importance of beef to the Australian economy. Similarly, it recounts the significance of beef to Central Queensland. The chapter elaborates each of the four beef chains identified for case study according to the processes advocated by the adapted CSA approach.

Chapters Five, Six and Seven present and discuss the data relating to the meanings of quality for participants across the identified beef chains. The data are organised into the dominant discourses of 'quality'. In order to demonstrate and

explain how meanings of quality may act to inform a conceptualisation of beef chains, and the relationships that occur along beef chains, these chapters draw upon relevant theories and current literature.

In particular, Chapter Five provides an account of the meaning of quality for actors along the identified beef chains in relation to the production processes of beef. It emerges that production processes of beef are geared to meet a perceived notion of a quality product as demanded by consumers. Production processes affect and are affected by 'quality'. Quality in relation to production processes is utilised in a way that attempts to maintain stable relationships between producers and other actors within the chain. Chapter Five surmises that quality is not just a set of characteristics but is a contested and negotiated concept that is embedded within a myriad of social, historical, cultural, political and economic interactions and interrelationships.

Chapter Six extends the analysis of data relating to quality into the distribution and exchange processes of the identified beef chains. It provides an examination of the ways in which beef has been promoted according to a range of socially constructed quality criteria. This chapter surmises that beef marketing is simultaneously an economic and cultural act. It involves a delicate process of elucidating consumer desires, forming associations between those desires and beef, and establishing connections and relationships with other agents in order to stimulate demand for beef.

Chapter Seven augments the consumption processes of quality beef to the production, distribution and exchange processes of quality beef as described in the previous two Chapters. Chapter Seven synthesises the myriad relationships that culminate in the social experience of eating. The results in Chapter seven evolve from focus groups and interviews conducted with consumers.

Upon returning to the research aims identified in Chapter One, Chapter Eight summarises the research conducted for this thesis and reflects upon the discourses of quality that exist along beef chains in Central Queensland. It offers an appraisal of the approach taken to the research and suggests areas in need of further research.

Chapter Two

Review of Literature and Theoretical Considerations

Over recent years, there has been an increase in attention paid to the interconnections between the production, distribution and consumption of food. Uncertainties among the public about the associations between agriculture and food production policy, together with rising concerns for food quality, health, conservation of the environment, animal welfare and science and technology (Alexander and Fry, 1994; Allen, 1993; Arce and Marsden, 1993; James, 1993; Straughan and Roberts, 1999) have become central issues for the study of food and agricultural commodities. The emergence of concerns about food production, food quality and safety has been accompanied also by an upsurge in theories regarding the interrelationships between food production and consumption (see for example Arce and Marsden, 1993; Dixon, 1999; Fine, 1994, 1995; Fine, Heasman and Wright, 1996; Friedland; 1984, 2001; Goodman, 1999; Goodman and Redclift, 1994; Lockie and Collie, 1999; Lockie and Kitto, 2000; Mansfield, 2003a, 2003b; Marsden and Arce, 1995; Miele, 1999; Murdoch, Marsden and Banks, 2000; Parrott et al, 2002; Warde, 1992, 1994, 1997; Watts, 1994).

This Chapter serves to introduce and discuss the theoretical perspectives that inform the research. It begins by providing a synopsis of current issues in the production and consumption of food and other agricultural commodities with particular reference to the changing nature of quality. The Chapter then outlines

some of the more influential theoretical approaches that have been applied to the study of food and agriculture, particularly those that attempt to examine both processes of food production and consumption and relationships between food production and consumption, in order to gain insight into the role that they may play in understanding quality. Specifically, this discussion commences with the approaches that have emerged from a Marxist inspired political economy perspective where 'relations of production' and 'forces of production' are of particular interest (Cuff and Payne, 1984). These approaches include Hopkins and Wallerstein's (1986) Commodity Chain approach and Friedland's (1984) Commodity Systems Analysis. As the analysis of consumption is not of particular interest to these approaches, but has emerged as important and necessary to the study of foods (Dixon, 1999), the Chapter presents a review of the sociological literature relating to consumption issues. The Chapter proceeds to review how theorists have attempted to include consumption in the study of food and agricultural commodities. These approaches, which incorporate consumption into a political economy analysis, include Fine's (1995) Systems of Provision approach and Dixon's (1999) Cultural Economy Model. In noting the problems of political economy, the discussion then reviews studies that utilise Actor-Network Theory. The Chapter concludes by arguing that while each of these perspectives has limitations, the cultural economy approach as advocated by Dixon (1999), infused with concepts advocated by ANT, may offer some useful insights into ways in which quality is conceptualised along and between food commodity chains.

Current Issues in Food and Agriculture

The period following the Second World War saw Australia undergo profound economic, social and political change. In the case of agriculture, processes of industrialisation and globalisation contributed to the reorganisation of food production processes in accordance with patterns of capital accumulation (Murdoch, Marsden and Banks, 2000). Not only were farm sectors restructured so as to comprise a smaller number of more specialised and intensive production units, but firms that supplied farm inputs and processed and distributed farm outputs began to assume pivotal roles in mediating between processes and practices of primary production, distribution and consumption (Lawrence, 1987; Lockie, 2001d; Parrott, et al, 2002).

In Australia, the restructuring of food production units resulted in the expansion of farm output and farm size. However, the intensification of farms contributed also to a series of macroeconomic problems in Australia including low levels of economic growth, rising interest rates and a growth in unemployment (Tonts, 1998). For rural areas, these problems were compounded by world surpluses of agricultural commodities, increasing protectionism in Europe and North America, declining returns for food and fibre production and changes in consumer demands (Lawrence, 1999; Tonts, 1998). A decline of farm labour requirements and rural employment opportunities occurred as farmers became increasingly reliant on off-farm inputs of fertiliser, chemicals, machinery, capital and expertise to maintain efficiency and boost productivity (Lawrence, 1999; Lockie, 2001d). Further, the rising cost of agricultural inputs contributed to increasing levels of

rural debt and, ultimately, to declining farm incomes. This resulted in a considerable number of farmers leaving the industry[3] (Lawrence, 1999; Tonts, 1998).

Despite these economic problems, Australia has retained an industrialised system of agricultural production. Farming in Australia has become a highly organised, 'routinised, more productive and more predicitive' (Burch and Rickson, 2001, 167) activity based on Fordist systems of mass production. As with many industrialised countries, Australian food production is mainly now controlled by global food processing companies or increasingly by large retail outlets which use systems of 'vertical integration'[4] or 'vertical co-ordination'[5] to deliver products to consumers (Burch and Rickson, 2001). This has meant that foods may not be consumed in the same locales in which they are produced and, in the case of multi-ingredient processed food commodities, their production and processing may span many countries. Processes occurring between sites of production and sites of consumption thus have become extremely complex (Gereffi, Korezeniewicz and Korezeniewicz, 1994; Murdoch and Miele, 1999, 467).

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3 Since the 1970's there has been a decline in the number of farms by approximately 64,425 (Higgins and Lockie, 2001).

4 Also known as 'corporate farming'. One company owns and controls all the process of production and distribution. The company owns the land, provides the capital and resources needed for the production of raw agricultural goods and also is responsible for the processing, packaging and transport of the finished product. It employs workers to produce, process and package the goods in specified ways (Burch and Rickson, 2001)

5 Also known as 'contract farming'. This is where a food processor, food retailer, fast-food outlet or other food-based corporation enters into a contractual agreement with a farmer to produce a specified commodity, at a consistent standard and at a pre-arranged price. In some cases, the food-based corporation will assume effective control of the farming operation by specifying and supplying the inputs to be used and the activities or particular management practices or regimes to be followed (Burch and Rickson, 2001).

Described by Murdoch and Miele (1999, 467), a globalised food system is one that is characterised by an implied set of pronounced and extended linkages that bind people and places together. These linkages are heterogeneous in the sense that they are comprised of multiple technologies, diverse actors and a variety of social relations and affiliations. Such relationships and affiliation may be strong and loose, formal and informal, empowering and disempowering, and so on (Murdoch and Miele, 1999, 467). Although this description demonstrates that the globalisation and industrialisation of the food system are not unlike the development of other industries - especially in relation to production processes being increasingly coordinated by large and often transnational organisations across long distances - the globalisation of food systems does have distinctive characteristics that have resulted in inconsistent processes of transformation both within and between countries (Murdoch et al, 2000). One such distinctive characteristic that is important to both the transformation and organisation of food production and the conceptualisation of quality concerns the role of nature.

Agriculture, Food Production and Nature

Page (1996) argues that the production of food is mediated by nature to an extent not shared by many other industries. Nature acts to limit the productivity of labour and restrict capital investment. Given that plant development and animal gestation cannot be accelerated beyond the limits of current technology and genetics, biology is blamed for slowing production time. Further, the seasonality of production is blamed for slowing the circulation of capital. In response, food producers and manufacturers attempt to overcome these constraints. This is accomplished in two interrelated ways. Firstly, Goodman, Sorj and Wilkinson

(1987) describe a process of 'appropriation' where specific aspects of farm labour processes are assimilated into factory-based industry. In this process, labour becomes rationalised, mechanised and intensified. Secondly, a process of 'substitution' occurs where commodity traders and manufacturers attempt to reduce farm product to more simple and controlled industrial inputs with the aim to replace agricultural (natural) goods with industrial goods (Page, 1996). As these two processes of capitalist production encroach upon agriculture, the extent of industrialised activities gradually expands and nature slowly becomes 'domesticated'. In rendering nature pliable, the scope for increasing global linkages is consolidated and the production of food thus becomes entrapped in a system of globalised commodity production (Murdoch, et al, 2000).

A critical element of the 'appropriation' and 'substitution' process of outflanking nature in order to establish global systems of food production is the utilisation of advancements in science and technology. Of great importance to food production, is the adoption of mechanical, biological and chemical innovations. For example, the use of tractors, trucks and tractor-drawn implements have decreased the need for human labour while increasing the amount of land that can be managed. Tractors and trucks are seen as relatively dependable and economical, they require less attention than animals, do not divert land from cash crop to fodder production and are less affected by climatic conditions (Page, 1996; Tonts, 1998). In addition, the provision of biological and chemical innovations, such as hybrid seeds, nitrogenous fertilisers, insecticides, herbicides and antibiotics, by farm input manufacturers also contributes to an increase in crop and animal production. In a nutshell, the utilisation of these types of technology generally

saves farmers time and labour, increases productivity and allows more freedom of choice in farm management (Page, 1996).

The application of science and technology to agricultural production processes has in many ways succeeded in enhancing efficiency and productivity. However, industrialised agricultural methods have also exacerbated many of the problems they attempt to circumvent. In Australia, for example, the environment has suffered under the intensification of agricultural practices. Tree clearing for cropping and grazing has not only contributed to soil erosion but has also affected watercourses with siltation and salinisation (Rolfe, 1996). Overgrazing, overcropping, with its associated practices of continuous ploughing and monocropping and irrigation, has contributed to widespread soil and nutrient loss and salinisation. Further, the use of chemicals has contributed to the pollution of rivers, streams and other major water sources (Lawrence, 1999; Rolfe, 1996). The industrialisation of agriculture has contributed not only to devastating environmental problems but also to the emergence of many food scares such as BSE, salmonella and chemical residues in food (Almas, 1999; Rifkin, 1992). With an increasing incidence of health threats from food, industrialised food production has created what can be termed 'risky foods'.

Contemporary Food Production: Issues of Risk and Trust

The concept of risky foods, for the most part, have transpired in response to an extension of linkages between production and consumption as an outcome of processes of industrialisation (Almas, 1999; Fonte, 2002; Nygard and Storstad, 1998; Mennell, Murcott and van Otterloo, 1992; Murdoch and Miele, 2004). The

application of science and technology not only assisted in enhancing the productivity and efficiency on farms, but innovations in the food processing and transportation industries contributed to the development of a globalised food system. In particular, advances in the preservation, preparation and packaging of food meant that food could be kept for longer periods of time and, in conjunction with the development of road and rail networks and the use of motorised vehicles for transport, food and agricultural products could be transported long distances (Murdoch and Miele, 1999). Food and agricultural production processes became more complex as more people and processes became involved in moving food from the farm to the consumer. Agricultural product transformation activities are appropriated by industry, while products and producers are subjected to processes of substitution; for example, vegetable fats for animal fats, Australian producers for American, Asian or European producers, and industrial products for agricultural products (Fonte, 2002; Friedman, 1993; Goodman, Sorj and Wilkinson, 1987).

Another feature that is common to processes of industrialisation and globalisation is that of standardisation. Indeed Marx (1967) argued that standardisation was a generic feature of commodity relations. According to Marx (1967, 47-70), commodity relations developed as a system in which values are simultaneously standardised and integrated into a hierarchy of values according to a standard of money. In relation to the food system, however, Schaeffer (1993) argues that issues of standardisation evolved from debates over how to conceptualise ‘quality’ and ‘consistency’. Standardisation, to Schaeffer (1993), is a dual process of which its dimensions are often in conflict. On the one hand, to standardise

serves to arbitrate values. This means to provide a measure of quality. On the other hand, standardisation is associated with the process of making 'quality' products uniform, so that they fit a particular standard, in order to provide a common point of reference for buyers and sellers. In these conceptions, standardisation is associated with the 'levelling' process in industry where, in order to obtain 'consistency', a lowering of quality may occur (Schaeffer, 1993, 72). Conversely, if both these processes are combined, standardisation can refer to a system in which 'values are simultaneously raised vertically and extended horizontally' (Schaeffer, 1993, 73). This perspective of standardisation lies at the core of globalisation in that 'it is easier to make uniform products with a given technology and relations of production than variegated ones' (Schaeffer, 1993, 75). Moreover the delivery of 'uniformity is functional to high volume and repeat sales' (Schaeffer, 1993, 75).

Although standardisation, in part, attempts to ensure quality food production, it actually contributes more to the attempt to outflank nature and ensure the smooth running of production systems for capital gain. As Fonte (2002) points out, under industrialisation, agriculture no longer produces food directly for consumers; instead it becomes an economic sector producing intermediate goods for the food industry. Agriculture loses its link with nature as techniques are determined by industrial inputs rather than by season, climate or location, or by biological characteristics of the crop or animal under cultivation. The market becomes the relevant place of food provisioning and trade and distribution acquire a prominent role (Adam, 1999; Fonte, 2002). For consumers, the industrialisation of production and transformation of food, and the globalisation of the markets, have

meant that there is an abundance of cheap food that is readily available all year round (Adam, 1999). However, in so doing, it has had an enormous effect on the diets of human beings.

The transcendence of seasons and locality have provided individual consumers with the opportunity to eat much the same variety of produce all year round, providing a wider choice of the food that will end up on their plates on any given day of the year (Adam, 1999; Fonte, 2002). Paradoxically, while giving individual consumers choice, the globalisation of food products has also bought diets, that used to be very distant, closer together. According to Adam (1999, 227), 'the relative monotony of the seasonal diet has instead been replaced by the absolute monotony of all year sameness'. What becomes lost here are not only the variety in diets between different regions and countries, but the consumer is separated from familiarity to places and methods of production. It is also at this point where food becomes risky. Under an industrialised scheme of agriculture, production and transformation of food are carried out in places unknown to the average consumer, who buys and consumes food that contains unknown ingredients and attributes and is produced by unknown techniques (Fonte, 2002; Mennell, Murcott and van Otterloo, 1992). Moreover, the techniques and methods used in transforming raw ingredients into food products, such as the use of synthetic substances, irradiation, de-composition and re-composition techniques, may either hide or alter the original texture, taste and smell of food. As humans depend on senses of sight, smell, touch and taste, the ability of consumers to identify whether a food is edible or safe for consumption is subsequently diminished. With a diminished ability to identify food products,

consumers are thus required to place trust in those who produce, manufacture and trade food (Adam, 1999; Fonte, 2002).

Food scares have done little, however, to promote trust and public confidence in contemporary food production. Instead they have contributed to feelings of uncertainty and fuelled consumer concerns about methods of food production. Placing trust in those who are involved in production, processing and distribution is also becoming more difficult as food chains become longer and pass through more processes (Nygard and Storstad, 1998). This is highlighted by Serra (cited in Fonte, 2002, 17), in his description of an industrialised food system in Europe, at the time of the dioxin chicken scandal:

> Transformation and distribution have such elusive dynamics that the same producers cannot probably control their content. The food chain is so fragmented and sophisticated (in both meanings) that the only possibility is to trust blindly the preceding link: the consumer hopes that the packaging man does not clean his nose during working time; the packaging man trusts that the chicken carcasses arrive resting on clean containers rather than hanging on red-hot mortar mixing machines; the deliveryman hopes that what he is delivering are legs well-shaped by exercise rather than doped by the farmer; the farmer hopes that the feedstuff producer does not oil the grain with the oil from his tractor; the feedstuff producer hopes that the grain is grown naturally, rather than heavily sprayed with pesticides and other chemicals. There are rules, it is obvious: regional, national and European Union rules, each superimposed on the other as sheets of pasta in the lasagna (sic). But, since it is inconceivable that controls are so watertight as to exclude fraud, it is obvious that for each of us

> buying food is governed mainly by trust (Serra, 1999 cited in Fonte, 17).

A number of researchers including Macnaghten and Urry (1998) and Shaw (1999) have studied food related crises – in particular, issues pertaining to BSE – and have established that there has been a breakdown of 'trust' in 'food experts' among consumers. Fonte (2002) elaborates that risk profiles, as delineated by so-called experts, are conveyed through the media to the public. In response to the experts' opinion, people try to change life styles, but these are not easy to change, as they are linked to a range of behaviours and experiences. Moreover, experts may disagree amongst themselves or their opinions and advice may change in response to advances in research. Risk thus incorporates, on the one hand, a continuous and structured reflection of the risk situation, and on the other, a continuous exchange between experts and people that generates anxiety and behavioural uncertainty (Fonte, 2002).

Macnaghten and Urry (1998) further claim it is not just institutions and politicians that consumers have lost trust in, but it is 'science' itself. Consequently, there has been an erosion of the authority of a policy culture highly dependent on 'scientific expertise' (Macnaghten and Urry, 1998). Almas (1999) argues that consumers do not know whom to trust in relation to food scares due to the plethora of actors involved in the debate regarding values concerning food, health and environment. For food regulators, producers, processors and retailers, the need to re-establish trust and demonstrate food safety, therefore, becomes an important goal in the marketing and trading of food products.

Contemporary Food Production: Food Standards and Quality Assurance

Increasing concerns about food safety by consumers have seen a number of responses by food regulators, producers, processors and retailers. In the main, the response by food regulators has been to develop and implement a variety of policies to guide the safe production of food. In Australia, Food Standards Australia New Zealand (FSANZ) regulates food production and manufacturing at a bi-national level through a Code of Practice – the Australia New Zealand Food Standards Code (Fabiansson and Cunningham, 2000). The Australia New Zealand Food Standards Code was developed to ensure uniform food standards with the objectives of protecting public health and safety and providing adequate information relating to food to enable consumers to make informed choices (Food Standards Australia and New Zealand, 2004). The Code, however, consists of a collection of individual standards that utilise a variety of certification systems including Hazard Analysis Critical Control Point (HACCP), which aims to guarantee hygienic conditions of production, and the International Organisation for Standardisation (ISO) standards that aim to certify conformity to industrial standards (Fabiansson and Cunningham, 2000).

The development and implementation of policies and food standards for food regulators seems a logical approach to addressing public health issues. However, for producers and manufacturers, tension remains between attempts to raise standards and to produce standardised goods. Although producers and marketers have attempted to overcome this by using trademark identification and brand names to insist that standardised products are also of the highest quality, it is

generally a difficult task requiring enormous marketing efforts (Schaeffer, 1993). It is also one that is particularly difficult for the producers of apparently undifferentiated bulk commodities such as beef and other agricultural products. Thus, as with food regulators, standards in the guise of quality assurance schemes (QAS) seem the logical approach by farming and food industries to regulate aspects of food production and to formalise concepts of quality in order to demonstrate the quality of a product and the ways in which it is produced, processed and distributed (Morris, 2000).

According to Morris (2000), QAS work on the premise that the use of systems will ensure that food products will meet certain 'quality' standards or criteria in relation to both the nature of the product itself and the processes of production, distribution and processing; the result of QAS being a consistent standard of product that is readily available. However, Morris and Young (2000) have found that the introduction of QAS and the application of quality to the production of food in the U.K. have been problematic due to the contested nature of processes and the power relationships that occur between actors involved the implementation of QAS. In particular, they point out that much of the tension that occurs between those involved in food production, distribution and processing relates to conflict over who controls the way quality is introduced and the competition between those seeking to use different notions of quality to gain an economic advantage (Morris and Young, 2000). Furthermore, they emphasise that the lack of a common definition of quality along food chains also creates a considerable amount of confusion surrounding what quality actually means. Quality assurance can, therefore, have different meanings according to the

directives adopted by each scheme and, consequently, there is a lack of uniformity in the quality criteria applied within QAS (Morris and Young, 2000). The implications of an unclear definition of quality may not only contribute to a heightened perception of risk in foods, but consumers may question the validity of QAS and thus undermine their main purpose. For producers and retailers, if quality was to be standardised, the question begging to be asked relates to what it is that will distinguish their products from others (Morris and Young, 2000).

Contemporary Food Production: Locality, Quality and 'Alternative Geographies of Food'

The literature pertaining to riskiness in food indicates that one of the main issues for consumers relates to the notion that food has lost its identity. Indeed, Fischler (1988, 289) poignantly observes that 'modern food has become in the eyes of the eater an 'unidentified edible object', devoid of origin or history, with no respectable past – in short, without identity'. What becomes apparent in Fischler's (1988) work is that identity is strongly linked not only to culture but also to regions and localities. Indeed, Nygard and Storstad (1998, 39) argue that, 'international differences in dietary patterns are the consequence of availability (and price) in the 'locality'. They further suggest that the establishment of differing cuisines has historically been related directly to the available resources and ecosystems that surrounded a specific locality. The exploitation of these resources gave rise to specific food systems. As a result, consumers (and cultures) progressively acquired a taste for these products to such an extent that when food products spread across geographical boundaries, international differences in food tastes and preferences remained (Nygard and Storstad, 1998). Thus, specific

foods or dishes are closely associated with countries, regions and localities and, therefore, both create an identity for that particular locality and act as a cultural expression of that locality.

With the emergence of a 'global food culture'[6], Nygard and Storstad (1998) suggest that the importance of local foods has escalated in terms of their meanings changing from simply being a food to a symbol that represents cultural codes, one of which may be quality (Nygard and Storstad, 1998). In fact, their study of the Norwegian food market highlights that food of 'clear, local, provenance' is often thought to be of higher quality and safer than global or industrialised food. This has led Murdoch and Miele (1999, 469) to postulate that:

> locally recognisable foodstuffs, which bear clear traces of the 'clean' and 'green' environments in which they have been produced, become desirable objects of consumption for which they enshrine both product differentiation and proximity to nature.

For some consumers, this seems to be the case. Fonte (2002, 19) explains that consumers seem to be pursuing two different strategies to escape the disorder created by industrialised food: 'that of organic food and that of the local product'. This in turn has contributed to the development of markets for 'green foods' (Lockie, Lyons and Lawrence, 2000). For Whatmore and Thorne (1997), the

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6 Nygard and Storstad (1998, 40) refer to a global food culture as a concept that 'implies that a range of products are becoming more and more alike, national characteristics are becoming erased, and the same product is being launched worldwide'. For example, McDonalds and Coca Cola.

questioning of the food system by consumers and the demand for locally recognisable foodstuffs, coupled with the resistance to mechanised and standardised food production by countries such as some of those in Southern Europe, have contributed to the emergence of what they describe as an 'alternative geography of food'. This takes as its premise the notion that global processes of food production may be mediated or controlled to some degree by regional and local specificities (Arce and Marsden, 1993; Page, 1996; Watts and Goodman, 1997). In their study of coffee networks, Whatmore and Thorne (1997, 289) attempt to demonstrate that globalisation is not a logical process. Instead, it is:

> a socially constructed process in which many spaces of resistance, alterity, and possibility become analytically discernible and politically meaningful.

The thrust of the argument being that transnational corporations and regulatory bureaucracies are not global in themselves as they are dependent upon situated contexts which are constituted by people, artefacts, codes, living things and the maintenance of processes and patterns of connections across the world (Whatmore and Thorne, 1997). Alternative geographies, therefore, begin to emerge when changing production and consumption relations initiate new regional and local food 'complexes' (Parrott, et al, 2002). According to Parrott et al (2002), it is possible to recognise 'hotspots' of globalised food production and consumption while witnessing also the emergence and coexistence of 'quality' production areas.

The pursuit for quality, green foods by consumers has not only witnessed the emergence of quality production areas, but it also has assisted in creating new marketing opportunities for food producers and manufacturers. These opportunities are related to what Murdoch et al (2000, 15) refer to as the 'cultural re-localisation of production', a movement that is 'reinforced by the food sector's reliance on a clearly defined natural resource base'. Here, as Jarvis, Dunham and Ilbery (2002, 60) explain, smaller producers consciously 'fix' their products to a specific geographical area, which, due to the image and provenance (cultural codes) of that area, allows geographical identities to be appropriated as guarantors of quality. Constructions of food quality that include elements of geographical identity generally are then associated with local markers that include distinctive rural landscapes, historical monuments and heritage (Ilbery and Kneafsey, 1999), thus assisting in the re-identification of products.

Ilbery and Kneafsey (1999) note that the move by producers to link their products with a geographical notion of quality represents an important competitive strategy at a time of trade globalisation in that products with identifiable origins may be differentiated positively from standard products and thus command market benefit. But as Jarvis et al (2002) indicate, innovation, which is based upon the differentiation of geographical area, often is more concerned with the construction of an identity that obtains market premium than with representing accurate information about a product or its method of production. It is, therefore, possible that companies that operate outside a specific geographical area can also appropriate local characteristics. This can be achieved via a variety of methods

including ‘certification’, ‘specification’ and ‘attraction’ (Ilbery and Kneafsey 2000).

To Jarvis, Dunham and Ilbery (2002), ‘certification’ occurs when a company gains recognition from a professional organisation, government or other external body. Quite often, certification, in the guise of a quality mark or symbol, is attached to a product or company and used to guarantee procedures and standards during production. Jarvis et al (2002) comment that certification reinforces consumer perceptions of quality and assists products to attain a premium price. However, as Morris and Young (2000, 111) point out, although smaller producers seek certification in order to gain a marketing edge, the use of certification also represents a paradox in that the use of common standards may act also to undermine this advantage should competitors take advantage themselves of certification or, alternatively, seek alternative certification based on differing definitions of quality.

Specification, according to Jarvis, Dunham and Ilbery (2002), refers to the nature and origin of raw materials. The promotion of these characteristics represents attempts by food producers to associate the product with a geographical location or other cultural icon in order to influence consumer perceptions of product quality. ‘Attraction’ is thus the effort by producers to promote quality by ‘tapping into the subliminal wants of consumers in terms of design, texture, flavour, taste, appearance and premium prices’ (Ilbery and Kneafsey, 2000, 219).

For Ilbery and Kneafsey (2000), ‘certification’, ‘specification’ and ‘attraction’ reiterate an important point regarding the conceptualisation of quality; that being, quality is a social construction and is dependent upon the socio-cultural, political and economic contexts within which production-consumption relations exist. Concepts of quality, according to Ilbery and Kneafsey (2000), cannot be understood without consideration of meanings attached to other concepts that are themselves incorporated into meanings of quality. These include concepts of risk, trust and food safety. Their meanings also cannot be separated from the social interaction through which they are constructed. For example, a consumer may have more trust in eating the produce grown by a friend (because the friend is known and trusted), rather than the produce bought at a supermarket. The product grown by a friend may be seen as more ‘natural’ and ‘genuine’ as the consumer knows where it has come from and knows what was involved in producing it. Therefore, the quality of the product is deemed higher. Knowing where the product was produced, and who produced it, thus contributes to a notion of ‘quality’ for consumers.

Similarly, Ventura and van der Meulen (1994), in their case study of the meat industry in Umbria, Italy, demonstrate further how ‘localness’ and social interactions between actors are paramount to a construction of quality and the way in which the constructed notions of quality are communicated between actors. They show that in Umbria, while the majority of beef produced is directed through small butcher shops, many beef producers slaughter their own animals and sell meat directly to friends and neighbours. The perception of beef quality in

the region, therefore, was heavily influenced by culturally embedded expectations that the meat had been locally produced.

In addition, Ventura and van Meulen (1994) found the social interactions that occurred between butchers and farmers were also paramount in the construction and communication of specific notions of quality. In particular, they noticed that actors within the beef networks[7] had varying amounts of power, depending on the capacity of the actants within the network to construct and communicate a notion of quality. This has led to a questioning of power relations within food networks in regard to who constructs particular versions of quality, who sets standards of quality (Morris, 2000; Morris and Young 2000) and where the balance of power may lie (Dixon, 1999). For example, Morris and Young (2000) find that although some smaller producers have attempted to differentiate their food products and gain competitiveness in the market by implementing QAS schemes, it was generally retailers - especially large supermarkets - that have been responsible for the initiation of many QAS.

Contemporary Food Production: Issues of Power

Issues of power and changing relations of production have always been central concerns in the study of agriculture and food production. In Australia, the past twenty-five years has seen significant rationalisation of the farming sector

7 Ventura and van Meulen (1994) refer to networks as 'circuits' within which merchandise is produced and distributed and information and ideas exchanged. Each circuit is said to enclose a specific set of physical elements, social characteristics and outside relations that interact dynamically. Over time, certain patterns and rules of behaviour develop among those actors who participate in the circuit and definitions of quality emerge and change.

(Halpin and Martin, 1996). Terms of trade have been in decline since the 1950s, and there was a loss of 64,425 out of 189,400 farming establishments between the years 1970 and 1990 (Higgins and Lockie, 2001). Contributing to the decline in farming establishments were political and economic changes in the 1970s that saw Australia fully adopt a 'productivist' model of agriculture. This not only saw a shift in control of farms away from farmers to agribusiness that supplied farm inputs of fertilisers, insecticides, pesticides and seeds (Lawrence, 1987) but placed pressure on farmers to increase labour and capital productivity by expanding landholdings and intensifying production. This resulted in heavy debt loads as farmers sought loans to finance the required changes (Lawrence, 1987; Higgins and Lockie, 2001).

The adoption of a productivist model of agriculture has also progressively linked farming to the industrial food sector. Changing relations have seen control over production processes moving off farm with entities such as banks and food companies contributing to decisions about food production. Additionally, with agricultural activity becoming more globalised, transnational corporations (TNCs) have had a greater capacity to influence on-farm decision-making (Lawrence and Gray, 1999). Since the dismantling of tariff barriers and the removal of many subsidies in the 1980s, some farmers (mainly in the beef, horticultural and cropping industries) have also been forced to negotiate with the corporate food sector which has, in turn, contracted individual producers for the provision of specific commodities for particular local and international markets (Lawrence and Gray, 1999).

Globalisation and the vertical coordination of agriculture undoubtedly have affected processes of decision-making in the production of food and, although it is evident that farmers are being distanced from decision-making processes about production, literature indicates that consumers and retailers have had greater input into decisions regarding the production of food. Indeed, Kinsey and Senauer (1996) argue that the food system has shifted from a producer-driven focus to one that is consumer-driven, while Miller (1993, 47-48) states boldly that consumption 'integrates and manages society; for the consumer has displaced the producer as the centre of social engagement'. Dixon (2000), conversely, argues that while consumers can be seen to influence markets for food in a purely economic sense, the expression of consumer power is heavily contingent on the operations of the market to provide the bulk of food.

In recent years, the presence and extent of market power in food chains have been an issue of debate to both producers and policy makers (Piggott, Griffith and Nightingale, 2000). Of specific concern is whether market power is increasing or decreasing due to changes in the structure and management of food chains, and how various parties (producers and consumers in particular) are affected.

Piggott et al (2000) commence their discussion by focusing on the development of food marketing boards in Australia and comment that one of the initial incentives for the establishment of marketing boards for primary food products was partly in relation to the fear that primary producers were at the mercy of 'powerful players' in the food marketing chain. These so-called 'powerful players' had the ability to earn abnormally high profits at the expense of producers. With the restructuring of the Australian food sector in response to

patterns of globalisation, the food marketing chain and how it is managed has undergone significant change and change continues to occur. Piggott et al (2000) suggest that while it was once common to describe the food marketing chain as encompassing all of the activities involved in moving raw farm products from the 'paddock to the plate', this description is becoming increasingly problematic. The reasons for this include: first, the increasing role played by food marketing firms (acting in response to consumer preferences or of their own volition) in determining what actually is produced on farms; second, social trends including the consumption and/or preparation of more meals away from the home associated with income growth, time-constraints and consumer discernment; and third, the failure of food-marketing activities to follow a 'Fordist' system where the production of a product commences at one end and follows a set pattern until the finished product is available for consumers (Piggott, et al, 2000). Where it was once the case that food was 'pushed' off farms into the marketing chain with consumers accepting whatever was on offer, it is now more a case of retailers 'pulling' product with appropriate characteristics out of the system in response to consumer preferences (Kinsey cited in Piggott, Griffith and Nightingale, 2000). Retailing has thus come to occupy an increasingly crucial role in mediating between production on the one hand and consumption on the other (Gardner and Sheppard, 1989, 16).

Quality and Studies of Food Production and Consumption

As processors and retailers increasingly mediate the relationships between producers and consumers, it is fair to quote Murdoch, Marsden and Banks (2000, 122) who write that 'quality enables the exercise of a new kind of power within

food networks'. In fact, for processors and retailers, the need to both maintain and promote quality in a product to maintain competitiveness is firmly entrenched within current food networks (Marsden and Arce, 1995). Despite being recognised as integral to the management of food chains and the production of food commodities, and the importance of issues of quality for food consumers in light of recent food scares, the analysis and theorisation of 'quality' in relation to activities of production, distribution and consumption have been minimal (Parrott, 2002). The lack of attention to quality in the food sector by food sociologists is unfortunate considering that food, by its very nature, is attributed with diverse and varying qualities. These qualities evolve, as discussed, from the jointly social and organic nature of production processes (Murdoch et al 2000), which are rooted in climates, soils, terrains and landscapes, and from the nature of consumption processes which are bound to local culinary traditions of food preparation, cooking and eating (Cook and Crang, 1997; Parrott et al, 2002).

The lack of theorisation of quality in regards to food is perhaps not so surprising given that consumption and production historically has been treated as largely unrelated discourses (Lockie, 2001b). This may be attributed somewhat to a tendency of social theory to bias productivist approaches to the study of food production and consumption. As such, much of the attention in agricultural and food studies has focused on processes of globalisation, industrialisation and standardisation where issues of production, technological development, network building and spatial restructuring have been seen as the most significant issues of concern (Parrott, et al, 2002).

Issues of consumption, which now are regarded as integral to the study of foods, have largely been left by the wayside by research that utilises productivist approaches to study the restructuring of agri-food systems. This is reflective of well-entrenched dichotomies within sociological theory between concepts of agency and structure and micro and macro levels of analysis (Lockie and Collie, 1999). Consumption has been conceptualised, on the one hand, as a social domain that is distinct from, but determined by, practices of production, where consumption practices are manipulated by capital and the state in order to accumulate more capital. On the other hand, consumption has been considered as reflective of individual consumer choices and preferences (Lockie and Collie, 1999).

The dichotomisation of consumption as an outcome either of production or of 'the dictatorship of the consumer' (Lockie and Collie, 1999, 259) has implications for the theorisation of quality and may also be a contributing reason for the lack of analysis of quality. As indicated in Chapter 1, issues of quality did not seem to emerge in the public sphere until concerns by consumers pertaining to the impact of food production methods on human health and the environment were raised. It may be that as quality was seen to be related to consumption practices; it was less politicised and did not emerge as an important issue for production, and hence studies of food and agriculture, until processors and policy makers acted to address consumer concerns regarding food safety.

For studies that have incorporated an analysis of quality, the themes of interest were mainly concerned with how quality could scientifically be defined, how

consumers perceived food quality, their attitudes and practices related to food choice, and risk perception and risk communication (Holm and Kildevang, 1996). According to Holm and Kildevang (1996), these types of studies, as with productivist approaches more generally, have tended to focus on specific foods or production methods. Additionally, foods were studied in isolation as single products, which meant that the social and cultural relations that affected food choice, food preparation and eating generally were under-examined. The disregard for the wider social framework and cultural systems in which food products are consumed, in the studies cited by Holm and Kildevang (1996), has contributed to the need to study further how meaning and values, and hence quality, are related to other social aspects of consumption practices and to the relations between production and consumption.

Various attempts over recent years to 'bridge the gap' between processes of food production and consumption, and between the 'natural' and 'social' characteristics of food, have seen a number of conceptual innovations related to the study of food quality, food safety, and food production systems (Murdoch, et al, 2000). The following section reviews the literature pertaining to ways in which food has been studied in order to gain insight into approaches that may be useful in examining the emergence of quality issues within the production, distribution and consumption of agricultural and food commodities. This section commences with an examination of the approaches taken to the study of globalisation and industrialisation of the agricultural and food systems and moves on to an examination of approaches that have attempted to overcome dichotomies apparent in the study of food.

Approaches to Studying Agricultural and Food Commodities

As previously discussed, much of the research that has been conducted into the agricultural and food system has been in relation to how processes of globalisation have been driven by and have shaped processes of food production and underlying patterns of capital accumulation (Murdoch and Miele, 1999; Murdoch, et al, 2000). In the main, this research has utilised political economy theories to provide an examination of the organisation and production of commodities and of the linkages that are established between differing parts of the food system and differing places. Dubbed the 'political economy of agriculture', the approach largely aims to provide an analysis of the international food system, and the role of states in mediating agrarian development (Marsden et al, 1986). Found to be particularly effective in relation to enabling descriptions of the transformation of food production within a globalised economy, approaches utilising political economy have also allowed examination of the specialisation of agricultural enterprises and regions, the integration of agriculture into extensive food chains and the expansion of commodity relations (Murdoch, et al, 2000). The Commodity Chain approach proposed by Hopkins and Wallerstein (1986) and Commodity Systems Analysis (CSA) proposed by Friedland (1984) are frequently cited political economy approaches that advocate the analysis of interconnected processes occurring from production through to consumption. CSA in particular also provides a foundation for the emergence of newer approaches (for example Dixon 1999) to the study of food commodities that attempt to incorporate the study of consumption.

Commodity Chain Approach

In the attempt to further understanding of the relationships that occur surrounding the organisation and production of commodities, Hopkins and Wallerstein (1986) have utilised what is termed a 'commodity chain' approach to assess the ways in which social relations shape the production of a commodity. A commodity chain is 'a network of labour and production processes whose end result is a finished commodity' (Hopkins and Wallerstein (1986, 159). The concept of the commodity chain emphasises that through the 'interlocking' of specific processes (represented as nodes), a 'situationally specific, socially constructed, and locally integrated network' is created (Gereffi, Korzeniewicz and Korzeniewicz, 1994, 2). As Hartwick (2000) further describes, the integration of specific processes along commodity chains allows for 'material and signified realities, consumption and production, and activities separated by space and markets' to be tied together, thus enabling a more complete interpretation of the 'material and representational worlds from which to theorise the politics of change' (Hartwick 2000, 1190).

Analysis of the components of production processes along commodity chains allows for the examination of labour processes and economic alternatives at each point of the chain. It also allows for monitoring the development and transformation of the world's economy (Hopkins and Wallerstein, 1986; Hopkins and Wallerstein, 1994). However, the concept of the commodity chain does not presume whether the division of labour is geographically dispersed. Nor does it presume the interrelation or separation of states via commodity movements (Hopkins and Wallerstein, 1986). That is, the concept of the commodity chain is flexible in that it can be applied locally or globally – traversing multiple

continents – and, as such, the commodity chain can be both locally and internationally situated.

When commodity chains traverse international boundaries they are referred to as global commodity chains (GCC). Global commodity chains can be seen as:

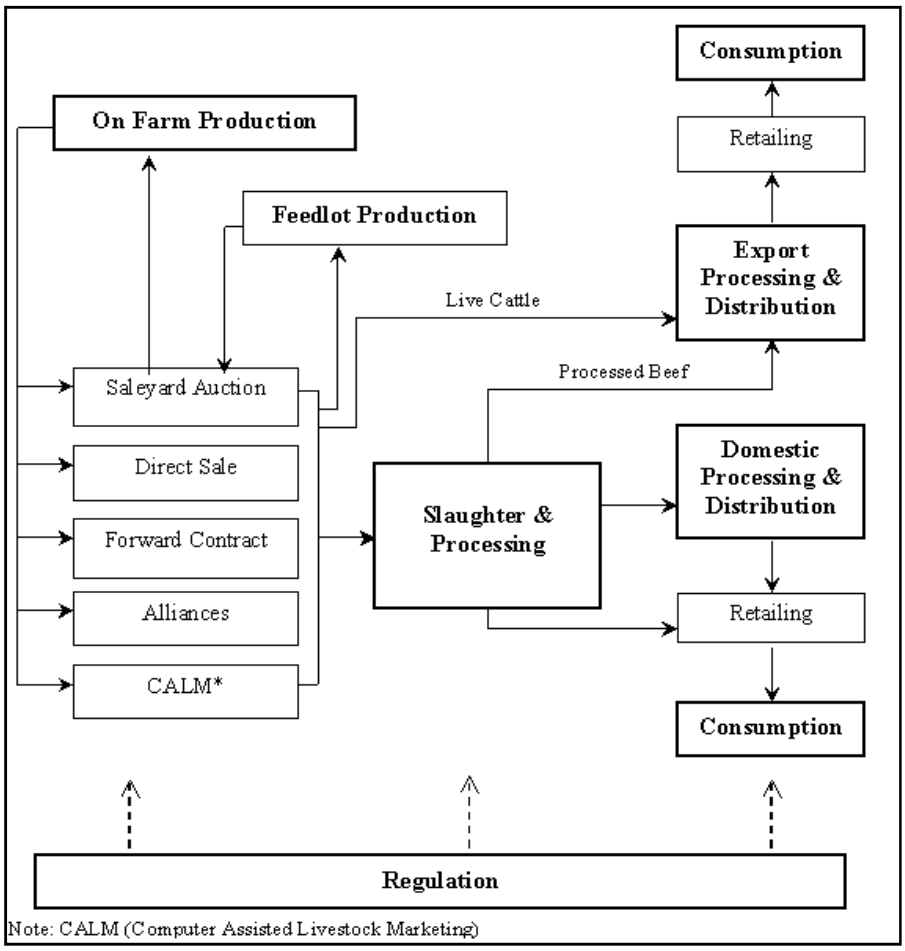
> sets of interorganizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world economy (Gereffi et al., 1994, 2)

These networks are 'situationally specific, socially constructed, and locally integrated, underscoring the social embeddedness of economic organization' (Gereffi et al, 1994, 2). Global commodity chains can be understood, therefore, as sets of production segments characterised by commodity flows between nodes within a chain, the organisation of production between and within nodes, and the variant location of nodes within geographical space.

Hopkins and Wallerstein (1994) assert that the greatest virtue of the commodity chain approach is its emphasis on process, in that commodities not only move through chains but that the chains rarely are static. According to Hopkins and Wallerstein (1986, 160), the analysis of a commodity chain proceeds through two steps. Step one provides a description of the structure of the chain. This step originates from the point of final production of consumables and clarifies the point at which the end product was sent for consumption. In so doing, the delineation of a product begins by designating each major process, working backward from the end of a product. Each process constitutes one 'node' of the

chain. Step two records the properties for each of the major processes. It looks at the nature of flows between the nodes and the processes that occur immediately before and after. It looks at the dominant types of relations of production within each node and the dominant organisation of production, including technology and the scale of the unit of production. The second step looks also at the geographic loci of the process (Hopkins and Wallerstein, 1986). Figure 1 provides an illustration of a simple commodity chain based on the Australian beef industry.

Figure 1: The Australian Beef Commodity Chain[8]



8 Adapted from Meat and Livestock Australia (MLA, n.d.) Beef Sheet 4

As seen in Figure 1, commodity chains can diagrammatically be illustrated as a series of 'boxes', each of which represents a specific part of a production process. By concentrating on a particular box, it is possible to enquire about the social organisation regarding the constituent units of that box. According to Hopkins and Wallerstein (1994), enquiries may focus on the degree to which the box is relatively monopolised by a small number of units of production, the number of different commodity chains in which that box is located, the degree of geographic spread of the units that fill that box, the types of property-like arrangements or the ownership of property, the modes of labour and also the nature and extent of linkages joining the boxes.

As Hungerford (1998) notes, the depiction of commodity production processes as commodity chains not only presents a practical basis of demonstrating and locating the linkages and processes that accrue to create a finished commodity, it also allows for the analysis of global restructuring processes that are driven by multinational or transnational companies. By graphically depicting commodity chains at specific points in time, it is possible to track both geographical shifts in production processes and changes or relocations in the distribution of wealth, and the division of labour associated with given commodities (Hungerford, 1998). Despite this, Hartwick (1988) criticises the commodity chains approach for neglecting to incorporate material conditions of production such as social relations and the reproduction of workers. It ignores also the role that culture plays in activities of production and consumption. In doing so, the commodity

chain approach neglects to examine all the ways in which value is acquired. Trexler and Spurlock (1998, 1) argue that:

> values need to define the symmetric organization of things and people within a commodity sector … as … values represent more than a criteria for passing judgment … rather values demonstrate an affinity of human orientations to things.

These instances of neglect prevent commodity chain analyses from uniting politics, consumption, labour and nature in a comprehensive manner. While similar criticisms may be levelled at Commodity Systems Analysis (CSA) – the topic of the next section – it will be argued that this approach might provide the foundation nevertheless to study bulk undifferentiated commodities such as beef.

Commodity Systems Analysis

> We will undertake an analysis of the social organisation of lettuce production in identical fashion as, for example, the making of automobiles (Friedland, Barton and Thomas, 1981, 6).

Following through on this assertion, Friedland (1984) proposed a framework that describes stages of transformations and value acquisition of agricultural commodities (Dixon, 1999). Grounded theoretically in neo-Marxism, Commodity Systems Analysis (CSA) was developed in response to the recognition that agriculture had changed from mixed farming and self-consumption to a process of highly specialised agriculture with products intended for the market. As CSA 'assumes a social reality that can be delineated as a discrete commodity system'

(Friedland, 1984, 223), it prompts agricultural and food researchers to acknowledge that commodities have both a social and material presence and, further, that people's labour, knowledge, interrelationships, technology, organisational structures, and power relations are critical 'inputs' in the social life of commodities (Dixon, 1999).

Although the CSA framework presumes the delineation of discreet commodity systems, Friedland (1984) concedes that no commodity system actually 'stands alone', and explains that all commodity systems are linked and integrated with other systems. The theoretical and methodological framework of CSA thus provides an analytic process that recognises:

> when and where interpenetration of systems occur, where the system being analysed touches upon other systems or is significantly affected by others (Friedland, 1984, 223).

Methodologically, CSA utilises historical, institutional, quantitative and qualitative analyses to focus on specific aspects of the 'commodity chain'. These foci include: (1) production practices or labour processes; (2) grower organisation and organisations, which include the ways producers utilise the labour processes and organise themselves in relation to other actors within the production process; (3) labour as a factor in production, including the characteristics of the labour markets and the supply of labour; (4) scientific production and application, describing how scientists conduct their research and how this affects the commodification process; and finally (5) marketing and distribution systems which describe how the commodity is handled after it leaves the sphere of production (Friedland, 1984).

While acknowledging that there is no single and specific methodological procedure associated with these foci, Hungerford (1988) asserts that the foci encompass the major aspects of, and significant points of interaction with the broader economy of, commodity systems or chains. Thus, an important aspect of the commodity systems approach is that the five foci identified provide multiple insights. On the one hand, they can individually be utilised as a basis for separate research projects within which clearly delineated parts of industries are investigated. For example, Friedland's (1981) work on the lettuce industry has concentrated on labour as a factor of production. Alternatively, the five foci can be incorporated to provide a comprehensive analysis of all aspects of a particular agricultural industry (Hungerford, 1998). This means an entire examination of agricultural processes commencing with, in the case of beef, breeding and growing, through to slaughtering, marketing and distribution. Labour relations, financial issues, environmental issues, the role of the state and the linkages between each of these factors may also be observed and the impacts or influences each may have on others can be assessed. For example, where the research project is primarily concerned with restructuring in relation to changes in regulatory mechanisms (brought about in response to food scares, for example), the role of the state is integral to the analysis of that commodity. Thus, the CSA framework allows the role of the state to be incorporated at each stage of the production, marketing and distribution process (Hungerford, 1998).

Fundamental to the CSA framework is the role of the state in agricultural activity. Friedland et al (1981) consider that the state has consistently played a significant

role in agricultural development and claims that 'implicit in the analysis of any production process is the role of the state' (Friedland et al, 1981, 5). However, while the state has long been recognised as an area of significant interest to the study of agricultural production (Hungerford, 1998), its role within an increasingly global food system is under scrutiny. Bonanno, Busch, Friedland, Gouveia and Mingione (1994, 3) argue that although the nation-state will continue to play a role in capital accumulation by 'maintaining a monopoly of law and force' and by controlling the movement of goods and other trades across geographic boundaries, it will be agencies such as transnational corporations (TNC) that will become the critical actors in the expansion of the global economy. Meanwhile, a number of commodities in particular locales remain very much under the control of the state. Citing the Australian sugar industry as an example, Hungerford (1998) states that the entire process of sugar production in Australia is underpinned by state intervention. Given that CSA allows both the investigation of legislative changes and their impact upon production, marketing and distribution and the investigation of other variables such as drought and price, Hungerford (1998) argues that CSA is a suitable analytical approach for the sugar industry. This could possibly be the case for other Australian agriculture and food industries, including beef.

Accompanying the ability to provide multiple insights into production processes utilising various methodologies, the CSA framework also provides a method of organising mass data and, in so doing, lends itself to a comparative analysis of commodities (Dixon, 1999). However, while CSA advocates an approach to

studying and comparing entire commodity chains, a research project of this size, as Dixon (2000, 14) aptly states, 'could consume a life-time's research'.

There is no doubt that both the Commodity Chains technique and CSA have been useful in analysing production processes in relation to structural change associated with globalisation and in practically demonstrating the linkages between given commodities and the broader economy. Nevertheless, little attention has been paid to the integrated and often non-agricultural nature of food. This presents a problem for the conceptualisation of quality along food chains. By ignoring important social, cultural, political and spiritual dimensions of food, these approaches are unable to ask questions about the symbolic nature of relationships between and among the various 'nodes of production' (Dixon, 1999). Friedland (1984) himself contends that distribution and exchange are fundamental to the accessibility of food and notes that:

> the distribution process is such that the prime producer is effectively captive of an organization (or organizations) at another level of the marketing system. The chain of handling involved may be so pervasive that it affects production at the farm level (Friedland, 1984, 226).

Despite this, his commodity systems model does not succeed in providing an adequate depiction of the processes of distribution. CSA does not elaborate on the processes, actors or dynamics that influence commodity availability and acceptability (Dixon, 1999). Furthermore, despite its many utilities, CSA has been criticised for failing to recognise and include consumption as an arena of social practice (Dixon, 1999; Lockie, 2002; Lockie and Collie, 1999; Lockie and

Kitto, 2000). As highlighted by Wright (1997), CSA lacks a framework to understand the degree to which consumers (and perhaps issues perceived to be related to consumer interests such as quality) influence the social relations of production based on changing social relations of consumption. This deficiency in CSA is contradictory given that CSA itself is particularly focused on identifying centres of power within commodity systems (Dixon, 1999) and, in recent years, research has demonstrated that there has been a shift in power from the producer to the consumer (Humphrey, 1998; Marsden and Little, 1990; Miller, 1995).

Noting recent research into commodity systems and on the globalisation of agricultural and food commodities, Friedland (2001) has taken into account some of the shortcomings of the CSA approach. Firstly, he has acknowledged that commodification of agriculture and food is a process that is characterised by uneven development. Each commodity system develops a distinctive history in regards to distribution and marketing. For example, as Friedland (2001) points out, production seasons are variable and production can occur in differing locations in differing hemispheres, thus marketing will require the establishment and organisation of both financial and social relationships in a reliable manner. Secondly, taking into account criticisms by Wright (1997), Friedland (2001) notes that the role of the state within CSA needs to be made more explicit. He concedes that the role of the state should not be taken for granted, since its involvement in regulation and support is ubiquitous in modern capitalist societies. Finally, Friedland agrees that the culture of a commodity is an important aspect of its development and in order to examine commodity culture, a distinction needs to be made between producers, consumers and agents of a commodity.

Thus, in an attempt to improve the methodology of commodity systems analysis, Friedland has expanded on his original work by adding three additional foci. First, 'scale and commodity communities' attempts to take into account the spatial and functional roles of 'community' in the way in which commodities are organised. It considers the forms of social interaction of actors within the commodity system and the character of community or communities that are part of the commodity system. Second, 'sectoral organisation and the state' refers to the political economic location of a commodity and the role of the state within this economic sector. It looks at how commodities are organised in or around a competitive monopoly or a state sector and how commodities are regulated and the degree to which they are regulated. Third, 'commodity culture' attempts to bring in the symbolic meanings associated with production processes. It focuses on the cultural forms found among commodity producers or consumers and the associated variable phenomena that may be located within commodities (Friedland, 2001).

Although Friedland has elaborated upon his CSA and has acknowledged that some analysis of consumption is required, he admits that this is an area in need of further research. His revised CSA approach does not provide insight into how processes of consumption may be related to the production, distribution and marketing arrangements of commodities. Given that quality has become central to both the marketing of commodities and the decision of consumers to purchase foods, the following section reviews two approaches that have attempted to include issues of consumption as part of an analysis of agricultural and food

commodities. These approaches include the System of Provision approach as advocated by Fine (Fine and Leopold, 1993; Fine 1994; Fine 1995; Fine Heasman and Wright, 1996a) and Dixon's Cultural Economy Model (1999). In order to provide context for both the discussion of these approaches and a consideration of quality, this section is prefaced with a review of the ways in which notions of consumption have been theorised in relation to the study of agriculture and food.

Theorising Consumption

As previously noted, despite the acknowledgement that consumption is integral to the study of agricultural and food commodities, there has been a relative neglect of research or theorisation related to the role of consumption in food provisioning (Lockie and Collie, 1999; Lockie and Kitto, 2000; Miele, 1999). Historically, food production and food consumption have existed as distinct areas of study (Tovey, 1997; Lockie, 2001a). Tovey (1997), in particular, argues that there has been an implicit division of labour in research between rural sociologists and sociologists of food. Rural sociologists, Tovey (1997) argues, have been intent on studying the organisation of agricultural practices and, by focusing on issues surrounding work, organisation and economic processes, have had little to say about food consumption. On the other hand, sociologists of food have situated themselves within the sociology of consumption and focused on diet, eating and culture. In doing so, they effectively have disregarded the economic, social, political and environmental aspects of food production. Utilising the distinction between rural sociologists and food sociologists as described by Tovey (1997),

this section will thus review the conceptualisation of consumption within the consumption-focused sociology of food literature and the production-focused rural sociology literature in order to demonstrate how theorists involved in agricultural and food research have attempted to incorporate consumption into their analysis of agricultural and food commodities. As Lockie and Collie (1999) have already undertaken a substantial review of this literature, the review included here is based largely upon their account.

Consumption and the Sociology of Food

As pointed out by Lockie and Collie (1999), the majority of research conducted into consumption within the field of sociology has until recently relied on the work presented by social anthropologists and historians. The general focus of this body of work was in relation to the social meanings of food consumption and the practices associated with it. Campbell (1995, 106) asserts that the bulk of the research conducted by historians and anthropologists can be divided between two different variations of the one 'fundamentally materialist approach'. The first variation converges upon issues concerning diet and nutrition and the effects of food (or lack thereof) on the body[9]. The second variation treats food (or foodways) as codes or symbolic systems conducive to semiotic or structural analysis. These studies mainly have investigated the role of food in maintaining

9 Studies conducted by Bordo (1997) for example have focused upon issues of eating disorders.

group identities and reproducing social structures and generally view consumption as an expression of social hierarchy[10] (Lockie and Collie, 1999, 260)

Campbell (1995) also distinguishes three distinctively sociological approaches to the study of consumption. The first of these describes how historical analysis has demonstrated how political, social and economic processes can shape taste and appetite. Of significance is the work undertaken by Mennell (1985). Mennell has been particularly concerned with demonstrating how culinary culture reflects changing balances of power. Distinct from functionalist and structuralist approaches to the study of food consumption, Mennell (1985, 16) argues that in order to understand changing consumption patterns and tastes:

> one has to accept that within a developing social figuration, modes of individual behaviour, cultural tastes, intellectual ideas, social stratification, political power and economic organisation are all entangled with each other in complex ways, which themselves change over time.

Drawing upon the work of Elias[11] (1982 and 1983), Mennell adopted an understanding of how broad social, political and economic changes shape the expression of emotion, manners, taste and lifestyle. Through an examination of

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10 Work by Warde (1997, 7-8), for example, reviews the classical sociology of Marx, Weber and Simmell who considered that consumption revolved around the unequal distribution of resources and explained consumption practices in terms of location and social class in the system of production. Bourdieu (1984), Douglas (1997), Levi-Straus (1997) and Mintz (1996) have also conducted work in this area.

11 As outlined in The Civilizing Process (1982) and The Court Society (1983), Elias utilised 'process sociology' to examine changes in culinary culture. According to Mennell, Murcott and Van Otterloo (1992, 16-17), Elias particularly focused on changes in personality make-up and forms of cultural expression in Europe from the Middle ages, and related them to broader processes of change in the structure of society. He then applied this to an explanation for changing food preferences and emerging cuisines that helps describe societal change.

cookery books, diet, menus, accounts of banquets and other assorted literary sources, Mennell formulated a historical analysis of food consumption patterns that indicated changes in class differentiation in relation to diet, bodily discipline, and the commercialisation and institutionalisation of food production and distribution (Mennell, Murcott, van Otterloo, 1992).

The second approach identified by Campbell (1995) describes how food provision within the household is structured by age, gender and lifestyle. This body of work focuses on how power relations within the family affect the pattern of food distribution (see for example, Charles and Kerr, 1986; Wood, 1995; Murcott, 1982) As identified by Charles and Kerr (1986 and 1988), the family unit is a central site of consumption. Intra-familial relationships have, therefore, been a focus for studies examining notions of consumption in terms of economics and finance (Campbell, 1995).

As the original referent for the term consumption was to those basic processes that kept humans alive, Campbell (1995) suggests that the third approach to studying food is in relation to the human body and processes of 'embodiment' (Bourdieu, 1984), 'corporeality' (Falk, 1994) and self-identity (Lupton, 1994, and 1996). Falk (1994), in particular, has focused on the ways in which the body is a central theme in shaping modern consumption. By focusing on the human mouth, Falk demonstrates that the mouth is the 'corporeality of modern consumption', as it is not only required for the act of eating but also acts as an organ of speech that allows conveyance of social, cultural and personal dimensions of self-construction. Lupton (1994) describes how food may act symbolically to define

boundaries between the Self and the Other. Lupton's discussion focuses on memory as a means of identifying the symbolic meanings of food. She notes that memories are not always individual but have a social nature and are regarded as cultural constructions that operate beyond the individual level. Lupton (1994) argues that the relationship between food preferences and memory are symbiotic in that the taste, smell and texture of food can trigger memories of previous food events and experiences around food, while memory can serve to delimit food preferences and choices based on experience. The analysis of memories regarding food serves to reveal the ways in which our memories of everyday life are socially constructed and patterned. Thus, individual memories of 'banal' (Fischler, 1988, 279) events and experiences (such as the act of eating) are not simply the subjective property of individuals but are part of shared cultural experiences (Lupton, 1994).

In summary then, the sociology of food literature may assist in demonstrating that perhaps the most sociologically significant moment in the consumption of food is not in relation to market exchanges and commoditisation but rather in its relationship to the human body and the human experience. Food consumption can be seen as both a 'personal experience through which senses are stimulated and the elements of food are broken down and incorporated into the human body' and also as a social experience in which the 'meanings associated with food incorporate individuals into social groups, ascribe identity and shape subjectivity' (Lockie and Collie, 1999, 260-261). It is particularly the latter point that may have implications for an analysis of quality given that meanings that are

associated with quality food may also influence social identity and experience of foods.

Mennell's work pertaining to consumption has demonstrated changing patterns of production and distribution throughout time as an outcome of changes in social tastes. However, this body of literature generally has neglected to discuss issues that are related to practices of food production and distribution and how consumption practices may influence practices of production and distribution. As such, arguably, it is remotely possible to holistically investigate both material and symbolic relationships that occur between the production, distribution and consumption of agricultural and food commodities solely applying this literature. Nonetheless, Lockie and Collie (1999) suggest that this literature may provide valuable insights into conceptualising an approach for investigation into the production, distribution and consumption of agricultural and food commodities in that it acts as a reminder that the human experience of food is fundamental to the experience of consumption and vice versa. This literature also has implications for a conceptualisation of quality given that notions of quality are tied up with human experiences of food, in particular in relation to the way in which food is chosen, prepared, cooked and eaten.

In contrast to the research undertaken by the 'sociologists of food', another group of theorists, who Tovey (1997) refers to as 'rural sociologists', have focused on the organisation of agricultural practices. As reviewed below, this body of work emerges from sociological research pertaining to work, organisation and economic processes (Tovey, 1997).

Consumption and Agri-food Studies

Lockie and Collie (1999) have identified four ways in which notions of consumption have been integrated into rural sociology. The first mode corresponds with Goodman and Redclift (1991) who attempt to relate changes in the technology of food production to transformations in households and domestic labour arrangements and consumer concerns about food (Tovey, 1997). In locating their work within the technologies of food production in regards to shifts in labour processes, Goodman and Redclift (1991) attempt to bring in consumption by linking transformations in contemporary households with the uptake of domestic technologies and the introduction of waged employment for women. They argue that women's domestic labour was commoditised and transformed into an arena of accumulation, shifting the focus of the home from a site of production to one of consumption (Goodman and Redclift, 1991; Goodman and Redclift, 1994). With women seeking employment outside the home, Goodman and Redclift (1994) contend that the demand for both whitegoods such as fridges, freezers and microwaves, and processed convenience foods were stimulated, thus affecting family food arrangements. Further to this, however, the integration of Western women into wage labour geared domestic consumption to the process of industrialisation by facilitating the speed in which processed food could be prepared and cooked in the home (Goodman and Redclift, 1994). The shift towards convenience foods promoted product differentiation, the lengthening of food production processes and value-adding. It also transformed producers of food into suppliers of inputs to industrial food

manufacturing process which according to Lockie and Collie (1999) breaks the linkages between food provision, sustainable farm management and rural society.

Although Goodman and Redclift (1991) acknowledge changing consumption patterns and attempt to analyse how socio-economic and cultural meanings inform and are informed by various forms of resistance, they argue that it is the material basis of food production and consumption that establish innovative directions for the production of commodities and the subsequent meanings attached to social relations (Lockie and Collie, 1999). While quality is not specifically mentioned by Goodman and Redclift (1991), one could argue that quality as a material feature of food also has contributed to changing relations of production and consumption. The push to assure quality along food chains in response to consumer demands for safe foods, for example, has resulted in the formalisation of production and distribution processes of food. Quality has, therefore, become an important strategy in the ongoing development of food industries (Morris and Young, 2000).

The second way in which consumption has been applied in rural sociological discourse, as identified by Lockie and Collie (1999), is through food regime theory. Food regime theory as developed by Friedmann and McMichael (1989, 95):

> links international relations of food production and consumption to forms of accumulation broadly distinguishing periods of capitalist transformation.

Consumption is drawn into food regimes theories using regulation theory. In arguing that local economies and societies are regulated through regimes which involve strategically selective combinations of both political and civil society, of government and governance and of hegemony armoured by coercion, Jessop (1988, 149) points out that regulation theory is about how relatively stable patterns of production and capital accumulation (regimes of accumulation) are maintained. These regimes are protected by various modes of regulation including 'institutional forms, societal norms and patterns of strategic conduct', which according Lockie and Collie (1999, 257), act to 'express and regulate conflict in accumulation until crisis points are reached and new arrangements emerge'.

In exploring the role of agriculture in the development of the capitalist world economy and in the trajectory of the state system, Friedmann and McMichael (1989) describe two food regimes which link international relations of food production and consumption to forms of accumulation. The first regime characterises late nineteenth century capitalism as intensively reconstructing capitalist production relations through the growth of wage labour. This food regime occurred during the era of British imperialism and was constituted by the role of Britain as the 'workshop of the world' and by the related politics of building and maintaining a global food system consistent with this role. Significantly, this regime contributed to the creation of a system of national economies governed by independent states (Buttel, 2001; Friedmann and McMichael, 1989).

With the demise of British hegemony, and in the aftermath of two World Wars, the second food regime saw mid-twentieth century capitalism intensively reconstruct consumption relations as part of a process of capital accumulation. Early in this period, Fordism, the maturation of organised economies underpinned by national forms of accumulation based on high wages and mass production, was at its peak. National corporations that had been regulated by national conventions became transnationals. With this, a shift occurred from state regulation to capital as a dominant structuring force of world economies (Buttel, 2001; Friedmann and McMichael, 1989). Here, the support for Fordist forms of mass production and consumption gave way to deregulation and flexible specialisation that consequently promoted flexible specialisation and product differentiation. This, in turn, influenced the emergence and growth of niche markets (Marsden, Murdoch, Lowe, Munton and Flynn, 1993).

Pertinent to this thesis is the way in which 'niche markets' are conflated with quality. As previously indicated in this Chapter, one conceptualisation of quality associates traditional farming systems with quality food products. In describing the 'steady broadening of quality 'niche' markets' in Europe, Gilg and Battershill (1998, 25) explain that 'quality niche markets' are derived from traditional farming systems that attempt to minimise harm to the environment or the animal and that promote the 'naturalness' of the product. Examples include organic produce, free-range eggs, labelled regional goods and farm-processed products. In other words, 'quality' products are those that are *not* produced en masse, and are not industrialised or standardised, but are, instead, locally produced and embedded within particular markets, places and social relations (Mansfield,

2003a). The problem with this conceptualisation is the assumption that quality can only exist within niche markets. Indeed, as Mansfield (2003a) remarks, if quality is socially constructed through relationships and embedded within and along commodity chains, there is no reason to assume that quality cannot exist in all types of chains. Further, in viewing quality solely as an outcome of regimes of accumulation, or as a characteristic of niche markets, it is not evident how state action, which remains important in maintaining the confluence of production and consumption patterns (Lockie and Collie, 1999), acts upon conceptualisations of quality.

A third way in which consumption has been integrated into rural sociology, according to Lockie and Collie (1999), is through the work of cultural critics and geographers who have used food to demonstrate the importance of space and place in identity formation. According to Bell and Valentine (1997), the geography of food literature has concentrated mainly on production and trade issues. However, consumption has been incorporated through an analysis of the environment in which food is purchased and eaten, either as a site of consumption (such as a shopping mall) or an object of consumption (such as viewing a visual landscape) (Bell and Valentine, 1997; Lockie and Collie, 1999). In rural sociology, this idea has been applied through the analysis of rural spaces as sites or objects of consumption as opposed to sites of agricultural production (Lockie and Collie, 1999). Tovey (1997), for example, writes that the contemporary countryside is no longer just the location for agriculture. She quotes Symes (1992, 200-201) who believes that the countryside is 'vested with new and enhanced roles over and above that of food production'. These roles include

‘recreation, landscape amenity and the preservation of traditional cultures and values.’ The promotion and maintenance of the countryside as a rural ideal has rendered rural areas attractive to people and businesses wanting to escape urban areas. Consequently, there has been a growth in housing developments, and an increase in the relocation of various industries and services in rural areas (Lockie and Collie, 1999). Thus, rural spaces that at one time had been colonised by purely agricultural activities, now incorporate a wide range of other activities including educational, recreational, tourism and alternative agricultural activities.

It is evident that rural space and imagery have been incorporated in an analysis of quality. As indicated in this Chapter, conceptions of quality are influenced by where the product comes from and the activities that underpin its production. What is less explored in the rural sociology literature is how quality may influence activities that occur between sites of both production and consumption.

The final application of consumption within rural sociological discourse as identified by Lockie and Collie (1999) relates to the increasing awareness among consumers of how food is produced. In particular, this relates to what is termed ‘green consumerism’. Lawrence (1996) notes that ‘green consumers’ are consumers who ‘demand’ foods that are clean, nutritious and environmentally friendly and, if possible, avoid mass produced foods. Mass produced foods are considered to be over processed, over packaged, contain harmful additives and are produced in an environmentally unsustainable manner (Lockie and Collie, 1999). Burch, Lyons and Lawrence (2001) describe four principles of environmentally friendly products. The first, ‘environmental thrift’ refers to

‘using’ nature sparingly’. In other words, it relates to how nature or the natural environment is used to produce food and other products. The second principle relates to where food is purchased. Termed ‘regionality’ by Burch et al (2001), this principle focuses on buying products locally in order to discourage travel and transport and save on fossil fuels. ‘Joint utilisation’ refers to ways that discourage the individual use of products. They have, in some way, a social aspect attached to them. For example, in relation to food, one person may buy in bulk and then share amongst others, cutting down on costs that may be involved with transport or packaging. Finally, ‘durability’ implies that the product purchased will last for a period of time and does not have ‘in-built obsolescence’ (Burch, et al, 2001, 35). Thus, ‘green consumers’ can be seen as those who strategically choose products which are more ‘natural’ in that they are biodegradable, can be re-cycled, are packaged simply and sparingly and are drawn from less polluting and less energy-intensive production systems. They choose these products in order to enhance personal, family, community or environmental health (Burch et al, 2001).

Buttel (1992, 23), in his discussion regarding environmentalism and its implications for rural social change, predicted that ‘greening’[12] would be an ‘increasingly important, constructive force for change.’ This has become particularly evident in recent years in light of the emergence of BSE and other food scares. As previously discussed, consumers are concerned about the ways in

12 Buttel (1992, 1) defines ‘greening’ as a process by which ‘environmental concerns are nurtured within social groups and modern environmentally-related symbols become increasingly prominent in social discourse.’

which food is produced, the quality of the food they are consuming and are questioning the legitimacy of productivist agriculture. Food items that are associated with 'clean and green' environments are increasingly becoming desirable items of consumption (Murdoch and Miele, 1999). Thus, there is a growing demand for organically produced food, locally produced food, and the development of niche markets for 'health' foods by manufacturers and retailers (Goodman and Redclift, 1991; Nygard and Storstad, 1998).

Although the 'rural sociology' literature cited attempts to acknowledge consumption as an important process, it neglects to fully address the complexities associated with the social aspects of consumption practices and their relationship with processes of food production (Lockie and Collie, 1999). Consumption, as seen through the lens of 'rural sociology', is indicative of the dichotomy that exists within sociological theory. In the literature pertaining to 'rural sociology', consumption is treated as either an 'outcome of production' - as evidenced by Marsden et al (1993) in which consumption can be manipulated by the state to provide a stable basis for production - or as a discourse that reflects the choices and decisions made by individual consumers (Lockie and Collie, 1999). Although Lockie and Collie (1999) remark that adopting either of these positions in isolation may assist in attempts to detect the locus of control within agriculture and food restructuring processes, they further add that there is a risk of overlooking a myriad of other influences, such as quality, that may impact upon the restructuring of food and agricultural sectors.

The ‘rural sociology’ perspectives reviewed also reduce consumption to a function of commodity exchange. Not only does this ignore the consumption of non-commoditised goods and services such as domestic labour, and the meaning associated with commodities and their uses and transformations post-exchange (Lockie and Collie, 1999), it ignores also the social relationships that may occur between consumers and other actors along a commodity chain. By reducing consumption to a simple act of purchase, the conditions under which goods are purchased are suppressed. As indicated by the sociology of food literature, consumption means much more than ‘who buys what’. It is not just about what foods are retailed at what price, but is related to diet, nutrition and the body, age, gender, lifestyle, household arrangements, government policy, community organisation, industrial conflict, and so on. An analysis of the consumption of food, therefore, needs to look at not only ‘who buys what’, but under ‘what conditions’ and for ‘what use’ (Gofton, 1986; Warde, 1997). Further, in focusing on these issues, the emergence of quality as an important factor in conditioning relationships between production and consumption may be relatively difficult to ignore, thus prompting new ways of theorising how production and consumption practices can be understood.

Bringing Consumption into an Analysis of Agriculture and Food Commodities

The preceding section of this literature review discussed how one of the main features of the study of food and agriculture has been the historic treatment of production and consumption as analytically distinct units of study. This has

resulted in the relationships between them being ignored or couched within a causal relationship where one sector is either explicitly or implicitly assumed to determine the other (Lockie and Collie, 1999; Lockie and Kitto, 2000). Political economy approaches to analysis of production-consumption relations, as seen, have tended to privilege production, while the sociology of consumption approaches regard the sphere of production as unproblematic. The past decade, however, has also witnessed the surfacing of several challenges to these competing perspectives. These include Fine's (1994, 1995; Fine, Heasman and Wright, 1996a; Fine and Leopold, 1993) Systems of Provision (SOP) approach, an adaptation of Actor-Network Theory (ANT) advocated by Arce and Marsden (1993; Marsden and Arce, 1995), Busch and Juska (1997), Goodman (1999; FitzSimmons and Goodman, 1991; 1998), Lockie (2002; Lockie and Kitto, 2000) and Whatmore (1999; Whatmore and Thorne, 1997) and a Cultural Economy Model (CEM) proposed by Dixon (1999).

Systems of Provision

One of the first academics to recognise the relative neglect of theorisation of practices associated with food provision and its consumption was Fine (1994, 1995; Fine and Leopold, 1993; Fine, Heasman and Wright, 1996a). In arguing that an examination of food systems needed to:

> pay careful attention to the relationship between the (re)structuring of the systems of provision, the role of (and distinctions between) tendencies and trends, and the scope for historical contingency (Fine, 1994, 38),

Fine (1995) suggested that a shift occurs from a 'horizontal' analysis of, for example, consumption practices across a variety of commodities with results generalised to the nature of consumption in general (Lockie and Collie, 1999), to a 'vertical' analysis of particular commodities or groups of commodities (Lockie and Kitto, 2000). The thrust of this proposition requires a demonstration of the specificity of explanations to particular commodities or groups of commodities instead of being applied generally to consumption as a whole (Fine, 1995). Fine (1995) specifically recommended that the analysis of each commodity should occur in relation to the context of the chain of horizontal factors such as production, distribution, retailing and consumption and the material culture that surround them. According to Fine (1995), this demonstrates not only the commonality of specific factors to each consumption good but differentiates each commodity based on the way they interact with each other. Each consumption good will then possess its own chain of activities and will form an integral unity that is known as a system of provision (SOP).

In relation to the consumption of food, Fine, Heasman and Wright (1996) present four core arguments for the need to analyse distinct SOP's. Firstly, they argue for the need to recognise that the 'consumption of food is determined by a complex chain of activities.' Secondly, they argue that all activities that occur within a food system are interrelated and, therefore, the factors that make up the food system are not able to be examined in isolation from other factors. Thirdly, Fine et al (1996) claim it is necessary to distinguish between different food systems as each food system, despite possessing commonalities, will have developed in different ways and will be different in structure. Finally, they argue that 'food

systems are themselves distinguished from other SOPs by virtue of their organic content' (Fine et al, 1996, 267).

As pointed out by several theorists (Friedmann, 1994; Goodman, 1999; Murdoch, 1994; Lockie and Collie, 1999 and Watts, 1994), Fine's SOP approach to the study of agricultural and food commodities is similar in many ways to Friedland's (1984) CSA approach. For example, as with Friedland (1984), who acknowledges that each commodity is unique, the basic thrust of Fine's argument is that each experience of consumption is unique because each commodity is unique (Dixon, 2002, 40). Nonetheless, Fine fails to acknowledge adequately the contribution of, or any similarity with, Friedland's work[13].

Where Fine's work departs from Friedland's is the attempt to include the material culture surrounding commodities, the role and agency of consumers within SOPs, and the organic content of food (Dixon, 2002; Lockie and Collie, 1999; Lockie and Kitto, 2000). While this attempt is honourable, as identified by Lockie and Kitto (2000) and others (including Goodman, 1999; Watts, 1994), Fine does not effectively theorise or operationalise these dimensions. For example, Fine (1994) asserts that food systems are underpinned by their organic qualities, but does not

13 While this criticism of Fine's work has been made by several authors, Fine (2004, 333) has recently disputed this criticism, claiming that his approach 'had entirely different, and arguably richer, origins and direction' as it was inspired by 'the issue of putative relationships between the drive to mass consumption and increasing female labour market participation'. Within the same paragraph however, Fine (2004) also admits to reviewing literature pertaining to commodity chains and although he claims that he saw this as only one approach amongst many and provides reasons for this in a footnote, it is difficult to believe that the literature pertaining to commodity chains did not have any influence on his own approach.

adequately explain the concept of ‘organic’. Further, Watts (1994, 568) argues that Fine does not even:

> seem to take seriously either the natural-biological processes at the point of production or the environmental externalities of land based production.

This then limits the ability of SOP approaches to take into consideration the role of nature, and thus quality, in food production and consumption practices.

Additionally, although Fine distinguishes the materiality of food as a key feature of SOPs, no account is given as to how this materiality may act on the ‘social life of food’ (Lockie and Kitto, 2000). As demonstrated by Lockie and Kitto (2000), consumption practices within SOPs are treated in a similarly cursory manner. Consumption practices are denied any status in the delineation of SOPs despite ‘the extent to which multiple commodities are incorporated into and reconstituted through those consumption practices’ (Lockie and Kitto, 2000, 5). Instead, Fine treats the activities of production, distribution and retailing of foods, in combination with socioeconomic variables, as determinants of consumption practices, despite the lack of evidence of any causal relationships between these activities and food consumption practices (Lockie and Kitto, 2000). According to Lockie and Kitto (2000, 5), consumption practices are treated:

> as at the same time both the all too simple outcome of activities associated with the provision of that food, yet too complex to be useful in the identification of systems linking those activities.

Fine is further criticised by Lockie and Kitto (2000) for neglecting to articulate the nature of relationships between actors involved in SOPs and how to go about studying them.

While Fine's work has been the source of considerable criticism for not considering seriously the relationships that occur between both the organic nature and the cultural/symbolic economy of food (Watts, 1994), his questioning of the validity of broad generalisations of food production and consumption practices based on specific commodity studies (Lockie and Kitto, 2000) provides an impetus to further approaches to studying food. Certainly, the debates sparked by Fine's work have contributed already to the search for theoretical and methodological approaches that attempt to provide an analysis of both the relationships and practices that occur between food production and consumption. One approach that attempts to augment political economy with an approach that 'explicitly appreciates cultural concerns' (Dixon, 1999, 156) is Dixon's (1999) Cultural Economy Model (CEM).

A Cultural Economy Model

As discussed previously, Watts (1999, 568) indicates that the organicism within food systems is in need of further exploration, especially in cultural terms. He calls for a 'cultural economy of food systems' approach that encourages attempts to:

> identify the distinctive spatial, natural, personal and social production conditions which help shape the matrix of accumulation within the food system.

Heeding both Watts' advice and a proposition by Arce and Marsden (1993, 298) that economic judgements are 'culturally determined and institutionalised in society', Dixon (1999) has elaborated Friedland's (1984) CSA framework with a cultural economy perspective defined by Halperin (1994, 17) as an:

> analytical perspective which examines economies as they are embedded in and constructed by cultural systems that are larger and longer and more powerful than particular historical moments.

Although similar to political economy, Dixon (1999) highlights that the main difference between a cultural economy approach and a political economy approach lies in the treatment of the social construction of meaning and symbols. A political economy approach focuses on the 'interrelationships between the economy, social class and politics' (Dixon, 1999, 157). A cultural economy perspective, alternatively, 'adopts the key interrelationships as that between the economy, *social identity* and politics' (Dixon, 1999, 157, emphasis added).

According to Dixon (1999), a cultural economy approach to food not only invites the investigation of social processes beyond that of market power, but asks also how new authority patterns for food evolve and influence, and are influenced by, market relations. In doing this, a cultural economy approach incorporates both public and private sites of production, paid and unpaid work, and exchange mechanisms beyond the market (Dixon, 1999). This reflects the arguments of Lockie and Collie (1999) that consumption cannot be understood solely in terms of the moment of commodity exchange as this fails to take into account the use,

transformation, modification, maintenance and meaning of commodities. As it is often the meanings that are attached to commodities that are the primary objects of consumption, the exchange of these apparently material goods can only be analysed with consideration of processes of 'symbolic production' (Lockie and Collie, 1999). Similarly, Marcus and Fischer (quoted in Dixon, 1999, 157), write that:

> not only is the cultural construction of meaning and symbols inherently a matter of political and economic interests but the reverse holds – the concerns of political economy are inherently conflicts over meanings and symbols.

How foods come to be esteemed in society thus involves the recognition that values are embodied both within relations of production and consumption and within the commodity itself. In order to demonstrate the contingency of production and consumption based upon 'regimes of value' (Appadurai, 1986), Dixon (1999) turns to Arce and Marsden (1993, 298) who identify that production and consumption are 'essentially socially constructed activities, organised by a series of discontinuous valuation processes and conflictual social relationships'. Arce and Marsden (1993) further advocate for an analysis of food systems based on a social constructionist approach that: firstly, emphasises how value in food is constructed and transferred locally, nationally and globally; and secondly, that ascertains what interests and agencies influence the processes that are of importance to understanding the existence, development and transformation of food. They believe that placing emphasis on the 'practices of strategic and local actors in shaping these processes' will result in the observation of how 'different sets of people and agencies are trying to define the production

and consumption of food' (Arce and Marsden, 1993, 300). A critical part of Arce and Marsden's (1993) work is the recognition that processes of food production, distribution and consumption are both highly contingent and reliant on delicately balanced networks of alliances, and social and economic arrangements. In order to explain how relationships between production, distribution and consumption occur, Arce and Marsden (1993) draw upon actor network theory[14]. In particular, they elaborate on the idea that power is not a property of the individual but is an effect of networks of action. This is where Dixon's cultural economy model departs from Arce and Marsden.

Although Dixon stresses that Arce and Marsden's (1993) conceptualisation of power is useful as a reminder that 'exerting the balance of power requires alliances, game plans, compromise and is, to some extent, fluid' (Dixon, 2000, 59), Dixon (2000, 59) believes that 'identities exist by virtue of class relations and that networks are used strategically to magnify influence and interests'. This idea is consistent with that of political economy approaches to studying food and agriculture. Dixon's Cultural Economy Model therefore amalgamates a political economy view of networks with social constructionism to develop a cultural economy that:

> posits a semi-autonomous sphere of distribution and exchange in which patterns of authority, regimes of value, and consumer negotiation of taste, broadly understood take place (Dixon, 1999, 158).

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14 This will be discussed in more detail in the following section.

In singling out Friedland's (1984) commodity systems approach to studying agricultural and food production for its clarity of purpose and its premise that commodities have a 'social life' that encourages a social constructionist approach, Dixon (1999) extends the CSA framework to incorporate consumption. As Dixon (1999) argues, by including consumption as a significant process in commodity analysis the question of power relationships between production, distribution and consumption may be understood more clearly. Furthermore, it recognises that social identities apart from those gained through the division of labour are increasingly important to the politics of the food system (Dixon, 1999).

Reasoning that distribution and consumption should be acknowledged as spheres distinguishable from, but interdependent with, production, Dixon's (1999) Cultural Economy Model focuses on three spheres (see Table 1). 'Production processes' incorporate the production processes of both public and self-provisioning, grower organisation and organisations, labour as a factor of production (both paid and unpaid), science production and application, product design process and regulatory politics. 'Distribution and exchange processes' include marketing and distribution networks, retailing practices and organisation, food service practices, labour as a factor of distribution (paid and unpaid), food knowledge and discourse production and application and regulatory politics. 'Consumption Processes' include tertiary production, conditions of access, manner of delivery, the environment or context in which food is eaten and the experience of eating (Dixon, 1999).

Table 1: The Cultural Economy Model

Production Processes	Distribution and Exchange Processes	Consumption Practices
Production processes: public and self provisioning	Marketing and distribution networks	Tertiary production
Grower organisation and organisations	Retailing practices and organisation	Conditions of access
Labour as a factor of production	Food service practices	Manner of delivery
Science production and application	Labour as a factor of distribution	The environment or context
Product design process	Food knowledge and discourse production and application	The experience
Regulatory politics	Regulatory politics	

In adding these additional categories, Dixon (2000) believed that a CEM would promote acknowledgment of the input and interests of a range of actors (including some of those whose main interests lie outside the agricultural sector) and would emphasise the value-adding processes that occur beyond the sphere of production. In so doing, patterns of authority, regimes of value and consumer negotiation of taste would be able to be better examined and understood (1999). In applying the CEM to the Australian chicken industry, Dixon found that it indeed highlighted the complex social relations of consumption practices; it confirmed that a simultaneous circulation of cultural association and cultural attributes enjoins economic values (2000).

As Dixon (1999) argues, the CEM can be seen as an improvement on CSA and other political economy approaches in a number of ways. First, Dixon (1999) notes that the CEM illuminates the social reality of commodities by questioning how retailers and consumers construct value as much as describing how producers produce value. Second, it assumes that the assigning of price is only

one part of the valuation process and acknowledges Arce and Marsden's (1993) proposition that:

> land based value represents only a minor part of the total value of the product in economic terms, while in social terms a large proportion of symbolic and constructed value is added at the processing, distribution and retail stages (Arce and Marsden, 1993: 293-294).

Third, the CEM acknowledges productive units such as families, households, and communities in addition to individuals and firms. Fourth, it expands our understanding about what constitutes output. Consideration can be given to the manufacture of diets; the evolution of the nutrition science industry; and the forging of new authority relations as the traditional authority of family cooks diminish. Fifth, it invites an examination of the exchanges that may occur beyond market exchanges and it enlarges the sphere of distribution beyond the movement of products between producers and consumers. Finally, the CEM highlights women's roles across the food system by including the sphere of home-based food production (Dixon, 1999).

Dixon herself acknowledges that it is difficult for any approach to take into account the entirety of both public and private spheres of production, as it requires the acknowledgment of a host of social actors. However, she notes also that although it would be easier to accept Marx's argument that 'researchers not disaggregate the political economy because that is not how life is experienced', evidence suggests that the identities of consumers are currently quite specific and distinct from those of producers. This has led some authors, such as Miller

(1993), to argue that the 'consumer has displaced the producer at the centre of social engagement' (Miller, 1993, 47-48). However, this is also a position that Dixon rejects, arguing instead that it is necessary to acknowledge that production and consumption are shaped by the system of provision as a whole. By adopting this reasoning, the focus is shifted to the production and organisation of consumption through the critical aspects of creation, circulation and contestation of meanings.

Dixon's model, however, is not without its problems. The main problem relates to the location of power within the food system. By assuming a social constructionist methodology and applying the CEM to the analysis of the table chicken in Australia, Dixon finds that a cultural economy perspective ventures beyond that of wage relations and commodification processes. In acknowledging the practices, beliefs and discourses of the consumer, producer and retailer, the CEM reveals the importance of 'emotional' activity in shaping power relations. Dixon discovers that a cultural economy analysis allows not only for a description of the distribution of power, but of a shift in these power relations along commodity chains (Dixon, 2002). Dixon's analysis suggests that consumers have not been responsible for changes in the contemporary food system. Nor have producers. In fact, it suggests that socially constructed tastes have become critical with the balance of power in the determination of these tastes lying somewhere between producers and consumers. Large supermarket retailers mainly have assumed the role of mediating production and consumption practices with fast food outlets, nutritionists, other health experts and market

researchers playing a minor role. According to this analysis, producers and consumers effectively have been disempowered (Lockie, 2002, 280).

Within a political economy tradition, Dixon has made a notable contribution to the analysis of food commodities by conceptualising consumption in a way that reveals the complex social relations of consumption practices. However, one needs to enquire first about the practicality of locating the balance of power within food commodity systems considering the extensiveness, multiplicity and complexity of social relations within food systems, and secondly the extent to which so called powerful players have 'effective control'. As Lockie (2001a, 4) observes, 'supermarkets do not force people to buy chickens. Nor do they stop people from buying chickens elsewhere.' This is not denying that retailers have influence in regards to mediating production and consumption, but paraphrasing Lockie (2002, 280), the difference between influence and control is substantial. According to Lockie (2002, 280) by attributing power to individuals and organisations the social relationships that are necessary for those resources that may influence other actors, such as point of sale records, advertising and location, for example, are lost. It also fails to accommodate the discourse surrounding 'consumer demand' in which retailers participate (Lockie, 2002).

Drawing on Foucault (1980 and 1986), Lockie (2002) thus argues there is a need to understand power not just as the property of individuals but also as a 'property of relationships' and that this requires an acknowledgement that power is 'unstable, reversible, pervasive, and, as often as not, accompanied by resistance and evasion' (Foucault in Lockie, 2002, 280). Further it requires

acknowledgment that 'power takes many forms, at times concentrated and hierarchical and at times dispersed' (Hindess in Lockie 2002, 280-281).

In attributing power to individuals or organisations, the role of 'nature' also is denied any status in influencing socioeconomic processes, despite providing the basis for the production of food commodities. As discussed, 'nature' indeed poses a threat to processes of industrialisation and, in response, through processes of 'appropriation' and 'substitution', industry acts to overcome any constraints of nature that emerge during production (Goodman, Sorj and Wilkinson, 1987). Thus, in attributing power to a particular group, a dichotomy between 'nature' and 'society' is, perhaps unintentionally, entrenched. This entrenchment creates problems for an analysis of quality, especially since the literature indicates that quality is linked inextricably with nature. As Murdoch et al (2000, 112) poignantly remark:

> for its overriding concern with corporate power, and the surmounting of (biological) constraints on that power, means that it [political economy] tends to see nature as essentially 'passive' in the face of unfolding socioeconomic processes; as Busch and Juska (1997, 691) put it, nature is seen as a 'backdrop behind the stage on which the human drama is conducted.'

In the attempt to gain both a better understanding of the way in which nature mediates production and consumption, and the hope to bring a more 'symmetrical' approach to the study of food, recent years have seen the inclusion of alternative theoretical approaches to food studies. One approach that has been incorporated into an analysis of food is actor-network theory (ANT).

Food Network Theory

Evolving from attempts to address problems inherent in political economy approaches to the study of food, the past decade has seen several researchers, including Goodman (1999, 2001) and Lockie (Lockie and Kitto, 2000; Lockie, 2001)[15] adopt a framework of analysis utilising actor-network theory. Dubbed 'food-network theory', the approach draws upon ANT in the attempt to focus attention on the cultural/symbolic economy of food, the organicism of food and the way in which power is extended through production-consumption networks (Lockie, 2002).

Emerging from studies of science and technology, ANT endeavours to understand 'materiality', the ways in which social and technical relations are embodied and perform themselves in the ordering and reordering of texts, artefacts and the natural world (Law, 1994). It aims to examine how actors (human or non-human) create networks by enlisting or enrolling other participants (for example, humans, texts, machines) in their activities, whilst at the same time composing themselves as an essential constituent of those networks. In this way, ANT is concerned with the study of power as a process or a dynamic within social relations (Law, 1994).

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15 See also Arce and Marsden, 1993; Busch and Juska, 1997; FitzSimmons and Goodman, 1991, 1998; Marsden and Arce, 1995; Whatmore, 1999; Whatmore and Thorne, 1997

ANT is underpinned by an attempt to undermine dichotomies between 'micro and macro levels of sociological analysis and between the ideas of the natural and the social as distinct and independent spheres' (Lockie and Kitto, 2000). Undoubtedly, this is one reason why ANT is attractive to those examining relationships between food production and nature (Goodman, 1999), production and consumption (Lockie, 2002) and processes of globalisation (Arce and Marsden, 1993; Marsden and Arce, 1995; Busch and Juska, 1997). ANT, however, has other attractions for a study of food and agriculture. In particular, this is related to how ANT conceptualises power.

ANT suggests that it is of utmost importance not to take macrosocial structures for granted, but to ask how these (if they exist) are generated in microsocial practices (Law, 1999). Power, similarly, is seen not as a property of agents, institutions or processes but of the social relationships through which these are constituted. This helps to avoid what Thrift (1995) describes as 'heroic accounts' of powerful actors, structures and processes (Whatmore and Thorne, 1997). In order to reconceptualise power relations from the 'flat, colonised surfaces of globalisation' (Whatmore and Thorne, 1997, 289) to socially contested, spatially situated sites and actants linked together into actor-networks, Latour and Law develop the notions of 'modes of ordering', 'collective agency' and 'hybrid networks' (Whatmore and Thorne, 1997).

Modes of Ordering and Food Networks

Law (1994) formulates the notion of mode of ordering to show how networks are strengthened or made durable. A mode of ordering may be described as a way in

which actors constitute themselves and social organisation. In essence, they represent 'an attempt to find a way of imputing quite general patterning strategies to the materially heterogeneous networks of the social (Law, 1994, 95). Modes of ordering can be both discursive, 'ways of telling about the world…what used to be, or what ought to happen', and material, 'acted out and embodied in a concrete, nonverbal manner in a network' (Law, 1994, 20).

In their study of fair trade coffee, Whatmore and Thorne (1997) observe the mobilisation of a mode of ordering framed by fairness or connectivity. A discourse of 'connectivity', it is argued, orders a set of non-hierarchical relationships that link producers, co-operatives, fair trade organisations and consumers in a globally distanciated alternative trade network. The discourse of connectivity is manifest in the packaging of coffee products:

> This is a fair trade product. More of the money you pay for cafédirect freeze-dried goes directly to the small scale coffee farmers in Latin America and Africa. Fair trade means growing communities can afford to invest in healthcare, education and agriculture (Whatmore and Thorne, 1997, 298).

According to Whatmore and Thorne (1997, 299), this example illustrates that, as a mode of ordering, a discourse of connectivity establishes the 'performance of 'fairness', rather than charity'. Here the farmer is able to obtain a 'fair price' and the consumer 'gets excellent coffee'.

Whatmore and Thorne (1997) demonstrate that modes of ordering strengthen network activities across space and that durability is enhanced where the mode of

ordering is constructed as the premise for achieving a network goal. However, one flaw with their study, identified by Lockie and Kitto (2000), lies in the continued 'blackboxing'[16] of the consumer'. Although Whatmore and Thorne (1997) recognise that a discourse of connectivity acts on the consumer, they do not demonstrate what and how the actions of the consumer recursively affect the production-consumption network. This leaves one questioning the extent to which the consumer acts within this particular network.

Collective Agency and Food Networks

Integral to the building of networks is the concept of collective social agency. Implicit here is the adoption of a post-structuralist conception of agency, where the focus is shifted from the power attributed to any one actor to the construction of actor-networks by a multiplicity of agents. This is not to say that enrolment is deliberate, consensual, or that all actors exert the same influence within a network (Lockie and Kitto, 2000). Collective agency alters the nature of individual actor spaces in accordance with the needs of the network as a whole (Law, 1992). Callon (1986) thus describes enrolment as a process of 'translation' or transformation.

This is demonstrated in Lockie's (2002) study of the mobilisation of people as organic food consumers. Lockie (2002) provides the example of the attempts of market researchers to 'sum up' the 'demands' of consumers through the

16 In ANT 'a black box contains that which no longer needs to be considered, those things whose contents have become a matter of indifference' (Callon and Latour, 1981, 285). A black box, therefore, is any setting that, no matter how complex it is or how contested its history has been, is now so stable and certain that it can be treated as a fact where only the input and output counts.

assimilation, tabulation and manipulation of survey responses and the attempts of producers and retailers to speak on behalf of 'the consumer' based on the data collected by the researchers. He finds, however, that when speaking with consumers, there appears to be some contradiction between the discourses about who the 'organic consumer' is and the empirical evidence, leaving the potential for misleading stereotypes. Lockie (2002) acknowledges Law's (1994) argument that although 'the counting, recording and sorting of materials and knowledge' are important in the extension of networks, so too is 'speaking, writing, broadcasting, packaging and building'. The implication for this study is not only in the reminder to examine how quality is constructed by a variety of agents within food networks, but also to see how actors attempt to construct other actors within the network.

Hybrid food networks

The third concept that relates to how power is dealt with in ANT relates to the concept of 'hybridity'. As conveyed by Whatmore (1999), Latour's concept of 'hybridity' seeks to implode the object/subject binary that underpins the dualism of nature and society and to recognise the agency of non-human actants in the 'vocabulary of social analysis' (Whatmore, 1999, 27). In ANT, a multiplicity of different agents (both technological and 'natural') are mobilised in the performance of social networks (Whatmore and Thorne, 1997, 291). Non-human actants are central to social networks because they 'attach us to one another, because they circulate in our hands and define our social bond by their very circulation' (Latour cited in Whatmore, 1999, 28).

This is demonstrated by Busch and Juska's (1997) study of rapeseed commodities. In highlighting the participating roles of four institutional networks: military, pharmacology/nutrition, agriculture and chemistry, the various organisations within those networks, scientists, laboratory animals (mice), chemicals, and the rape plant itself, Busch and Juska (1997) show the transformation of rapeseed from a minor source of industrial lubricants to the foundation of a major edible oil industry (Lockie and Kitto, 2000). Similarly, in following the Brazilian soybean, de Sousa and Busch (1988) explore the role of the soybean, technologies of soybean production, state export, credit, exchange rate and pricing policies, farmer co-operatives, and farmer management skills in the development of soybean as a viable tropical crop. What is seen in both these studies is the centrality of non-humans to the extension of the network (Lockie and Kitto, 2000).

ANT appears to provide a promising approach to the study of food. However, some food researchers have had difficulty in operationalising such an approach (Lockie, 2002). Goodman (1999), for example, adopts a theoretical framework that incorporated the epistemological foundations of ANT to engage with the biopolitics of agricultural and food networks. With the aim of renouncing 'the methodological erasure of nature' in political economy approaches to agricultural and food studies, Goodman introduced the concept of 'corporeality' as a way to understand the 'relational materiality' of both 'ecologies and bodies' that characterise agricultural and food networks. 'Corporeality' is a concept that Goodman (1999, 18) defines as:

> metabolism and metaphor to signify organic, eco-social processes that are intrinsic to agriculture, to food, to agro-food networks, and to the hybrid constitution of those practices in the social world.

In an attempt to demonstrate how processes of translation, negotiation and collective agency act to build and maintain networks, Goodman applied his approach to case studies of food scares, biotechnological innovation in agricultural practices and to regulatory changes in organic agriculture in the United States of America. These case studies were chosen because the issues that are inherent within them are controversial and have a destabilising effect on food networks. Actions that disrupt and destabilise the network consequently open the 'black boxes' allowing for an observation of the processes of translation, enrolment and punctualisation. Such glimpses into the 'black boxes' of agricultural and food networks are, according to Goodman (1999, 29), 'the stuff of bio-politics, giving leverage to groups seeking to transform the punctualised institutions and practices which mediate relationships between human and non-human actors'.

However, even though Goodman (1999) demonstrated that ANT could provide an account of the actors, processes and strategies that occurred within destabilised networks, Lockie and Kitto (2000, 13) question how Goodman's framework might deal with 'those collectives that have not been problematised for us; that remain taken-for-granted; stabilised by 'black boxing' and/or by the ambivalence of those enrolled into them' and further how it might assist with an examination of more mundane practices of producing, processing, distributing, retailing, preparing and ingesting of food, that may not be at all controversial.

Goodman (1999, 17) has not ignored these issues. He proposes that a 'dual set of metabolic relations', eco-social production and human food consumption, and the 'polyvalence of these relations' (in other words, the 'openness' of food networks to alternative organisational patterns of production and consumption), will allow for an examination of the location of metabolism and translation at multiple sites that connect 'nature, agriculture, the food system and its produced commodities and human needs, and the social constitution of the body as both actor and medical object' (FitzSimmons and Goodman, 1991, 211). The metabolic relations of food, according to Goodman, are seen to involve a two-step process, one that begins

> *on the land,* where agricultural nature and its harvest are co-produced and co-evolve with social labour, and *at the table,* where these co-productions are metabolised corporeally and symbolically as food (Goodman, 1999, 17, emphasis in original).

However, although this process may overcome the dualism of 'nature' and 'society', and the concern that ANT may not be effective in the study of a 'stable' network, Goodman's approach effectively outlines another linear model that privileges again the production aspect, commencing 'on the land', over the consumption aspect which ends 'at the table' (Lockie and Kitto, 2000). This suggests that the 'social body of the living organism' or the 'consumer' are network effects only, and are not simultaneously collectives (Law, 1992), with the capacity to displace, re-arrange and re-translate food practices on the land

(Lockie and Kitto, 2000). Hence, in escaping the nature/society dichotomy, the production/consumption dichotomy again rears its head (Lockie and Kitto, 2000).

As discussed by Lockie (2002), another difficulty pertaining to ANT concerns its methodological approach that directs one to 'follow the actors – whoever and whatever they may be – as they engage in the process of enrolling others in networks' (Latour cited in Lockie, 2002, 281). The problem herein lies with the difficulty of knowing when to stop following the actors and how boundaries around any particular actor-network can be established (Lockie and Kitto, 2000). As discussed by Lockie and Kitto (2000), the number of actors involved in food networks is in itself substantial, but when combined with the scale and complexity of consumption, the articulation of practices of consumption involved in the provision of commodities becomes difficult. Actor-networks therefore need be regarded as 'either infinitely extended – with everything connected in a seamless web to everything else – or bounded, but 'leaky'' (Lockie, 1998a, 11). Lockie and Kitto (2000, 13) further observe that, unless some generalisations are made about commodities and the nature of relationships occurring within the network, food network accounts run the risk of 'degenerating into descriptive narratives'.

This observation leads onto another difficulty associated with ANT – that of identifying those objects of analysis which may be used successfully as a foci for generalisation without reverting to modernist tendencies that invariably accord power to specific actors or institutions (Lockie and Kitto, 2000). Here Lockie and Kitto (2000) suggest that this can be overcome by constructing research questions

that focus more on exploring resources of power on which actors may draw in attempting to influence relations between food provision and consumption. In this way 'the object of analysis and potential generalisation is not on the agent, institution or process, but the relationships through which these are constituted' (Lockie and Kitto, 2000, 14).

Lockie and Kitto's (2000, 15) approach is consistent with ANT ontology and offers a promising way of increasing focus on the 'symbolic economy of food', production-consumption networks and the centrality of both nature and technology to those networks. However, when applying this approach, Lockie (2002) found that it remained difficult to adequately examine the field of consumption due to the complexity of the social relations that are involved in food provision. The need to further explore ways of integrating both nature and consumption into an analysis of food commodities thus continues.

Conclusion: Bringing Consumption into an Analysis of Agriculture and Food Commodities

The review of literature relating to the study of food and agricultural commodities has revealed a multiplicity of approaches to studying food and agricultural commodities. Although acknowledging the importance of consumption as an essential constituent of food and agricultural commodity systems, the literature reveals that, until recently, the approaches utilised to study food and agricultural commodities have either neglected the field of consumption or seen it simply as an adjunct to production processes. Commodity Chain approaches and

Commodity Systems Analysis have been instrumental in promoting an understanding of social relationships regarding the production of food; however, they have neglected to include consumption as an arena of social practice. In the attempt to 'bring in' consumption and overcome the consumption/production dichotomy, food theorists have utilised a variety of approaches including the political economy systems of provision approach, a cultural economy model and an actor-network approach.

Although all of these approaches have contributed to an understanding of food and agricultural networks, there are limitations in each approach that disallows a holistic examination of food commodity systems. The SOP approach has been criticised for neglecting to effectively theorise and operationalise the role and agency of consumers and the natural-biological processes of food and for not outlining an explicit methodology. The Cultural Economy Model, although effectively including consumption as a part of the study of chicken commodities, was criticised for its treatment of power. The main criticisms being that if power is attributed to particular individuals or groups, then social relationships and entities which may influence other actors, such as advertising, are ignored. Similarly, nature is denied any status in influencing the production of food despite being the basis for food production. Conversely, ANT deals with power and agency effectively, but its methodology of 'following the actors' (Latour, 1987), although appearing simple, is actually more complex than at first glance (Lockie, 2002). It finds it difficult to overcome both dualisms of nature/society and production/consumption in its operationalisation. These limitations suggest

that there is a need, therefore, to locate alternative ways of incorporating 'nature' and 'consumption' into a study of food production and consumption.

Quality: Integrating Nature into Food Studies

As indicated in Chapter 1 and the beginning of this Chapter, 'quality' has emerged as a central concept to the study of food and the reorganisation of agricultural and food industries. In recent years, it also has come to light that an examination of quality along food commodity chains may offer an empirical means of integrating 'nature', or aspects of 'nature', into agriculture and food studies. Mansfield (2003b), in particular, has suggested that by addressing how definitions of quality emerge along production networks, it is possible to understand how specific aspects of the natural world participate in particular interactions, as the emphasis is not on relationships between nature and society but on particular biophysical elements and processes. In doing so, natural processes can be treated as analytically significant without reducing them to either 'external reality' or 'social imaginary'. Further to this, because quality itself has been 'alternatively conceptualised as either real and objective, or discursive and subjective'[17] (Mansfield, 2003b, 10), and given that quality has emerged as a central concept to the study of food, it seems imperative that conceptualisations or meanings of quality are identified, in order to explore how quality may influence or act upon processes or relationships between production, distribution and the consumption of food.

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17 As identified in Chapter one, quality has been treated as either an entity which physical characteristics are measurable and quantifiable, or as a social construction embedded within socio-cultural, political and economic contexts.

Conceptualising quality along food chains, nonetheless, requires that a range of elements including technological, environmental, ecological problems and concerns and political values need to be taken into consideration (Holm and Kildevang, 1996 and Nygard and Storstad, 1998). In undertaking an examination of beef commodity chains in Central Queensland, this thesis aims not only to incorporate consumption practices as part of a study of food commodities, it is attempting to examine the role of 'quality' in the conceptualisation of food chains. The research in this thesis thus requires an approach that allows both an examination of production, distribution and consumption processes and one of quality. The following considers a framework that integrates Dixon's (1999) cultural economy model with key tenets of ANT for a study of quality along beef commodity chains in Central Queensland.

Towards a Construction of Quality along Beef Chains in Central Queensland

As described in preceding sections, Dixon's CEM is an adaptation of Friedland's (1984) CSA approach, which to reiterate focuses its analysis on five spheres including: production practices, grower organisation and organisations, labour as a factor of production, science production and application, and marketing and distribution networks. In arguing that it is necessary to consider 'the cultural construction of economic processes and patterns', Dixon (1999) amends the CSA foci and extends them to include consumption and a semi-autonomous sphere of distribution and exchange as outlined in Table 1.

As discussed, Dixon's (1999) CEM successfully integrates consumption into an analysis of food commodities whilst avoiding the dichotomies apparent in productivist accounts of food (Friedland, 2001). However, it remains a political economy approach, the main focus of which pertains to locating the locus of control in the food system. As argued in the literature review, this poses a threat to a study of 'quality' as, by attributing power to individuals or organisations, the role of nature is denied any status in influencing socioeconomic processes.

Chapter 1 reveals that in an increasingly competitive food environment, producers, processors and retailers are using 'quality' as a tool to differentiate products and to maintain market share within agricultural and food economies. Nevertheless, the way in which quality acts on and within food commodity chains requires further investigation. Specifically, comprehending how quality is constructed by a variety of actors within food chains requires an approach that considers its relational nature. ANT appears to do that.

Due to ANT's adoption of a post-structuralist concept of power, quality may be able to be seen as a relational performance of multiple social practices. The concept of 'a mode of ordering' will assist in demonstrating how multiple sites are connected, and made durable, while its conception of 'collective agency' will assist in demonstrating the interests of actors in the network. As ANT views food networks as hybrid entities, power ceases to be something that is possessed by an individual, a group of individuals or an institution. This assists in the attempt to be impartial towards all actors and to make no distinction in approach between

the social, the natural and the technological, thus breaking down the dualisms between nature/society and production/consumption (Woods, 1997).

It is envisaged, therefore, that a framework integrating Dixon's (1999) CEM with ANT may overcome some of the theoretical and methodological obscurities that are intrinsic to each approach. Dixon's (1999) CEM offers a systematic means of data collection and analysis, but there appear to be theoretical difficulties in incorporating relationships of nature into an analysis of food. ANT, alternatively, offers some theoretical resolution to relationships of power and nature, but its methodology of 'following the actors' can see the researcher engaged in potentially infinite research. An integrated framework of the two approaches may therefore see the CEM provide a commencement point and some structure for the conduct of research, whilst ANT may provide some theoretical clarity.

An examination of food commodities, however, is still an enormous task. It is thus proposed that a focus on meanings of quality for actors may be a way to contain the research based on its apparent importance as an empirical trend and its status as both a material and discursive entity. Further, a focus on quality as a mode of ordering may also test the assertion that quality underpins relationships in contemporary food networks.

It is anticipated that an integration of Dixon's CEM with the tenets of ANT will allow for an organised examination of beef production-consumption chains in Central Queensland, and for the possibility of non-humans having the power to act. In attempting to elucidate meanings of quality for actors, it is important to

maintain the voice of the human actor[18.] Both the CEM and ANT offer a social constructivist perspective that accepts that multiple constructions of meaning are possible based on different constructions from those engaged in the social interaction (Schwandt, 1994). However, they do not outline a specific methodology or method for obtaining meanings. Thus, in order to examine specific 'meanings of quality' for human actors, a phenomenologically informed methodology will be utilised. This is discussed in the subsequent Chapter.

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18 ANT has been criticised in the past for dehumanising the human (see Amterdamaksa, 1990).

Chapter Three

Methodological Considerations

This thesis is concerned with how quality is conceptualised along beef commodity chains and how it may act upon relationships occurring between the production, distribution and consumption of beef. Meat has been the centre of public debates concerning food safety and quality in recent years. More specifically, beef has been at the heart of a number of food scares including outbreaks of BSE, foot and mouth disease and the detection of chemical residues in beef meat. Understanding how meanings of quality are socially constructed along beef chains is important for explaining how quality may act upon relationships occurring within beef industries. The research thus required a methodology capable of investigating a range of social relations and meanings within both a spatial and temporal context. Emphasis was, therefore, placed on methods that stress 'the meaningful relationships that operate in the situations and the social worlds studied' (Denzin and Lincoln, 1994, 2-3). Qualitative research is considered particularly relevant here as it aims to reflect as accurately as possible the process of social life from the point of view of the participants in the field setting under investigation (Berg, 1989; Denzin and Lincoln, 1994; Garfinkel, 1967 and Giarrusso, Richlin-Klonsky, Roy and Strenski, 1998).

Qualitative Research

In general, qualitative research reflects a concern to understand the interpretations of people within the context of their social settings. Having a 'multimethod focus', qualitative research attempts to secure an in-depth understanding of the phenomenon in question (Denzin and Lincoln, 1994). Described as a method of study that generates rich descriptive data, its essence lies in the analysis of data which requires the researcher to venture beyond mere descriptions and definitive notions in order to grasp the meanings, symbols, signs and concepts which underlie participant understanding (Berg, 1989; Burns and Grove, 1993; Gregory, 1995; Leininger, 1985; Lo Biondo-Wood and Haber, 1994; Omery, 1983). In this way, it offers opportunities to identify patterns, uncover meaning and expand knowledge of human experiences and interpersonal processes (Creswell, 1998; Parse, 1989b). Qualitative research leads to narrative findings, using individuals' own written or spoken words, which are presented in linguistic fashion for the purpose of description. The goal of these is to document and interpret, or describe as fully as possible, the whole of what is being studied from the frame of reference of persons involved (Denzin and Lincoln, 1994). Although qualitative research offers a number of methodologies that could be applied to this study including ethnographic research and grounded theory, phenomenology was identified as a methodology that retained a social constructivist perspective in keeping with CEM and ANT but which also has a specific focus on the identification of meanings.

Phenomenology

The principal objective of phenomenology is to describe human experience as it is lived. Phenomenology is not just a research method – a set of techniques for gathering, analysing and interpreting data – it is also a distinctive philosophy and approach. It is an inductive, descriptive research approach that seeks to describe the total structure of 'lived experience'[19] including the meanings that these experiences have for the individuals who participate in them (Anderson in Morse, 1989, Oiler, 1982; Omery, 1983; Waters and Crook, 1990). In order to gain an understanding of a phenomenological research approach, it is necessary to provide some insight into its philosophical underpinnings.

Phenomenology as Philosophy

It is widely accepted that phenomenology derives largely from the work of Edmund Husserl (Crotty, 1996; Omery, 1983). Husserl was concerned with the experiential underpinnings of knowledge and with consciousness as experienced by the individual. To accomplish the goal of describing lived experience, Husserl argued, the researcher must investigate participants' perceptions as they experience their world. So that this can be achieved, the researcher must 'bracket' or set aside their own values, views and knowledge about the experience. In so doing, the researcher identifies rather than verifies any pre-existing notion of reality. This analytic process is thought to provide essential

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19 Lived experience can be described as what is true or real to an individual in one's own life. It gives meaning to each individual's perception of any particular phenomenon and is influenced by everything internal and external to the individual (Carpenter, 1995; Giorgi, 1970; Merleau-Ponty, 1964; Mitchell, 1994; Omery, 1983; Parse, 1989; Spiegelberg, 1975).

truths about reality that are difficult to discover through a quantitative methodology (Phipps, 1993).

Heidegger, by contrast, argued that Husserl's attempt to explain everything as products of consciousness overlooked dimensions of existence such as anxiety and death. Heidegger questioned whether it was possible to lay presuppositions aside and advocated a method based on hermeneutics or interpretation. In Heidegger's view, hermeneutics can be described as the interpretation of the structure of everydayness. It is not considered a special process divorced from our everyday lives. It is one of the processes people use in making sense of their everyday world. This applies to all understanding and 'understanding that is to contribute to understanding, must have understood what is to be interpreted' (Heidegger cited in Walters, 1995, 793-794). Hermeneutics then pre-supposes prior understanding on the part of the interpreter. Heidegger argues that it is only possible to interpret something according to one's own lived experience (Walters, 1995).

Phenomenology as Research Methodology

The differences between the philosophies of Husserlian and Heideggerian phenomenology impact upon their use as research methodologies. Whilst Husserlian phenomenology is a descriptive methodology (Rogers, 1983), Heideggerian phenomenology rests on an interpretive process (Cohen and Omery, 1994). Whilst providing description of phenomena may be useful, a Husserlian phenomenology has limitations that render it unattractive for this study. Primarily, this relates to the notion that requires one to 'bracket' all beliefs

about a phenomenon. This approach offers no theory or perspective to guide the study or interpret the findings. Thus, the major criticism is related to the question: how can one 'bracket' all beliefs when studying any phenomena? The findings may be about lived experiences but not connected to any specific discipline. Heidegger's argument that 'all interpretation takes place against a background of previous understanding' (Heidegger cited in Walters, 1994, 138), renders a Heideggerian phenomenology attractive to this research. It stands to reason that our previous understanding must influence our interests, questions and interpretations and thus provides a 'source of insight about phenomena' (Walters, 1994, 138). In addition, hermeneutic interpretations are made in light of the researcher's theoretical perspective where 'interpretation is the gradual weaving of the findings into the theory to enhance understandings of the lived experience at the level of science' (Parse, 1996b). This characteristic is important for this thesis given that it is attempting to theorise how production and consumption practices may be related in conceptually meaningful ways through an investigation of quality.

Phenomenology as Research Method

Phenomenological inquiry requires that the integrated whole be explored. As a method, it is compatible with an examination of food commodities that are attempting to describe processes of its production through to its final consumption. The lived experiences of individuals as they are presented in their everyday worlds are important for conceptualising relationships that occur along and within food chains. Although the literature presented in this Chapter mainly discusses Husserlian and Heideggerian phenomenologies, other philosophers

such as Schutz (1962), Merleau-Ponty (1967) and Sartre (1968) have further developed the phenomenological method into a set of operational beliefs and tasks used to discover the experience of phenomena (Omery, 1983). Oiler (1982), in her account of the phenomenological approach, writes that holistic research approaches constitute a movement in a variety of disciplines including sociology, anthropology, psychology and nursing. Because of this, there are a variety of themes and interpretations and commonalities between descriptions of phenomenological methods. She suggests that the beliefs about the nature of phenomena, reality, subjectivity and truth are foundation features of the phenomenological approach (Oiler, 1982). These are summarised below.

'Phenomena' relate to objects and events as they appear in the world and that are social in nature. 'Reality' is subjective and speculative. It is a matter of appearance and is dependent on individual perspective. 'Subjectivity' relates to being in the world. The world becomes real through contact with it and knowing shapes experience. Truth is a composite of realities. The world is grasped in profiles dependent on an individual's perspective. Access to realities is a matter of locating and using forms of human expression that give us access to the subject's reality (Oiler, 1992; Omery, 1983). In addition, there is the notion that 'experiences are co-constituted' (Parse, 1989). This takes into account that human beings' participation in life situations are related to choices made by the person and that the experience is given personal meaning through the way it unfolds (Parse, 1989). The focus of phenomenological research thus 'remains on the experience of the unitary human as the person structures it – as it is lived with-the-world' (Dilthey cited in Mitchell, 1992, 38). Phenomenology does not,

therefore, seek to show causal relationships (Parse, 1989), which, as identified in Chapter 2, have been a problem in political economy accounts of food studies.

Although the broad aims and objectives of phenomenological research methods coincide with the aims and objectives of the research described in this thesis, the limitations of phenomenological methods need to be recognised. Lynch-Sauer (in Leininger, 1985) identified several limitations which include difficulty in replicating a descriptive study of experience, the subjectivity of phenomenological studies, researcher bias interfering with results, the fact that the language of phenomenological research can be vague and ephemeral, and that the method may be ahistorical. Phenomenological research is also frequently based on the memory of information.

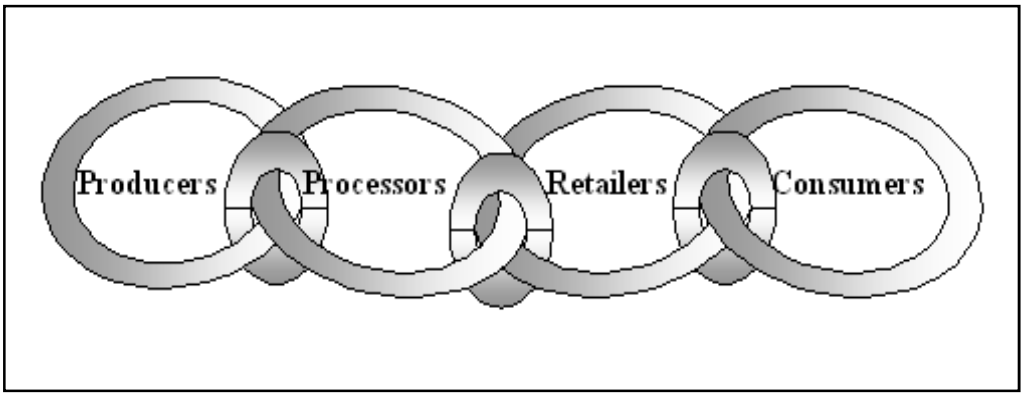
Even though the above points have been noted as limitations, they can also be referred to as phenomenology's strengths. The analysis of experiences, subjective as they may be, can assist in the conceptualisation of phenomena, in that it allows people to insert their own experience in a reflective dialogue (Lynch-Sauer in Leininger, 1985). Experience refers to living through a situation, event or circumstance in time. As the world is assumed, experience in it, and knowledge of it, are always through subjectivity of presence in the world and thus experience can only be known reflectively. It is due to this that all descriptions of experience are inescapably interpretive (Munhall and Oiler Boyd, 1993).

Research Design

Selection of Participants and Beef Chains

Patton (1990, 184) writes that sample size is dependent on 'what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility and what can be done with available resources.' It was decided early in the research that it would be useful to follow more than one beef commodity chain, to allow for, if necessary, a cross examination and comparison of the interactions and conceptualisation of 'notions of quality'. Actors that were identified and interviewed in all beef chains included producers, representatives from processing units, representatives from retail outlets (butchers), and consumers of beef. For the purpose of this study, Figure 2 illustrates the key players in a simplified beef production-consumption chain. In this representation of key players, the 'producer' refers to a person or group who breed and raise cattle for slaughter. The 'processor', in turn, slaughters and processes these animals in readiness for their distribution to 'retailers' who then sell it on to 'consumers' for preparation and/or ingestion.

Figure 2: A simplified beef production-consumption chain



This representation does not depict the processes that occur in the production and consumption of beef commodities. Furthermore, each part of this chain may contain goals that are more specific to each identified beef chain and, as such, the chain may become more or less complex depending on its purpose. Utilising the adapted CEM, four different beef chains were identified[20]. These include Central Queensland Beef (CQ Beef) – Central Queensland's predominant beef production chain, Green Grass Beef (GGB) – a branded beef chain, Natural Pastures Beef (NPB) – a domestic organic beef chain and Channel Country Beef (CCB) – an organic beef export chain. As each beef chain varied depending on its purpose and goals, the key actors involved in the beef chains also varied. These key actors were identified in relation to each particular chain. As a total, thirty-four in-depth interviews were conducted with key actors along the various beef chains (see Table 2 for details). Four focus groups also were conducted.

Table 2: Interview Participants[21]

Pseudonym	Role in Chain	Beef Chain
Gavin	Butcher	GGB
Malcom	Marketing	GGB
Cameron	Producer	GGB
Peter	Retailer: Manager Fast Food Eatery	GGB
Victoria	Retailer: Manager Restaurant	GGB
Tim	Abattoir: Livestock Manager	GGB/CQ Beef
Rohan	Abattoir: Technical Manager	GGB/CQ Beef
Alex	Retailer: Chef Pub/Club	GGB/CQ Beef
Daniel	Retailer: Manager Pub/Club	GGB/CQ Beef
Jason	Retailer: Manager Pub/Club	GGB/CQ Beef
Bradley	Abattoir: Market	GGB/CQ Beef/Organic
Hugh	Abattoir: Market	GGB/CQ Beef/Organic

20 An examination of the activities and processes occurring in the four identified beef chains are presented in Chapter 4.
21 All participants are male except Kerry and Victoria.

Norman	Abattoir: Market Analyst	GGB/CQ Beef/Organic
Chris	Breeder/Producer	CQ Beef
Kerry	Breeder/Producer	CQ Beef
James	Breeder/Producer	CQ Beef
Neil	Breeder/Producer	CQ Beef
Frank	Breeder/Producer	CQ Beef
Kyle	Butcher	CQ Beef
Scott	Butcher	CQ Beef
Ian	Butcher	CQ Beef
Larry	Butcher/Food Demonstrator	CQ Beef
Mathew	Meat Manager: Supermarket	CQ Beef
John	Meat Manager: Supermarket	CQ Beef
Dean	Producer/President AgForce CQ	CQ Beef
Robert	Saleyard Manager	CQ Beef
Ben	Stock Agent	CQ Beef
William	Stock Agent	CQ Beef
Barry	Organic Butcher	NPB/CQ Beef
Joe	Organic Processor	NPB
Sam	Organic Producer	NPB/CQ Beef
Terry	Chairman/Producer	CCB
Ken	Director/Producer	CCB
Mitch	Stockyard/Market	CCB

* Consumer focus group participants are listed in Table 3

Beef chains that were identified for inclusion in the study were based on two main factors. Firstly, in order to contain its scope, the research was restricted to a geographical area. As the researcher is based in Rockhampton (also referred to as the 'Beef Capital' of Australia), research was conducted mainly within the Central Queensland region. However, this geographic region was extended to include Channel Country Beef, an organic beef chain that extends from the western reaches of Central Queensland into the adjacent state of New South Wales. Restricting the research to this area not only allowed for ease of contact with participants, but also minimised the vast geographical and physical differences of production environments that affect agricultural activities in Australia. This allowed for meaningful and more specific comparisons between the chains. Secondly, it was assumed that there might be differences in how key

actors along different chains conceptualised quality based on the purpose of the chain. Thus, in order to explore how the notion of quality may be constructed, beef chains needed to appear to have distinct goals that could be distinguishable from other chains.

The first identified beef chain was Central Queensland's, and thus Australia's, main production-consumption chain, supplying the majority domestic and export market. For the purposes of this thesis, it is referred to as Central Queensland Beef (CQ Beef). The key actors identified and interviewed in this chain included beef breeders/producers (some who were involved in local industry political bodies such as AgForce), saleyard representatives (saleyard manager and stock agents), abattoir/wholesale representatives (including market analysts, livestock managers, technical managers and marketing representatives), representatives from retail outlets that included supermarkets (meat section managers), butchers and eateries (restaurants, pubs and clubs) and consumers of beef.

The second beef chain was identified as a 'branded beef chain'. This chain was the outcome of the push by one Central Queensland producer to provide a recognisable high 'quality' product to the domestic market. Referred to in this thesis as 'Green Grass Beef' (GGB), the chain was operationalised through the following processes. The producer himself bred and grew beef throughout Queensland with the main processing, marketing and retailing operations located in Central Queensland. All cattle involved in this chain were selected by the producer (known as Cameron) and slaughtered and packaged to his specification

at Central Queensland Central Abattoirs (CQCA)[22]. From this point, Cameron's marketing manager (Malcom) organised the distribution of the packaged product to a local retail outlet (a local supermarket) whose butcher (Gavin) prepared the meat for direct sale to the public. Meat also was distributed to eating outlets (hotels and restaurants) in carton form directly by the processor or the local supermarket. The key actors interviewed in this chain included the beef producer, representatives from CQCA, Cameron's marketing manager, the local supermarket butcher, a variety of eating outlets and consumers of beef.

In addressing the need to focus on 'clean and green' two organic beef chains were identified. The first of these was a small domestic organic chain (known here as Natural Pastures Beef (NPB)). As with the branded beef product, this chain represented the attempt by an organic producer to introduce organic beef into the local area after recognising a demand for 'clean', chemical free beef. This chain was operated on a much smaller scale than the previous two chains. The producer (Sam) bred and grew his organic cattle on one property in the Central Queensland area. He transported his cattle to a registered small domestic abattoir for slaughter to his specifications. The abattoir slaughtered the beast but left it in carcass form to 'age'. The carcasses were then transported to a contracted registered butcher for dressing and packaging. The butcher distributed the packaged meat directly to customers who had ordered it through the producer. Biological Farmers of Australia (BFA) certified the beef on farm as organic beef. At the time of data collection, the abattoir and the butcher were not

22 Pseudonym

certified but were investigating the possibility of becoming so. Key actors interviewed in this chain included the producer, the abattoir owner and manager, the butcher and consumers of organic meat.

The second organic chain was a large export chain. Channel Country Beef (CCB) was an alliance of producers located in Queensland. Beefstock Pty Ltd was a chain alliance partner and meat processor and was contracted by CCB to process and market their product. This beef product was marketed internationally, in particular to Japan, under the criteria and conditions of Australia's two largest organic certifying bodies, Biological Farmers of Australia and the National Association for Sustainable Agriculture Australia (NASAA), and in compliance with Australian organic export regulations enforced by the Australian Quarantine Inspection Service (AQIS). Beef produced, slaughtered, marketed and exported in this chain was certified 'organic' through each step of the process. The key actors, therefore, in this chain were CCB producers, Beefstock Pty Ltd., certifying and regulatory authorities and consumers. Consumers of this particular product were not interviewed and this must be considered a limitation to this study.

Fieldwork Process and Data Collection Methods

In keeping with a qualitative research approach and in order to holistically investigate the research questions, the research utilised a variety of data collection methods. The following provides a description of the process of fieldwork and the methods utilised.

Beef 2000

The Beef 2000 exposition provided a commencement point for the fieldwork. The Beef Exposition is a triennial event in which representatives from all sectors of the cattle and beef industry participate. As such, the event provided a useful opportunity to be immersed in the culture of the beef industry. Through observing and participating in Beef 2000 events and activities, identification of key issues and collection of data were commenced. Beef 2000 also facilitated contact with key informants such as producers, processors, marketers, distributors, butchers, retailers, meat regulation bodies and consumers within the beef industry.

In-depth Interviews

The main method of data generation was 'in-depth' interviewing. As the research was concerned with understanding participants' points of view, interpretations and meanings, in-depth interviewing provided an 'appropriate method to gain access to the individual's words and interpretations' (Minichiello, Aroni, Timewell and Alexander, 1995, 73). As Kvale (1996, 1) states, 'if you want to know how people understand their world and their life, why not talk with them?' An interview, as Kvale (1996) further argues, allows the researcher to listen to what people themselves say about their lived world, by expressing their views and opinion in their own words.

This method of data generation sits comfortably with a phenomenological methodology as a way of learning from the respondent, of understanding the world from their point of view, and of gaining meaning of the respondents'

experiences. The focus of in-depth interviews was not only to understand the *whats* of participants' lives (their everyday activities), but the *hows* (the construction involved in producing order in everyday life) (Fontana and Frey, 2000).

The in-depth interviewing process in this thesis, therefore, involved initiating contact with key players, formally informing them of the research and inviting them to participate according to Central Queensland University ethical guidelines of informed consent. Participants were interviewed at their workplace or at a negotiated venue in an attempt to assist the participant in feeling at ease and relaxed in familiar surroundings. All interviews were carried out face-to-face apart from CCB interviews that by necessity were carried out via telephone. This was due to distance as the researcher was unable to travel to the research site. Excluding consumer interviews, all interviews were conducted on a one-to-one basis. Consumer interviews were conducted in a focus group situation.

In order to obtain a rich descriptive database, the researcher utilised a semi-structured interview format. The interview questions were fashioned according to the various actors and the beef chains they belonged to (see Appendices 2-5, which identify interview formats conducted with producers, butchers, eateries, supermarkets). Questions generally were related to the actors' experiences of beef and their role within the beef industry. All interviewees were asked the question 'What do you think makes quality beef?' From the reply to this question, prompts were used to elicit information more fully as consistent with Minichiello et al's (1995) approach to interviewing. When discussion arising

from this question was exhausted, further questions relating to aspects of products, distribution and consumption were introduced to further elucidate participants' thoughts, perceptions and feelings about their experiences with beef and meat.

This method allowed data to be collected in a spontaneous fashion that utilised direct interaction with participants. It allowed for responses to be collected in the participants' own words, which was reflective of their experience and thus ensured that the subjective character of the data was left intact and untainted (Crotty, 1996). The researcher selected this method of data collection as it provided the depth of reflection, elaboration and clarification of issues essential to both phenomenological and qualitative research generally (Fontana and Frey, 1994).

Interviews were recorded in English on audio cassette and then transcribed allowing for thorough analysis and a reliable record of the participants' experiences. Participants' names were not included on any of the transcribed documents. In the transcripts, names and other identifying characteristics were changed so that the anonymity of participants were maintained. Data were analysed utilising N'Vivo, a qualitative software program. This is discussed further on in this Chapter.

Focus Groups

The focus group can be described as a form of group interview. It involves a discussion among a small group of people, including a moderator or facilitator

(Fonatana and Frey, 1994; Greenbaum, 1988; Polgar and Thomas, 2000; Thomas, Steven, Browning, Dickens, Eckermann, Carey and Pollard. 1992). The focus group essentially is a qualitative data collection technique in which the role of the facilitator is to introduce questions or topics for discussion, and to moderate the discussion in either a structured or an unstructured manner depending on the purpose of the focus group. Participants may interact with each other and ask questions of each other that may add depth to the discussion (Fontana and Frey, 1994; Polgar and Thomas, 2000).

The focus group, however, differs in several key respects from one-to-one interviews. One obvious difference is that the facilitator is outnumbered. The effects of this upon the extent of contributions of the participants are significant in a number of ways. First, the participants may interact with each other, without the involvement of the researcher. The researcher is no longer at the centre of the discussion process. Although this may generate discussion that adds depth of the data, there is the risk that the interview topic may significantly be altered from the original agenda (Thomas, et al, 1992). Secondly, there is the risk that particular group members will dominate the focus group, which may result in a biased view of the phenomenon under examination. Thirdly, there is the risk that participants find the group setting to be inhibiting, resulting in a lack of interaction and hence information from those participants (Thomas, et al, 1992). Fortunately, these problems are able to be minimised by the facilitator.

In the case of this research, the purpose of the focus groups was to explore how consumers constructed meat quality. Discussion was focused around consumers'

experiences with meat (see Appendix 6 for interview format). Four focus groups were conducted. Two groups were conducted in the immediate Rockhampton area (Rockhampton and Yeppoon) to characterise CQ beef consumers, and another in Brisbane, the capital city of Queensland. This was conducted to provide a comparison between regional and city areas. The final focus group was conducted with consumers from the NPB chain, also to provide a comparison between 'CQ Beef' meat consumers and 'organic' meat consumers (see Table 3 for a breakdown of focus group participants).

Table 3: Focus Group Participants

	Rockhampton	**Yeppoon**	**Brisbane**	**Organic**
Male	5	6	5	3
Female	4	4	5	2
Total	9	10	10	5

As with the face-to-face interviews, these interviews were recorded in English on audio cassette. However, as a focus group is larger, and the role of the interviewer is more inclined to moderating a discussion, it was expected that significant points might be missed. In order to overcome this, and the expectation of unclear audio cassette recordings, the researcher employed a research assistant to assist in note taking and summarising of significant points throughout the focus group. The research assistant did not participate in the discussion apart from summarising significant points in order to determine validity of responses from the group. The notes taken in the group and the transcriptions allowed for thorough analysis and a reliable record of the participants' experiences. Analysis was conducted utilising N'Vivo.

Discourse Analysis

By participating in various Beef 2000 activities, such as tours and seminars and by browsing stalls and conversing with Beef 2000 participants, relevant background information including textual data relating to the beef industry was obtained. As this type of information provides context in relation to particular beef chains and the constructions of 'quality' along the beef chains, discourse analysis was utilised as an additional data collection tool.

In recognising that there are a wide variety of approaches to discourse analysis (Hook, 2001), the approach adopted for this piece of data collection relates to the work of Fairclough (1992) who draws on Gramsci (1971), to conceptualise discourse-as-social-practice. In this conception, the focus is not on deconstructing texts[23] in order to understand the 'true' meaning, but on the contest over meaning that is implicated in social practice (Blommaert and Bulcaen, 2000). This correlates with Law's (1994) concept of a mode of ordering, which, as discussed in Chapter 2, emphasises how subjective, socially constructed discourses are paramount to the engagement and involvement of a variety of 'actors' within a network. The focus of inquiry in ANT is not the agent, institution or process, but the social relationships through which these are constituted. This approach provides a framework for identifying discourses or

23 It should be noted that text in discourse analysis can refer to 'any product written or spoken' and furthermore, that the notion of discourse can be extended to 'cover other symbolic forms such as visual images, and texts which are combinations of words and images' (Fairclough, 1992, 4).

relationships of quality that are acting to order patterns of beef production, distribution and consumption.

As an additional data collection tool, the discourse analysis was applied to documents that provided information pertaining to quality and the beef industry in general. These documents included industry publications including magazines and reports, policy documents, newsletters, newspapers and also academic works. When applied to these data sources, the conception of 'discourse as social practice' allowed for an examination of the way in which quality was represented in texts. This assisted in shedding light on the way in which quality acts upon beef chains. The discourse analysis, therefore, not only allowed for contextual issues pertaining to the beef industry to emerge, but it assisted in providing rich and meaningful data on the way in which quality was represented in discourse.

Ethical Considerations

As all research has the potential to cause harm to those involved, it is the responsibility of the researcher to protect both the physical and psychosocial health of participants. All participants were required to sign an informed consent form (Appendix 6) that explained the nature of the study and ethical issues that might occur. Issues identified in the informed consent form were discussed informally before each interview and participants were advised that they could withdraw from the study at any time and did not have to participate unless they felt comfortable. However, it is not possible to provide exact information on all

ethical issues as the direction of qualitative research evolves during data collection.

As the nature of the study was focusing on the personal experiences of the participants, a low risk of mild emotional distress may have occurred due to recalled memories of good and bad experiences. Fortunately, no problems arose, but in the event of this happening, this would have been minimised by using active listening and referral to appropriate counselling if necessary.

Data were recorded on audio cassette and later transcribed, raising issues of confidentiality and anonymity. To address this, no names were recorded at any stage. Data collected from the participants were allocated a case title. For example 'Beef Breeder/Producer A'. In transcripts, names, places and other identifying characteristics were changed so that anonymity was maintained. All data, including recordings, were stored in a secure filing cabinet. No one had access to the data apart from the researcher and her supervisors. Audio cassettes are being stored securely and will be erased after a period of time according to Central Queensland University guidelines. Permission to undertake this study was granted by the Central Queensland University Human Ethics Review Panel.

Data Analysis

Data analysis in qualitative research attempts to understand social phenomena from the perspective of the participant and also the 'motives and beliefs behind people's actions' (Taylor and Bogdan, 1984, 2). In qualitative research with a

phenomenological orientation, as with this research, the purpose of data analysis can be extended to 'preserve the uniqueness of each lived experience of the phenomenon while permitting an understanding of the meaning of the phenomenon itself' (Banonis in Jasper, 1994, 312). Thus, analysis of data from this orientation is then focused around 'the analysis and interpretation of the meanings, motives, feelings and ideas expressed by the participants from the participants' perspectives' (Thomas, et al, 1992, 16).

It has been observed by both Omery (1983) and Thomas et al (1992) that research within the phenomenological tradition is not limited to one identified method. While it is useful to read and acknowledge the methods of van Kaam, Colazzi, Giorgi, Spiegelberg and others (described in Beck, 1994; Omery, 1983; Struebert and Carpenter, 1995), Omery (1983) states that human sciences do not always meet specific criteria required by particular methods. It is possible to not use a prescribed approach but simply be inspired by the convergence of commonalities of all the methods of qualitative analysis. In the spirit advocated by Omery (1983) and others (LeCompte, 2000; Pope, Ziebland and Mays, 2000), the following are the procedural steps the researcher undertook which support the qualitative principles of data analysis:

1. Tidying up by copying the data, creating files based on type of data, reviewing research questions and comparing them against the data, identifying gaps in the data and returning to the field to fill gaps;
2. Transcribing data and re-reading transcriptions to get a feel for the content and note significant points;

3. Finding items by identifying frequency, omissions and declarations in the transcriptions;
4. Extracting the significant points (sentences, phrases and statements) and items, and comparing the similarities and differences between the transcriptions;
5. Reflecting upon the significant points and grouping common points together to form themes;
6. Reflecting upon themes. Themes were arranged and rearranged from a number of viewpoints so new insights into the data could be developed. In asking the question 'why?', categories and sub-categories were added to common themes;
7. Allocating examples from transcriptions to the categories or sub-categories in order to highlight and explain the topic;
8. Writing a final report describing the themes.

Much has been written in recent years regarding the roles and use of Computer Assisted Qualitative Data Analysis (CAQDA) software programs in qualitative data analysis (see Catterall and Maclaran, 1998; Morison and Moir, 1998; Pope, Ziebland and Mays, 2000; Richards, 1999; Richards and Richards, 1994; St John and Johnson, 2000; Webb, 1999). Although it cannot be denied that these programs are an important development in the attempt to provide greater flexibility and thoroughness in handling data and improving validity and rigour (Morison and Moir, 1998; Pope et al, 2000), it must also be noted that no software package is capable of perceiving a link between theory and data or defining an appropriate structure for the analysis (Pope et al, 2000; Webb, 1999).

Nevertheless, as a large amount of data was collected throughout the fieldwork this research utilised the N'Vivo computer program. N'Vivo was utilised for management of the data and to assist in the analytic process described. N'Vivo provided a means to store, organise and reorganise data. It assisted in the coding of textual data, searching for, and retrieving the coded segments from which themes were formulated. It was not used for testing links between categories or for building theory. In this way the researcher remained responsible for the interpretive process of the analysis.

Issues of Rigour

Data analysis is dependent upon the capability and insights of the researcher responsible for the analysis. According to Patton (1990, 372), 'the human factor is the great strength and the fundamental weakness of qualitative inquiry and analysis'. In order to maintain the validity of this study, issues of rigour were addressed. Lincoln and Guba (in Beck, 1994) have developed four major criteria to meet the tests of rigour in qualitative inquiry and draw attention to truth value (validity), applicability, consistency and neutrality.

Validity refers to truthfulness (Kvale, 1996). In qualitative research, this is also entwined with credibility and a question that one must ask refers to whether the explanation is credible. Nueman (2000, 170) further argues that authenticity is more important for qualitative research, 'giving a fair, honest, and balanced account of social life from the viewpoint of someone who lives it everyday'. It is the presentation of the respondents' stories as they were told, and the search for

understanding which provide authenticity for this research. Throughout data collection, in the attempt to maintain the truth value of the study, the researcher recognised that her own experiences, understanding and meanings, consistent with a Heideggerian perspective, would influence the interpretation of the respondents' accounts. Although the researcher knew a little about the beef industry through her own experiences of consuming beef and undertaking background reading regarding the beef industry, she conducted the interviews with an open mind and recognised her previous views. This not only enabled the development of the research question but also enabled the emergence of the themes. As only background reading was completed prior to commencement of the study, this limited premature analysis of the data and potential for existing theory to colour the analysis of data was minimised.

According to LoBiondo-Wood and Haber (1998, 238), characteristics of credibility relate to the 'truth of findings as judged by the participants and others within the discipline'. As data are subjective and collected at a particular point in time, it is almost impossible to replicate the experiences of that time. As time passes during transcription and analysis, participants may become exposed to incidents that may influence their thoughts and perceptions and feelings concerning the topic. The thoughts, perceptions and feelings of the participant at the time of the interview may be different to the thoughts, perceptions and feelings they have at the new point of time. Thus, the nature of the data may change. The participants' attitudes and perceptions may have changed since the interview due to the interview itself and further reflection on the topic. For these reasons, the transcripts were forwarded to the participants for checking and

comment. As not one reply was returned, the raw data were considered credible. As the raw data were considered credible and valid, the researcher believed it was not necessary to have the analysed data validated by the participants themselves. However, themes identified in the analysed data were discussed with the researcher's supervisors and found to be consistent with the raw data.

Munhall (1994) argues that credibility is a primary consideration in establishing whether a description of experience has rigour. However, other tests of validity include 'applicability' and 'auditability'. Applicability refers to the 'fittingness' of the data into contexts outside the study situation. A study meets applicability when others in the discipline read its description and can evaluate its importance for their own practice, research and theory development (LoBiondo-Wood and Haber, 1998; Munhall, 1994). The researcher believes the findings of this study will provide valuable insights for sectors within the beef industry. In doing so, it may promote an awareness of factors that influence production, distribution and consumption and may also promote the development of a more environmentally, socially and economically sustainable commodity network. However, this will only be verified by further research and dissemination of the study to a wider audience.

Auditability refers to the rigorous development of a decision trail that allows another person to follow the thinking of the researcher and arrive at similar conclusions as the researcher (Burns and Grove, 1993; LoBiondo-Wood and Haber, 1998). The researcher of this study described the analytic process used during the study to meet this requirement. The final criterion, as determined by

Lincoln and Guba (in Beck, 1994), is that of neutrality. Neutrality indicates that the findings of an inquiry are free from bias and is achieved when auditability, applicability and truth value are achieved (Beck, 1994; LoBiondo-Wood and Haber, 1998). The researcher has made every effort to ensure that the study is credible, applicable and confirmable.

Generalisability: A Note

A common concern is whether, or how far, results of qualitative research can be generalised (Kvale, 1996). The purpose of 'case' studies, exploring the meaning for specific individuals, is 'not to represent the world, but to represent the case' (Stake, 2000, 448). The provision of discussion around themes, and presenting individual stories should allow the reader to learn from both single cases and their comparison with others. In so doing, the reader is able to relate the findings to their own knowledge, creating meaning for themselves (Stake, 2000).

Conclusion

The purpose of this Chapter was to review the principal methods employed in this research. In pursuance of the stated aims of the thesis (see Chapter one), the initial task was to outline a methodology capable of providing an understanding of quality for actors along beef commodity chains. The adapted CEM approach provides the framework for a study of beef commodities. Its social constructivist perspective is useful for understanding the context within which beef production, distribution and consumption practices occur. However, in order to be able to provide an account of specific meanings of quality for actors, a

phenomenologically informed methodology was adopted for this purpose. A Heideggerian phenomenology fits neatly with the overall approach taken to the study. As a philosophy and a methodology, phenomenology simply attempts to look at experiences how they are lived through the eyes of those living it. In this way it does not attempt to seek causal relationships, nor assume a binary divide between objects and subjects. It is content with just '*being*'.

The research methods utilised for data generation and analysis were dictated by the methodological decisions. In-depth interviewing and focus groups, in particular, are well suited to gaining an understanding of both the *whats* and *hows* of people's experiences in their own voice. Discourse analysis permitted an examination of quality in other data sources. This is consistent with an ethnographic research methodology and added context to the data generated from the interviews. The methodology thus provides the tool for an investigation of quality along beef chains in Central Queensland. It coincides with the aims of the research and the theoretical framework.

The findings generated from these methods of data collection and analyses are outlined in Chapters 4-7. The following Chapter (Chapter 4) provides an examination of the context within which an account of meanings of quality can take place. Chapters 5-7 provide an analysis of quality for actors along beef chains.

Chapter Four

Beef In Central Queensland: Contextual Issues

As identified in Chapter 1, Marsden and Arce (1995) emphasised a need in sociology to explore specific food commodity chains in order to gain an understanding both of quality and the combination of social, political and economic factors that condition food production and consumption. Similarly, Higgins and Jussaume (1998) argue that a theoretical goal of studying commodity chains is to identify the commonalities that exist across different chains not only in the way they are organised, but in the way they are operated and of the social, political and economic impacts of those chains in particular localities. They claim that the challenge in doing this – particularly in relation to food and agriculture – lies in the variability between and within commodity systems. This is true of the Australian beef industry, where some proponents are diversifying production and processing strategies in an attempt to capture niche markets within both a national and international arena.

The organisation of Australia's beef industry is relatively unique in comparison with other agricultural commodities. Cattle production, meat processing, distribution and marketing comprise component parts of a highly integrated system of provision. Yet they are comprised of diverse enterprises, each with its own social and spatial dynamics (Snell, 1996). This Chapter serves to introduce four beef commodity chains located in Central Queensland in order to provide a basis for an examination of meanings of quality for actors involved in the

production, distribution and consumption of beef. The Chapter commences with a brief overview of the history of beef in Australia and the importance of the beef industry to the Australian economy. It then moves onto a description of the four beef chains identified for this study using the adapted CEM framework.

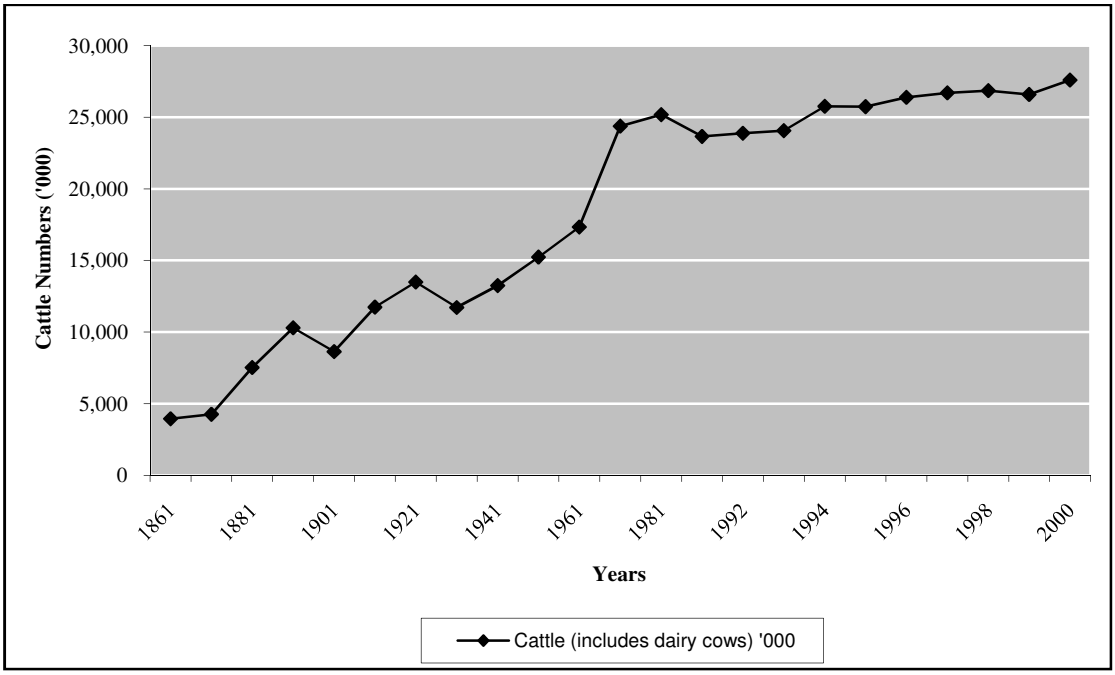
History of Beef in Australia

The beef industry is one of Australia's largest agricultural industries and Australia is one of the world's leading beef producers and the world's largest exporter (Meat and Livestock Australia, 2000a). The history of this industry is important to the discussion of the conceptualisation of beef chains in Central Queensland, as not only does it provide context for this discussion but it also provides insight into possible constraints to conceptualising a commodity network. Figure 3 illustrates the expansion and contraction of cattle herds in Australia from the mid 1800s to 2000. It offers a reflection of Australia's beef industry growth and decline, reasons for which are discussed in the narrative.

The beef industry began in 1788 with the arrival of the First Fleet when two bulls and seven cows were introduced to Australia with the intention of sustaining the new colony (Cattle Council of Australia, n.d.). Despite the intentions of the colonists, creating a livestock industry was to prove difficult. Five months after arrival, the cattle escaped and were not found until several years later. Subsequent arrivals of livestock, and attempts at grazing and cropping, were fraught with difficulty as the dry, sandy foreshores of the Australian east coast were unsuited to traditional European food production methods. Compounding the situation, the

early colonists had no experience or knowledge of the Australian climate or soils. They struggled for years, experiencing a perpetual food shortage and with seemingly no hope of establishing a reliable food supply. It was not until the exploration of inland Australia that fertile land suitable for cropping and grazing was identified. Cropping remained difficult for early settlers, but livestock grazing became well established as the cattle began to thrive on the natural grasses. With the introduction of Shorthorn and Hereford breeds of cattle in 1825 and 1826, and with the further discovery of inland grass plains, beef producers drove their stock further into the outback and into areas that would later become Queensland and the Northern Territory. Shorthorn cattle seemed well suited to the northern environments of Australia and a beef industry rapidly became established (Cattle Council of Australia, n.d; Meat and Livestock Australia, n.d.).

Figure 3: Size of Australian Cattle Herd 1861 – 2000
(Source: Australian Bureau of Statistics, 2003)



The 1850s were a period of rapid expansion for the livestock industry, seeing the opening of new pastoral lands and increasing herd numbers. This period also coincided with the gold rush era that saw Australia experience a large influx of people keen to find their fortune in the goldfields. With rising demand for meat, cattle prices increased dramatically (Cattle Council of Australia, n.d.; Meat and Livestock Australia, n.d.). Towards the end of the gold rush era, demand for meat started to wane, leaving beef producers with large quantities of unsold stock. Research into the opening of export markets began, with Britain being the most feasible market. Once again, problems were encountered as the only preservation methods available were salting, smoking and canning, none of which kept meat in particularly good condition for its journey to Britain. However, in 1879, Australia's beef export trade was revitalised when the first frozen beef carcasses from Sydney arrived in London. This method of low temperature transportation was a world-first, and it marked the beginning of an extensive international export trade in meat and livestock (Cattle Council of Australia, n.d.; Meat and Livestock Australia, n.d.).

About 284,000 tonnes of beef were exported in the first decade of the twentieth century. Of this, South Africa (Cape Colony and Natal) purchased over 50 percent of frozen beef exports in the early 1900s, the Philippines around 20 percent and the United Kingdom about 15 percent. However, the first two decades of the new century were also characterised by a series of droughts, each having a marked impact on livestock numbers. The Great Drought from 1895 to 1903 saw cattle numbers reduced by approximately 40 percent and contributed to a marked decline in beef exports in the years following 1901 (Patton, 2000).

By 1910, herd numbers had recovered, partly due to advances in livestock breeding and the end of the drought. The continuation of good seasons in the early 1920s resulted in a record high 14.4 million head of cattle. However, this coincided with a low beef price in England that made it financially difficult to continue the export trade established by Australia. Thus, in 1922, the Federal Government intervened by introducing the Meat Export Bounties Act. The Meat Export Bounties Act allowed primary producers to control marketing and claim government aid on any exported beef. This Act not only supported the primary producer, but also halted the likely closure of a number of meat works across the country (Patton, 2000).

The worldwide depression of the early 1930s had an impact on commodity prices across all agricultural industries. The outbreak of World War II in September 1939 presented new challenges as farmers became isolated from world markets. Heavy restrictions were placed on the use of superphosphates and other supplies that were seen as technological advancements at the time. Labour was also seriously affected, as many young men were fighting overseas; and during the war years much of the farm management and labour fell to women and Indigenous Australians whose role in maintaining Australia's pastoral industries has historically been under-acknowledged and under-valued (Klotz, 2001; Patton, 2000).

In order to feed and clothe service personnel during World War II, the British and Australian governments designed policies to maintain agricultural production. To meet the requirements of Britain, Australia and the allied services, administration

of the Meat Export Control Act 1935-1946, which allowed the export of meat under licence, was taken over by National Security Regulations. A number of restrictions were also placed on the civilian purchase of goods by rationing commodities such as meat, sugar and butter (Patton, 2000). Despite this, meat trade to the U.K. remained stable. Early emphasis on trade with Britain culminated in a fifteen year meat agreement from 1940 to 1955 (Cattle Council of Australia, 2000), and Australia was able only to export meat to countries within the British Commonwealth (Snell, 1996).

Subsequent to Britain forming a new trade alliance with Europe through the establishment of the European Common Market, the U.K. market for Australian beef receded and the United States of America became Australia's dominant export market throughout the 1960s and 1970s. Beef exported to the U.S. was used mainly for manufactured products. During this time, cattle numbers in Australia increased slowly, despite seasonal changes and heavy slaughtering, to a peak of 33.4 million in 1976 (Australian Bureau of Statistics, 2003).

The Australian beef industry suffered a devastating slump in the mid 1970s triggered by the world oil crisis, world-wide recession, beef oversupply, the closure of Australian markets in Japan and Britain and the dumping of subsidised European beef on world markets. Herd sizes, as depicted in Figure 3, decreased from 33 million in 1976 to 25 million in 1981. Drought conditions in the early 1980s led to a further decline in the beef herd (to 22 million) in 1984. Despite the substantial growth in Asian markets and technological advancements on farms and in marketing during the 1980s, the cattle industry remained stagnant until

1989 when cattle numbers increased gradually, even though periodically unfavourable weather conditions continued in many parts of Australia (Cattle Council Australia, n.d.).

In the first half of the 1990s, successive tightening of restrictions under the U.S. Meat Import Law, the imposition of quota restraints to Canada and, in the mid 1990s, a substantial slump in the US beef market, brought an end to the dominant position of Australian trade to the U.S. However, this allowed the Australian beef industry to concentrate on the rapidly growing trade in steer beef to Japan, Korea, Taiwan and South East Asia which, by the end of the 1990s, accounted for 60 percent of Australia's beef exports compared to 25 percent in the late 1980s (Cattle Council of Australia, n.d.).

In June 2001, Australia had the tenth largest beef cattle herd in the world numbering 24.5 million. However, despite its modest herd size, compared to India (220 million cattle), Brazil (172 million), China (106 million) and the U.S. (97 million), Australia is the world's largest beef exporter. In 2000-2001, nine million cattle were slaughtered with an estimated value of $5.9 billion. This constituted approximately 17 percent of the total value of agriculture in Australia for that year. Beef exports in the same period earned $4.1 billion, which was three and a half percent of Australia's total export trade (Cattle Council of Australia, 2000).

Beef in Central Queensland

Of the 24.5 million cattle in Australia, approximately 11.3 million are located in Queensland (Department of Primary Industries (DPI), 2002). The Central Queensland region (see Appendix 1), occupying approximately eight percent (11.8 million hectares) of the area used for agricultural production in Queensland, accounts for approximately 26 percent of the Queensland beef herd. The beef cattle industry dominates land use in the Central Queensland region, occupying 82 percent of the region's land (Alderton, Norton and Godwin, 2001). Its roughly 2,500 producers contributed 60 percent of the region's agricultural income in 1998/99 (Alderton, et al, 2001).

Within Central Queensland, the Fitzroy statistical division [24] accounts for 78.3 percent of beef cattle production. The value of beef production in 2002 in the Fitzroy statistical division was $474.6 million out of a total agricultural production value of $767.1 million. This represented 20.1 percent of the gross value of total agricultural production in Queensland (Office of Economic and Statistical Research (OESR), 2002).

Historically, the Queensland beef industry (and thus the Central Queensland beef industry) has been subject to similar issues to those that have affected the Australian beef industry as a whole. Figure 4 reflects cattle herd numbers in

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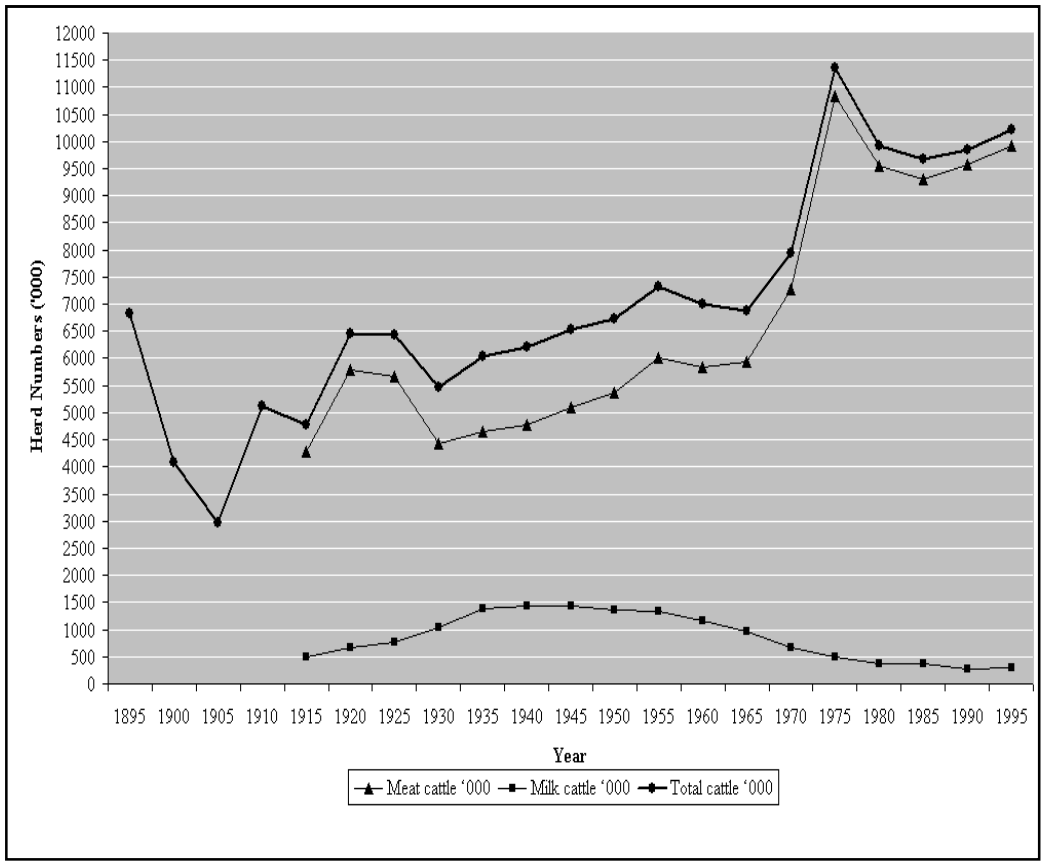
24 The Fitzroy statistical division comprises twelve local government areas in Central Queensland. It comprises nearly half of Central Queensland and is host to Central Queensland's Beef Capital, Rockhampton.

Queensland from 1895 to 1995. These are comparable with the growth and decline of Australian beef cattle numbers for the same period and are reflective of events occurring at the time. For example, cattle numbers were high in Queensland in 1910 coinciding with the end to the Great Drought that affected all of Australia. On the other hand, cattle herd sizes decreased at the same time as Australia's herd sizes following 1976 with the occurrence of the world oil crisis, world-wide recession and the closure of Australian markets in Japan and the U.S.

Figure 4: Queensland Cattle Herd Numbers 1895–1995
(Source: OESR, Livestock and Land, Queensland, n.d.)



This is not surprising considering that Queensland is Australia's largest beef producing State, accounting for 45 percent of national beef production. In 2000–2001, beef cattle farming was the largest agricultural industry in Queensland,

with a gross value of $2873 million. In that year, beef cattle accounted for 41 percent of the gross value of production of the Queensland agricultural sector. As with the Australian beef industry as a whole, the Queensland beef industry is affected by 'the cattle cycle', which refers to the recurring growth and decline in beef herd numbers in response to changing prices. These prices are largely determined on the world market. Thus, beef cattle producers are affected not only by the domestic cattle cycle but by the cycles of other large beef producing countries such as India, Argentina and the U.S. (Department of Primary Industries, 2002).

Generally, the Central Queensland region has been favoured for beef production as the dry tropical climatic and soil conditions are more conducive to grazing than cropping. Grass-fed production systems remain dominant within the Central Queensland region even though there has been an increase in intensive lot-feeding systems since the late 1980s (Moore and Wheeler, 1993, Garner, 1996; Vercoe, 1996). The climate of the region is one determining factor in relation to breeds of cattle that can be raised successfully for market. The region is characterised by high temperatures and extremely variable rainfall. *Bos Indicus* (Brahman and Brahman Cross) cattle breeds are favoured as they are more tolerant of heat and ticks than *Bos Taurus* (British and European) breeds (Coombs, 1993; Queensland Beef Industry Institute, 1998).

For much of the past decade, Central Queensland has been considered in drought and, despite some heavy rainfall in late 2003, some parts of Central Queensland remain in so-called drought conditions (Commonwealth Bureau of Meteorology

Website, accessed 10/2/04). These conditions have been said to contribute to a decline in profitability for beef producers over the past few years. Although Meat and Livestock Australia (MLA) (2004b) projected positive prospects for the Australian beef industry in early 2004, the long-term outlook remained uncertain due to the occurrence of BSE in the U.S., a rising Australian dollar, and the persistence of perceived drought conditions (Meat and Livestock Australia, 2004b).

Both international and national food scares have played a significant part in the viability of the Australian beef industry since the mid 1980s. In 1987, the detection of organochlorine residues in beef exported to the U.S. led to the quarantining of at least 1,500 beef properties (Lockie, 1998b). This incident, combined with incidences of salmonella, *E. Coli* and listeria, led to the questioning of the safety of Australian beef products. However, in so doing, proponents of the beef industry saw the opportunity to learn from and capitalise on these incidences by putting in place Quality Assurance Systems (QAS). The implementation of QAS required that all potential food hazards were identified and addressed in the production, processing and handling of beef and beef products. This enabled the promotion of Australian beef as safe. Since then, the implementation of quality assurance programs has rapidly become an industry norm, a norm that forces producers and processors to work towards the maintenance of higher standards in the production, slaughter and exporting of beef (Lockie, 1998b). However, following several failures in QAS and further food scares, some CQ producers have developed 'niche market' beef, working on

the premise that local beef products with recognisable brands or 'organically certified' beef are construed by consumers to be safe.

Food safety and quality are increasingly being viewed as crucial marketing tools underpinning the profitability of the industry. This developing situation begs examination of the extent to which quality features along beef commodity chains in Central Queensland. The proceeding section thus profiles the four beef chains identified for this research with the aim of examining notions of quality and their impact upon the conceptualisation of beef chains.

Profile of Actors and Beef Chains in Central Queensland

As introduced in Chapter 3, beef chains selected for inclusion in this study include the Central Queensland Beef chain, a 'branded beef' chain (Green Grass Beef), a small domestic organic chain (Natural Pastures Beef) and an organic exporters' alliance (Channel Country Beef). These chains were selected as they varied in terms of the purposes and goals attributed to them by participants in the hope that they would allow for a comparison of notions of quality and the ways in which quality may influence how chains are conceptualised. In providing a basis for a discussion of quality, the following, therefore, provides a description of each chain according to the adapted CEM.

It is important to point out that for individual actors involved in these chains, issues that affect the beef industry are inextricably linked with their livelihood. Addressing issues in the beef industry, therefore, becomes part of the actions and

activities of everyday life. These actions and activities can contribute to an understanding of how beef chains are conceptualised. As quality has become a way of ensuring livelihood, the meaning of quality to actors is central to the actions and activities attributed to achieving quality along beef chains. Meanings of quality are, therefore, fundamental to the theorisation of beef commodity chains.

Table 4 outlines recurring themes and factors that relate to a conceptualisation of quality amongst actors along the various beef chains. The correlation and analysis of the data presented in Table 4 align with the major foci of the CEM. The themes of 'Making Quality', 'Product Quality' and 'Eating Quality' correlate with processes of production, processing and distribution, and exchange and consumption respectively. These themes are elaborated in Chapters 5, 6 and 7. Factors that affect quality in relation to processes of production, distribution and consumption are referred to in the following descriptions of each individual beef chain.

Table 4: Summary of Recurring Themes and Factors Reflecting Key Components of Quality for Actors along Beef Chains

	Making Quality	Product Quality	Eating Quality
Producers	Cattle Breed Chemical use Climate Genetics Handling Hormones Nutrition Pest Control Temperament	Customer satisfaction Customer specifications Health Standards Regular supply Slaughter Technology Temperature	Amount of fat Colour Consistency Cooking Cut of Meat Flavour Tenderness Texture
Saleyard	Cattle Breed/Genetics Nutrition	Stress	Cooking Taste

	Stress Transport conditions		Tenderness
Processors	Age of animal Ageing Process Animal Welfare Climate Conformation Fat Coverage Feed Muscle No stress Technology Transport	Consistency of supply Customer specifications Eye muscle area Fat colour Food Safety Meat colour Niche Markets Quality Assurance (QA) Service Stress levels Traceability	Cooking Flavour Juiciness Marbling Tenderness
Retailers ***Butchers***	Cattle breed Climate Feed Management Transport Treatment of animal	Age of animal Ageing Colour Fat QA Standards Slaughter conditions Texture	Flavour Tenderness
Supermarkets		Colour Fat Personal preference Texture	Cooking
Eating Outlets	Feed Weather	Ageing Colour Hormone free Marbling Product supply Slaughter Texture	Flavour Tenderness
Consumers	Chemical free Climate Open farming Stress free Treatment of animals Type of food	Chemical free Colour Fat content Freshness Hormone free Price	Smell Taste Texture

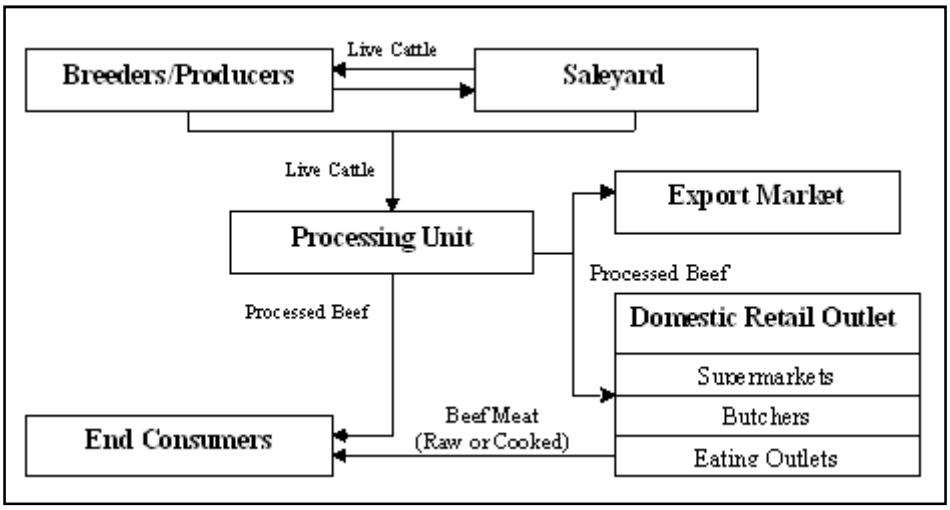
The following provides a description of the CQ beef chain, which as identified in Chapter 3, is Central Queensland's and Australia's main beef production–consumption chain. This description is extensive and pays attention to the

categories suggested by the CEM for the purpose of demonstrating the relevance of the CEM to an examination of food commodities.

Central Queensland Beef Chain

As mentioned earlier in this Chapter, Queensland is the major producer of beef cattle in Australia, with the majority of beef being produced in Central Queensland. The CQ beef chain, as depicted in Figure 5[25], is Central Queensland's most prominent beef production-consumption chain, the main activity of which is the supply of beef for export markets. It also supplies the domestic market.

Figure 5: Central Queensland Beef Chain



25 Figure 5 diagrammatically depicts the movement of beef through processes of production and distribution to the consumer. Although not depicted in this diagram, it is acknowledged that a wider network of processes and activities contribute to the construction of beef commodity chains. However, echoing Dixon (2000, 14), 'examining a single commodity could consume a life-time's research' especially if the wider network processes and activities that are seen as marginal to this study, are taken into consideration.

In 1999, Australia exported 66 percent of its total beef production (Meat and Livestock Australia, 2000a). Only 15 percent of cattle sales in Queensland were processed for domestic consumption in the same year. 80 percent of cattle sales in Queensland in 1999 went towards processing beef for export markets, with Japan and the United States accounting for 75 percent of those exports. The remaining five percent were exported as live cattle (Dodt and Sangster, 2000 and O'Sullivan, 1998).

Due to its size, issues occurring within the CQ beef chain affect the beef industry in Australia and Queensland as a whole. The beef industry in Central Queensland, however, is well served with a strong and vigorous infrastructure. Breed associations, show societies, the triennial beef exposition, producer organisations, well organised sale yards and active stock and station agencies all contribute to a relatively cohesive industry (Vercoe, 1996). In addition, local press meets communication needs, with the Australian Broadcasting Corporation (ABC) at the forefront of communication between industry and the community. Various institutions including the Tropical Beef Centre, Department of Primary Industries (DPI) Queensland, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Central Queensland University all contribute to research, development, education, extension and training within the industry (Vercoe, 1996).

The following utilises Dixon's (1999) CEM framework to provide a description of processes and events occurring within the CQ beef chain. To reiterate, the

CEM purports three spheres of examination: production processes, distribution and exchange processes and consumption processes.

Beef Production In CQ

Elaborating upon Friedland's (1984) CSA model, Dixon (2001, 57) proposes that the study of production processes include an examination of primary and secondary production practices, grower organisation and organisations, labour as a factor of production, science production and application, product design and regulatory politics. This study reorganises and combines some of these spheres for a study of beef commodities due to their interrelated nature and for flow of narrative. Thus, the headings utilised are CQ beef industry organisations and regulatory politics; science, technology and research and its application to the CQ beef industry; and production and labour processes.

The following provides a description of these spheres in relation to the CQ beef chain. It must be noted that many of the processes in the CQ beef chain are generic processes and are applicable to all beef chains.

CQ Beef Industry Organisations and Regulatory Politics

Friedland (1984, 224) comments that the 'grower is the critical actor in agricultural production'. Although this may be relatively true to a certain extent, there is no denying that production occurs within a wider arena of social relationships that may influence the way in which activities of production are performed. This is the case for the majority of producers interviewed for this study.

The organisation of the Australian beef industry is extremely complex as it is comprised not only of many separate businesses, which are engaged in a broad range of activities, but also of myriad organisations which have been established at the state and national levels to represent the interests of various beef industry sectors. In the main, the beef industry is self-regulating, but industry organisations have formed partnerships with government agencies in order to ensure processes of production and processing comply with national interests. Hence, the beef industry, while largely self-regulating, is governed also at Federal government, State government and industry levels. The various organisations as described below serve not only to represent producers of beef and provide support and advice, but also to promote the industry as a whole.

The CQ beef industry does not stand alone as an independent network; it forms part of the larger red meat industry that is represented by numerous grower based organisations including, at a national level, the Red Meat Advisory Council (RMAC). The RMAC commenced operation in July 1998 following a major change to the red meat industry's corporate structure (Red Meat Advisory Council, 2003). It was formed to allow for a single touch-point for the meat industry and the Federal Government when dealing with matters that cut across a number of industry sectors. The RMAC is comprised of six peak industry councils including the Cattle Council of Australia (CCA), the Sheepmeat Council of Australia, the Australian Lot Feeders Association, the National Meat Association of Australia, the Australian Livestock Exporters Council, and the National Meat Council. The RMAC has three principal functions: to provide

advice to the Federal Minister for Primary Industries and Energy on cross-sectoral or whole-of-industry matters; to act as custodian of the Meat Industry Strategic Plan that is used as a guide for industry programs; and to ensure responsible management of a parcel of industry investments, known collectively as 'The Fund', in a manner that is consistent with an established industry or Government agreement (Red Meat Advisory Council, 2003).

Beef Producer Organisations

Of particular interest to beef producers in CQ is the Cattle Council of Australia (CCA). The CCA is the peak council for the beef industry. It brings together, in a single organisation, all farmer organisations whose members have beef cattle enterprises. The CCA was established in 1979 under the auspices of the National Farmers' Federation (NNF)[26] and is funded through voluntary levies paid by State member organisations. In Queensland, AgForce is the State member organisation. It was formed in 1997 as an amalgamation of various industry organisations and serves as an advocate for producers involved with broadacre industries of cattle, grain, sheep and wool (AgForce, n.d. and Cattle Council of Australia, 2002). AgForce is funded through membership fees.

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26 The NFF represents itself as the single, national voice for Australian agricultural producers. The NFF represents approximately 120,000 farm enterprises through 29 affiliated organisations. The NFF consists of State farm organisations, national commodity councils, associates and affiliates. State farmer organisations represent the interests of agricultural producers in their respective States (Cattle Council of Australia, 2002 and National Farmers' Federation, 2003). In Queensland, this is the Queensland Farmers' Federation (QFF). National Commodity Councils represent individual commodity industries on national issues. Issues that are priorities for NFF include economic issues, industrial relations, trade, business and investment (Cattle Council of Australia, 2002).

The CCA is responsible for determining and implementing policy on all matters of a specific commodity nature affecting the cattle industry in Australia. The objective of the CCA is to represent and promote the collective interests of Australian beef cattle producers. This is achieved through consultation and negotiation with key industry organisations, Federal Government departments and other bodies that are involved with issues that may affect the beef industry nationally or internationally. Thus, the CCA is responsible for setting strategic policy direction within which 'Meat and Livestock Australia' (MLA), the industry's statutory marketing authority, operates (Cattle Council of Australia, 2002).

Apart from the CCA, Meat and Livestock Australia Limited (MLA) also supports beef producers. MLA was established in 1998 as an outcome of the amalgamation of the Australian Meat and Livestock Corporation and the Meat Research Corporation. It is an organisation that is funded through producer levies and supplemented by cooperative contributions from individual processors, wholesalers, food service operators and retailers. Processors and live animal exporters also pay levies under contract to MLA and the Commonwealth Government provides funds specifically for research and development (Meat and Livestock Australia, n.d.).

MLA exists to provide services for the benefit of Australia's livestock producers and other industry sectors, such as meat processors and live animal exporters. It mainly offers support to the cattle, sheep and goat industries regarding strategic planning, by advising and assisting peak councils to develop policies and

strategic direction for the industry. However, MLA is also responsible for the delivery of marketing and promotion programs, as well as research and development activities for the red meat industries. MLA is engaged in a wide range of activities including market access, animal health and welfare, meat safety and hygiene, meat standards, as well as research and development and core marketing and promotion activities (Cattle Council of Australia, 2002 and Meat and Livestock Australia, n.d.). These activities, as indicated in Chapter 2, are increasingly becoming tied up with quality. Certainly, animal health and welfare and, particularly, meat standards and hygiene are foundational to QAS, which not only ensure minimum processes of standardisation, but assist in the marketing and promotion of goods.

In addition to the CCA and MLA, CQ beef producers have the opportunity of being members of specific breeder organisations. The Rockhampton district phone guide (Telstra, 2004, 398) lists at least three breed societies located in Rockhampton. These include the Australian Braford Society, the Australian Brahman Breeders Association and the Charbray Society. Beef producers also have the opportunity of becoming members of the Cattlemen's Union of Australia, Queensland Farmers' Federation and the United Graziers' Association.

Meat Processing Organisations

The meat processing industry is also represented on many levels. Organisations that represent processing units include the Australian Meat Council, the Australian Meat Processors' Corporation, the National Meat Association of

Australia, AUS-MEAT (Australian Uniform Specification of Meat and Livestock), and SAFEMEAT.

AUS-MEAT was formed as an attempt to allow industry organisations to control their own affairs in relation to meat and livestock standards rather than ceding control to the Federal Government. AUS-MEAT is a product of, and completely owned by, the livestock production sector through membership from Meat and Livestock Australia and the meat-processing sector through membership from the Australian Meat Processors' Corporation (AMPC). AMPC is a national corporation representing approximately 200 meat processors around Australia. The main function is to provide management, funding and administration of research and development programs, marketing and occupational health and safety programs. The AMPC works closely with the Australian Meat Council and the National Meat Association to ensure activities and services undertaken are for the benefit of the red meat processors and the meat industry (Cattle Council of Australia, 2002). In addition to AUS-MEAT, SAFEMEAT is a partnership of Federal, State and industry interests. It encompasses all sectors of the red meat industry. The primary role of SAFEMEAT is to govern and promote sound management systems to deliver safe and hygienic product to the market place (Cattle Council of Australia, 2002).

Other Organisations

Apart from these key industry bodies, producers and processors are also able to access various Government agencies that are involved with the beef industry. The Commonwealth Department of Agriculture, Fisheries and Forestry (DAFF)[27] is one example of a government agency whose dual role is to address challenges of natural resource management while promoting a more competitive, profitable and sustainable beef and agricultural industry (DAFF, 2004). In Queensland, the Department of Primary Industry's (DPI) business involves a range of activities, from providing information on drought assistance to researching, implementing and managing activities that contribute to a sustainable agricultural industry (Department of Primary Industries, 2003).

Organisations also exist to support beef industry activities that occur between production and processing. For example, the Australian Lot Feeders' Association (ALFA) provides training for industry representatives but also develops environmental approval standards, standards for animal welfare and quality assurance, and promotes the feedlot industry (Cattle Council of Australia, 2002). Similarly, the Australian Council of Livestock Agents (ACLA) represents livestock agents and saleyard representatives, its major role being to represent and promote the interests of livestock agents through liaison with peak industry organisations and with Federal Government departments on issues affecting the livestock industry at a national level (Cattle Council of Australia, 2002).

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27 Formerly known as the Commonwealth Department of Agriculture, Fisheries and Forestry Australia (AFFA)

Quality, Food Safety and Beef Industry Organisations

The organisation of the beef industry is complex; involving a multitude of independent businesses, industry bodies and regulatory bodies at both a State and Federal level. Increasingly, however, *the core activities of these organisations revolve around food safety and quality assurance*. Food safety and quality have become, in effect, key discourses that are functioning to order the institutional structure of the beef industry. Indeed, legislation governing the beef industry has been enacted in response to issues of animal welfare, food safety and environmental concerns. As indicated in Chapter 2, QAS have been used by food industries both to identify and market product attributes such as safety and eating characteristics. The beef industry in Central Queensland and Australia is no exception. In fact, processes of production and processing in the beef industry are underpinned by a variety of QAS (see Figure 6) all of which assist in verifying and ensuring food safety status and other quality attributes of livestock.

As shown in Figure 6, at a production level, the Livestock Production Assurance (LPA) program is an on-farm food safety certification program designed to strengthen the food safety systems currently in place for the red meat industry. The LPA is a program supported by the CCA and by MLA and further endorsed by AUS-MEAT (Meat and Livestock Australia, 2002).

Figure 6: Australian Beef Industry QAS
(Source: Meat and Livestock Australia, 2004d)

On-Farm QA

Livestock Production Assurance (LPA)
- Underpinned by HACCP
- Independently audited

2 levels of LPA
- National Vendor Declaration (NVD)
- CATTLECARE

National Livestock Identification Scheme (NLIS)
- Compulsory scheme implemented by SAFEMEAT
- Managed by MLA

Feedlot QA

National Feedlot Accreditation Scheme (NFAS)
- Grainfed beef for export is produced in independently audited NFAS accredited feedlots.
- Controls health and production and involves strict checks for feed and water safety.
- Feed must be residue free – verified by a Community Vendor Declaration (CVD)

Transport and Saleyard QA

TruckCare
- Applied to livestock transportation based on maximising animal welfare, meat quality and meat safety.

National Saleyards Quality Assurance (NSQA) program
- Addresses the key quality issues/hazards within the saleyard sector.

Meat Processing QA

Australian Standard
- Underpinned by Government legislation. All exporting plants must comply with the Standard.
- The Australian standard is consistent with ISO 9002:1994 and HACCP.
- AQIS verifies the legislation is being correctly implemented.

AQIS Health Certificate
- States that the meat produced by the export meat processor complies with AQIS regulations.

Microbiological assessment
- To verify the Australian Standard, exporting plants monitor *E. coli* and Salmonella.

Monitoring programs
- NRS is an Australian Government program that monitors meat for residues of agricultural, veterinary, environmental and industrial contaminants.

Transport and Shipping

- All containers destined for export are inspected and sealed by AQIS.
- The container cannot be opened until it reaches its final destination.

In general terms, the LPA presents producers with a set of guidelines, including a National Vendor Declaration (NVD)[28], animal production and record keeping requirements, to assist producers in declaring the food safety status of their livestock and to ensure the production of safe food. Independent audits are conducted to ensure the program's integrity is maintained. LPA consists of two levels of certification. The first level contains five elements and includes: property risk assessment, safe and responsible animal treatments, fodder crop, grain and pasture treatments and stock foods, preparation for dispatch of livestock and livestock transactions and movements. This is further underpinned by the NVD form (Meat and Livestock Australia, 2004d).

The second level of certification is the CATTLECARE program. This program was developed in accordance with ISO 9002:1994 and HACCP[29] principles as the production based quality assurance program for grass-fed beef. CATTLECARE is a voluntary quality assurance program that assists livestock producers to ensure that the beef they produce aligns with the perceived expectations of quality and safety demanded by both domestic and international markets (Department of Primary Industries, 2004b). These include food safety, chemical residues, animal health, husbandry, welfare, preparation, presentation and transport. Each producer involved in this program is subject to an external audit before

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28 The NVD form provides a practical means of identifying the location of the property, contact details of the vendor, the property identification code (PIC), exposure of the livestock to agricultural and veterinary chemicals, grazing history and supplementary feeding (MLA, 2002).
29 HACCP (Hazard Analysis at Critical Control Points) is the internationally accepted tool for process certification that must be used to ensure that all significant food safety hazards are appropriately identified and controlled.

registration and to a regular external audit regime once accredited (Department of Primary Industries, 2004b).

Although the CATTLECARE program is voluntary, in recent years, in response to a plethora of food scares, both locally and overseas, the Federal government has implemented a National Livestock Identification Scheme (NLIS) in an attempt to improve the traceability of beef cattle from birth to slaughter (Meat and Livestock Australia, 2004(d)). Put simplistically, the NLIS is a system of permanent identification of cattle using devices embedded with a microchip, which is read electronically and the information held on a national database. The national database provides a range of information relating to the animal, such as disease and residue status, market eligibility and commercial information, which is then available for all industry sectors (AgForce, 2004). The NLIS system is a SAFEMEAT program governed by industry and government partnership, but the NLIS database is managed by MLA (AgForce, 2004). The primary purpose of the NLIS is to trace potentially infected animals prior to them entering the human food system in the event of disease or chemical residue. Although this has obvious implications for the marketing of beef internationally, in that it allows a demonstration of food safety and product integrity (Meat and Livestock Australia, 2004c), the implementation of the NLIS was not uncontroversial; especially amongst larger beef production and processing units that were concerned about the costs involved (AgForce, 2004).

Further to beef producers being able to access QAS, feedlots, feed suppliers, transport companies and saleyards also have their own mandatory QAS and

standards. In fact, a national approach to achieving consistency in food safety and quality has been implemented across the meat industry under the direction of the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ). This national approach involves a set of common national processing, construction and transport standards, the introduction of HACCP based food safety management systems, the implementation of controlling authority audits of those systems, and the introduction of mandatory micro testing of products (Meat and Livestock Australia, 2004d). These standards are consistent with a Food Standards Code, regulated by Food Standards Australia New Zealand (FSANZ), which is responsible for maintaining, developing food standards and reviewing policies and codes of practice at a bi-national level (Food Standards Australia and New Zealand, 2004)

Thus, under the Australian Standard for hygienic production and transportation of meat and meat products for human consumption, all abattoirs are required to have qualified inspectors stationed in each export meat abattoir to carry out daily hygiene inspections before operations begin each day, monitor quality assurance and meat safety throughout the production process, and conduct ante-mortem and post-mortem health inspections to ensure the safety and suitability of products for human consumption (Meat and Livestock Australia, 2004d).

In addition, export meat processing plants in Australia are required to operate under the Export Control Act 1982. Under this Act, Export Meat Orders (EMOs) provide the framework for meeting legislative requirements that apply to export meat plants. The Act governs all aspects of how meat is handled during processing. Each export meat abattoir must employ a veterinary officer from the

Australian Quarantine Inspection Service (AQIS)[30] to verify that the legislation is being correctly implemented (Meat and Livestock Australia, 2004d).

Certainly the compulsory implementation of the NLIS and of various QAS within the beef industry represents the significance of quality and food safety to processes of beef production and processing. The implementation of these schemes by a variety of organisations highlights the way in which food safety and quality legislation contribute to the organisation of activities occurring within beef production and processing in Central Queensland and Australia. Further to the implementation of QAS, grower and processor organisations also have been involved in research concerning how to improve quality and how also to further improve processes of production and processing. The following section provides a description of the role of science, technology and research in the beef industry.

Science, Technology and Research and its Application to the CQ Beef Industry

Dixon's (2000) account of product design focused on the need within the chicken industry to find ways of using the entire animal for products, and then to market them successfully in order to remain competitive. Unlike the chicken industry, the beef industry historically has utilised the entire animal after slaughter. Parts that are not used for meat are used to make other products such as smallgoods, pet food, ice-cream, gelatines, glue, fertilisers, medical products, soap and leather goods (Meat and Livestock Australia, Beef Sheet 5). For the beef industry,

30 AQIS is the Australian Government agency responsible for meat hygiene, safety regulation and certification.

maintaining competitiveness increasingly is bound up with quality. Product design, therefore, focuses on the way in which producers and processors are attempting to advance quality in primary beef product (meat) in order to remain competitive. This effort is underpinned by scientific research and technology.

Friedland (1984, 226) argues that 'scientific research and development is often geared to specific commodities, resolving specific problems of production'. This certainly is the case in the beef industry, where producing, maintaining and promoting quality is a key feature. As indicated in Chapter 2, a critical element in the advancement of global systems of food production is the adoption of mechanical, biological and chemical innovations. The production and processing of beef is underpinned by the use of such technology not only to improve production efficiency but for improvement also in quality. Table 4 points to a range of technologies such as genetics, chemical use, hormones and the slaughter process that are considered by some to affect the quality of beef throughout it production and processing. The specific ways in which these and other factors affect the quality of beef in relation to production, distribution and consumption from an actor perspective are discussed in Chapters 5, 6 and 7.

There are numerous organisations that undertake scientific research and provide scientific advice and technological advancement in the beef industry. Perhaps the most significant research centres to the CQ beef chain include government departments such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Queensland Department of Primary Industries (DPI), the Cooperative Research Centre for Beef (CRC), the Meat Research Corporation

(MRC), the Tropical Beef Centre (TBC) located in Rockhampton, and various universities. This is not to exclude privately funded research carried out by beef producers and a host of other companies including pastoral companies, seed and agricultural suppliers and drug companies.

In recent years, these agencies have undertaken diverse research projects, all of which can be related to quality as will be seen in the proceeding Chapters. Recent scientific research can be grouped under a variety of classifications[31]. These include research into meat science that focuses on physical and biochemical properties of meat that affect meat tenderness such as pH levels and processes of 'electrical stimulation' and 'tender stretching'. Genetic research focuses on the genetic make up of breeds. Recently, research has been conducted into locating a gene for beef tenderness. Growth and nutrition research in recent years has focused on understanding the effects of factors that affect on-farm growth – such as feed sources, pasture improvement and hormone growth promotants – on beef tenderness and flavour. Health and welfare research has focused on the design of feedlots and stockyard pens, transportation of cattle and handling of animals. Research also has been conducted into areas of land management, waste management and information technology (Dundon, Sundstrom and Gaden, 2000).

The contribution of scientific knowledge and research to the beef industry has undoubtedly affected the organisation of production processes in a variety of ways. As will be seen in a discussion of production practices below, the

31 The research listed here is not inclusive of all the research that is being conducted in the CQ beef chain.

application of science and technology has not only affected specific farm production methods, practices and activities (such as the use of chemicals for eliminating pests), but has influenced also the organisation of labour throughout processes of production and processing. Research has contributed to decision-making processes within the industry both at a policy level and practical level. Importantly, it has underpinned the implementation of the NLIS and other QAS in the effort to promote and maintain food safety and the requirements of markets for beef products.

Production and Labour Processes

Production practices in the CQ beef chain refer to the techniques of production and the distinctive characteristics of each commodity (Friedland, 1984). In the case of beef, two distinct sets of production practices are especially significant. The first set of practices relates to breeding and growing beef cattle. The second set relates to transforming cattle into meat for consumption (processing). Both sets of practices must be considered since, unlike commodities such as vegetables, which may or may not undergo processing before sale, beef cattle need to be processed to transform them into meat for retailing and consumption. The interactions between beef producers and meat processors constitute a major part of the social organisation of the beef industry. The following account of production processes are based on a tour of a number of beef cattle properties and interviews with producers in the CQ beef chain.

Primary Production: Beef Breeding, Growing and Sales

Beef breeders and producers are those actors who breed cattle and then raise them for sale or slaughter. In the main, the production of beef involves three processes. The first involves beef breeders who are involved in producing bulls and heifers with the 'right' genetic traits for quality calf production by beef producers. The second process involves beef producers purchasing breed stock or semen and eggs from beef breeders in order to raise beef for slaughter. Much research has been conducted into the genetics of cattle suitable for Central Queensland beef production and the main breeds of cattle used are *bos indicus* (Indian breeds including Brahman) or *bos indicus* crossed with *bos taurus* (British and European breeds such as Hereford and Angus). These breeds are utilised for specific reasons. Brahman and other *bos indicus* cattle are more suited to the hot tropical climate of Central Queensland than European or British breeds and tend to be tick resistant, thereby reducing the need for pest control. However, the meat that comes off Brahman cattle is reported to be tough. In this case, Brahman cattle are crossed with other breeds of cattle that produce more tender or better quality meat. Scientific research into the genetics of beef cattle is ongoing, and as mentioned, recent research indicates there is a gene for tenderness that, when isolated, will allow producers to select for tenderness within their breeding programs.

Even though Brahman cross cattle tend to be somewhat tick resistant, the main method of reducing pests is through the use of pesticides applied directly on the animal. This tended to be done manually utilising a spray pump. Producers in CQ also would control weeds through the use of herbicides on occasions. As will be

explored further in Chapter 5, the use of chemicals for pest and weed control is considered essential for producing healthy animals and, consequently, higher quality meat.

In the interviews conducted with producers, all owned and managed their own farms, thus they had the ability to be flexible in the day-to-day activities that were carried out on farm. The method of farming cattle chosen, however, was somewhat dependent on property and business size, environmental conditions in terms of land type and vegetation, and climatic conditions and destination of product. Labour relations within CQ beef production were also affected by some of these factors.

The cattle produced on smaller properties were likely to be more intensively farmed, meaning that the cattle were more closely looked after on a day-to-day basis. The nature of this type of farming generally meant that there was a high use of inputs. On some farms, pasture was planted, fertilised and irrigated to improve land conditions for cattle grazing. Cattle were also moved from paddock to paddock to reduce pressure on one area of land and allow it to recover or alternatively, in periods of dry spells, cattle may be fed supplements. On the smaller properties, usually the beef producer and their family carried out the work. Casual labour was employed when considered necessary. This may occur when cattle needed to be transported, tagged or branded, or when pest control was required.

Alternatively, extensive farming occurred on larger properties or stations. Here, cattle were able to wander over large areas to graze. Pasture usually was not improved on these stations and farmers had limited contact with the herd. However, in times of drought these animals were more closely looked after. Larger properties would tend to employ permanent workers – usually stockmen and farmhands – to assist with this task. At certain times, extra staff would be employed as considered necessary. This, however, was dependent upon availability of labour.

In CQ, most beef cattle are grass fed, with very little feed-lotting. However, there has been an increase in recent years, possibly due to drought conditions, of cattle being 'finished off' in feedlots, especially if they are destined for the Japanese market that prefers meat to be 'marbled'. Marbling in meat occurs when fat is accumulated among the muscle cells. Marbled meat is considered by the Japanese to be of a higher quality in comparison to grass-fed beef demanded by the Australian and U.S. markets, which, by contrast, is generally lean. No producers interviewed were involved in feed-lotting at the time of the interview.

A third process of beef production involves the exchange of cattle. Although the saleyard is a venue where cattle are exchanged, it is important to note that not all cattle are exchanged through a saleyard. Cattle sales may be a direct transaction either between breeders or producers, or between producers and the abattoirs via a range of means including contracts and one-on-one purchases.

Representatives interviewed from the saleyard included the saleyard manager and stock agents. Generally, the saleyard manager oversees the cattle sales and carries out the administration tasks of the saleyard. Stock agents are involved in cattle sales, buying and selling cattle on behalf of their clients and advising clients of cattle prices. This necessarily implies that stock agents and other saleyard representatives have a close working relationship with both producers and processors and it was the case that stock agents on many occasions acted as intermediaries between producers and processors.

In CQ, most of the cattle that are sold for processing are trucked to the processing unit. There is a rail service available but the participants in this study did not use this service. The way in which cattle were treated and handled during transport was a concern for both producers and processors. Some of the smaller beef producers would, therefore, transport the cattle to the processing units themselves whilst others would contract a transport company. As the Australian Model Code of Practice for the Welfare of Animals guides the transport of cattle (Agriculture and Resource Management Council of Australia and New Zealand, 1999), all producers and transport companies are required to adhere to this when transporting cattle. Upon arriving at the processing unit, the cattle are unloaded from the truck and placed into paddocks. Generally, these animals are left to rest for a few days before slaughter with access to food and water, with the aim of preventing a build-up of body chemicals associated with stress[32].

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32 As will be discussed in the following Chapters, actors involved in beef production and processing claim that stressed animals do not produce quality meat.

Secondary Production: Beef Processing

In the CQ beef chain, the processing unit carries out a multitude of activities. With regard to production practices, the processing unit acts as a slaughterhouse in which cattle are transformed into meat and other products. The slaughter process commences when live cattle are brought to the abattoir. In order to ensure that they are healthy and ready for processing, veterinarians inspect the animals before slaughter. Animals that are not healthy are either nursed back to health, or euthanased, depending on the severity of the health problem. The day before slaughter, cattle are not fed or given water. On the day of slaughter, cattle are then brought into the pens and processing begins.

A tour of the processing unit reveals a highly mechanised process. The use of machinery and technology in order to become more efficient has had a profound impact upon processes of production with regards to the organisation of work practices and activities and work conditions. The processing of beef works on an [dis]assembly-line means of production with a number of semi-skilled and unskilled workers performing a variety of tasks on a single carcass (Food and Meat Industries Taskforce, 2000). The slaughter of cattle begins with the use of a stun gun. The stunning knocks the animal to the floor where one worker will slit the animal's throat and shackle it by the leg. Once the animal is shackled, it moves along the bleeding rail and is also 'electrically stimulated'. From here, workers remove the hide, and back feet. The carcass is transferred to a different type of hook which 'tender stretches' the meat. As the carcass moves along the chain, butchers remove the tongue, the head and the front feet. The carcass is then 'ripped down' (cut down the front) by a heavy saw and the carcass is moved

along the chain where the internal viscera is removed. Butcher's trim, wash and pack offal. From here, the carcass is washed, inspected and weighed and then sent on its way to the 'boning' room. In the boning room, a butcher bones out the carcass resulting in primal cuts of meat. The meat is then trimmed, washed and transported to the packing room where it is vacuum sealed and packaged into cartons (box meat). From there, it is transported to the chilling room where it is stored until ready to be distributed to export or domestic markets.

Upon observation of the processing of beef, one notices that very little conversation occurs between workers and the work is regimented and repetitive. The use of technology along the chain contributes to the standardisation of the product. The organisation of work processes in this manner has implications for a conceptualisation of quality. The processing of beef needs to be undertaken in an efficient manner that reduces the risk of microbial activity and any breach in these QAS that are mandatory, not only leads to disruption in the processing of meat but also can lead to deterioration in the quality of the product.

Most beef is exported as 'boneless cuts' in cartons or bulk packs that have been either vacuum sealed (cryovac packs) and chilled, or frozen. The advantage of meat packaged in cryovac containers is that it keeps for in excess of one hundred days at the correct temperature and the vacuum sealing assists in the ageing process in a way that contributes to the tenderness of the product. As will be discussed in Chapters 5 and 6, tenderness is a term that is associated with quality and the processes that occur within the processing unit are carried out in such a way as to preserve quality.

While it seems that production practices relating to the processing of cattle are quite distinct from those of the breeding and growing of cattle, many of the problems that affect cattle producers also affect processors and the saleyards. For example, adverse climatic conditions will cause problems for producers. In times of drought, access to nutritious feed is reduced. Producers initially may sell off some of their cattle herd to reduce pressure on the environment and give remaining cattle a better chance of survival. Consequently, the number of cattle that are being processed increases. However, due to poor condition and weight loss, quality is poor and cattle prices are reduced. Further into the season, as cattle prices are reduced, producers are then hesitant to sell and processing also will decline.

Conversely, problems in the processing unit can also affect producers. Recent industrial disputes at abattoirs in Central Queensland provide a good example of this. When industrial action occurs, or there is breakdown in machinery, the processing unit become less effective. Cattle producers may be unable to sell cattle stocks, which directly affects their income level and places pressure on the environment while it supports surplus stock.

This consideration of the production processes of the CQ beef chain has highlighted the complex nature of relationships involved in the production and processing of beef. It is emerging through issues of food safety that quality plays an important role in the organisation of the CQ beef chain as production practices

are attuned to meeting a quality standard at a national level. The following section looks at the distribution and exchange processes of the CQ beef chain.

CQ Beef Distribution and Exchange

In the CQ beef chain, the processing unit also acts as a wholesaler or distribution unit. Product is distributed to export markets, domestic retail outlets, eating outlets and to individuals, according to their specifications. Meat from CQ is destined primarily for the U.S. market where it is used mainly for manufactured meat products such as hamburgers. However, CQ beef also is exported to Japan, South East Asia, South Korea, Canada, Taiwan, the Middle East and Europe. On the domestic scene, beef is distributed mainly to retail butchers and supermarkets as consumers in Australia continue to prepare and eat most meals in their own homes. Modifying Dixon's (1999) CEM categories, this section provides a description of the activities associated with meat in the domestic arena following processing with a focus on regulatory politics, labour and retail practices.

Regulatory Politics, Labour and Retail practices

In the CQ beef chain, as with the retail of any meat product, practices involving the distribution and marketing of meat must adhere to standards developed by FSANZ. As quality is linked to issues of food safety, a description of CQ beef retail practices will necessarily include the QAS process that meat retailers and butchers, in particular, need to ensure in their day-to-day activities. Apart from the wholesaling that occurs at the processing unit level, domestic retail outlets are the main way of distributing CQ beef product to domestic consumers. For the purposes of this thesis, a domestic retail outlet is characterised as an outlet that

further prepares and distributes the product directly to the consumer. Retail outlets include butchers, supermarkets or local stores and eating outlets. These outlets further prepare the product for subsequent individual purchases.

In the CQ beef chain, meat is delivered mainly via refrigerated trucks from wholesalers to retail outlets. Regulated by the 'standard for the hygienic production and transportation of meat and meat products for human consumption' (Agriculture and Resource Management Council of Australia and New Zealand, 2002), the transport delivery vehicle loaders must ensure that the delivery vehicle is clean before any product is loaded onto the vehicle. All meat and meat products are required to be checked by personnel before loading to ensure that the critical temperatures are met as outlined in these same standards (Agriculture and Resource Management Council of Australia and New Zealand, 2002). The critical temperature for meat under the Standard must be less than or equal to 7 degrees Celsius surface temperature for carcasses or 5 degrees Celsius for carton meat. In addition, carcass meat that is suspended from hanging rails in the delivery vehicle must not come in contact with any surface such as the floor that could contaminate the meat (Agriculture and Resource Management Council of Australia and New Zealand, 2002).

When the delivery vehicle arrives at the outlet, the 'food safety practices and general requirements' standard underpins the activities of the retailer. Generally speaking, this standard outlines the specific food handling controls related to the receipt, storage, processing, display, packaging, transportation, disposal and recall of food (Food Standards Australia and New Zealand, 2004). Upon arrival

of the delivery vehicle, the standard requires that the receiver of the meat takes all practicable measures to ensure that they do not receive unsafe or unsuitable food (Food Standards Australia and New Zealand, 2004). This means that the butcher or retailer must make sure that the meat they receive is protected from contamination, can be identified while it is on the premises, and that it is at the correct temperature when it arrives. In store, similar regulations apply. Meat must be stored at or below 5 degrees Celsius and temperature checks are required on a regular basis (Food Standards Australia and New Zealand, 2004).

Once in store, the 'food safety practices and general requirements' standard (Food Standards Australia and New Zealand, 2004) requires that staff possess skills and knowledge of health and hygiene in relation to food handling, and of cleaning, sanitising and maintenance of the food premises and equipment within the premises that are related to their specific tasks. This then guides activities of preparation of cuts, presentation and display of meat and packaging. The following will provide a description of the different retail outlets with regards to these activities.

Butcher Shops

Specialising in 'quality' meat sales and personal service, a butcher's day is generally spent slicing the carcass or carton meat into 'cuts', preparing ready-to-cook meat meals such as stir-fries or roasts, organising meat for presentation on display and providing personalised service. The presentation of meat for display was considered by the butchers interviewed as a particularly important task and thus took up a large part of the butcher's morning. Butchers stated that setting up

a display cabinet took at least two hours, as the aim was to present the meat so as to tantalise the customer. According to one butcher, the display needed special attention as '*consumers eat with their eyes*' (Larry). Figure 7 depicts a typical display of meat at a butcher shop.

Figure 7: Meat Display in Butcher Shop

Although much time was spent in setting up a cabinet for display, butchers would spend equal, if not more time, in serving customers. For butchers in CQ, customer service not only involved slicing meat to the customers specification and packaging it into plastic bags but, on many occasions, butchers would offer advice on the best methods of cooking a particular cut, the length of cooking time required and would suggest recipes or meal ideas. For butchers interviewed, providing a quality service was just as important as providing quality meat. This was said to contribute not only to future patronage but also to the enjoyment of the meal.

In addition to providing advice and meal ideas, butchers also reported that a growing part of their work constituted offering a range of value-added products and pre-prepared meals in an attempt to diversify their product range in order to remain competitive with supermarkets. The need for butchers to refocus marketing strategies comes as no surprise as supermarkets account for 64 percent of all retail sales of beef in Australia, with the main firms being: Woolworths (around 30 percent of total domestic sales); Coles (around 20 percent of sales); and Bilo (a little under 10 percent of sales) (Australian Bureau of Agriculture and Resource Economics, 2004). The number of supermarkets is increasing gradually and their ability to contract abattoirs and purchase large amounts of stock has contributed to the rationalisation of specialist butcher shops over the past two decades (Meat and Livestock Australia, 2003b).

Although MLA (2003b) statistics show that supermarkets are the largest retailers of beef, many of the consumers interviewed in this study preferred to purchase their meat in butcher shops and not in the local supermarkets, claiming that the quality of meat[33] was better and they were able to purchase meat cut to their liking - a service not offered by supermarkets. Although consumers in this study preferred to purchase beef at butcher shops, some conceded to actually purchasing meat at the supermarket when they did the groceries. Working women, in particular, related that they did the groceries after work at night when it was quiet and at that time butcher shops were closed. Opening times would

33 A discussion of consumer perceptions of quality is included in Chapter 7

thus appear to have implications for butcher shops refocusing their marketing strategies.

Supermarkets

As can be seen above, supermarkets appear to be successful in the retail of meat because they provide convenience. They are open longer hours and consumers can purchase their food requirements in the one store. Although the perception by consumers in CQ is that supermarkets supply inferior quality meat to butcher shops, supermarkets themselves claim to offer a high quality product. Woolworth's, for example, implemented one of the first HACCP based quality assurance schemes in Australia. The Woolworth's Vendor Quality Management Standard specifies the minimum controls a vendor must have over the purchasing, production, storage, packaging and handling processes (Woolworths, n.d.). What becomes apparent here is that consumers in CQ and supermarkets are not aligned in their perception of what quality meat is. There is no denying that food safety is extremely important to meat quality, but there are other factors involved. As indicated in Table 4 and discussed in Chapters 6 and 7, some of the factors that are important to consumers in CQ include colour, fat content, freshness, hormone and chemical status, and price.

As the retail of meat is underpinned by QAS in supermarkets, the activities of distribution and exchange are aligned with these standards. In general, supermarkets directly contract beef producers to supply beef cattle. Beef cattle on these properties are required to meet certain specifications as set by the retailer. Once cattle meet the required specifications, they are transported to contracted

abattoirs, which process the meat specifically for the supermarket according to strict specifications. The abattoir packages the meat in carton form, which is then distributed to the supermarket. In store, the butchers in the meat department slice the meat into cuts and package it on polystyrene trays wrapped with plastic wrap. The meat is then placed on display in the supermarket. As with all retailers, the storage, handling and display of meat must adhere to food safety standards (Woolworths, n.d.).

As with butcher shops, meat displays in the supermarket are set out in a specific way to highlight colour and types of meat in order to tantalise the customer. However, they are also incorporated with products that may be used in conjunction with meat for meal preparation, thereby presenting 'meal ideas' (see Figure 8). Supermarkets belonging to major chains are generally set out in the same way across Australia so that a customer can find products easily no matter which town they are in. Quality, in relation to supermarkets, is concerned not only with food safety but also with the purchasing environment.

Figure 8: Meat display in Supermarket

Eating Outlets

Unlike butcher shops and supermarkets, the primary activity of eating outlets is the provision of cooked meals. Eating outlets include both fast food retailers and restaurants. Here beef ceases to be considered as a singular entity and instead is transformed into a meal. Thus a notion of quality is considered in relation to the type of meal that is offered, the way in which the meal is delivered and the experience of that meal.

In Australia, the fast food industry can be described as 'businesses which primarily sell meals that are ready to eat immediately and are packaged in takeaway containers, or are packaged where no table service is provided' (Australian Bureau of Statistics, 1993). These businesses thus include 'corner store' takeaway outlets and major fast food chains such as McDonalds and Hungry Jack's. Fast food stores provide a fast, convenient service, targeting consumers who are looking for a meal 'ready to go'. Major fast food chains such as McDonalds are usually large franchised stores which offer a limited range of the same food, cooked in the same way in each store. Generally, the food that is cooked in these outlets is provided from a centralised processor that has pre-prepared the ingredients so that only cooking and assembly is required in-store. Alternatively, general takeaway stores are generally individually owned, non-franchised businesses. Although specialising in the types of meals they offer – for example hamburgers, sandwiches, fish and chips and pizza – they work also on the premise of convenience and target consumers who are looking for a prepared

meal to take away. In the main, these shops are family run businesses but labour is employed when required (Australian Bureau of Statistics, 2003).

A recent study of the fast food industry in Australia (Smiljanic, 2004) indicates that fast food outlets mostly employ female secondary students on a casual basis who are aged between 15 and 21. Typically, the work that these employees undertake is related to food preparation, customer service and kitchen maintenance (Smiljanic, 2004). The preparation and delivery of fast food – especially amongst fast food chains – can be described as Fordist. Food is prepared and cooked according to a standardised process to allow for quick and efficient service (Schaeffer, 1993). The impact of this on a conception of quality, as indicated in Chapter 2, is a consistent food product.

As will be discussed in Chapter 7, participants – especially male participants – reported that, when eating out, steak was their first preference. In the 'Beef Capital', and surrounding areas, there are numerous establishments that offer steak meals. Most, if not all, restaurants, cafes, clubs and hotels provide a steak meal on their menus. Establishments interviewed commented that steak was the most popular menu item and all claimed to offer high quality steak. In this sense, quality was about the attribute of the meat. Beef was sourced locally and of the establishments interviewed, most had arrangements with the local abattoirs that supplied meat according to the specification of the restaurant. Eateries that did not source meat directly from the abattoir had arrangements with local butchers or even producers.

Unlike fast food outlets, restaurants, cafes, clubs and hotels aim to provide more personalised service. In these establishments, meals are eaten on the premises. Apart from the quality of the meal, the eating environment and service also plays an important role in the conception of quality. Meals in these outlets can both be pre-prepared and 'help yourself', or cooked after ordering. The preparation and delivery of these meals require much more attention than fast food outlets. Chefs and cooks that own or are employed by these establishments generally have formal training in cooking and meal presentation. In addition, they often are responsible for planning and setting menus, organising tables settings and the eating environment, ordering required stock and arranging delivery, and employing and training other staff members.

As with all food outlets, food safety is extremely important in the preparation and delivery of meals and those who are involved in handling food are required under the Food Safety Practices and General Requirements standard (Food Standards Australia and New Zealand, 2004) to practise safe food handling procedures. Thus, food safety once more guides practices of food preparation and delivery.

What is evident in the description of food retailing practices is that quality is strongly associated with food safety. The requirement by law to provide a safe food product has contributed to the conceptualisation of quality as a tool that guides day-to-day activities in beef retailing. Quality has thus become both definable and observable. However, although food safety and QAS were integral to the day-today activities of retailers, quality was conceptualised in relation to the physical attributes of the meat itself and the context in which it was

purchased. As indicated in Table 4, the presentation of meat, its colour, fat content and texture contributed to a construction of quality. These issues are elaborated upon in Chapter 7. The next section provides a review of CQ beef consumption.

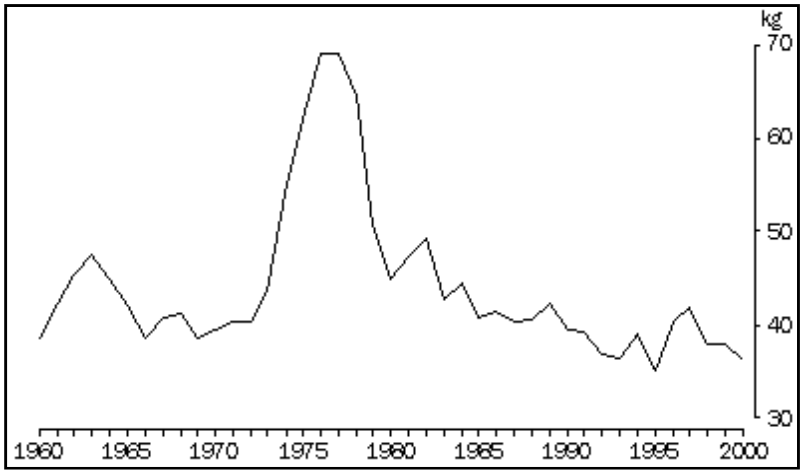
CQ Beef Consumption

Dixon (1999) indicates that an examination of consumption processes include a study of tertiary production, conditions of access, manner of delivery, the environment or context and the experience. The following incorporates these processes to provide a broad description of beef consumption patterns occurring in Australia and, therefore, also in Central Queensland. Specific data collected from consumer participants in this study will be discussed in Chapter 7.

As mentioned earlier in this chapter, the majority of beef produced in Australia is exported to countries such as the U.S., Japan and Korea. In 1999, 75 percent of beef produced in Queensland went towards processing beef for export markets (Dodt and Sangster, 2000; O'Sullivan, 1998). The domestic market, therefore, accounted for the remaining 25 percent of beef produced. According to ABARE (2003), the average Australian eats approximately 109 kilograms of meat per annum (Australian Bureau of Agriculture and Resource Economics, 2003). Australia has one of the highest meat consumption statistics. The only countries with higher meat consumption are the U.S. (122kg), Denmark (113kg), Spain (113kg) and New Zealand (110kg) (Australian Bureau of Agriculture and Resource Economics, 2003).

Over the past 40 years, there have been significant changes in patterns of consumption for beef. For example, beef and veal consumption in Australia grew from approximately 40 kilograms per capita per year in the late 1960s to a peak of 69 kilograms in 1976. This coincided with record production and low prices. It is believed that changes in attitudes towards red meat in the mid 1980s saw consumption of beef fall to 42 kilograms. This trend continued and, in 1995, consumption per capita was 35 kilograms. In 2000, consumption of beef was recorded at 36 kilograms per capita (Australian Bureau of Statistics, 2002). Figure 9 illustrates changes in consumption of beef from 1960 to 2001.

Figure 9: Per Capita Beef and Veal Consumption 1960-2001
(Source: Australian Bureau of Statistics, 2002)



Such fluctuations in beef consumption are not new and reflect changes occurring in the cattle industry as well as changes in social attitudes and economic conditions. Figure 10 illustrates cattle prices from 1960 to 2001. A comparison of Figures 9 and 10 clearly demonstrates the relationship between consumer behaviour and price with beef consumption per capita generally rising as cattle industry prices have fallen and vice versa (Australian Bureau of Statistics, 2002).

Figure 10: Cattle Prices per Head at 2001 Prices
(Source: Australian Bureau of Statistics, 2002)

Whilst the decline in the domestic consumption of beef can be attributed to changes in relative retail prices (Idstein and Griffith, 1999), changing patterns of beef consumption are also indicative of changes that have occurred in meat consumption habits more widely. The Australian Bureau of Statistics (2002), Idstein and Griffith (1999) and Storer, Soutar and Hawkins (1998) suggest a number of reasons for changes in meat consumption patterns. These include new cultural influences, health considerations, advertising and marketing. Lea and Worsley (2001) further suggest that beliefs about meat and nutrition, difficulties with and benefits of vegetarianism, demography, personal values, use of and trust in information sources, and number of vegetarian friends and family also affect the decision of Australian consumers to purchase and eat meat.

Consistent with the literature pertaining to consumption as discussed in Chapter 2, Storer et al (1998) relate that changes in household arrangements and developments in technology have contributed to changes in cooking, shopping

and storage of food. In particular, Storer et al (1998) suggest that microwave ovens have impacted upon cooking times and freezers and changes in package technology, such as cryovac packs, have allowed meat to be stored for longer periods of time, thus allowing consumers to purchase meat less frequently (Storer, et al, 1998).

Storer et al (1998) further comment that with the increase in working households, quick and easy to prepare meals and semi-prepared foods have become popular in recent years. This signifies a move away from trends occurring in the early 1990s where fewer people ate meals at home, choosing instead to eat out more often, and predominately at fast food restaurants (BIS Shrapnel, 1995). Results from studies conducted by BIS Shrapnel (2003) concluded that many consumers have shifted some of their food budget from fast food to prepared products, either those ready to heat or requiring cooking. In particular, there has been an increased demand for such products as washed salad mixes, pasta sauces, fresh pasta, partly prepared meat and poultry products and raw stir fries (BIS Shrapnel, 2003).

BIS Shrapnel (2003) found also that the availability of fresh food was an issue of increasing consideration for Australian consumers. This can be related to consumer interest in healthy diets and life styles (Storer et al, 1998). According to BIS Shrapnel (2003), lean meat, low fat/fat free and 'light' products have increased in importance since studies conducted in 2000, and nearly two-in-five of all consumers considered vegetarian dishes as an important part of the menu. In addition, consumers rated hygiene standards as the most important attribute

when buying fast food, followed by the quality of food, taste and freshness (BIS Shrapnel, 2003).

Although there appears to be a downturn in the number of consumers eating out, in 2002, Australian consumers spent approximately $24 billion on food service meals, $3 billion of which was spent on meat, fish and poultry dishes (BIS Shrapnel, 2003). Fast food outlets remain popular for buying a full meal or snack, particularly for families with children under 18 (BIS Shrapnel, 2003). Retail sales of fast food and takeaways increased by five percent in 2002 (BIS Shrapnel, 2003). Restaurants were the second most frequently used outlet, but were more likely to be patronised by those in higher income brackets (BIS Shrapnel, 2003). Cafes were the third most frequented outlet, followed by clubs and hotels. Despite consumer trends for eating out, only 30 percent of the beef produced for the domestic market is used by food service industries (Cox, 2002). The majority (70 percent) of beef is bought either at supermarkets or butcher shops and cooked at home (Australian Bureau of Agriculture and Resource Economics, 2003; Cox, 2002).

According to Egan, Ferguson and Thompson (2001), studies conducted with Australian consumers in the late 1980s and early 1990s indicated that when purchasing beef, consumers sought beef that was lean (with about two millimetres subcutaneous fat and minimal marbling), light red in colour, and with white rather than yellow fat. In addition, Australian consumers required steaks to be medium to large in size, with an eye muscle area from 55 to 82 millimetres. Price also influenced the purchasing preferences of consumers (Egan et al, 2001).

Cox (2002) similarly claims that Australian consumers have a preference for lean meat, with 92 percent of Australian consumers believing that any amount of fat on their beef equated to poor quality. In addition, Cox (2002) relates that 38 percent of Australian consumers encountered problems with the quality of beef purchased and 57 percent experienced difficulties in selecting tender beef.

Although studies tend to focus on consumer preferences for steak, both Cox (2002) and Meat and Livestock Australia (2000b; 2004e), note that beef mince is Australia's most popular beef cut, having the highest beef sales at retail. This is followed by sausages, fillet steak, rib eye steak, rump and topside steak (Meat and Livestock Australia, 2000b; 2004e). Reasons provided for the popularity of mince include price and convenience. According to Cox (2002), Australian consumers are looking not only for greater convenience through one-stop shopping and retail outlets opening for longer hours, but convenience is also an important trend in cooking. Cox (2002) indicates that consumers now buy packaged accomplishments to the meat dish, for example, packaged sauces, pastes and marinades. These acts by consumers complement Storer et al's (1998) argument that consumers are increasingly cooking quick and easy meals.

Summary: CQ Beef and Quality

A description of the CQ beef chain begins to reveal the centrality of quality to processes of beef production and distribution in CQ and Australia. Certainly, the compulsory implementation of QAS to beef production and distribution demonstrate the increasing importance of ensuring minimum standards of food safety and hygiene. Concurring with literature discussed in Chapter 2, it appears

that in the CQ beef chain QAS is being used both to regulate beef production and to formalise concepts of quality in order to demonstrate product attributes at a national level. Thus, in this conceptualisation, quality becomes both a process and an outcome of standardisation and imposed standards. However, in recent years, a competing conceptualisation of quality has emerged in Central Queensland. This relates to Nygard and Storstad's (1998) argument that consumers are linking notions of quality to locally produced food products. This is demonstrated through the emergence of niche markets for beef products.

Niche Market Beef

In recent years, Central Queensland has seen the emergence of niche markets for beef. This has been in response to a number of stimuli including quality and food safety (Ilbery and Kneafsey, 2000). The perceived lack of availability of 'quality beef' in the 'Beef Capital' of Australia has been a driver for at least one Central Queensland producer to develop and market a high quality beef product. However, the emergence of niche market beef in Central Queensland has also been in response to the perception of personal health threats from chemicals, hormones and genetically modified organisms among the region's consumers. Low profitability in the beef industry over the last decade, coupled with the above consumer concerns and also the emergence of BSE, foot and mouth disease and other health scares in export markets, have contributed also to the push for demonstrably 'clean and green' beef (Garner, 1996).

According to Buttel (1992, 12), greening is a 'process by which environmental concerns are nurtured within social groups and modern environmentally related symbols become increasingly prominent in social discourse.' This definition is significant to the way in which CQ beef producers have pursued niche markets. According to this definition, the emphasis is not on the way in which beef is produced and how these practices affect the environment; instead the emphasis is on how production practices are understood and how the meanings associated with them can be construed (Lockie, Lyons and Lawrence, 2000).

The niche market beef chains investigated in CQ all claim to be 'clean and green'. They further emphasise that this is part of their marketing strategy. These chains include Green Grass Beef (GGB), a branded beef chain; Natural Pastures Beef (NPB), a domestic organic chain, and Channel Country Beef (CCB), an organic beef export alliance. The following provides a description of each chain in relation to broad processes of production, distribution and exchange and consumption. It does not offer a description in the same detail as the CQ beef chain as, despite having different goals and aspirations, they remain part of the CQ beef network and many of these processes are quite similar.

Branded Beef in Central Queensland (Green Grass Beef)

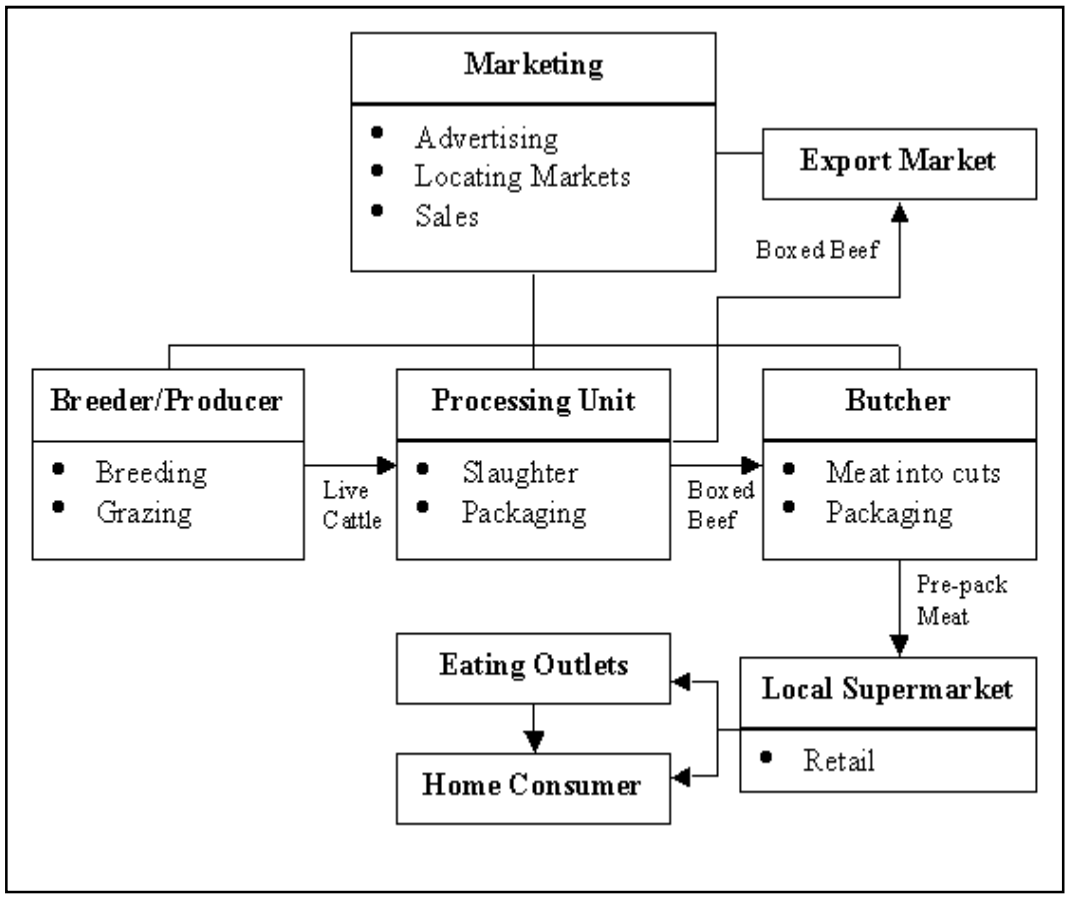
Largely, consumers of Australian beef, whether domestic or export, do not know the origin of their beef meat. A resulting problem is that there has been considerable variation in the quality of beef meat. In recent years, however, attempts have been made to address variations in quality through the introduction of grading schemes at a national level (Bray, 1999). Nevertheless, the problem of

a locally recognisable beef product remains. In the attempt to overcome this problem, branding has been identified by at least one Central Queensland producer as a way of differentiating and promoting the quality of his product compared to other beef products.

Branding can be described as a way of adding value to commodities by creating distinctiveness in the market place. Branding aims to seek the approval of specific groups of consumers by emphasising not only the inherent qualities of the product that matter to consumers but also their symbolic meanings (Pawson, 1997). Branding and advertising practices often rely upon the commodification of particular aspects of place in order to exploit or create associations of that particular place to the product being sold in order to appeal to specific groups of consumers (Pawson, 1997). Green Grass Beef (GGB) is an example of a branded beef chain that has included this strategy in its attempt to capture a market for a high quality, locally produced, grass-fed product.

Depicted diagrammatically in Figure 11, GGB is one part of a larger private cattle operation. The Green Grass Cattle Company is one of Australia largest and oldest private cattle operations. Owned and managed by the producer's (Cameron) family for over 130 years, the Green Grass Cattle Company has been a key actor in advancing the beef industry in Australia through involvement with beef industry organisations and the scientific community. Cameron remains committed to the beef industry and is involved in various beef industry organisations including the Cattleman's Union, the Cattle Council of Australia and the Australian Beef Association.

Figure 11: Green Grass Beef Chain



Cameron and his brother conceived the idea for a branded beef product in mid 1997 following the tri-annual beef exposition (Beef '97). In mid 1997, domestic beef consumption was decreasing and the Australian beef industry was becoming increasingly reliant on the deteriorating export market. According to Cameron, Beef '97 had also received considerable adverse publicity following complaints from event-goers and local consumers that they were unable to access a 'decent piece of steak' while in the 'Beef Capital'. This was backed up by reports in both local and state newspapers that wrote of 'beef in Australia being a lottery' and 'beef being good one day and different the next' (Collie, 1997, 4; Purdie, 2000, 6).

Cameron concluded that in order to remain a viable business and to continue progress in the beef industry, change needed to occur. Following Beef '97, he realised that consumers not only wanted a 'decent piece of steak' on a continual basis, but also a product that 'they could identify with'. Cameron believed that value adding their product would ensure success for the future and decided to develop GGB. Fortunately, minimal changes in production practices (from that of conventionally produced beef) were required. However, new strategies for processing and marketing were initiated. The following describes the GGB chain in the format proposed by the CEM.

Production Processes

In the GGB chain, Cameron breeds and raises stock on three properties. The Green Grass Cattle Company's total land holdings comprise approximately 680,000 hectares. One property, managed by his brother is used solely for breeding and stud purposes. The two remaining properties are used for growing and fattening cattle. Over 70,000 head of *Bos indicus* cattle are run on these properties. As pointed out earlier, these breeds of cattle were selected due to their ability to withstand the hot climate and their resistance to cattle ticks.

Concurring with literature regarding food safety, Cameron acknowledges that consumers are concerned about food safety, especially in light of *E.coli* and foot-and-mouth disease outbreaks internationally. Thus, GGB is a grass fed product, extensively produced in the wide open spaces of natural pasture. Cameron claims that no chemicals, antibiotics, hormones or growth promotants are used on GGB

properties. This contributes to a 'clean, green and safe' image. However, Cameron further believes that grass feed from natural pastures provides a '*nice fresh flavoured*' product. Cameron claims to handpick those animals suitable for GGB product, based on conformation, temperament, size and handling. Those animals that do not meet Cameron's criteria for GGB are destined for the generic CQ beef market.

The following provides Cameron's description of his product.

> *We developed a brand and it comprises of product that comes off a two to three year old ox, which is a male beast; it is approximately 300 kilograms, dressed weight*[34]*. They are produced on grass fed pastures. They are looked after to the highest degree; our day-to-day management is carried out by an experienced team of long serving people who we have had working for us. They are fine cattlemen, who look after our cattle. The cattle are treated kindly, [the cattlemen] always make sure the cattle have plenty to eat and drink and they are trucked down [to the processing plant] stress free.*

The GGB animals are transported via truck to the processing unit. The transport company specifically deals with livestock and is bound by regulations that favour animal welfare. The processing unit is the same one used for the CQ beef chain. Cameron has contracts with both the transport company and the processing unit and has strict specifications for the manner in which his animals are handled, slaughtered, aged and packaged. For this to occur, Cameron pays a premium to

[34] Dressed weight is another term for carcass weight. This refers to the weight of the carcass post-slaughter.

the processing unit. As Cameron already was a large supplier of conventional beef to the abattoir, negotiating a contract with them was not difficult.

The processing unit slaughters GGB animals according to Cameron's specifications. The meat is 'electrically stimulated and chiller assessed[35]'. The final product is vacuum sealed and aged for a minimum of 28 days. Cameron specifies that this process assists in providing a quality product on a continuous basis, one that is tender and flavoursome.

Distribution and Exchange Processes

GGB product is mainly destined for the domestic market; however, new markets are being established internationally. Marketing is a main operation of GGB and occurs at almost every level of GGB processes. Cameron has appointed a marketing manager (Malcom) to advertise the product, to identify new opportunities, to negotiate contracts and to look after accounts. According to Malcom, at least 60 percent of his time is spent promoting GGB. GGB product is publicised as a local grass fed product for which the quality is guaranteed.

As a branded beef chain, GGB aimed to procure a group of consumers who desired a high quality local product. As the CQ region itself is promoted as the 'Beef Capital', it is expected by consumers that the beef they purchase and

35 Chiller assessment is a means of measuring the main quality characteristics of a beef carcass. The meat colour, fat colour and marbling of the eye muscle is assessed according to a set of specifications. Assessment takes place post-slaughter when the carcass is in the chiller.

consume in CQ will be of high quality. However, GGB needed to overcome the perception that grass fed beef is not as tender as grain fed beef.

Branding was a technique employed by GGB to stimulate desire for a product based on a particular image of the region and the image of the production methods; that is, cattle feeding on grass, the image of which can be construed as 'natural' and, therefore, 'safe'. Inadvertently, this may also lead consumers to presume that natural and safe are indicators of product quality such as tenderness. Furthermore, since GGB is marketed as a local product from the 'Beef Capital', local consumers could identify with the brand, envisaging the product as quality. For visitors to the local region, branding may have enhanced the image of the region and experiences within the region.

One way in which GGB is promoted is through a local supermarket that attempts only to sell local produce. Thus, the consignment of GGB was a win-win situation for both parties. GGB has a contract with the supermarket, agreeing that the only beef sold in the supermarket is from GGB and, conversely, GGB will consistently supply the supermarket. An advantage of this supermarket is that it has its own butcher. GGB box product is delivered to the butcher directly from the processing unit and the butcher prepares the GGB product for retailing in the supermarket. This particular supermarket is open from five o'clock in the morning until ten o'clock at night, every day of the year except Christmas day. Thus, it provides extensive exposure for the product. Further to this, the supermarket also distributes GGB products to selected outlets that have contracts

with GGB and include hotels and restaurants where Malcom believed that *'people go for quality meat rather than just the cheap price.'*

Contracts with these establishments occurred in two ways. Establishments were either approached by Malcom and requested to trial the product or, in the case of the majority of the establishments, they approached Malcom. The establishments that approached Malcom were interested in providing a local product for their customers as they noted that their customers could identify with the product. These establishments displayed the GGB logo, advertised that they sold the GGB product, and generally provided customers with a description of GGB on their menus.

Consumption Processes

Consumers can either purchase GGB meat unprepared from the local supermarket or negotiate with Malcom for direct consignment from the processing unit. GGB product sold at the local supermarket has been further processed by the butcher and presented as cuts of beef on polystyrene trays.

Direct consignment beef is purchased in carton form and is presented in cryovac packs as boxed meat. This requires a large amount of storage space at the correct temperatures. Further preparation for cooking and eating also is required.

Prepared and cooked GGB can be purchased and eaten at a variety of hotels and restaurants in the local region. These outlets advertise this product as a means of promoting the quality eating experience of their establishments.

GGB is only one example of a niche market beef chain in CQ. GGB aimed to provide a high quality local beef product. However, in response to growing concerns regarding the use of chemicals, antibiotics and hormone by consumers, along with the desire to ensure sustainability of the environment and of the beef industry in general, other CQ producers have turned to organic beef production methods and established organic niche markets.

Organic Beef in Central Queensland

Organic food production is based on systems of farming that aim to ensure sustainable land use practices. That is, organic production systems attempt to utilise land management practices which do not further harm the land, but which assist in regenerating the land for future generations. These practices avoid using synthetic or artificial fertilisers, chemicals, herbicides, pesticides, growth regulators, antibiotics, hormone stimulants or intensive livestock systems that have been disallowed by organic organisations. Organic farming also has the welfare of the animal at the forefront (Biodynamic Farming and Gardening Association, 1999). Thus, organic beef production aims to grow cattle utilising natural resources, such as grasslands, and fodder that is grown without artificial fertilisers or pesticides. The animals themselves are not treated with antibiotics,

hormone growth promotants, chemicals, insecticides or pesticides[36] (Kumm, 2002).

However, for most organic producers, organic farming is not just about a set of agricultural production techniques and practices, it also is about the ideologies which underpin agricultural practices. This relates to who ultimately consumes food, how it reaches consumers and the future of food production (Tovey, 1997). Thus, for such people, organic food production becomes more than a set of production practices but incorporates a system of ideologies and practices throughout the entire food chain, including processing, marketing and distribution.

In Australia, in order to sell organic product, the product is required to be certified as 'organic'. This means that the product meets certain criteria as regulated by organic certifying bodies. In Australia, three organic certification bodies are able to accredit organic beef products. These include Biological Farmers of Australia (BFA), National Association for Sustainable Agriculture, Australia (NASAA), and the Bio-Dynamic Research Institute (BRI). These certification bodies are accredited with both the Australian Quarantine Inspection Service (AQIS), which means that the certifying organisations have met the 'National Standard for Organic and Biodynamic Produce' (RIRDC, 1999), and

36 Unless deemed necessary for veterinary reasons, in which case they may not be sold as organic.

also the International Federation of Organic Agriculture Movements[37] (IFOAM). Accreditation with AQIS and IFOAM allows organic product to be marketed and exported as 'organic product', and thus to be branded with a logo that identifies the product as 'organic'.

The following offers a description of two distinct organic beef chains identified in Queensland. Natural Pastures Beef (NPB) is an organically produced beef product sold to a small group of local consumers. The Channel Country Beef (CCB) group is an alliance of organic beef producers, processors and marketers who focus on export markets.

Domestic Organic Beef Chain (Natural Pastures Beef)

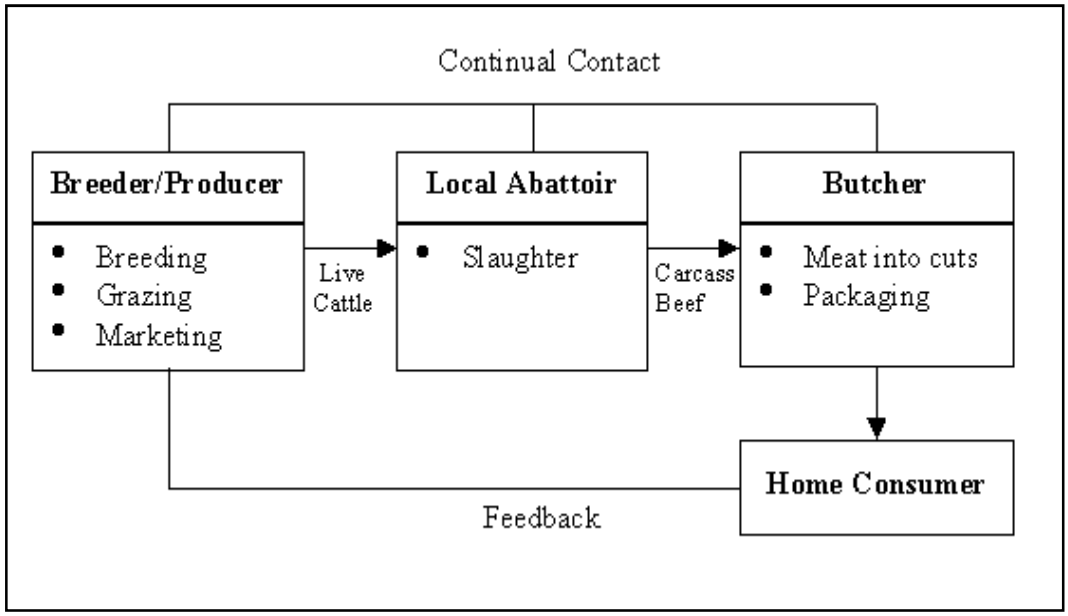
Recognising the demand for a clean, chemical free beef product, NPB represents the attempt by one organic producer (Sam) to introduce organic beef into the local area. Depicted diagrammatically in Figure 12, NPB beef is similar to GGB in that it is a producer-initiated chain. In this chain, Sam oversees all processes from the production to distribution of the product to his customers and seeks direct feedback from his customers.

Prior to 1993, Sam's property was owned and managed by his parents who used 'conventional' methods of cattle production. Upon taking over the property, Sam

37 IFOAM is an international accreditation body based in Europe. It appoints representatives around the world to inspect and certify organic agricultural production systems and products. IFOAM accreditation goes further than a stringent set of conditions to ensure a product is produced organically; it also certified that the production system utilised is sustainable.

decided to produce organic beef. His reasons for this included his concerns regarding the high incidence of cancer in his local area that he correlated with chemical usage on farms and his belief that it would be more financially viable to go organic given the relatively small size of his property[38]. In order to convert to organic, Sam was required to modify some of the past production practices of his father and locate a market for his product. The following describes the NPB chain he has managed to establish, as related to the CEM categories.

Figure 12: Natural Pastures Beef Chain



Production Processes

NPB is bred and grown intensively on a 300 acre property by the producer, his partner and his mother. Biological Farmers of Australia (BFA) certified the property organic in 1997. This certification guarantees that no growth hormones,

38 The production of organic beef is not a full time job for Sam; he also has work outside the farm.

chemically grown food supplements, insecticides, herbicides or artificial fertilisers are used for the breeding, growing and grazing of cattle on this property, apart from those which have been approved by BFA. BFA certification also requires that the farm and farming practices be assessed by the BFA every 12 months.

Sam's father, fortunately, had not used many chemicals on the farm. Thus, becoming organic was a relatively simple process for Sam. As with most beef producing properties in CQ, Sam breeds and grows Brahman cattle. Initially, Sam claimed he had an inferiority complex about Brahman cattle, as meat from these animals had a reputation for being tough. However, Sam found that by providing the animals with good pasture and plenty of room, the animals were not stressed and this treatment has led to tender meat. The cattle on Sam's property also have access to plenty of water. Sam is supplied with water by a large dam which is fed by runoff. A creek also supplies water. Thus, cattle do not need to wander long distances to access water, which has reduced the incidence of stress.

Instead of utilising pesticides for buffalo fly control, Sam makes use of a buffalo fly tent. When cattle walk through the tent they are brushed, buffalo fly are disturbed, and they fly to the top of the tent where they become trapped and die. For other external parasites, Sam has put in place other management strategies. As many parasites have a life cycle of three weeks, cattle are moved from paddock to paddock every two weeks. This means that parasites are contained in one paddock and when they hatch the cattle do not pick them up. This has required Sam to put in extra fencing and split up larger paddocks.

Sam has found that a non-stressed animal tolerates a few internal parasites. He also argues that animals need some internal parasites in order to develop some natural resistance. In order to prevent an outbreak of internal parasites the cattle herd is monitored. If an animal seems unwell, a sample of manure is collected and tested. If needed, internal parasites are treated with a mixture of molasses, organic grain and copper sulphate, which is an allowable input by BFA.

Sam and his family have needed also to improve the land and the pasture on their property. In the early stages, they needed to clear some of the land of weeds. Areas of the property have been planted with 'stylo' (*Stylosanthes*) to assist in preventing erosion and to provide an alternative food source. Sam has applied organic fertiliser to his property to assist with rebuilding the soil and adding nutrients to the grass.

Sam slaughters approximately 30 cattle per year. Every five weeks Sam handpicks two or three cattle out of his herd for slaughter. These cattle are picked out of the herd based on their age. Generally, Sam slaughters those cattle that have more than six teeth[39] and have an average dressed weight of two hundred and fifty kilograms. Sam then transports the cattle in a custom made truck to a domestic meat processing plant that kills solely local domestic product.

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39 This is a signifier of age. A bovine with six teeth is between three and three and a half years old.

Joe, the owner and manager of this abattoir, purchased the meat processing plant with the desire to concentrate on niche markets. In the future, he hopes to be able to start his own beef chain from 'paddock to plate'; that is, produce cattle, process the cattle and buy a series of butcher shops for wholesale and retail. At the time of interviewing, the processing plant did not have organic certification but was investigating this possibility. The organic beef is kept separate from the non-organic product. Sam supervises the entire slaughtering process. Sam's were the first animals slaughtered in the morning to avoid cross contamination with non-organic product and, following slaughter, were hung (using 'tenderstretch techniques') to age for a minimum of seven days in a coolroom. All beef from this processing plant is sold as 'whole carcass'. Joe does not perform boning out activities as the plant does not have the capacity to do so.

Distribution and Exchange Processes

Following tenderstretching and aging, Joe delivers Sam's product to a local butcher (Barry). Barry does not sell organic beef. However, he bones out and prepares Sam's meat for distribution according to Sam's specifications. Barry also has agreed to be a collection point for NPB. Once again, Sam usually is present for this part of the chain.

One problem that Sam has encountered is that, although he produces beef organically and his property is certified organic, he cannot sell his product as *certified* organic product as the processor and the butcher are not certified organic. Sam, however, does market his beef as organic beef. Initially, when Sam was establishing his business he advertised in the local paper to gauge the amount

of interest there would be from the local community in regards to organic beef. When people contacted him, he explained what he was attempting to do. He was met with a positive response, and set up his business as a consequence. This is his description.

> *I think we had 14 customers the first time, which I thought was a good omen. I was expecting about five, and so I set it up with the slaughterhouse and the butcher, and it worked quite well the first time. There was a certain amount of word-of-mouth. I think I advertised every second month or something like that, and we developed an information package where people would ring up and we'd say 'look, we'll send you this information package, and you can make up your mind whether you'd like it or not'. The method we used from there is that once they got their information package and rang up, and said 'yes, they'd like to be involved', we got their name, address and phone numbers, etc. We work over the phone from there on, and, when we have an order date fixed – about two weeks before the delivery time – I ring them up, and say 'look we've got a delivery date of such and such. How are you fixed, do you have a freezer full or would you like some?' And they tell me 'yes' or 'no', and if they say' yes' then I say, 'Right. Well we'll have the meat available on such and such a date. I'll ring you the night before to confirm that order, and go from there.'*

According to Sam, this way of marketing is an advantage as he knows two weeks beforehand how many cattle will be slaughtered and how much money he will get from those animals. In the conventional system, Sam used to take the animals to the saleyards and did not know what the price was going to be and subsequently had no control over his income.

> *We used to take our animals off to the markets/saleyards and we didn't know what we were going to get. You try to pick the market when prices were rising, but you could find there had been a scare in Japan the day before to do with poisons in the meat or whatever and the buyers just didn't come. Or they'd be there in the morning and they'd get a phone call at 9 o'clock, and by half past nine they'd be all gone. So we have no control, we can do all the right things and still not make money.*

Sam sells NPB in bulk packages. Customers of his product can only purchase NPB in packages of 15 kilograms that contain a cross-section of cuts; the reason for this being that Sam does not have any storage or retail facilities, which makes it difficult to sell individual cuts and store others. Further to this, Barry only cuts up and packages the organic meat on a certain day. A second reason for bulk packaging is that Sam is attempting to keep the price of his organic meat affordable. According to Barry, organic beef is about 30 percent more expensive than 'conventional' meat, due to the costs of production. Organic farming is more labour intensive.

Sam deals personally with all his customers. Two weeks before the meat is to be picked up, Sam contacts his customers to find out whether they require an order. This is not only to ensure sufficient supply but also to avoid lengthy waiting periods. Two days before the pickup date, all customers who have placed an order are contacted to confirm the order and as a reminder to pick the package up on the date specified. This is because the mince and sausages have no preservatives, are processed on the same day, and thus should be frozen as soon as possible.

As Sam deals personally with all his customers, communications, orders, complaints and compliments are fed directly back to Sam who can monitor his customers' needs and his own performance. Most of Sam's advertising is through word-of-mouth by his customers and by the butcher who distributes his product.

Consumption Processes

Tovey (1997) comments that one of the values 'of organic food is believed to rest on the fact that it is locally produced and consumed'. That is, consumers know where the food comes from, who raised it, and consequently know that it is good to eat. This is certainly true in the case of NPB. The majority of Sam's customers are local. They state that they trust NPB as they know where it is coming from and who is growing it. One of his consumers said that:

> *We've been to Sam's farm, to have a look who we buy the meat off, and we're happy with what we see there and we know what he does with his animals. They look good, and he believes in what he's doing. He doesn't claim to be a know-all about everything. But I thought, you know, it's a local fellow doing something, and he's trying to do the right thing.*

Further to this, many of Sam's customers commented about the taste of Sam's beef. All agreed that it was better tasting than the meat from butchers' shops. Further to this, they were impressed with the quality.

> *Yeah, it's only been once that we had a little bit of tough. But it's always been a lot better than any of the meat that you can buy in the butcher shop. Maybe, if you went to the butcher shop*

and bought quality export stuff, that might be equivalent to what we're getting from Sam.

Customers currently wanting NPB can contact Sam directly and organise a bulk package to be collected at Barry's butcher shop. Sam is attempting to establish links with a local 'health food store' to sell NPB in smaller quantities on his behalf.

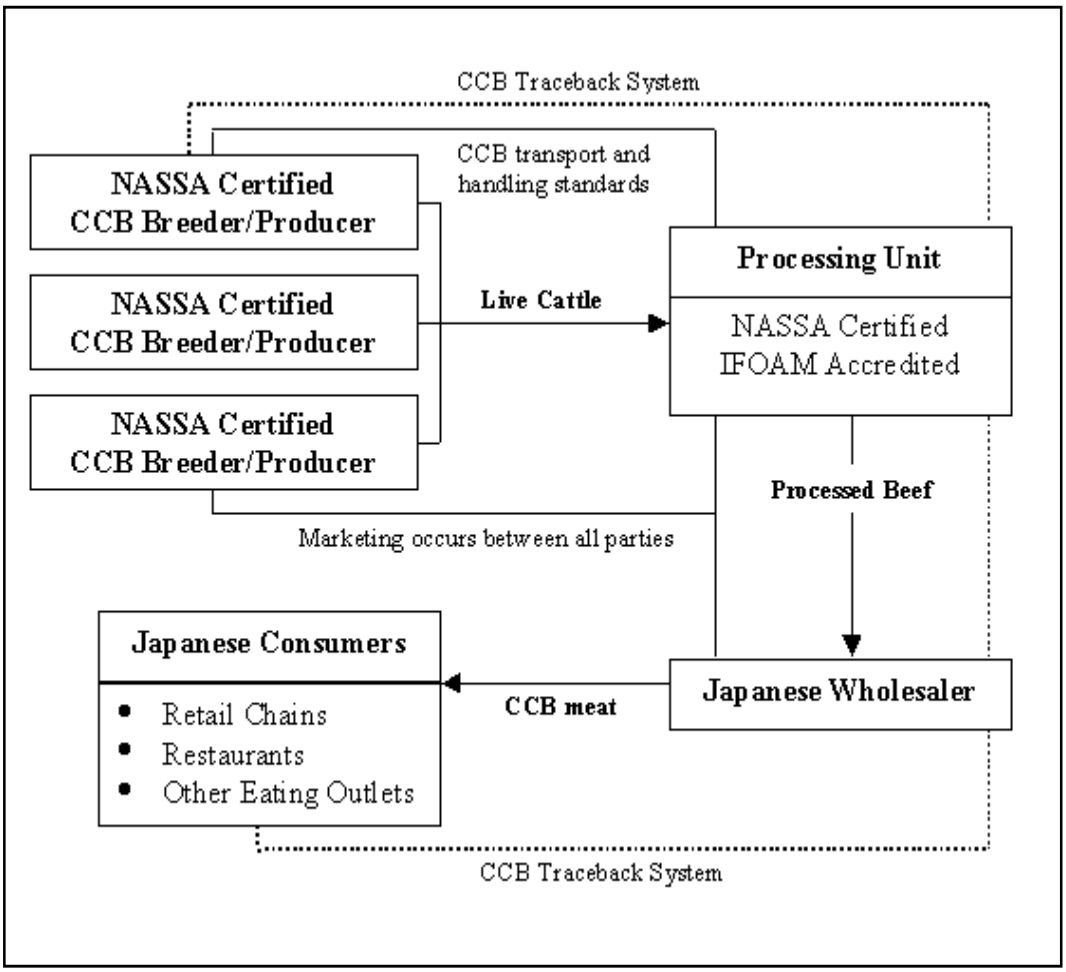
Organic Beef Export Chain (CCB)

With growing consumer concerns over food safety and quality, together with retailer demands for large volumes of consistent and reliable product and the need to overcome low beef cattle prices, there has been an increasing trend within the beef industry in Australia towards the formation of producer marketing groups and alliances, and supply chain management (Nicholas, 2001).

Supply chain management can be described as an integrated approach to business processes that aims to satisfy the expectations of consumers, through continual improvement of processes and relationships that support the efficient development and flow of product and services from the producer to the consumer (Myers, 2000; Nicholas, 2001). This can be achieved through alliances in which producers, processors, marketers and retailers harness their available skills to learn and work together with defined objectives to improve supply, quality and consistency of their business.

The Channel Country Beef (CCB) group promotes themselves as an example of such an alliance, which is utilising supply chain management to obtain a market for their product. Figure 13 illustrates the CCB alliance.

Figure 13: Channel Country Beef Chain



CCB was born from the initiative of a handful of producers who were battling declining returns for cattle in the early 1990s. Wanting more control of their future, and an understanding of the whole beef industry and the processes that occurred beyond their paddocks, a group of cattle producers from the Channel Country set about developing and marketing a business that took advantage of the environment in which it was based and of the beef they were already producing.

The Channel Country is a large tract of land that straddles areas of Queensland, New South Wales, South Australia and the Northern Territory (see Figure 14). Watered by sub-branches of the Mitchell, Georgina and Diamantina rivers, and Cooper Creek, the land is characterised by red soil and flooding plains. Climatically, it is hot and dry for most of the year. However, following seasonal rains the environment boasts lush and green pastures suitable for cattle grazing. In addition, due to its geographic isolation from many other agricultural regions, the Channel Country has largely escaped contamination by pesticides and herbicides from neighbouring areas (Myers, 2000). Reflecting production conditions within the region, Channel Country beef had already been produced in a clean manner, with no fertilisers, pesticides, hormones or other chemicals. These clean production methods, combined with the image of lush green pastures, contributed to the producers' thinking that an organic beef product could be marketed as a separate entity distinct from CQ beef. If they were correct in their assumptions, their product had the potential to reverse the decline in returns for cattle and to provide a viable enterprise for future generations. Thus, in 1995, an organic beef group was established. Initially, only a handful of producers were interested, but currently CCB has more than 30 producer members and spans seven million hectares (Myers, 2000).

Figure 14: Map of the Channel Country
(Source: CCB Website, 1999)

One of the first activities CCB undertook were to identify the motivations for embarking on a new venture. In the first instance, the producers wanted to gain a more complete understanding of the beef industry beyond their own gates. The CCB group was interested in the steps involved in converting beef cattle into boned and boxed beef and how this was marketed to consumers. Secondly, the CCB producers needed to make their enterprise profitable. Thus, they needed to identify a way of generating better returns for their products. Differentiating their product from the conventional beef chain would allow this, but required identifying a specific market and the needs of that market.

The CCB group recognised that in order for their idea to become reality they would require assistance. In early 1998, they commissioned a consultant who specialised in supply chain management in food and agribusiness to assist. A funding application to the Federal Government's '*Supermarket to Asia: The*

Delicatessen Program', was submitted. There, the business potential of the CCB concept was recognised and $100,000 was granted to CCB to assist with the development and implementation of their business plan. The goals of CCB are reflected in their mission statement:

> We are working together to protect and nurture a unique region of the world for future generations. We aim to provide a superior level of safety and service to the discerning, environmentally aware consumers of today (CCB Website, accessed 29/5/01).

At the outset, the CCB group thought that organic beef would be appropriate for the Japanese market and commissioned a research project investigating the possibilities. The research confirmed their ideas (Myers, 2000). Armed with the knowledge that a market existed in Japan for organic beef, the CCB group needed to think about key issues such as organic credibility, consistency of supply, processing and the selection of trading partners in Japan.

One problem encountered by the CCB group was that the term 'organic' does not have a standard definition around the world. Japan did not have a set of legislative standards or protocols for the production, processing, handling and marketing of organic products to their customers. Compounding this problem was the use by meat suppliers of this loophole in the standards to supply product that would not have passed international protocols as 'organic', consequently harming the image of organic products in Japan. CCB producers acknowledged that in order to overcome this they would have to develop a system that they could use to confirm the organic status of their meat. The system would need to be audited

by a third party and would need to be recognised internationally. This meant that CCB would need to be recognised by the International Federation of Organic Agriculture Movements (IFOAM).

The first step was becoming certified as 'organic' themselves. There was little problem with this due to their geographic isolation and, moreover, the fact that practices to date had not utilised chemicals. However, for accreditation to occur, each property required soil testing and inspection. It takes three years for a property to become certified as organic. For this accreditation, the CCB group approached the National Association for Sustainable Agriculture, Australia (NASAA), which then worked with CCB to develop organic certification for beef exports which would be recognised by IFOAM.

Meeting IFOAM standards was a challenge for CCB. The whole process, from 'paddock to plate', had to be examined. Existing management plans were adapted to provide organic management plans covering the full range of farming activities from record keeping, management procedures, handling procedures, standards of physical structures (such as cattle yards), and specifications for maintenance of property resources. A specific set of IFOAM standards needed to be created for transport and handling of cattle and then the system required testing. Problems in the transit of cattle were encountered including the difficulty sourcing organic hay to feed cattle in transit, and housing cattle in organic-certified yards. Queensland Rail had been supportive of the new venture but, during testing, potential problems were encountered en route that could breach the organic status. New communication systems were implemented and the documentation

accompanying the livestock was upgraded to include a revised '*Organic Livestock Movements Advice*' that alerted handlers to the organic status of the livestock. The CCB '*Organic Beef Systems Manual'* that was developed is now a fundamental aspect in the marketing of CCB beef (Myers, 2000).

The second issue that CCB needed to overcome was maintaining a consistent supply of beef. Preliminary investigations of the Japanese market revealed that Japanese retailers would not promote a product or offer a product for sale if they could not offer it all year round. CCB producers needed to overcome hot summers, long distances from processing plants and the possibility of drought to make sure that organic beef could be supplied to meet this criterion. Thus, cooperation of CCB producers has led to formulation of a year round production program. Producers closest to the processing plant are sourced for cattle in the hotter months, some producers are growing organic hay to ensure feed all year round and producers closer to the processing plant have agreed to agist cattle from other organic producers (Myers, 2000).

The third problem CCB needed to overcome was to locate a processor that would meet IFOAM certification. At the time CCB were searching for processors, there were no meat processors in Australia with IFOAM certification. CCB also had decided that a service kill at an existing meatworks would be the best option to suit their needs as this type of meatwork would have export clearances, have the capacity to store product, utilise current technology, and have some marketing expertise and networks. However, it was difficult to locate a processor that was interested in organic beef and willing for the producers to become involved in the

process. While CCB was searching for a partner to process their organic beef, Beefstock Pty Ltd (now known as Smithfield Pty Ltd)[40] was considering the idea of producing an organic product. Beefstock, which is located in Queensland, had been built with the ability to specify and deliver products for each individual client. Feedback was also a high priority for Beefstock and the plant had been designed to allow trace-back of individual carcasses and individual cuts of meat. Thus, a business relationship was formed and a Memorandum of Understanding was drawn up to formalise the relationship between CCB and Beefstock. Beefstock agreed to become IFOAM certified and made the necessary changes. Procedures and standards were agreed to ensure the segregation of organic product throughout the processing plant until it was boxed and stored for shipment. The system also ensured that the product could be traced back to a specific property and, through on-farm records, even to a specific paddock (Myers, 2000).

CCB visited Japan in August 1998 and met with seventeen potential partners including trading houses, wholesalers, embassy personnel, '*Meat and Livestock Australia*' officers, supermarket retailers and smallgoods manufacturers who gave the CCB group some options regarding potential trading partners. From these meetings, CCB decided that four companies seemed to share the CCB vision and were willing to be part of the newly-emerging market for organic beef. The first shipment of CCB beef to Japan occurred in February 1999 (Myers, 2000). In 2000, more than four million dollars worth of CCB beef was exported

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40 Pseudonyms

to Japan and a further one million dollars worth was sold on the domestic market (Henschke, 2000).

Despite the apparent success of CCB, the alliance has faced a variety of challenges in regards to production practices. For example, as organic producers, CCB producers do not have the flexibility of selling off stock in a drought and restocking when it rains, as they need to maintain organically certified herds. Thus, producers stock more conservatively compared with 'conventional' producers to ensure that cattle can be carried all year round. Further to this, as with NPB, CCB producers cannot use chemicals to control noxious weeds and pests, and have needed to implement mechanical means to this end.

Conclusion

This chapter has introduced and described four beef chains – CQ Beef, Green Grass Beef, Natural Pastures Beef and Channel Country Beef. This was included in order to provide context and a basis for further in-depth discussion of the results obtained from interviews conducted with actors along the aforementioned beef chains. This chapter has already begun to draw attention to significant issues pertaining to the way in which quality is conceptualised along beef commodity chains. The commencement of the chapter, in providing a potted history of the beef industry in Australia, has introduced some of the possible constraints to creating and maintaining a viable beef industry. These include climatic conditions, trade agreements and market conditions. Food scares were also introduced as a constraint to the viability of the beef industry. Certainly, a

number of food scares both within Australia and internationally, have contributed to the implementation of quality assurance systems – systems designed to identify and address potential food hazards in the production, processing and handling of beef – so that Australian beef could be promoted as safe. Indeed, the application of QAS in providing standards for mainstream beef production and distribution in CQ and, more generally, Australia, has emerged as a material feature of the CQ Beef chain. Here concepts of quality are transformed into sets of standards that assist in regulating processes of production and distribution in order to ensure a minimum level of food safety and hygiene. However, as discussed in Chapter 2, this conceptualisation of quality can be seen as problematic as it not only becomes a feature that promotes standardisation, but which itself becomes a standardised notion.

Following several failures in QAS and further food scares in recent years, some CQ beef producers have developed 'niche market' beef, working on the premise that local and/or organic beef products with recognisable brands or certification are construed by consumers to be safe and, therefore, of quality. Whilst adhering to food safety standards as imposed by FSANZ, Green Grass Beef, Natural Pastures Beef and Channel Country Beef are examples of beef chains that have produced and distributed a niche beef product based on symbolic notions of quality. Green Grass Beef, for example, is a branded beef product that specifically uses notions of locality as a symbolic indicator of 'clean and green', and hence of quality, in order to differentiate it from other beef products. Similarly, Natural Pastures Beef and Channel Country Beef have also addressed consumer demands for 'clean and green' beef by adopting certified organic

production and distribution systems. Although this move has proved successful in verifying product quality for these niche chains, the certification process, as discussed in Chapter 2, can be construed as similar to the application of QAS. Certification processes invariably reinforce consumer notions of quality, whilst adopting minimum standards and attracting a premium price.

This chapter has established that food safety and quality are increasingly being viewed as crucial marketing tools underpinning the profitability of the beef industry. Indeed, safety and quality have emerged as crucial discourses that bind together a number of social actors involved in the beef industry. However, whilst quality is deemed vital to the beef industry, it is apparent that quality can be construed differently by different people and in different situations. This observation begs further investigation of the differing meanings of quality to actors along beef chains and of the ways in which quality is used along beef commodity chains.

Chapter Five

‘Making Quality’: The Production of Beef Cattle in Central Queensland

> *There’s the production first. To get a high quality product, you have to have good quality cattle, you have to have good quality pasture and then you have to have good quality management… You have to have good quality management of the product and the pasture and then of the transportation and handling of that good product that you have produced down to your processing plant. Then it has to be processed in accordance to the criteria that we have set. Temperatures are very important and that’s… Well, that’s pretty well got the production of a high quality product (Cameron, Producer, GGB).*

The above quote brings to attention that practices and processes associated with beef production are of importance in the attainment of quality. It does not focus so much on the physical characteristics of the product or the characterisation of what a quality product is, but instead implies that quality emerges from a plethora of social relations occurring in beef production.

Chapters 1 and 2 demonstrated that quality has been conceptualised in a variety of ways by different disciplines. In the main, food quality has been conceptualised either as a physical entity defined by objective and measurable characteristics of the product (a material feature of food) or, alternatively, as a discursive practice which sees the construction of quality as a subjective account of what people like, ‘determined within cultural systems of signification and

economic systems of capital accumulation' (Mansfield, 2003b, 10). This is certainly apparent in producer accounts of quality as will be shown in this Chapter. However, it also is apparent that quality is more than either a physical reality or a discourse of what people like. Chapters 1, 2 and 4 highlight that, in an increasingly competitive global food environment, producers and retailers are using quality as a tool both to demonstrate food safety and to differentiate products in their attempts to maintain market share and boost profitability. This phenomenon has ignited the interest of a number of researchers who are concerned with the ways in which agriculture and food production are organised and theorised.

In recent years, researchers of food and agriculture have emphasised a need to further understand the ways in which quality is conceptualised and integrated within processes of food production and consumption. This need is further accentuated by the preoccupation within the social sciences to address dualisms of nature/society and production/consumption in studies of food. In recognising these needs, a key problematic of this thesis concerns how quality is conceptualised along food chains and how it mediates relationships amongst a number of social agents, from food producers to food consumers. The aim of this chapter is thus to provide an understanding of how quality orders processes of beef production in Central Queensland. With recourse to phenomenology and key tenets of actor network theory, this chapter offers an examination of the discourses pertaining to quality for actors involved in primary and secondary processes of beef production. Understanding how quality is conceptualised allows

for discussion of how quality orders material relations of beef production and, ultimately, the viability of the beef industry.

Conceptualisations of Quality for Beef Producers in Central Queensland

Ascertaining the ways in which discourses of quality order relationships of production necessitates consideration of the social practices of actors in their context of action. For this study, this involves gaining an understanding of both the meaning of quality for actors involved in beef production and of the knowledge, resources and technologies they may use in order to progress activities of beef production. As described in Chapter 3, in-depth, semi-structured interviews and focus groups were conducted to gauge participants' views about beef quality. All participants were asked the question, 'What do you think makes quality beef?' As portrayed in Table 4 (Chapter 4, 141) participants utilised a variety of terms to describe quality. These terms were organised according to how participants described quality in relation to particular processes of transformation along the production-consumption chain. The organisation of these key terms highlights an issue central to a discussion of relationships occurring along beef chains. That is, *the terms utilised by participants to describe quality do not distinguish between the symbolic and material attributes of the final product and the actions of particular human and non-human actants that contribute to those attributes*. The terms utilised also fit into more than one category. This is significant: firstly, in relation to how key actors negotiate a conceptualisation of quality; and secondly, how their conceptualisation of quality

is then utilised to negotiate and order activities and relationships along and within beef chains. For example, Cameron (the GGB producer) grazed his cattle on grass regardless of whether his cattle were destined for the CQ beef chain or the niche market he had developed. In promoting grass fed beef as a high quality product, grass was reconceptualised as an attribute of quality that adds value to a product. At the same time, the activity of promotion may lead consumers to believe that feeding beef grass affects eating quality in terms of it having more flavour. Cameron has both renegotiated quality and also effectively influenced the conceptualisation of quality by consumers. That is, he has exerted some sort of 'action at a distance'.

Drawing upon further discussions with participants, it is evident that there was no one definitive discourse of quality underpinning beef production. This is consistent with ANT literature which, as discussed in Chapter 2, views networks as being underlain by multiple modes of ordering or relationships. An examination of participant dialogues in this study revealed that discourses of quality were related to the material practices of producers that affected the material characteristics of the final product. Importantly, it emerged that a notion of quality in relation to production processes was largely determined by a constructed notion of quality as related to consumption practices. That is, production processes of beef were geared towards meeting a perceived notion of a quality product as thought to be 'demanded' by consumers. For producers, in particular, preconceived notions of quality as consumers might define it ultimately directed the practices through which beef production was undertaken. Thus, quality, in relation to production processes, was utilised in a way that

attempted to maintain stable arrangements between producers and other actors within the chain. For producers, maintaining stable relationships also meant maintaining a livelihood.

From the perspective of ANT, the production of food is not just carried out by an individual farmer, but instead results from a collective of humans, material things, nature, technologies, laws and regulations, scientific conventions and so forth (Callon, 1986). Discussions with beef producers in this study aligned with this perspective. This was evident through the ways in which producers incorporated quality into a discussion of beef production. In this study, producers viewed quality in a variety of ways. Firstly, 'quality' was split into dimensions related to the possible outcomes of processes of production that producers aimed to achieve. In relation to 'Making Quality', participants alluded to three dimensions; these are termed 'Tenderness', 'Product Safety' and 'Consumer Satisfaction'. For primary producers, each dimension was seen to consist of 'attributes' that characterised the dimension and 'factors' that affected each attribute. For example, primary producers believed that the conformation of cattle, which was itself affected by cattle breed, nutrition and presence of pests, affected the tenderness of beef meat and hence its quality. Participants spoke also about the practices and activities they utilised in order to manage and attain quality beef.

Tables 5 and 6 provide a summary of each quality dimension for both primary producers and secondary producers respectively. As portrayed in these tables, each dimension of quality contains some common categories and subcategories

that consequently inter-relate and interact. This serves as a reminder of the plurality of discourses that underpin relationships within networks or commodity chains.

Table 5: Factors Affecting Quality and Related Management Practices: Primary Production

Dimensions of Quality	Attributes of Quality	Factors That Affect Quality	Management Practices
Tenderness	***Conformation***	Feed/Nutrition	Pasture Management
		Breed	Genetics/Breed plans
		Climate	Pasture Management Breed
		Pests	Chemicals Breed Pasture Management
	Temperament	Breed	Genetics
		Stress	Handling Breed
Product Safety	***Animal Health and Welfare***	Illness	Vets/Drugs Nutrition Handling
		Nutrition	Pasture Management
		Pests	Chemicals Breed Pasture Management
		Stress	Handling Breed
Customer Satisfaction	***Consistency***	Feed/Nutrition	Pasture Management
		Breed	Genetics/Breed plans
		Processing	Specific Slaughtering Procedures
	Safety	Diseases	QAS
		Contamination	QAS

Table 6 Factors Affecting Product Quality and Related Management Practices: Secondary Production

Dimensions of Quality	Factors that Affect Quality	Management Practices
Tenderness	Conformation/Temperament	Production Practices
	Stress	Handling of Cattle
	pH levels	Science and technology
	Temperature	QAS
	Aging	Packaging Technology
Product Safety	Microbial Activity	Food Safety Standards QAS
Customer Satisfaction	Meat Quality Type of Service Price	Relationships between producers, processors, retailers and consumers

ANT not only suggests that networks or chains of food production are likely to consist of a multitude of actors; it is concerned moreover with how these actor collectives are woven together to build and maintain strong networks (Callon, 1986). In this study, quality revealed itself as a powerful 'mode of ordering'[41] that not only wove its way through discourses of beef production but which patterned process and practices of beef production. The dimensions of quality, as indicated above, form a thematic basis for both a discussion of the conceptualisation of quality from the point of view of actors involved in CQ beef production and of its role as a 'mode of ordering'. Themes of 'tenderness', 'consumer satisfaction' and 'product safety' are thus discussed below.

Tenderness

'Tenderness' emerged from the data as one of the most important aspects of quality for both conventional and niche market producers. As indicated in Table 6, 'tenderness' was underscored by attributes that related directly to the conformation and temperament of the animal. According to participants, conformation referred to the size, weight and stature, or the physical properties of the animal; while temperament referred to the mental and emotional state of the animal. Although different markets for beef may demand different qualities of

41To reiterate, Law (1994) formulated the notion of a 'mode of ordering' to show how networks are strengthened or made durable. The concept of a mode of ordering attempts to capture the ways in which socially constructed discourses and practices enable the engagement and involvement of a variety of actors within a network. A mode of ordering takes as its premise that social practices do not exist in and of themselves (Lockie and Kitto, 2000). Instead social practices are seen as outcomes, or as 'generative effects of networks' consisting of a multiplicity of social actors (Law, 1994, 110).

beef meat[42], a common goal of production between mainstream and niche market beef producers alike was to produce cattle that, when slaughtered, would provide tender meat. All producers in this study agreed that it was necessary to raise cattle that are not stressed, have good conformation and which yield a large amount of meat. For many primary producers, income was dependent upon the carcass weight of the animal. The greater the weight or the more meat an animal yields, the greater the income.

As depicted in Table 6, beef producers identified five factors as bearing crucially on primary beef production. These included, the type and amount of feed the animal had access to, the breed of cattle, variations in the climate or weather, the effect of pests, and the exposure to stressful situations. Significantly, it is important to note that four of these factors – feed, breed, climate and pests – can be related directly to nature. Literature discussed in Chapter 2 indicates that 'nature', in productivist accounts of agriculture, acts to limit the productivity of labour and restrict capital investment (Page, 1996). However, it emerged from participant discussions that the role of non-human entities – especially those that can be related to nature, such as climate, pests, breed and feed – are more central to beef production than given credit for. This was especially so for organic beef chains that associated quality with 'clean and green' discourses.

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42 The terms conformation and temperament are dependent upon particular social contexts and the activities occurring within those contexts. For example, 'good conformation' in the context of beef produced for the Japanese market relates to cattle that have a considerable amount of visible fat coverage. On the other hand, the Australian domestic market tends to demand a leaner animal. Thus, a notion of quality in relation to beef is also dependent upon the market for which beef meat is destined.

Drawing upon the ANT concept of a mode of ordering and its corollaries of collectivity and hybridity, the following discussion thus considers the ways in which non-human entities influenced processes of tender beef production along CQ beef chains. As this thesis is looking at both mainstream beef production and niche market beef production, the discussion specifically focuses on how discourses of quality were contested and the way in which they interacted. However, it is also important to note that networks operating according to different discourses can in fact:

> overlap in space-time; sometimes occupying separate spaces and establishing discrete lines of connection; and sometimes explicitly oriented towards challenging their modes of ordering' (Whatmore and Thorne, 1997, 295).

Nature and Discourses of Tender Beef Production

Results from this study make it difficult to deny that nature figures crucially in discourses of beef quality amongst those involved beef production. For organic beef producers particularly, the connection between nature and beef quality was interdependent. Terry, for example, explained how the geographical attributes of the region were essential to producing quality and making organic beef production desirable:

> *The Channel Country region we're talking about is far distant from any intensive agriculture. The region is inherently free of disease; it is free of ticks because it is arid. It's free of internal parasites, worms, et cetera, because it is a reasonably dry air region. The country is not always wet. So, it's free of pests, diseases and the need for chemicals.*

> *The pasture is varied. The bigger properties in the Channel Country would mostly all be able to say they have got a couple of hundred different species of native pasture and herbs available. The composition of the pasture is also different. The quality of the pasture, the protein quality is very good. In a low rainfall environment in a flat-type country, which we are, there is very little leaching of the soils because it is flat and essentially what natural fertiliser was in the country a million years ago is still here because it has not been subject to high rainfall falling on sloping ground which drains it to another part of the region or the sea.*

This quote not only makes explicit the connection with the environment for organic beef producers, but it demonstrates the way in which climate was seen to bear on both the quality of food (pasture) and the presence of pests – two factors that were upheld as affecting beef quality for all producers.

For mainstream beef producers, the construction of environment and its impact on quality was subtley different to that of organic producers. In line with observations made by Stehlik, Lawrence and Gray (2000) that most farmers construct climate as an occurrence of nature that cannot be avoided and which is outside their control, conventional producers in this study claimed that 'you can't do much about the weather'. Whilst saying this, however, these producers still argued that the impacts of the environment and climate on beef production were manipulable through production practices and management.

As indicated in the opening quote to this chapter, the sentiment amongst producers was that beef quality is affected first by production practices on the

farm and then by processing procedures. In fact, graziers pointed to a plethora of on-farm management decisions made in conjunction with the peculiarities of the physical environment that were perceived as most affecting beef quality. As indicated in Table 5, these included, amongst others, choice of cattle breed and management of food sources (pasture), mechanisms of pest control, type of production system (organic or non-organic) and techniques of farming (extensive or intensive).

For most mainstream producers, the breed of cattle was considered a most important factor in determining beef tenderness. As described in Chapter 4, cattle bred and grazed in areas to the north and west of Central Queensland were Brahman or Brahman cross cattle. These breeds were deliberately selected as they were considered suited to hot and dry conditions and were tick resistant. On the other hand, organic beef was grown further south and south west of Central Queensland, where the presence of ticks and other parasites such as buffalo fly were minimal. Organic producers tended to breed and graze British breeds such as Herefords and Shorthorn, or British and *Bos indicus* crossbreeds of cattle such as Santa Gertudis Cross and Red Angus as these breeds fattened quickly and were thought to produce more tender meat than Brahman. Indeed, there was a consensus among many participants, including producers, processors and retailers, that different breeds of cattle produced different qualities of meat based upon differing genetic traits. Thus, it was deemed important to breed and raise cattle that were not only suited to the physical environment, but which also produced tender meat. To achieve this, producers would select cattle with

desirable traits to breed and cull undesirable animals in the herd, ultimately manipulating the gene pool.

The idea that meat quality was an outcome of genetics not only resonated with participants in this study, but was also considered at an industry level. In fact, research being undertaken within the beef industry to locate a gene for beef tenderness highlights the importance of breed selection in producing quality meat. It also, however, draws attention to the way in which nature and quality are manipulable through human intervention and technologies.

Breed selection and gene manipulation was one approach to managing environmental factors that affected beef tenderness. Managing the food source was just as important to mainstream and niche market producers alike, as problems such as weight loss, loss of condition and illness occurred if animals did not have access to enough good food. In this study, there was a consensus by producers that grass was the food of choice for the production of quality beef. Although grass was considered 'natural' and, therefore, good for cattle, producers realised that the quality of the pasture varied depending upon the geographical area and, in particular, the climatic conditions and soil conditions of that area. For graziers, therefore, activities of pasture management, such as burning, chipping, fertilising, irrigation and stock rotation, became important for those wanting to produce healthy cattle.

Study findings showed moreover that for organic producers, especially, activities of pasture management were not only employed for the health of the animal, but

for the sake of the environment. Organic producers displayed a particular concern with the ways in which the unique geographical attributes of their land constituted the foundation for both their businesses and their lifestyle. As Ken succinctly states: *It's just about farming for the future, basically. You know, so you've got something left.* Furthermore, for these farmers, care of the land was an ethical issue in that a non-maleficent or at the very least 'to do no harm approach' was taken, as evidenced by Sam's comments:

> *The main issue to me as far as organics are concerned is this clean and green idea. We've got the idea that people are not going to be harmed by what they eat meat as, and a primary consideration is that the Hippocratic oath tells us basically first do no harm, but we can see harm coming from some of the practices that are happening… My long-term views for the place would be, I hope it's still in the family in ten generations, looking at long-term projects like trees.*

By contrast, the discourses of mainstream producers downplayed issues of environmental sustainability. In fact, the topic of the environment resulted in a number of reactions. Some producers, such as Chris and Cameron, denied the implication that some farming practices had contributed to environmental damage. Cameron, for example, argued that: *most producers on the land have been practising sustainable agriculture for the last hundred years. Otherwise we wouldn't be here now.* Other producers acknowledged that environmental harm had been done but attempted to shift the blame from producers. James, for instance, commented that:

> *I remember when I was a kid, my Granddad was opposed to ringbarking trees, but that was the DPI thing, and cattle were the Lands Department. If you took up a block of dirt or had a leased block you actually had to clear or ringbark it or else the lease would be revoked. That was the line you were sent in. All those old baldy hills that you can see around here was back in the 1940s when the prescribed advice was to ringbark trees and grow grass.*

Most producers claimed, moreover, that it was due to nature itself that the uses of certain practises were required. For instance, a cohort of CQ beef producers argued that, even though organic methods of farming may be better for the environment, it was impossible to practise organic farming and produce quality beef in the region in which they lived. Frank demonstrates this in saying:

> *Years ago, for our own consumption, we had our own organic beef, but (you know) it is very hard to do that meat because you hate to see a beast full of ticks or buffalo flies. The quality suffers because if you have, for instance, buffalo flies on an animal, that animal cannot rest because it is constantly on the move to get rid of the flies. So, if it is constantly on the move it will lose weight, and…it gets nervous. But if a beast gets nervous – if you kill a nervous beast – you can't eat the meat; the meat is tough.*

Although mainstream producers used the excuse that organic methods of farming were difficult to practise in the face of nature itself, the decision to not implement more environmentally friendly farming practices was more likely a result of the economic imperative to maintain a certain level of production. Indeed, it was assumed by most producers that organic farming was more expensive to initiate

and not as efficient or productive as conventional methods and, therefore, deemed not viable. James contemplated this issue:

> *I don't know how we would get the same production. I think if you went organic your production would go down because you've got problems – you know, buffalo flies and stuff like that. Some of these things are introduced and they are not native to our environment, so they are the ones that are most difficult to do something with. Take this bloody parthenium. You couldn't spray or do something with it; you couldn't go and pick it with a hoe – there is just that much of it (you know). So to be an organic farmer, you have just got to go and chip the stuff out, haven't you? Pull it out and whatever; and I find that's very difficult. I would think that for everybody to go completely organic, the production would go way, way, down. I don't think you are going to get as many – as big a barrel full of it to eat – as what you used to get. I think it all boils back to consumer dollars, doesn't it? It's economical.*

Conversely, in conjunction with environmental and ethical imperatives, organic producers believed that economics was a further motivation for converting their farms. Sam explains:

> *The motivation that finally kicked me into getting certified was the fact that I read an article in the Country Life Newspaper that was a view to the long-term future in the beef industry. They talked about using genetically engineered grasses, genetically engineered bugs in the rumen of the cattle, the cattle themselves would be engineered and they would have absolute maximum productivity. That idea didn't impress me too much, the other side is that you would have to be a big player, you would have to have a lot of money to buy into that technology,*

> *and I obviously don't. So I looked at what a small property could do and of course the answer was to go in exactly the opposite direction, to go into the organic side of things, which fitted in with my family's philosophy anyway, so then we went and got ourselves certified.*

Terry further adds that the imperative for CCB to become organic was related to:

> *Value adding and the chance to promote the product from the region to not only make money but also to give the people doing it a sense of pride and ownership of something from their region.*

The debate concerning the extent to which organic farming is financially competitive with other farming approaches is not new or isolated to this group of participants. In fact, a number of studies have compared the financial performance of organic farms with conventional farms (see for example, Wynen, 2002, 2006; Lampkin 1994; Wynen and Edwards 1990). Studies such as these have found that a variety of outcomes is possible (Chang, Zepeda and Griffith, 2005). While most report declines in both productivity and profitability, there are numerous exceptions. According to Wynen (2006), the more that farming systems are based on intensive use of synthetic inputs the more likely they are to suffer high productivity losses under organic management. The low input beef production systems of the Channel Country were, from this perspective, prime candidates for profitable organic conversion while more difficulties could be expected in the higher input coastal production systems. Nevertheless, it may be expected that with a range of outcomes possible, for the present time at least, such debates are likely to continue.

It is evident from the results that although quality (tender) beef production is recognised as being affected by nature, in the main, CQ beef producers would attach precedence to human social practices in the production of tender beef. For participants in this study, primary activities of production such as breed selection and provision of good food were important factors that contributed to tender beef. However, producers also pointed out those secondary activities of production, such as processing, were also important in attaining quality. In fact, in all beef chains, a variety of participants discussed beef quality in relation to the slaughter processes. The slaughter of the animal and its related processes were emphasised by producers and, particularly, processors and retailers as being perhaps the single most important activity that contributed to making a quality product. Indeed, for some larger CQ beef production chains, activities of processing were considered just as, or even more important than, that of primary production. In this sense, non-human actors in the form of the environment and the cattle are rendered passive in discourses of quality. Perhaps even more significantly, by viewing processing as the main contributor to quality, processors and other actors, such as marketers and retailers, were able to eschew the part played by those human actors operating closest to the physical interface – the producers themselves.

Nevertheless, in acknowledging secondary production procedures as affecting tenderness, agency was attributed to an alternative array of non-human actants. Predominantly these were technologies and techniques utilised to enhance and maintain tenderness. Those spoken about included: kill technique, tender-stretching, electrical stimulation, chiller assessment, temperature control and

packaging material. It is to the interdependent involvement of these actants and human practices on the production of tender beef that this discussion now turns.

Technology and Discourses of Tender Beef Production

While it can be observed that, for conventional beef chains, environmental non-human actants seemed to constitute a mere 'cipher for human intentionality and practice' (Goodman, 1999, 23), technological non-human actants, on the other hand, were embraced for their active contribution to quality. In fact, it was emphasised that *'in order to maintain high quality, it is important to have high quality machinery and equipment'* (Bradley, CQCA), as this was the key to dealing with factors that affected meat tenderness such as pH levels, temperature and aging. Technology, in the form of beef processing equipment and knowledge, was similarly deemed as critical to niche beef production networks. Indeed, the conditions under which cattle are slaughtered and processed can be viewed as seminal to the tenderness of the final beef product. In fact, niche market producers not only expressed the importance of processing techniques and technologies in 'making quality', but also demanded of processors that their beef was slaughtered in a specific manner. Cameron, highlights this point:

> *I can spend three years producing a magnificent beast so I make sure it is processed as I say and it is electrically stimulated. Firstly, it's produced under the conditions that we've talked about, it's transported without stress, it's slaughtered, electrically stimulated, it's chiller assessed to the highest standard. They [processors] should take out any that don't quite make it, then it's aged and then it's kept at the right temperature at the processing plant where we store our beef.*

> *It's processed at a non-fluctuating temperature to ensure that the aging process takes place, then it's transported to a retailer or a restaurateur or whatever at the right temperature and they keep it in their cold room.*

Cameron was not alone in specifying the slaughter conditions for his beef. CCB also had strict specifications for the transformation of their product, which, as with Cameron, utilised the most current technologies available to their processing units. In addition to the use of technology, it was also important that the processing units ensured that the niche market products remained separated from other products all through the processing activity. This was particularly important for the organic producers who needed to avoid cross-contamination. Sam (NPB) placed so much importance on this that he personally supervised all processing of his product. In so doing, he made clear how beef production procedures were embedded in local socio-agricultural practice. Moreover, the imperative to ameliorate the centrality of humans in performing his goal is also highlighted:

> *I pick out the cattle that go for slaughter. Originally, the ones had over six teeth were sent, but now they are slaughtered younger… In January I purchased a purpose built trailer and about every five weeks I take two to three down…One of the things you have to ensure in the industry of course is that the animal you send along is the one you get back so I had concerns about that initially. Joe and none of his staff have had any problems with me being there. I felt a bit like I was, I won't say spying on them, but I just felt awkward about being there and observing their work but all I'm trying to do is fulfil my obligations to the organic beef industry and what I myself expect to happen. Because they are not a certified organic slaughterhouse or organic butcher, I'm fulfilling my obligations*

> *here of making sure everything is done properly. The feedback I get from following this every step along the way has been excellent. I can see what's happening with my animals.*

The material characteristics of beef and the environment from which it comes undoubtedly played a role in definitions of quality for producers. However, by including processing as a key influence on beef tenderness, it can be further highlighted that quality is not just a material characteristic or a discursive practice but it also results from the outcome of distinct relationships. In relation to secondary beef production, tenderness resulted from not only the actions of producers and processors, but also from the use of certain technologies and processes post-slaughter.

Section Conclusion: Discourses of Quality and Tender Beef Production

> Any definition of quality is determined by the many facetted interactions of all those involved in the realisation and appreciation of the final product (Ventura and van der Meulen, 1994, 129)

Literature indicates that discourses of quality are highly contestable in the production of food. Indeed, perspectives on what quality is and how it may be measured can vary among actors involved in food production and between different types of food chains. For this study, this perspective rings true. Notions of quality were contested among and between different types of producers and their respective businesses. However, as evidenced in this section, tenderness, as a discourse of quality, resonated as a crucial business goal of mainstream producers, niche market producers and processors alike. The way in which

tenderness was achieved was, therefore, a main issue of discussion for this section.

A key finding of this section relates to the 'materiality' of non-human actants and their capacity to influence or order practices of beef production. For organic beef production enterprises, the enrolment of nature – in particular, the environmental peculiarities of the region and of the cattle themselves – was fundamental to the durability of these beef chains. In fact, nature became, in effect, a way of adding value to beef production. However, as results indicated, this was not the only motivation for becoming organic. Organic producers also revealed an innate ethical imperative to do no harm to the environment that supported their businesses and also of the health of people who consumed their product. For mainstream beef producers, nature was similarly fundamental to the durability of their beef chains. In contrast to organic beef producers, the need to maintain efficiency and productivity led to practices that were sometimes at the expense of the environment.

As a collective group, graziers were able to demonstrate how non-human actants – namely the cattle – affected their business fortunes. Cattle that were not well conformed did not yield as much meat as those that were. In the main, good conformation was known to be the outcome of a number of factors including breed and pest control but, most importantly, the quality of the food they had access to. Substandard food sources were known to be caused by capricious climatic conditions. Producers would thus align their practices to manage these conditions.

Beef tenderness was not only seen as an outcome of primary production practices. For producers, secondary production procedures also impacted highly on the quality of the final product. An important finding here related to the way in which nature ceased to exist as an actant upon tenderness. Instead, emphasis placed on processing procedures by producers engendered the attribution of agency to an alternative array of non-human actants, chiefly those of meat processing technologies. Consequently, quality was treated as a physical property of the meat itself. It became malleable through the application of certain technologies.

Tender beef production, therefore, appears to be at the same time material and social. Whilst its conceptualisation, as a discourse of quality in primary beef production, is shaped by values of nature and related economic and social practices, it also emerges at a processing level as a set of malleable physical characteristics open to further negotiation. This situation thus allows potential for more powerful actors in the beef production chains to appropriate their own definitions of quality and impose it on others. Indeed, for those producers who have contract arrangements with large food retailers or marketers this already seems to be the case.

Consumer Satisfaction

> There is a consumer revolution going on out there, and the beef industry has to catch up if it wants to remain part of the meal supply industry (Morley cited in Collie, 1997, 4)

As indicated in the beginning of this chapter, an important finding of the thesis pertains to the way in which production processes are geared towards meeting a perceived notion of quality as thought to be demanded by consumers. Indeed, mainstream beef chains placed emphasis on the importance of consumer satisfaction as an overarching concern for the beef industry. However, despite claims that the beef industry acted in response to consumer demands, this study found that it was difficult to determine how consumer needs actually were communicated to beef producers. In fact, it emerged that virtually the only point in which direct contact was made with potential consumers was at the retail outlet and, even then, no questions were asked about what consumers desired. It seemed to be taken for granted that Australian consumers sought lean and tender meat and thus practices were attuned to deliver such a product consistently. Indeed, consumers found it difficult to purchase beef with differing traits and would invariably 'make do' with what was on offer. This suggests that while it would be a mistake to assume that since consumers purchased what was on offer this product must have met their demands, this is exactly what producers and other actors did assume. Perception of 'consumer demand', it thus seems, is an important arbitrator of production practices for quality beef.

For niche beef market chains, this is undeniably the case. One reason for CCB and NPB chains gaining organic certification was that they had noticed seemingly distinct shifts occurring in consumer 'demands' for 'clean and green' product following a spate of food scares worldwide. In noticing this, they tangibly aligned their production practices with that of consumer perceptions of beef quality and their related attitudes and practices. In so doing, they have offered a unique

approach to beef production; one that opposes the need to focus solely on productivity but instead places the assumed needs of consumers at the forefront of their operations.

Resembling work conducted by Ilbery and Kneafsey (2000), this thesis recognises that consumer conceptions of quality cannot be understood without considering meanings attached to other key terms which themselves incorporate definitions of quality. This is particularly so for niche market beef producers. Guided by concepts of quality as identified by Ilbery and Kneafsey (2000, 219), 'attraction and association', knowledge, 'specification', and 'certification' are explored in the following. To reiterate discussion posited in Chapter 2, meanings such as these are firmly embedded in, and are difficult to separate from, the social interactions within which they are constituted.

Issues of Attraction and Association in Niche CQ Beef Chains

As discussed in Chapter 2, Ilbery and Kneafsey (2000) propose that 'attraction' is where beef producers attempt to tap into the subliminal wants of consumers in terms of features such as taste, texture and appearance. In this study, CCB in particular was at the forefront of the expanding Japanese market for Australian organic beef. Beef produced in the Channel Country was as unique as the area in which the beef was produced. It lay in an inland draining basin which provided a rich and varied food source. The climatic conditions were not conducive to pests such as ticks and buffalo fly, and thus the cattle were rarely stressed. Cattle produced in this region were British breeds that were considered to yield more

tender meat that was considerably more marbled than breeds used in other Central Queensland regions.

Attraction for the CCB chain had the potential to be achieved at two levels. First, the texture of the meat itself was a critical characteristic that made this beef attractive to Japanese buyers. According to Mitch, quality for the Japanese market *'is a very well marbled piece of beef'*. However, the tenderness and flavour of the product may be an attractive feature to other markets. Indeed, CCB had begun to establish markets for their product in Hong Kong and the U.S. based on these characteristics. Second, CCB beef producers sought to make connections between the material characteristics of Channel Country beef, the environmental characteristics of the geographic region in which it was produced, and the subjective experience of consumption. As discussed in Chapter 2, research indicates an affinity, by consumers, for foodstuffs that are produced in an identifiable locality or region that has meaning for them (Winter, 2003). GGB, similarly, marketed its product on the premise of association to a particular locality of production and its assertion that food produced in an identifiable locality is often assumed to be of a higher quality than food that is not produced in a recognisable locality or region (Nygard and Storstad, 1998).

For Cameron, however, quality was not only embedded in characteristics of the local geographical environment but also pertained to those people who were involved in production processes of beef. The centrality of the human in production of quality is thus highlighted:

> *GGB is a product of the highest quality produced in the world. It's produced here in our own Central Queensland pastures, our product is bred in the lower Gulf Country, where my brother and his partner run the Green Grass Cattle Company. He runs our breeding and stud operations. I manage our growing and fattening operations, northwest of Clermont and at Croydon halfway between here and Mackay. We developed a brand and it comprises of product that comes off 2-3 year old ox, which is a male beast. It's approximately 300 kilograms, dressed weight. They're produced on grass fed pastures. They're looked after to the highest degree. Our day to day management is carried out by an experienced team of long serving people who we have had working for us for many years.*

It appears from this quote that is it not only association and specification[43] that contributes to the attractiveness of the product, but that of trust in the people who are producing beef. Trust, in recent years, has become an issue of focus within food production chains, as have the mechanisms that direct trust (and distrust). The primary dimension of trust discussed in the literature pertains to knowledge of who is producing beef and of the techniques they employ. However, the above quote draws attention to the maintenance of trust not just along the commodity chain but within the modes of that chain through labour organisation and practices that - in contrast with the routine work and surveillance of Fordist production systems - focus on building social capital.

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43 To reiterate, Ilbery and Kneafsey (2000, 219) viewed specification as 'the use of specific production methods and raw materials'.

Trust is a major contributor to the attractiveness and success of the NPB product. In the attempt to establish trust, Sam believed it was important that his customers knew about how his business operated. In fact, when potential consumers approached him, Sam supplied them with an information sheet (see Appendix 8) that outlined where his beef was grown, his marketing strategy and reasons for this approach, and the cost of the product. Additionally, Sam dealt directly with his customers, ensuring that he had regular contact and continuous feedback. Many of his customers, furthermore, had the opportunity to see the everyday conduct of Sam's business. Most were aware of the practices of production that Sam employed. In this instance, it seemed that consumer knowledge of production influenced their perception of what is held as quality. This resonates with work conducted by Lee (2000) in his examination of small-scale horticultural nurseries. In particular, he found that the sharing and dissemination of information and knowledge ensured the continuance of an exchange relationship. Indeed, knowledge has been esteemed as strengthening network relations all along food commodity chains (Morgan and Murdoch, 1998).

Knowledge and Agricultural Systems

Recent years have seen discussion within food studies increasingly focused on the role of knowledge systems in agriculture (Goodman and Du Puis, 2002). At the core of discussion is the way in which sustainable agricultural movements (such as organic farming) have set themselves the task of reversing or mitigating the environmental problems associated with conventional agriculture (Sachs, 1996). As discussed in Chapter 2, industrial agricultural systems developed partially in response to innovations in science and technology generated by an

agribusiness, government and university triad (Hightower, 1973). However, for Kloppenburg (1991, 523), this applied knowledge has contributed to 'a conventional, non-sustainable, non-regenerative, high-input, homogenous agriculture'. Alternative forms of agriculture thus require an alternative system of knowledge production, particularly about farming practices, because:

> Agricultural science as currently constituted provides neither a complete, nor an adequate, nor even a best possible account of the sphere of agricultural production. Indeed, it is in large measure an historical over-reliance on this partial knowledge—and a failure to recognize how specifically situated that knowledge is—that has brought our agriculture to its present straits. (Kloppenburg, 1991, 520)

For Kloppenburg (1991), conventional agricultural knowledge consists of 'immutable mobiles' (Latour, 1986); that is generalised information that can be transported and applied to any place in any situation. Knowledge about alternative agriculture, he argues, should be composed of 'mutable immobiles'; adaptable and flexible forms of information that are specific to particular places. He calls for the development of an alternative science; a science that includes the experiences, values and local knowledge of farmers. Research in this direction emphasises the forging of relationships between farmers who practise environmentally sustainable farming and the conventional knowledge institutions such as universities (Vos, 2000). This suggestion has received substantial support from academics. However, as pointed out by Flora (1992, 93), a move to an alternative research agenda, as posited by Kloppenburg, 'challenges the hierarchy of knowledge production and the hegemony of traditional research institutions'. Considerable discussion has been sparked in relation to how and where local

knowledge is produced and shared and whether current agricultural institutions and systems are capable of such change (see Flora, 1992).

Extending upon work undertaken by Hassanein and Kloppenburg (1995), Hassanein (1997) conducted research into the experience of women farmers involved in knowledge exchange networks. This demonstrated both that knowledge exchange was critical to the survival and viability of sustainable farming systems and that the kinds of knowledge women farmers exchanged, and the way it was exchanged, were further removed from scientific institutions than the knowledge exchanges of more male dominated networks that privileged knowledge availability. Chiappe and Flora (1998) found that women stressed a commitment to sharing knowledge with the local community. Farming was seen not only as a way to make a living but as a way of connecting with customers and sharing with them the values and lifestyles involved in alternative agriculture.

The knowledge networks identified in both Hassanein's (1997) and Chiappe and Flora's (1998) research are consistent with what Murdoch (2000, 414) identifies as 'horizontal networks' that facilitate the exchange of 'tacit knowledge'; knowledge that is:

> personal and context-dependent, and as such, it is difficult if not impossible to communicate other than through personal interaction in a context of shared experiences (Morgan and Murdoch, 2000, 161).

The primary actors in these networks are farmers, who share their experiences with particular production techniques. For example, as discussed in Chapter 4, in

the effort to maintain a consistent supply of organic beef, CCB producers needed to develop a system that ensured a year round supply of feed for their cattle. The development of such a system thus required the exchange of knowledge of local growing conditions and plant growth rate between producers involved in the alliance.

The idea of a 'mutable mobile' constitutes a significant departure from the 'expert model' of knowledge exchange perpetuated by the triad of agribusiness, universities and government agencies. Nevertheless, according to Goodman and Du Puis (2002), such knowledges continue to leave unacknowledged the consumers 'whose values, subjectivity and activity are intrinsic to the making of alternative food systems'. For this study, this conjecture is not so surprising, considering that for most food producers, it was *perceived notions of consumer demand* that were accorded principal causal status in the determination of production practices, not consumers themselves. For the vast majority of participants within both the niche[44] and mainstream beef chains, the consumer was 'invisible' and thus perhaps unintentionally rendered 'unknowable' of processes and practices of quality beef production. Hence, attempts were made to make quality explicit through specification and processes leading to certification. This is discussed below.

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44 Excluding NPB

Issues of Specification and Certification in CQ Beef Chains

To reiterate, certification occurs when food products gain recognition through the award of a quality mark or symbol from either a professional organisation, government organisation or an external body such as producer groups (Ilbery and Kneafsey, 2000). In general, for mainstream beef producers in this study, certification as a means of ensuring quality was a topic that lacked specific discussion. The paucity of discussion pertaining to certification is remarkable considering that, in Australia, beef production is heavily underpinned by a variety of QAS and food safety certification programs. Although CQ beef breeders and graziers did not remark specifically about certification as an indicator of quality, they did, as discussed earlier in this chapter, suggest that quality was derived primarily from their personal involvement in production processes. This coincides with results from Ilbery and Kneafsey's (2000) study that found also that producers tended to believe that their own judgement and skills were a guarantee of quality in their own right.

Although organic beef producers in Central Queensland, similarly, believed that personal involvement contributed to quality, processes leading to certification and certification itself were also recognised as an indicator of quality for this group of producers. Organic certification, in essence, meant that the cleanliness of their product was guaranteed as production had been carried out in a specific manner to ensure that this was the case. For Sam (NPB), certification *'from a buyer's point of view, gives one some more satisfaction and reassurance'*. For CCB, organic certification similarly provided reassurance, but was also an indicator of credibility and product integrity. In the main, for this group of producers, organic

certification could be thought of as a communication device that assisted in informing potential consumers about the quality of the product.

This result is in direct opposition to a study conducted by Chang et al (2005), which found that there have been problems with product recognition and consumer confusion over logos and trademarks due to the way in which organic farming is defined and certified. Chang et al (2005) argue that, in Australia, organic agriculture is distinguished from other forms of agriculture based on the existence of additional production standards and certification procedures. As mentioned in Chapter 4, there are currently seven AQIS accredited organic certification organisations. Organic products are thus discerned from both mainstream and other alternative 'clean and green' products by the way in which the product is produced rather than the physical attributes of the product. Chang et al (2005) further argue that, although it may be that consumers are interested in ecologically sustainable production systems, demand for, and competitiveness of, organic foods in mainstream retailing are; dependent upon what the product itself can offer in relation to competing products. This implies that whilst producers may adopt a particular set of farming techniques and philosophies in response to perceived consumer demands for 'clean and green', they may mean little to consumers who choose products based on their physical attributes or price. Whilst certification and labelling of organic products are theoretically intended to encourage consumer confidence, the use of a wide range of different terms and certification labels in Australia does, nonetheless, little to simplify the choice process for the consumer.

Chang et al's (2005) argument is contestable. In 2004, the Biological Farmers of Australia (BFA) cooperative established itself as the national representative for the Australian organic industry. Its independent certification arm – Australian Certified Organic (ACO) - is currently the largest certifier of organic produce in Australia (Biological Farmers Association, 2004). It is estimated by the BFA (2004) that ACO certifies 55 percent of the total Australian organic market and further that 70 percent of all certified organic produce in Australia carries the ACO logo. It is suggested, therefore, that the impact of multiple certification schemes has eased with the establishment of ACO and a continued growth in consumption of organic products (Lockie et al, 2002). This expansion of consumption had not remained unnoticed by organic beef producers in this study and was, incidentally, a contributing factor in their decision to become organic.

Section Conclusion: Consumer Perception and Beef Production in Central Queensland

This section discussed how consumer demands for quality constituted a mode of ordering that arbitrated practices and relationships occurring along beef chains in Central Queensland. In utilising a variety of socially constructed concepts of quality including 'attraction and association', 'trust and knowledge', and 'specification and certification', this section explored how niche beef producers attempt to align their practices to focus on the 'demands' of the consumer. However, findings reiterated the complexity of articulating and communicating a common and shared meaning of quality.

Indeed, discussion highlighted that meanings of quality were not common amongst actors and it cannot be assumed that the meanings ascribed to quality at one centre of calculation within beef production will be same meanings of quality ascribed to it at another. Thus, whilst beef producers in this study considered that consumers have a tangible capacity to influence beef production, beef production practices in Central Queensland appeared to be mediated by a perceived range of meanings and knowledge attributed to quality by consumers that involve concepts such as attraction, specification and certification. It was, therefore, the perceived conceptions of consumer demand that contributed to a durable and socially and environmentally embedded beef network.

Product Safety

In the above section, attraction, specification and certification were identified as indicators of quality that affected the performance of the Central Queensland beef industry. Coinciding with these concepts is that of food safety. Chapter 2 related how food safety is closely related to confidence and trust in various actors that are involved in the production and processing of food. This chapter has discussed also that trust and knowledge are important for strengthening relationships with consumers along food chains. In addition, Sellerberg (cited in Nygard and Storstad, 1998, 41) has commented that trust, as a characteristic of the concept of quality, has a decisive influence on whether a consumer will continue to use a certain product. Combined with Marsden's (1998) observation that opportunities exist for producers – specifically producers of speciality food products – to cater for 'careful consumers' who are increasingly seeking foods that can either be bought direct from producers or at least traced to their origin, these positions

provide a foundation for the theme of 'Product Safety'. Principally, this theme relates to the way in which relationships occurring along beef chains are mediated by recourse to interpretations of quality in terms of 'safety' and 'traceability'.

As reported in a number of sources (Alderton et al, 2001; Chang et al, 2005; Hickman, 1999), over the past decade there has been a surge in demand for organic beef by consumers. This has been said to be spurred on by a number of recent food safety scares such as the outbreaks of BSE in Europe, Japan and more recently Canada and the United States (Davidson et al, 2003). Whilst Australia has not been affected by BSE to date, Australian beef has been rejected for export because of excessive residues of endosulfan; an organochlorine insecticide (Lockie, 2001). In a report commissioned by the Commonwealth Department of Agriculture, Fisheries and Forestry on food industry trends and strategies occurring in five different countries, Todd (2000) comments that in addition to food safety, consumers are concerned with animal welfare, environmental management and freedom from genetically modified (GM) food ingredients. Importantly, Todd (2000, 6) found that 'consumers want to know more about the source of their food, and details of its production'.

The increase in demand for organic foods resonates with Beck's (1992) theory of the 'risk society'. For Beck (1992), modern society is characterised by a higher level of risk consciousness than was previously the case. He argues that society has moved beyond industrialisation to a 'risk society' where there is an increased recognition of the potentially negative effects of scientific and technological developments. Moreover, Beck (1992) contends that the risk society is

characterised by a 'boomerang effect' where societies that produce the risks will also be exposed to them. Within the risk society, people are therefore more attuned to a variety of risks in both time and space.

Industrialised food systems have particularly been a cause of concern in recent years as incidents including factory leakages, GM food scares, product contamination cases and ingestion of pesticides have led to public doubt over the prioritisation of scientific knowledge in assessing risk in society. Consumers who are increasingly concerned by food quality are, therefore, as seen by Beck (1992), willing to support initiatives supplying produce whose quality represents an alternative to that of the intensive or industrial model to which they attribute blame for food health and hygiene problems such as E.coli, BSE and Foot and Mouth Disease. The contamination of Australian beef by endosulfan in 1987 aligns with this series of events. At the time, this case not only resulted in the total ban of Australian beef exports to the United States (Weber and Nicholls, 1998), but tainted the beef industry's image among consumers, particularly overseas customers. Indeed five years after the event, a spokesperson for the Cattle Council of Australia commented that "the damage to the industry was immense, even today those memories reverberate in our overseas countries" (Hill quoted in Murray, 2002). This incidence of contamination of Australian beef occurred despite claims that 'Australia had a number of processes in place to monitor and control the levels of chemical residues found in beef' and that it was 'monitoring that had uncovered an increased incidence of low levels of endosulfan in beef from Queensland and NSW' (Troeth, 1998). It was alleged by Senator Judith Troeth (Parliamentary Secretary to the Minister for Agriculture,

Fisheries and Forestry) (1998) that the endosulfan levels detected were 'not considered significant in public health terms'. It is suggested that this episode exemplifies the reliance of regulators on expert knowledges that are not readily understood and which are, according to Beck's (1992) hypothesis, subject to increasing challenge.

This 'risk' has served, however, to benefit producers who can demonstrate 'clean and green' and 'traceable' production methods. In Central Queensland, organic beef producers have proved the most enterprising in this area. As described in Chapter 4, CCB claims to foster an environmentally sustainable approach to beef production whilst ensuring a safe product through the management systems they have adopted. This same beef operative also purports a social justice policy with key principles pertaining to equity, access, participation and rights. It has also established a CCB foundation, where funds are raised in order to assist entities and individuals to create commercial ventures that can deliver economic and social benefits to the Channel Country region. This is an outwardly visible attempt to evoke shared principles of environmental and social sustainability between producers and consumers.

The need to demonstrate safe food production practices has been a focus for the Australian mainstream beef industry. Indeed, at the time the research for this thesis was undertaken, mainstream beef production processes were under examination. At the core of this examination were issues of identification and traceability of beef from the 'paddock to the plate'. The National Livestock Identification Scheme (NLIS) thus was introduced in Central Queensland in July

2005, the purpose of which was to provide early detection of and immediate response to potentially devastating food scares. Although producers interviewed in this study acknowledged the benefits of being able to knowingly promote Australian beef as a traceable, safe product, the impending introduction of this scheme impelled considerable debate. Many producers thought that the introduction of a full trace back system was unnecessary. In relation to beef for export, in particular, mainstream beef producers felt that already there were too many controls in the beef industry. One producer, Chris, commented that he would like to *'see other products go through the testing procedures that beef does.'* Chris commented also that quality assurance and traceability schemes were more about trading and trade barriers than about health and safety, in that food safety was used to manipulate the amount of trade that occurs between countries. This argument is broadly consistent with Morris (2000), whose account of the emergence of Quality Assurance Schemes (QAS) in the United Kingdom found that QAS initiatives were designed to improve the competitiveness of food products whilst also responding to the concerns of consumers.

Opposition to the introduction of QAS among producers is not surprising. Morris and Young (2000) anticipated that the introduction and application of such schemes would be problematic in that they require businesses throughout food networks to change production and management systems. This can be a costly exercise and, undeniably, beef producers in this study were worried about the costs incurred when more standards were put in place. They argued that the trace-back system already in place was more than adequate. Cameron, in his role as a beef industry representative, voiced the concerns of producers:

> *The EU market is a very small market, but it's a very significant market as far as the price goes at the moment. However, the regulations that have been imposed on producers to be able to supply into that market are nothing short of getting ridiculous. It's my knowledge that they've been imposed not by our customers in the European community but by people in Australia who have put pressure on AQIS to bring about regulations that every beast has to be identified out in the paddocks. The identification system – the trace-back system we've got now – is very good, without bringing in costly systems which are going to add more inputs on to our bloody product and not going to give us any more output. It's going to discriminate against the larger Northern producers who are not in a position to put in place these stipulations or regulations whereby small producers in the South can easily gain benefits. And that's what's happened to this particular market which is a grave concern to myself and a lot of other producers in North and Central Australia.*

Dean, also an industry representative, comments on the labour involved in implementing a trace back system:

> *The thing about that whole system is that it's okay for people, you know, who've got 1,000 or 2,000 head and they can go and sell them to just little areas around here. But when you get to a situation where you've got [say] 10,000 breeders, then that's a big job.*

A report commissioned by the Queensland Department of Primary Industries and Fisheries to assess the economic implications for the Queensland beef industry from the NLIS found that the cost burden of NLIS implementation would fall predominantly on beef producers as opposed to other actors in the beef chain

(Synergies Economic Consulting, 2004). Nevertheless, the report also highlighted that the NLIS system was expected to provide benefits to the Queensland beef industry of at least '10 times and possibly in excess of 20 times the annual costs the system will impose on the Queensland beef industry' (Synergies Economic Consulting, 2004, 75). Industry benefits included continued access to premium markets, a reduction in the duration and intensity of disease outbreaks should they occur, improved management systems and a reduction of stock theft. Further, it was envisaged that 'producers would be the predominant residual claimants to any surplus that emerges from NLIS implementation' (Synergies Economic Consulting, 2004, 75).

Although the NLIS aims to maintain and increase market opportunities for beef producers on the premise that its implementation responds to consumer concerns for food safety, some beef producers in this study argued that, in their experience, QAS and traceability programmes did little to influence consumers' decision to purchase beef. Cameron (GGB producer), for example, denied that the implementation of QAS or identification schemes for beef production responded to consumer demand for quality:

> *We sell seven or eight tonne of meat per week and we never have customers ask about quality control programs or QA systems or Cattlecare systems or any of this. It's just a lot of those things are put in place by do-gooders in the industry that think they are trying to do some good, but they do more harm … this industry is putting a lot of protocols and stipulations on us that are not necessary.*

Surprisingly, there is little evidence to suggest that the implementation of QAS affects consumer purchasing behaviour in regards to food. In fact, a search of the literature revealed a paucity of published information pertaining to this issue. The one article that reported research into the effect of QAS on United Kingdom consumer purchasing of beef mince concluded that consumers valued such schemes (Walley, Parsons and Bland, 1999). However, it found also that while QAS may have some effect on sales of mince beef they were unlikely to curtail a long-term decline in beef mince consumption. Thus, whilst Walley et al (1999) reported that QAS appeared to operate by improving consumer confidence which, in the case of minced beef, had been seriously eroded by BSE and E-coli scares, QAS could not be expected to compensate for a trend away from minced beef caused by consumers eating what they perceived to be more healthy products, increasing vegetarianism, and a trend toward more convenience foods. In addition, the study could not conclude whether consumers were willing to pay a premium for quality assured products, although it did conclude that consumers were willing to pay a higher price for quality. Herein lies the difference between industry conceptions of quality (a process that demonstrates safety) and consumer understandings of quality.

Conflicting discourses of quality are a problem that Morris and Young (2000) also identified in their study of QAS. As in this thesis, Morris and Young (2000) identify that there are a range of terms frequently used to refer to quality. Quality control, quality assurance, traceability, food standards, welfare, hygiene and safety are examples of these terms that are common to both studies. The implications of this confusion for the development and implementation of QAS

are, according to Morris and Young (2000), threefold. First, there is the danger that quality assurance will not be taken seriously within the industry or by key players within it. Cameron for example, viewed quality assurance schemes as a farce that did not necessarily deliver what they claimed to deliver:

> *I think that in the industry we've got to be very careful that we just don't fall for new ideas and regulations and that just for the sake of change. I'm a great one for change as long as it is beneficial… all it is, is bloody confusing, to the customer.*

Secondly, as Cameron identifies, quality assurance schemes may confuse consumers, who will question the validity of quality food. As seen in the preceding section of this chapter, Chang et al (2005) discussed that within the organic sector, consumer confusion over a profusion of marketing labels, logos and trademarks used to differentiate products from each other had already occurred.

Thirdly, Morris and Young (2000) argue that in attempting to provide a standard meaning of quality and apply it as a process to food products, the product and hence its quality becomes standardised. For Morris and Young (2000), if quality is meant to be a characteristic that differentiates products and provide businesses with a marketing edge, then the development of national standards and QAS act to undermine that advantage. However, in this study there is limited evidence of this occurring. As indicated, the majority of beef produced in Australia is exported. The QAS underpinning the Australian beef export industry were developed with the specific purpose of differentiating Australian beef and providing a marketing edge. In addition, this seems to be the case with niche beef

producers. As seen earlier in this chapter, organic beef producers in this study have also embraced the development of specialist QAS as a way of distinguishing their product from generic counterparts.

Section Conclusion: Product safety and beef production in Central Queensland

The compulsory implementation of the NLIS and the application of various QAS within mainstream beef production in CQ and, more generally, Australia, contribute to yet another layer of quality through the CQ beef network. Concepts of safety and traceability are particularly useful for demonstrating how quality is a powerful mode of ordering of beef production and consumption processes.

As discussed both in Chapter 4 and in this chapter, a beef industry response to consumer concerns for food safety and quality has been the implementation of both mandatory and voluntary quality assurance schemes. A main goal of these schemes has been to communicate to consumers that beef production has occurred in a way that encompasses the perceived qualities they desire. This response by industry, producers and others involved in beef production thus sees quality reconceptualised and constructed as the object of activities occurring along beef chains. As quality is reconceptualised as a goal of beef production, so too are the processes and practices of those that are involved in beef production. The discourse of quality has thus become a material feature of beef production that is now integral to the performance of the beef industry as a whole.

As a material feature of beef production, quality has the capacity to establish and promote relationships and links between producers, processors, consumers and

other actants involved in beef production. The function of QAS as a coordinating mechanism or management system for activities occurring along the various beef chains not only highlights these linkages, but also acts to promote a process of collectivity. CCB, for example, utilised a QAS that not only attempted to demonstrate food safety processes and traceability throughout the entire organisation, but aimed also to demonstrate discourses of environmental sustainability and social justice. The success of this scheme, however, is dependent upon strong relationships being formed and maintained with a variety of parties not only involved in the delivery of safe, environmentally sustainable beef, but those in the local region or community.

However, if the goals of actants are unable to be agreed upon, the attempt to mobilise a cohesive representation of quality in the form of QAS or traceability schemes can pose a potentially destabilising element to relationships occurring along beef chains and to the goal of beef quality. In other words, while QAS may acquire durability through linking multiple actants, where these actants do not become collectively aligned the beef chain can become destabilised. Certainly, interviews with mainstream beef producers highlighted tensions arising from the formulation and impending implementation of national QAS. Tensions related to the need to re-organise work practices and activities, problems in defining quality and a lack of consensus over the meaning of quality acted to erode relationships occurring within the industry. Quality, therefore, is as much socially contested as it is socially constructed.

Conclusion: Quality and Beef Production

The account of quality for beef production in Central Queensland, as conveyed in this chapter, was unable to provide a concrete definition of quality, but instead explored how quality was represented, constructed and enacted within beef production in Central Queensland. By focusing attention on accounts of quality beef production, it was evident that multiple discourses of quality assisted in ordering a variety of social actors in the production domain of the Central Queensland beef industry. The social embedding of 'quality' became a primary aphorism for beef production within both niche market and mainstream beef production units.

Results from this chapter indicate that 'quality' is a palimpsest, where each discourse fosters the enactment of individual codes and representations of quality. The theme of 'tenderness', for example, not only operates as a primary indicator of beef quality but reflects the core business goal of mainstream producers, niche market producers and processors alike. Moreover, the theme of 'tenderness' demonstrates the materiality of both human and non-human actants and their capacity to order processes of beef production. Although performing in different ways, 'nature' was viewed as fundamental to the cohesion of both organic and mainstream beef chains. It underpins discourses surrounding the production practices and activities of beef producers. 'Technology' is another important mode of ordering of quality along beef chains. It highlights that quality is more than just a discursive characteristic and instead is the outcome of distinct relationships occurring within the production realm.

The themes of ‘consumer perception’ and ‘product safety’ were equally esteemed bearers of quality. In these constructions, beef quality was steeped with socially constructed criteria that emphasised perceived quality components of beef. The ability of consumers to articulate quality was enhanced by knowledge and by a range of alternative meanings given to the notion of quality: markedly, attraction and association, specification and certification, and product safety.

This chapter thus contributes to an understanding of quality within beef production in two ways. First, as a discourse that connects a multiplicity of non-human actants (climate, breed, technology, certification), quality constitutes a durable mode of ordering. The performance of quality as a mode of ordering is evident by its recursive social and material embeddedness along the beef chains. One of the most prominent findings in this chapter, relating to perceived consumer articulations for ‘clean and green’ beef, evidences the tangible capacity of quality to displace and re-arrange processes of beef production. Here mutually occurring human and technological capacities attempt to assure food safety and traceability throughout beef chains.

Secondly, however, the enrolment and performance of multiple constructions of quality within beef production also have the capacity to destabilise beef production enterprises. For example, the attempt to standardise notions of quality and impose it on production processes serve to expose tenuous relationships between participants within the beef industry. By positioning quality as the goal of beef production, it thus becomes the agency for which the fortune of the whole beef industry is premised – from ‘the paddock to the plate’.

To conclude, this Chapter substantiates that quality is positional, fraught with variability and that no one can be absolute in their portrayal of it. As discussed, it cannot be taken for granted that the meanings ascribed to quality at any centre of calculation within beef production will be those same meanings ascribed to it by another. Quality in relation to beef production is not just a material characteristic of beef - nor is it just a discourse - but it is a contested and negotiated concept that is embedded within myriad social, historical, cultural, political and economic interactions and interrelationships.

Chapter Six

‘Marketing Quality’: The Distribution of Central Queensland Beef

> The major challenge [for the beef industry] is to restore widespread consumer confidence in our product and discourage reliance on low prices as a major motivating factor behind food purchasing and consumption. The assurance of consistent quality is a vital consideration (Penn, 1993, 78)

The preceding chapter ascertained that beef production in Central Queensland is evolving in close conjunction with concepts of quality. Quality, in fact, was seen to be a powerful ‘mode of ordering’ that not only wove its way through discourses of beef production, but patterned processes and practices of beef production. However, making quality beef is only one activity that occurs along beef commodity chains. Selling beef is another. As can be deduced from the above quote, in Australia, marketing quality is a vital activity in the attempt to source new markets and retain established markets for beef. As described in Chapter 4, the beef chains selected for this study differ in the way they approach the marketing and retail of beef. This chapter aims to further understandings into the relationships occurring within beef distribution and exchange networks by exploring how quality is enacted in relation to the marketing and selling of beef in Central Queensland.

Relationships of Quality and Food Supply Chains in the Literature

Some of the most recent work on quality calls for an acknowledgement of tensions surrounding the concept of quality and of the social relations and cultures of production and consumption in which it is a feature (Marsden, et al, 2000; Mansfield, 2003a; Winter, 2003). Whilst both Marsden et al (2000) and Mansfield (2003a) accept that quality resides in 'alternative food chains', the idea that quality can exist in niche market chains and not in industrial chains is contentious. Marsden et al (2000, 426) point out that 'types of speciality, quality, region specific, or organic foods are by no means solely the preserve of the alternative mode' as near identical products can emerge from industrial food supply chains. Moreover, it is also possible that some of the more successful speciality and alternative quality chains extend into national and international food supply chains. Mansfield (2003a) further claims that defining quality in terms of place-specific products denies a spatial definition of quality and the implications it may have for the socio-spatial organisation of industries. She thus not only argues for an examination of quality that explores how it is negotiated and constructed within industrial production, but for an analysis that has a focus on social relations and interactions. For Mansfield (2003a, 7):

> quality appears to be at once material and social, at once a set of physical characteristics and shaped by economic and cultural practices and perceptions about economic development.

She therefore proposes that quality be defined as an assemblage of political-economic, cultural and natural relations. Mansfield's (2003a) conception of

quality permits the focus of study to be shifted away from the product itself in order to allow for an examination of the ways that different and shifting meanings are developed and incorporated into the production of fish paste. This aligns with the call by Marsden et al (2000, 425) to place emphasis:

> upon the type of relationship between the producer and consumer in these supply chains, and the role of this relationship in constructing value and meaning, rather than solely the type of product itself.

A feature of both Marsden et al's (2000) and Mansfield's (2003a) work is their focus on both the nature of relationships occurring along food commodity chains and a consideration of the meanings attached to key constitutive concepts of quality, a notion put forth by Ilbery and Kneafsey (2000). Just as Marsden et al (2000) and Mansfield (2003a) argue against solely viewing quality as part of alternative food networks, Winter (2003, 26) also contends that to 'equate marginal agriculture with the turn to quality is simplistic because it fails to recognise the variety of components within the turn to quality'. Winter (2003) thus argues that as a social construction, the key concepts of quality are constantly subject to change and adaptation. Therefore, 'there are different strands of quality consumerism with many contradictions and tensions between them.' He calls for research that attempts to combine work on consumer and retail social relations and cultures of production and consumption that seeks to understand the complex meanings and significations attached to acts of consumption so as 'to avoid false dichotomies between globalised food systems and alternative consumption practices' (2003, 31). It is to this task that this thesis now turns.

To serve as a reminder, ANT seeks to diminish binary divides; it therefore does not distinguish between the 'macro' and 'micro', the 'natural' and 'social' and, the 'global' and the 'local'. An examination of social relations within beef marketing that avoids dichotomies between the 'global and the 'local' and which also seeks to understand complex meanings and significations can be facilitated using ANT and its concepts of a mode of ordering, collectivity and hybridity. For this part of the thesis, the concept of 'network lengthening' is also useful for progressing an understanding of the materiality and mobilisation of a range of actants in multiple sites within the beef marketing networks of CQ.

As described by Whatmore and Thorne (1997, 291) network lengthening is used to describe the spatial configuration of networks and is concerned with a 'geography of flows'. This means that in space and time, the network sees the simultaneous performance of social practices and competences at different points in the network. Actor-networks, therefore, are 'by nature neither local nor global, but more or less long and more or less connected' (Latour, 1993, 122). A range of agents that extend beyond face-to-face interactions, moreover, mediates the performance and lengthening of the network. Termed 'immutable mobiles' by Latour (1987), innovations such as computers, telephones, faxes, television and even writing allow for knowledge and other materials to be recorded, transcribed, transferred and reconstituted by agents who are actively engaging in the network. Additionally, immutable mobiles do not simply record and relay information but they play an active role in the reconfiguration of the world in their own image (Lockie, 2002). Hence, as ANT incorporates 'a perspective on the macro-social that emphasises its embeddedness within situated interactions and

representational techniques' (Lockie, 2002, 284), it provides a commencement point for an analysis of the 'specific rationalities, practices and techniques that are deployed in order to… influence consumption patterns and enrol actors as consumers within production-consumption networks' (Lockie, 2002, 284). This chapter thus explores contexts of beef marketing and selling networks in Central Queensland, assessing how quality is conceptualised and beef is promoted within the identified beef chains.

Marketing Quality: Assembling and Mobilising the Beef Consumer in Central Queensland

Borrowing a description from Ilbery, Kneafsey, Soderlund and Dimara (2001, 31), the term marketing is characterised as 'the process or technique of promoting and selling goods'. Marketing and promotion as conveyed by Hopkins (1998) are closely aligned with semiotics, whereby objects, events or phenomena are given meanings. In marketing, messages, signs and symbols are designed to project images at prospective customers to alter their perceptions, produce connections, and stimulate desires (Hopkins, 1998). In actor-network theory terms, marketing is not about the 'manipulation of desires in the name of profit' (Miller and Rose, 1997, 3); instead, it is about providing a site whereby one can:

> explore the extent to which this [marketing] has been less a matter of domination or manipulating consumers than of 'mobilising' them by forming connections between human passions, hopes and anxieties, and very specific features of goods enmeshed in particular consumption practices (Miller and Rose, 1997, 2).

In the attempt to see how consumers are assembled and mobilised along the CQ beef chain, the subsequent section will follow Lockie's (2002) lead and incorporate work conducted by Miller and Rose (1997) on the application of psychological expertise to marketing and advertising and that of the concepts of ANT described above. Miller and Rose (1997), via a case study of archival material from the Tavistock Institute of Human Relations, examine the ways in which the technologies of human individuality, personality and psychology, elaborated by the psychological sciences, contribute to assembling the subject of consumption. Moreover, they were concerned with the 'productive' features of these psychological knowledges and technologies of advertising and marketing to the establishment of new relationships between humans through the medium of goods. An example of this type of mobilisation, provided by Lockie (2002, 282), may be:

> the attempts of 'market researchers to sum up 'consumer demands' through the assimilation, tabulation and manipulation of survey responses and the attempts of producers, retailers and so on to speak for 'consumers' on the basis of such technologies of knowledge.

Miller and Rose (1997, 30) found that in assembling the consumer, psychological knowledge and techniques in advertising and marketing became more than the invention of 'false needs'. Instead, it rendered 'consumer choice in a free market intelligible in terms of a complex and hybrid array of individualised psychological factors' and suggested that 'these could be understood and engaged with in a calculated manner'. The 'commercial domain' was not a matter of the

‘unscrupulous manipulation of passive consumers’. Alternatively, technologies of consumption:

> depended upon fabricating delicate affiliations between the active choices of potential consumers and the qualities, pleasures and satisfactions represented in the product, organized in part through the practices of advertising and marketing, and always undertaken in the light of particular beliefs about the nature of human subjectivity (Miller and Rose, 1997, 30).

For Miller and Rose (1997, 32), technologies of advertising are not ‘merely tools of manipulation or legitimation, or techniques incidental to global logics of consumption’. They are central in establishing both a ‘public habitat of images’ for identification and a ‘plurality of pedagogies of everyday life’ that set out the habits of conduct that enables one to live a socially acceptable life. Drawing on these findings, the subsequent section commences with an examination of beef marketing and promotion activities occurring in the CQ beef chain. This examination will lay the foundation for a cross-examination of niche beef marketing to follow.

Assembling the CQ Beef Consumer

Few data are available in the public domain pertaining to the profile of ‘beef consumers’. Only one study, conducted by Storer et al (1998) into the meat use patterns of consumers attempted to provide a characterisation of the Australian beef consumer. ‘Beef eaters’ were one of eight groups of meat consumers that were identified by Storer et al (1998, n.p.). They were:

> likely to come from larger families but did not enjoy being creative at home and so were less willing to cook other types of meat that might take more effort… were less willing to try new things when cooking. They were concerned with meat characteristics such as flavour, tenderness, appetising, tastiness, juiciness, quality, freshness, colour, variety, and aroma when cooking. They were less concerned with health aspects of meat, perhaps because they sought to reduce cognitive dissonance.

Storer et al's (1998) study was arguing for a rationalised approach to meat marketing in order to demonstrate that market segmentation could provide a useful strategy in the development and implementation of marketing campaigns. They argued that once market segmentation had occurred then marketing messages could be tailored to meet the needs of these groups. The idea behind this type of strategy is related to Miller and Rose's (1997) conceptualisation of the rational consumer, whereby someone is to be known in detail, so that their 'real needs' can be determined and affiliated with a product. For beef consumers, Storer et al (1998) proposed that given their characteristics the marketing messages could focus on the particular characteristics of meat. When marketing new meat cuts to this group, Storer et al (1998) suggested that promotional campaigns should emphasise convenience and ease of use characteristics. Also recommended was the use of quality labels to assist people in selecting quality meat and to make meat more attractive to this group.

Research such as this is undoubtedly important in the attempt to maintain beef sales. However, statistics included in chapter 4 highlighted that, since the mid 1980s, there has been a decline in the consumption of beef (Australian Bureau of Statistics, 2002). A review of the available Australian meat marketing literature

indicates that battling this decline has been the motivation behind current marketing research and campaigns. The priority for beef marketers, therefore, is not so much the dedicated 'beef eaters', but in attempting to increase beef consumption by other groups. Here the 'demands' of other groups of consumers became important in the development of promotional material. For this reason, it is important for an examination of CQ beef promotion activities to consider the approaches taken by beef marketers in assembling their target audience for beef marketing campaigns.

Assembling Consumers for Beef Marketing

In their description of post war advertising, Miller and Rose (1997) comment that identifying the 'real needs' of consumers, affiliating those needs with particular products, and subsequently linking them with the 'habits of their utilisation' is a delicate process. Advertising is viewed not as a 'brute attempt to impose desires' upon a mass of people but a 'meticulous cartography - part imagined, part derived from novel forms of experimentation - of the everyday life of consumption and its little pleasures and anxieties' (Miller and Rose, 1997, 6). The attempt to mobilise consumers to purchase beef is just the same.

Identifying the Target Audience

In the CQ beef chain, the attempt to mobilise the consumer commenced with assembling the target audience. A review of the existing marketing literature and interviews conducted with participants involved in beef marketing and retail indicated that reasons behind changing consumption patterns for beef are important not only for identifying the target audience but also for the attempt to

‘sum up’ the ‘desires’ of consumers. As discussed in Chapter 4, there have been a number of suggestions within consumer studies as to why beef consumption has decreased. These suggestions included changes in household arrangements, cooking, shopping and storage technologies, time devoted to preparing and cooking meals, and in the ways in which meals are cooked. Changes in retail patterns were also thought to have affected consumption patterns. Storer et al (1998) suggested that greater retail competition had increased the variety of meat alternatives. Further, Wheatley (1996) emphasised that consumers now shop for meals where once they shopped for set weights of meat and vegetables. Consequently, other foodstuffs including rice, pasta and prepared foods are in competition with meat. This is in addition to the competition faced between types of meat, which fluctuates depending on relative prices (Idstein and Griffith, 1999). Moreover, it is reported that consumer concerns about a healthy diet and lifestyle have increased in response to associations between fat and cholesterol and a variety of diseases including colon and bowel cancer and heart disease (Lea and Worsely, 2001; Storer et al, 1998). This is understood as having contributed to a move away from red meat in favour of chicken, fish and vegetarian meals (Fantini, 1990).

Market research specifically focused on determining consumer attitudes towards red meat conducted by McKinna et al Pty Ltd, (1984), and the Campaign Palace[45] (1985) on behalf of the AMLC indicated similar findings to the above. Importantly, it emerged that no single factor could be isolated as being

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45 The Campaign Palace is the advertising agency used by the AMLC (now the MLA).

responsible for the downturn in red meat consumption. Instead was the realisation that several separate but interrelated factors combined to influence the purchasing, usage and consumption of red meat. As reported by Bryson and Cleary[46] (1990), and Penn[47] (1993), the research revealed that consumers regarded red meat to be:

1. Inconvenient: Meat involved too much mess. It contained too much fat and gristle that required removing. Its preparation and cooking were time consuming.
2. Unattractive: Consumers considered that meat looked unappealing and unappetising. The standard of presentation of meat by retailers was poor.
3. Unhealthy: Consumers expressed concern regarding the nutritional benefits of meat. Meat was labelled as containing excessive fat and cholesterol and contained too many kilojoules. There was a notion that "too much meat wasn't good for you".
4. Not contemporary: Beef did not fit with contemporary lifestyles. The traditional family dinner of "meat and three vegetables" was no longer appropriate. Meals were more often than not served "on the run" due to changes in individual family member commitments.
5. Heavy: Beef was seen as being "too heavy" and indigestible. Meals that contained "light" substitutes such as fish, chicken or vegetables were preferred.
6. Invariable: Meals of red meat were perceived to be old-fashioned and lacking in variety. Steak and mince were considered boring.

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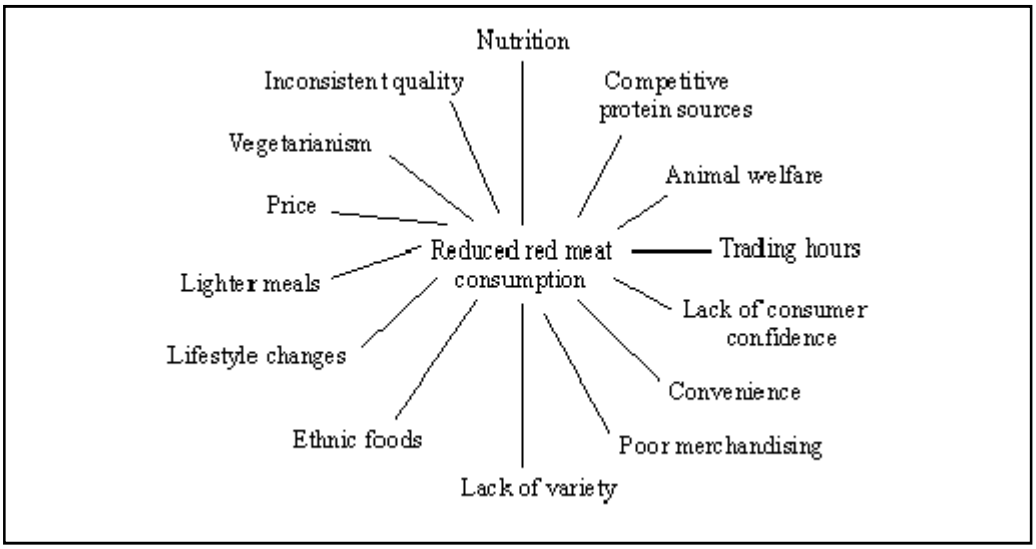
46 In 1990, Reg Bryson and Shelley Cleary were executives with the Campaign Palace.
47 In 1993, John Penn was the AMLC domestic and Asia group marketing manager.

Additionally, red meat was inconsistent in price and quality. Figure 15 outlines the key results from these studies[48].

Figure 15: Causes in drop of consumption for red meat
(Source: Bryson and Cleary, 1990)



Several participants in this study cited similar reasons for a decline in beef consumption as evidenced below. John, a supermarket meat manager, for example, spoke about the changes he had seen in the types of meat consumption in relation to availability, price and marketing:

> *Chicken has certainly increased over probably the last six years. I suppose chicken consumption has probably doubled in that time. We used to carry a very limited range of chicken and now if you go down the aisle and look at the cases you'll probably see a 12 to 15 foot section of chicken, various cuts from your boneless products or your bone-in product. Lamb consumption varies through the year. Springtime when you*

48 Marketing research results from the 1980s onwards are viewed as relevant in the preceding sections, as they appear to be the vanguard for current marketing campaigns.

have the really good lamb coming and there is a lot of lamb specials and lamb consumption certainly rises. I'd say beef consumption stays pretty consistent year by year. But we do get a bit of a downturn occasionally. Pork consumption is pretty standard. A lot of it depends on who is out in the market place really promoting Australian beef.

Mathew, a meat manager at a competing supermarket, also discussed the price of meat and marketing; additionally, he considered the health concerns that affected beef sales:

I think a lot of people have gone to chicken and fish, so it has affected red meat sales. People are more worried about their health these days than what they were going back 20 years ago. Before, a lot of older people wanted 30 ml of fat on their rump steaks but they're not after that anymore. They want lean meat and all that, and so are eating chicken and fish now. This has affected our sales a lot. All you have to do is walk along our case to see how it has changed. I'd say twenty years ago there wouldn't have been a chicken section in the butchers shop, and there wouldn't have been a fish section. Now we have a fish section and a chicken section just to keep up with the sales - just to keep up with the way that people have changed over the years.

Scott, a butcher, discussed issues of convenience and the needs of working women and the younger generation:

We've got the working mum that comes in, she's looking for something just to quickly take home and stir-fry or roast or, you know, something that's quick and easy. And the young people,

you know they're looking for something to take home that'll cook easily.

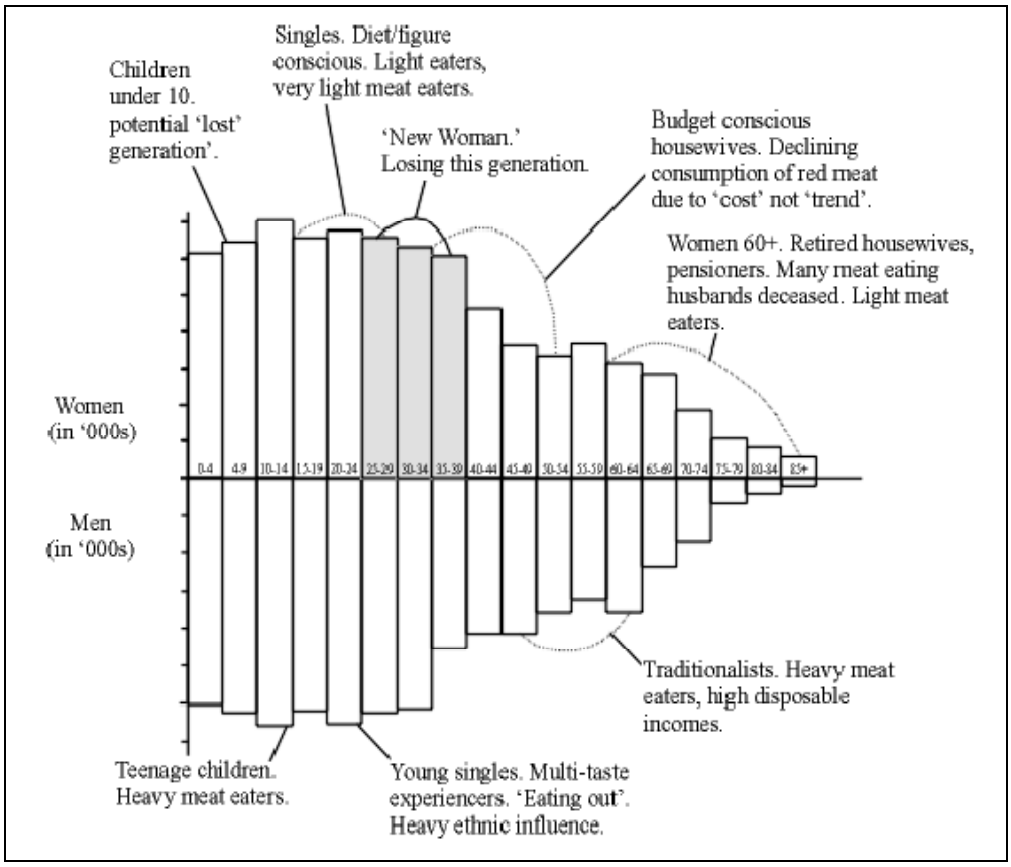
As indicated in the interviews, the marketing campaigns reviewed, and as reported by Bryson and Clearly (1990), Penn (1993) and Hackett (1994)[49], the key determinant underpinning changing patterns of beef consumption was women's attitudes towards red meat.

From the mid 1980s both consumer studies and market research indicated that women, particularly women aged between 25 and 40, were purchasing much less red meat in comparison to other sectors of the population (Hackett, 1994). This was a concern for beef marketers, as women were responsible for 80 percent of meat purchases and thus were a key influence on household consumption of beef (Hackett, 1994). In fact, as reported by Sareff[50] (2004), consumer research indicated that perceived negative attributes for red meat had almost doubled from 22 percent in 1997 to 41 percent in 1999. Moreover, sales for red meat had decreased from 64 percent in March 1998 to 56 percent by December 2001 (Sareff, 2004). Figure 16 displays the results of research conducted with consumers undertaken by marketers in the mid 1980s. As the graph indicates, meat marketers identified that the most critical task was to re-establish red meat in the diet of the 'new' generation of women - the working mother. It was thought that if the status of red meat in this cohort was allowed to decline further than it

49 In 1994, Paul Hackett was an executive with the Campaign Palace.
50 Also employed by the Campaign Palace

already had, there was a long term risk of red meat consumption declining in the next generation (Bryson and Cleary, 1990).

Figure 16: Results of qualitative research among different consumer types
(Source: Bryson and Cleary, 1990)



Women, specifically the working mother, therefore became, and continues to be, the target audience for beef marketing campaigns in Australia (Bryson and Cleary, 1990; Penn, 1993).

'Summing-up' the Consumer

Identifying the target audience is the first step in assembling the consumer for beef. The second step involves gaining an understanding of the target consumer group and what their 'demands' for beef are. As discussed in Chapter 2, one of

the major impacts upon food provisioning and consumption were alterations in household labour processes coinciding with a substantial increase in the number of women who entered the workforce. In the main, studies concerning household labour processes and family dynamics have acknowledged, in particular, that 'changes in lifestyle related to the time allocated to shopping, preparing, cooking and consuming food' (Gofton and Ness, 1991, 19) have been an overarching factor in relation to transformations in the provision of food for the family. This factor had major implications for the way that meat marketers understood women's behaviour and attitudes towards the purchase and consumption of beef.

Marketers estimated that by the mid 1980s 60 percent of mothers were engaged in paid work on either a full time or part time basis (Bryson and Clearly, 1990). As conveyed by Bryson and Cleary (1990), for Australian meat marketers, a key change that influenced red meat purchases and consumption was the reduction in time spent by women to purchase ingredients and prepare meals for the family. Aarons and Clerke (2000) identify that the time spent on preparing and cooking a meal had decreased from two hours in the 1960s to less than 25 minutes by 1999. Moreover, the obligation by women to fulfil household duties and family needs, before and after working hours, was a significant consideration for understanding consumer attitudes and 'demands'. Meat marketers proposed that for working mothers in particular, preparation of the evening meal was an 'unenviable task' (Bryson and Cleary, 1990, 2). They recognised that, following a day at work, women were tired and would have little assistance from the rest of the family in the preparation of the meal. In the mid 1980s, as numerous studies suggested (for example Charles and Kerr, 1986; Murcott, 1982, 1983 and McIntosh and Zey,

1989), women remained impelled to provide a family meal that was varied, interesting, appealing and nutritious.

Although meal preparation remained the chore of women, according to Goften (1990), the mass entry of women into paid employment assisted in relaxing traditional stereotypes of wives and mothers. He suggested that due to changed expectations, meals and food provisioning became far less significant events. In the eyes of marketers, this shift assisted women to unite their old values as housekeeper and meal provider with new behaviours and attitudes that offered them a less time consuming and easier way of getting food on the table (Aarons and Clerke, 2000; Bryson and Cleary, 1990; Hackett, 1994). Women were seen by marketers to adopt an attitude leaning towards more of an 'organiser' mentality, which allowed them to put meals on the table, that had not necessarily been cooked from scratch. It was now 'okay to cheat to cope' (Bryson and Cleary, 1990, 3).

From the available marketing data, therefore, it seemed that marketers were aware that their target audience – the working mother – was time poor, had difficulty conjuring up interesting and nutritious quick meals and was amenable to taking 'short cuts' in meal provision. It was:

> much easier to pick up a cooked chicken on the way home, or to take some frozen fish out of the freezer, or make a quick pasta dish than to go through the messy and time-consuming procedure of trimming, cutting and cooking beef at the end of a hard day (Penn, 1993, 80)

In 1985, this description of the consumer formed the basis for the "Short Cuts" marketing campaign – the precursor to more current campaigns.

"Short Cuts" to Increasing Beef Consumption

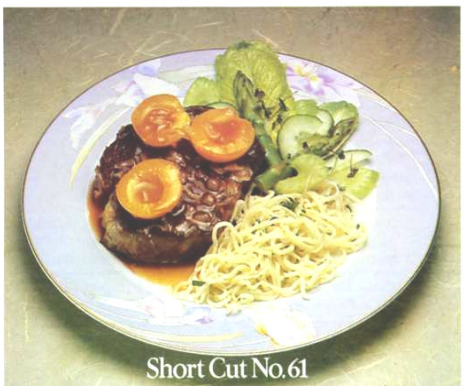
Until the mid 1980s, beef had been the quintessential generic staple of meals. Unlike other grocery products, there had been no need to differentiate it from products that were considered similar. However, changing attitudes towards beef and a subsequent decline in beef consumption urged marketers to establish a comprehensive advertising and promotional campaign that addressed consumer issues and lifted the profile and image of beef in the face of direct competition from poultry, pork and fish.

The "Short Cuts" marketing campaign, launched in 1985, was the first meat campaign that attempted to incorporate the "needs" of the consumer, in order to overcome the negative product image associated with meat and create an image that coincided with that of the contemporary women. The aim therefore was to present meat as appealing, versatile and convenient. An important element of the campaign was the attempt to create a 'unique "personality" for beef' (Penn, 1993, 79) that empathised with the needs of the working mother. The intention of the marketing team of the AMLC was to position meat as a friend and an ally which understood the situation and issues of women, and that helped the busy working woman cope, be better organised and solve the daily dilemma of what to cook for the family meal (Bryson and Cleary, 1990). In essence, the "Beef Short Cuts" campaign did not present beef as meat, but a quick and easy meal idea that incorporated beef. In the words of the marketers themselves, "Short Cuts" was

‘presented as a time problem solver, a decision problem solver, an ease problem solver, and a variety problem solver’ (Bryson and Cleary, 1990, 4). Thus, the descriptors “appealing”, “versatile” and “convenient” became attributes of quality which had a focus on the quality of women’s lives.

A key promotional aspect of the “Short Cuts” campaign was a range of meal ideas (that took less than 30 minutes to prepare and cook), illustrated and detailed on freely available recipe cards (see figure 17) located in places where beef was purchased. A problem that had been identified in the research was that meat displayed in meat retailing outlets looked unattractive and unappetising. The research also revealed that 80 percent of customers entering a butcher shop had not made up their minds what to buy; whilst they were thinking about “meals”, they were being offered “meat”. At the time of the “Short Cuts” campaign, there were approximately 6,500 butchers and 1,500 supermarkets retailing meat in Australia (Penn, 1993). For “Short Cuts” to be effective, the AMLC thus required the support of meat retailing outlets. Hence, a large part of the campaign focused on building relationships with retailers and assisting them to become “consumer friendly”. Retailers not only displayed advertising materials, but undertook to “value add” cuts of meat coinciding with the recipe cards distributed. Stir-fry, pan-ready and oven-ready cuts of beef, attractively prepared and presented, and trimmed of fat were displayed in the butcher’s window and in supermarket cabinets (Bryson and Cleary, 1990; Penn, 1993). This ensured what was advertised on television and print media was delivered at the point of sale.

Figure 17: Example of Short Cut Recipe Card



Steak with Tangy Apricots

Preparation time: 10 minutes **Cooking time:** 16 minutes

Serves 4

- **4 RIB EYE STEAKS**
- 250g noodles
- Salad greens of your choice
- Pepper
- 2 teaspoons oil
- 1 small onion, chopped
- 425g can unsweetened apricots
- 2 teaspoons tomato paste
- 2 tablespoons mango chutney
- 1 tablespoon finely chopped fresh herbs
- Low calorie French dressing

1. Bring a pan of water to the boil, add noodles, cook according to directions on packet. While they boil, prepare ingredients for tossed green salad.
2. Trim steak of any excess fat. Season with pepper. Heat oil in a large frying pan on medium high heat, add steaks and quickly brown on each side to seal. Reduce heat to medium and cook steaks for 4 minutes each side or until meat feels springy to the touch. Remove and keep warm.
3. Add onion to pan and cook 2 minutes. Drain apricots, reserving 1/4 cup juice. Add reserved juice, tomato paste and mango chutney to the pan, stir to combine. Spoon in apricots, gently heat through.
4. Drain the noodles and toss with the herbs. Sprinkle salad with a splash of French dressing. Place the steaks onto serving plates, spoon over apricot sauce, serve with the noodles and salad.

Tip: Did you know lean beef or lamb is one of the best sources of iron in the diet?

The "Short Cuts" campaign was proclaimed as a success by the AMLC. During the five years over which the campaign ran, women's attitudes towards red meat became more positive and beef consumption increased. A qualitative evaluation of the "Short Cuts" campaign conducted by Adams (reported in Bryson and Cleary, 1990, 7) indicated that as early as May 1986, 'a subtle but perceptible shift in attitude towards red meat could be detected" and that by 1987, beef was 'gaining credence as part of a modern meal'. Adams (cited in Bryson and Cleary, 1990, 7) claimed that in 1987:

> Meat was increasingly being perceived as convenient, as the Short Cuts campaign offered women not only pre-prepared cuts and an ever-growing range of options but simple methods of cooking and new ideas via recipe cards available at point of sale. By 1988 meat's quality image had dramatically improved. Whilst not cheap per se, red meat was perceived as good value for money. More and more women were eschewing the

> economy cuts in favour of premium ones which were fat-free and bone-free. Quality perceptions were underscored by what was the extremely popular red meat advertising…

The "Short Cuts" campaign makes an interesting case for examination. It demonstrates not only the psychological meaning of consumption, but it articulates the way in which the consumer was assembled in accordance with an array of social practices and behaviours. "Short Cuts" transpired only after a psychological understanding of what meat meant to women was established. The values that were conveyed in advertising were those that recognised not just the changing roles of women in society but offered a solution to the problems of meal provisioning that resulted from the working woman's change in lifestyle.

The communication of the advertisements was subtle in approach. Showing beef in context, that is, as part of a meal, had favourable ramifications for beef sales. The advertisements had been successful in imbuing the product with both functional and emotional values that assisted in transforming consumer perceptions towards beef. Thus, following from Miller and Rose (1997) whilst identifying consumer needs or demands plays an important role in the assembling the consumer, so to does the affiliation of those needs to the product. In the case of "Short Cuts", 'making up' the consumer did concurrently involve making up the commodity and assembling the 'little rituals of everyday life which would give the commodity meaning and value' (Miller and Rose, 1997, 6).

Whilst the "Short Cuts" campaign was successful in attaching an understanding of the 'working mother's dilemma' (Bryson and Cleary, 1990, 5) to beef by

bringing issues surrounding meal provision for women to the fore, it could be argued that it contributed little to changing the societal expectations of women's roles. By making available pre-prepared meat cuts, and by demonstrating how to cook a meal in less than thirty minutes, the "Short Cuts" campaign reinforced the traditional role of women as a meal provider and housekeeper. No longer was the working mother expected to spend hours preparing the family meal, but they were still expected to provide it.

The "Short Cuts" campaign was esteemed also for its impact upon the retail of beef. Bryson and Cleary (1990) claim that a consumer "demand" for convenience, quality and variety assisted butchers to change their retail presentation habits. "Short Cuts" therefore induced butchers to become retailers that sold meal concepts, not simply meat.

However, while the "Short Cuts" campaign increased beef consumption by allowing women to adapt more easily to the demands imposed by their changing role in the family and workforce evolving attitudes and needs, its success was short lived. By 1992, beef consumption was once again declining (Hackett, 1994). The AMLC reconsidered their marketing strategy. As with the previous campaign, marketers identified women as the target group as they were considered by the AMLC to remain responsible for 80 percent of meat purchases. The marketing team reassessed the data collected previously and utilised 'intermediate evidence' (Hackett, 1994, 1) to support their stance that 'women's attitudes were pivotal to the problem' of declining meat consumption (Hackett, 1994, 1). They surmised that three interrelated attitudes – image, fashion and

health – underlay changes in female eating habits and, therefore, shifts in beef consumption patterns.

As summarised by both Hackett (1994) and Sareff (2004), the research indicated that, despite remaining the meal providers of the household, women had discarded the traditional notion of red meat as central to the meal ('with three vegetables'). As Bryson and Cleary (1990, 2) asserted in their report on the "Short Cuts" campaign, meat was seen to be 'old fashioned, boring, neither inspiring nor interesting'. Women perceived that meat lacked variety or appeal and had few contemporary meal associations. In addition, younger women were seen to be increasingly in favour of vegetarianism (Hackett, 1994). This was a trend that the AMLC (and later the MLA) claimed was supported by the media, by role models and by a growth in vegetarian restaurants (Hackett, 1994; Sareff, 2004). The adoption of vegetables and pasta as major dietary components (alongside chicken, pork or fish) was seen to have undermined the appeal of red meat as reported above. As there was a greater availability, recognition and acceptance of alternatives, beef was merely another potential ingredient in a meal. Despite the "Short Cuts" campaign, meat was not thought of as part of a modern balanced diet. It was still 'big, heavy, fatty and masculine' (Bryson and Cleary, 1990, 2). Red meat had not only gone out of fashion but also its image as an essential meal ingredient had diminished.

Moreover, whilst vegetables and grains were seen to contribute to well-being and long-term health, red meat was being associated with health problems. Meat marketers considered also that negative media coverage (see Figure 18) about

meat was fuelling concerns about the dangers of meat and thus influenced women's attitudes towards meat consumption. According to Sareff (2004), a study conducted amongst female meal providers in 2000 by The Dairy Corporation showed 62 percent of women felt they should limit their meat consumption to avoid health problems.

Figure 18: Examples of negative media coverage pertaining to red meat
(Source: Sareff, 2004)

The results, as summarised by Hackett (1994) and Sareff (2004), consider the changing lifestyle of women. They also provide an insight into the changing status and value of meat to the meal. However, considered most important by marketers was the inclination of women to reduce their meat consumption due to health concerns. As reported by Hackett (1994), research indicated that young women were far less inclined than other groups to agree that red meat was an essential part of the diet. What this information indicated to marketers, therefore, was that women wanted meals that were not only quick and easy to prepare but

were healthy and nutritious. Hence, the objective of the proceeding AMLC marketing campaign was to emphasise the nutritional attributes of beef. After considering a number of nutritional attributes of beef including protein, zinc and vitamin B12, an advertising and promotion campaign based on beef being an important source of iron was developed.

According to the AMLC, research conducted by the CSIRO division of Human Nutrition, in conjunction with the Australian Iron Advisory Panel (AIAP), had indicated that 70 percent of women did not consume the recommended daily dietary intake for iron. Apart from this observation, the AMLC believed that iron represented 'an opportunity to forge a real emotional bond between women and red meat, because all women understand the fundamental female need for iron in terms of period and blood loss' (Hackett, 1994, 2). Additionally, iron was viewed as the link to promoting beef consumption as the 'notion of feeling tired and lethargic due to lack of iron also strikes a chord of recognition, and introduces real doubts about the wisdom of reduced red meat consumption' (Hackett, 1994, 2).

By forging a strong link between lean beef and iron, the AMLC intended to substantiate beef's function as an essential food item. In order to facilitate this process, the AMLC developed a campaign that progressively introduced beef as the best food source for iron. The AMLC "Iron" campaign consisted of two phases. The first phase – "faces" – involved highlighting the health issues of iron deficiency in women and establishing the credibility of beef as an important

source of iron. The second phase – “big fish” – focused on positioning beef as the easiest and most efficient method of increasing iron intake.

Phase 1 commenced with disseminating the findings from the CSIRO and the AIAP to health professionals including general practitioners. This move was reported to form the basis of a consumer public relations campaign that was executed with the assistance of selected women’s groups, nutritionists and media personalities. As a pre-advertising activity, the aim was to create awareness amongst this cohort of the importance of iron for women’s health and to ensure knowledge of the way in which iron functions in the body. That is, as a means of transporting oxygen in the blood. Side effects of an insufficient intake of iron including tiredness, lethargy, poor stamina and an increase in infections were also communicated to this group of people.

Four weeks into the public relations activity, the first of two television commercials were aired. The first commercial – “Faces 1” – subtly urged women to consider whether they could be ‘one of the 70 percent’ (Hackett, 1994, 3) deficient in iron. The advertisement featured a number of women who spoke about feelings of tiredness and lack of energy. The advertisements intimated that a lack of iron could be the cause of these feelings and suggested a number of sources of iron, including spinach, pork and lean beef. The aim here was to present beef as a possible solution to iron deficiency without an aggressive marketing style. This commercial was supported by four press advertisements and various advertorials, which provided further information about iron and its link to beef.

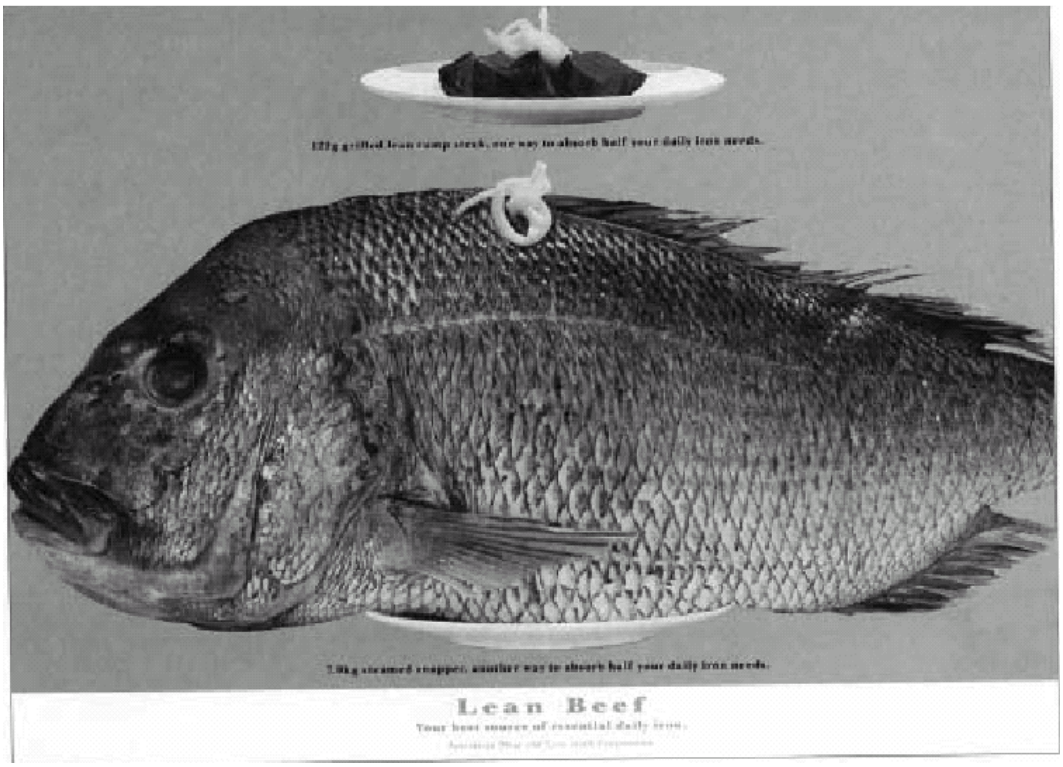
The second television commercial, “Faces 2”, was aired a month after the first. This commercial featured a number of women from popular women’s magazines discussing why they believed their iron intake was adequate. It was revealed throughout the advertisement that subsequent iron tests demonstrated that one in five of these women had sufficiently depleted iron stores to warrant medical attention. The message behind this campaign aimed to remind women to look after their health and not to be complacent about iron deficiency.

The effect of this first phase of the “Iron” marketing campaign was not only successful in creating an awareness of iron deficiency amongst women, but the advertisements had succeeded in its principal objective – to raise ‘doubts amongst women about the adequacy of their own iron intake’ (Hackett, 1994, 3). Research undertaken by Dangar Research Ltd., to track the effectiveness of the advertising campaign, indicated that 70 percent of women (from a sample of 309) agreed that the advertisements had made them consider increasing their iron intake. In addition, the tracking data also indicated that the campaign had succeeded in persuading some women to re-evaluate their eating habits and diet (Hackett, 1994).

Having accomplished the task of creating an awareness of the need for iron in the diet and forcing women to question whether they had an adequate intake of same, the second phase of the marketing campaign focused on promoting beef as the solution to iron deficiency. In this phase a series of three, 15 second, advertisements were aired on television, with the purpose of highlighting the iron

absorption capabilities of beef in the diet (Hackett, 1994; Evans, 1998). The advertisements (depicted in Figure 19) visually demonstrated the amount of beef needed to gain half of the daily requirement of iron needed by the body in comparison to foods such as fish, poultry and spinach that were considered by consumers to be more nutritious than beef. The AMLC considered this campaign successful as demand for beef increased during and following the campaign (Evans, 1998).

Figure 19: 'Lean Meat' Campaign
(Source: Evans, 1998, 498)



As with the "Short Cuts" campaign, the AMLC "Iron" Campaign was developed to create and align with consumer demands. The focus, however, was not so much on ease of preparation or convenience as on nutritional benefits. By explicating the links between iron deficiency, tiredness, lack of energy and the positive benefits of eating beef, marketers returned the focus of beef to the quality

of women's lives in an environment that saw an increasing number of women staying in the workforce, managing families and households while seeking also to maintain a balance in their lives. Perhaps, however, the most interesting aspect of this campaign, for the thesis, was that the attempt to mobilise consumers for beef included also a finely calculated strategy of mobilising health professionals to endorse beef consumption by women. Here, the enrolment of health professionals as a legitimate source of information on the nutritional aspects of beef not only sees the lengthening of beef networks but highlights the capacity of marketers to 'act at a distance'. Marketing activities undertaken by the AMLC, moreover, reflected the simultaneous performance of multiple conceptualisations of quality within beef distribution and exchange.

Concurrently running with the AMLC "Iron" campaign, the AMLC positioned the "Love Me Tender" campaign to maintain industry focus on quality. This campaign, which involved television and print media, sought directly to highlight the eating qualities of beef, in particular in relation to taste. The advertisements encouraged the trial of three particular meals, steak and mushroom, beef pesto and Thai beef curry, with the purpose of strengthening beef's image in relation to a perception that saw it as being "juicy" and "tender" (Australia Marketing, 1997). As documented in a report prepared by Australia Marketing (1997), a strengthening in beef's image in respect to taste, particularly amongst men, was discernible at the time in which the advertisements were aired. However, the eating quality of beef continued to be a key concern for marketers.

As indicated in Chapter 4, and as reported in a number of articles (Worsley, Cobiac and Skrzypiec, 1995; Polkinghorne, 1998; Egan, Ferguson, Thompson, 2001), consumer surveys conducted in Australia emphasised a prevalent dissatisfaction with beef's eating quality. In particular, dissatisfaction was related to inconsistency and reliability of beef tenderness. Indeed, research conducted by the Meat Research Corporation (MRC) in 1997 (cited in Crombie and Thomason, 2000, 313; Meat and Livestock Australia, n,d.) indicated that 38 percent of consumers encountered problems with beef quality, 57 percent of consumers experienced difficulty in selecting tender beef, 81 percent of consumers believed that price was not an indicator of quality, 90 percent of consumers believed the presence of fat was an indicator of poor quality and 100 percent of consumers felt that appearance of beef did not equate with quality. However, the results from the MRC study also found that beef consumers would be willing to buy more and pay more for beef if quality could be guaranteed.

While Meat and Livestock Australia (n.d.) acknowledged that 'guaranteeing the quality of a natural product is not simple' because 'beef is natural' and therefore 'subject to a lot of variables' (Meat and Livestock Australia, n.d.), the latter result nonetheless prompted MLA to develop Meat Standards Australia (MSA), a beef-grading scheme with a focus on providing consumers a guaranteed satisfactory eating experience. At the heart of MSA laid the quality concept of tenderness which, as seen in Chapter 5, is an aspect of quality that is at the same time material and social in nature, and open to negotiation by actors within the beef industry. In essence, MSA grades and labels beef according to tenderness and

indicates the most appropriate cooking method for that particular grade and cut of beef (Meat and Livestock Australia, 2000c). For MLA (n.d), MSA is:

> Not a quick-fix marketing and advertising gimmick, not a short term answer to an over-supply, low demand situation, not a new label, not a band-aid solution to a problem, not a shooting star, here today, gone tomorrow.

Instead, it is promoted as a collaborative endeavour involving a number of participants in the beef industry to institute a whole system approach to grading meat, based on principles of Palatability Assurance at Critical Control Points (PACCP) (Egan et al, 2001). According to Egan et al (2001), PACCP is a concept usually associated with food safety, the objective of which is to identify and control those production and processing factors that have the largest effect on palatability so that it is possible to predict the quality of the final product. The scheme is thus based on scientific methods and utilises a range of technologies to ensure palatability.

For the thesis, the advent of MSA is significant as it epitomises not only how quality influences the providence of the beef industry, but exemplifies how distribution and exchange activities can bring together a multiplicity of actors, whilst highlighting a diffusion of power across the beef chain. The success of the MSA grading scheme is dependent upon a set pattern of procedures and guidelines that require the collective effort of a range of actors and technologies along the entire beef chain from 'conception to consumption' (Polkinghorne, 1998, 8). From the view of MSA, "tenderness" was seen not only to be the outcome of factors of production including feed, breed, climate and pests, and

processing procedures including tender stretching and aging, but was also related to the cut of beef and even more importantly to the way in which beef was cooked. Whilst MSA provides guidelines for production, processing and butchering of beef and provides labelling indicating the correct cooking method for a particular cut of beef, the final responsibility for quality resides in the hands of those who prepare and cook beef. This provides a convenient out clause for marketers if quality is not ultimately achieved. Hence, the attainment of quality becomes a shared responsibility amongst all participants within the CQ beef chain.

Section Conclusion: Discourses of quality and CQ Beef marketing

An exploration of the marketing activities in the CQ beef chain has contributed to the realisation that quality is indeed central to its sustainability. Moreover, the successful marketing of beef resides in the ability to reflect discourses of quality. As seen through the specific marketing campaigns conducted by the AMLC and MLA, the promotion of CQ Beef involves the coordination of a number of actions and activities that occur simultaneously throughout production, distribution and consumption spheres. Following from Miller and Rose (1997), the promotion of CQ Beef required a carefully planned and executed approach to elucidating consumer demands and affiliating those needs with the product to represent those desired qualities. In particular, modes of quality including "quality of lifestyle", "health" and "tenderness" were highly esteemed by marketers and thus used to underpin the various marketing campaigns.

Marketing Quality: Mobilising the CQ Niche Beef Consumer

The previous section explored the ways in which CQ mass produced beef was marketed within Australia. In the main, the focus was on affiliating "consumer elucidated" conceptions of quality with beef, with the expectation that those affiliations would improve the overall consumption of beef. Whilst CQ niche beef producers were also able to profit from the marketing activities conducted by MLA, the success of their businesses lay in the attempt to differentiate their beef from that of conventionally produced product. The objective of this section therefore is to explore the ways in which CQ niche beef is marketed beyond that of mass-produced CQ beef. This section focuses, more specifically, on how quality perceptions are enrolled as elements of distinctiveness and difference along the niche market beef chains.

Branding and Niche Market Beef

> In consumer research, it makes little sense to talk about quality per se. Rather it is acknowledged that consumers form subjective impressions of the quality of a product based on psychological processes that are influenced by the levels of previous knowledge and cognitive competencies. Hence… quality research concerns *perceived* quality and not quality in an objective sense (Bredahl, 2003, 65).

In his study regarding the way in which consumers use cues to evaluate the quality of beef, Bredahl (2003) found that the use of brands played a significant role in indicating the expected eating quality and health quality of beef by consumers. As indicated in Chapter 4, branding seeks to add value to products

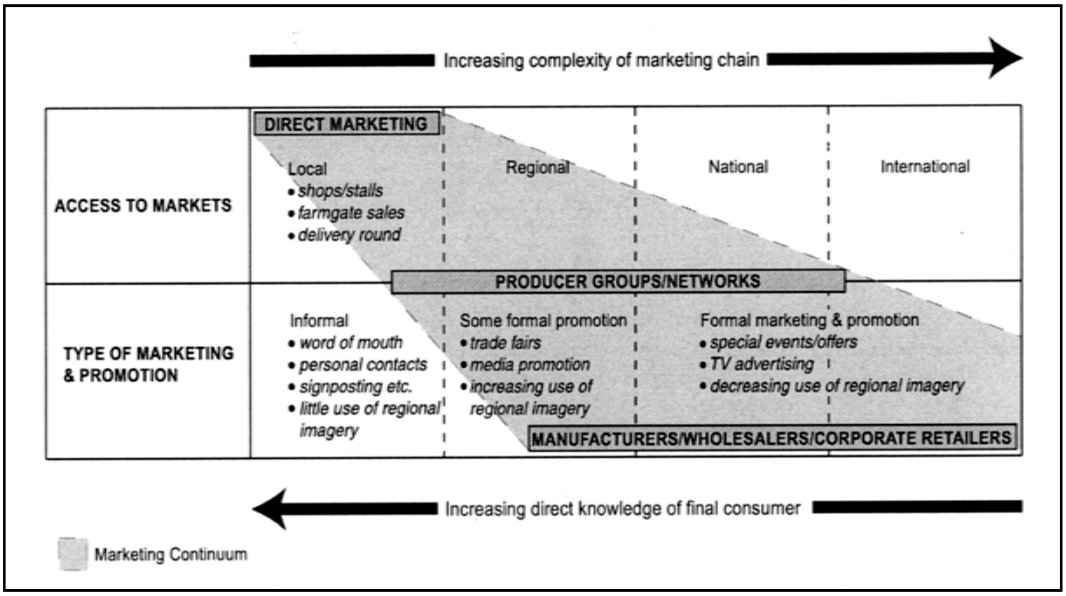
through marking or labelling distinction and difference (Pawson, 1997). In Australia, most meat is sold without branding and, in general, there are only minor detectable differences amongst similar beef products despite the possibility of considerable biological and production practices that can affect its quality. Branding, therefore, can serve as a tool for marketers that offer consumers the possibility of distinguishing amongst raw meats that do not generally differ much in visual appearance (Bredahl, 2003).

As indicated in Chapters 4 and 5, the emergence of niche market beef in Central Queensland has been in response to a number of stimuli including perceived consumer demands for 'high quality' and 'clean and green' beef. The niche market beef chains investigated emphasised a marketing strategy that revolved around demonstrating to consumers, via an attempt at branding, that their product was 'clean and green' and/or associated with a particular locality. This strategy aligns with moves by food producers in Europe and North America to signify quality through association with particular places or processes (Ilbery et al, 2001; Ilbery et al, 2005). For the thesis, 'place' and 'process' thus emerged as key mechanisms for communicating difference between quality niche beef and mass produced product.

Whilst 'place' and 'process' emerged as common mechanisms for communicating such difference, there was variation in the extent to which these concepts were used. Moreover, there were distinct disparities in the methods of marketing used by the various niche beef chains. Referring to a typology articulated by Ilbery et al (2001) (see Figure 20 for a conceptualisation of a

marketing continuum), an informal, semi-formal, or formal marketing channel was utilised. The following will thus offer an examination of the marketing methods and techniques used by each of the niche market beef chains represented in this thesis.

Figure 20: The marketing continuum
(Source: Ilbery et al, 2001, 31)



Marketing Quality: Natural Pastures Beef (NPB)

In their description of a marketing continuum, Ilbery et al (2001) consider that one end of the continuum is dominated by informal methods of marketing. Within an informal method of marketing, quality products are not only sold directly to the final consumer within a fairly localised area but the promotion of such goods occur via relatively informal methods of marketing such as word-of-mouth, posters, advertisements in local publications and signposting. The marketing chain itself, therefore, is both simple and short as it bypasses a range of intermediaries.

As described in Chapter 4, the NPB chain aligns with this approach to marketing. NPB was sold directly to consumers who themselves instigated contact with Sam, the NPB producer, after they had heard about his product via word-of-mouth or via an advertisement in the local newspaper. After initial contact, Sam sent out an information package outlining the processes of production of his beef, the method of collection and prices (refer to Appendix 8 for an example of the information sheet).

As his consumer base was small, at the time of interview, Sam was able to directly liaise with each of his customers. This allowed him to receive and respond to consumer feedback regarding his product. Due to this direct relationship with consumers, confidence in the product seemed to be based on a trusting relationship between producer and consumer. As a demonstration of the inherent importance of this trusting relationship, Sam invited customers to view first hand his farm and farming practices, a move that incidentally affirmed the relationship with his customers. The need, therefore, to use more formal visual promotional techniques was diminished. Instead, a taken-for-granted understanding of the link between place, process and quality was predominant in this niche beef chain.

Significant to this thesis, the success of marketing techniques in the NPB chain draws upon the establishment of trust and knowledge, described in Chapter 5, as a precursor to establishing a shared notion of quality beef. Familiarity with the process and conditions of production influenced the perception of quality for this product by consumers.

Marketing Quality: Green Grass Beef (GGB)

> What makes a steak great? [Green Grass Beef] breed their herds of Brahman and Santa Gertrudis cattle on the wide open paddocks of their million acre Millungera Station in the Queensland Gulf, and 2.3 million acre Barkly Downs, around 150 kilometres west of Mount Isa. When aged between four and eight months the yearlings are transferred by road train to Moray Downs or Croydon Station for fattening on lush green paddocks. At around twenty-four months of age, the cattle are moved to the picturesque Paradise Lagoons or nearby Mountain View for grain-assisted finishing. Their time-proven management practices and rigid quality control systems ensure the health and welfare of their herds and sustained provision of consistently tender and tasty, premium quality, beef products. When you consider all this, plus our ageing and cooking techniques at the Flame Char, you can be confident of the slogan. Paddock to Plate - Quality Guaranteed! (Advertisement for GGB viewed 2003 in restaurant)

According to Fleming and Roth (1991, 281), 'the image of place is intended to persuade'. In the case of GGB, the concept of 'place' appeared to be one of its main marketing tools. As seen in the above advertisement, GGB attempts to directly link quality with characteristics of the outback Queensland landscape. The terms 'wide open paddocks', 'lush green paddocks', 'picturesque Paradise Lagoons' and 'Mountain View" are descriptors that are intended to create an appealing context for situating the GGB product within the Central Queensland red meat market. Additionally, by highlighting 'locally known' Queensland beef grazing areas – 'Millungera Station', 'Barkley Downs', 'Moray Downs' and 'Croydon Station' - GGB are further able to attempt to establish their CQ base

and identity. This is an example of a direct attempt to appeal to CQ consumer sentiments of the knowledge and affirmation that GGB is a Queensland based product. The campaign is built around the assumption of what it means to be a "Queenslander". This result aligns with Ilbery et al's (2001) reading of a more informal approach to marketing. They suggest that at the informal end of the marketing continuum, regional imagery in some cases is used as an emotive tool whereby the local consumer is drawn to purchase the product based on a sense of pride of a local product. Alternatively, a visiting consumer may be attracted to a product that displays or promotes its local origins.

While this may be the case for GGB, the marketing strategy adopted also has leanings towards a more formal marketing style. Unlike NPB that relies on advertising via word-of-mouth and local adverts, the promotion of GGB is more complex. The GGB producer employs a marketing manager, Malcom, to not only promote the product, but also to identify new opportunities for sales and negotiate contracts. Promotional activities for GGB included point of sale advertising, and newspaper and television advertisements. As discussed in Chapter 4, as the GGB product was the only beef sold in the local retail outlet, promotion of it was extensive. The store itself was open for trading 17 hours per day, providing widespread exposure to the product. Local hotels and restaurants that offered GGB on their menus almost exclusively used GGB product. In these establishments, promotion highlighted the "story of GGB" as a testament to the quality of their meals.

As seen also in Ilbery et al (2001), the more complex the marketing of quality products become, so to does the distance in relationship between producer and consumer. In the case of GGB, Cameron, despite wanting to ensure the production and retail of a high quality product, has minimal direct contact with his consumers. The performance of the GGB product is gauged from feedback given to Malcom by the outlets who sell his beef, or in reference to the amount of beef sold. In both of these cases, the accuracy and reliability of these types of feedback have the potential to diminish as the GGB business expands.

The type of relationship between producer and consumer also becomes more complex as the distance between them grows. As seen in NPB, a relationship based on trust between the producer and consumer was firmly established. The NPB consumer could see how the product was produced and was able to directly comment on production processes to the producer. Although not advertised, if NPB consumers found the quality of the NPB product to be lacking, they knew they could approach Sam directly and the problem would be addressed immediately. Sam would replace meat if the quality was not up to the consumers' expectations. The establishment of trust so easily created in NPB was not as apparent in the GGB chain. GGB was required to work harder at establishing a trusting relationship. Apart from situating the GGB in the local area with the hope of attracting consumers with an affinity for local produce, GGB actively advertised a guarantee of quality. If the product did not meet consumer expectations, it was replaced or the money refunded.

Therefore, it could be said that whilst GGB utilises the concepts of place, process and trust in their promotion of a quality product, the marketing strategy for this chain does not allow for the same intensity of consumer feedback about the GGB product and relies more upon the branding to speak on behalf of the producer.

Marketing Quality: Channel Country Beef (CCB)

Whilst NPB and GGB lean towards an informal marketing approach, at the other end of the marketing continuum, CCB utilises a more formal approach to the marketing of their product. As Ilbery et al (2001) describe, formal marketing strategies are characterised by the product being sold to intermediary customers - rather than the final consumers - who are seeking to sell in either regional, national or international markets. Each intermediary in Ilbery et al's (2001) description is said to be a customer in their own right with its own marketing implications. As the marketing becomes more complex, the producer becomes less involved in promotion and marketing; instead the wholesalers and retailers increase their influence on the marketing of the product. For Ilbery et al (2001), the regional imagery associated with the product is likely to be underdeveloped as products are either exported under a national designation (for example, "Made in Australia"), or marketed under a retailer's own brand. For much of the conventionally produced beef in Australia, this description rings true. However, the past decade has seen the increasing development of collaborative marketing ventures where intermediaries are not autonomous entities but instead members of an integrated 'supply management system' (Nicholas, 2001).

As discussed in Chapter 4, "supply chain management' underpins the business ventures of CCB. This includes, therefore, the marketing and promotional activities of CCB. As a reminder, the CCB producer alliance was formed specifically with the intention of marketing an organic beef product to Japan. The growth and success of the business was reliant upon the marketing of a brand image that capitalised on a strong regional identity and proven organic status. As evidence by the following, place, and in particular process, features strongly in the promotion of the CCB product.

> Food safety is delivered by the CCB Organic Beef System. It is an integrated production, handling and processing system. It delivers quality certified organic beef that complies with the Australian Standards for Organic and Bio-Dynamic Produce and all AQIS standards for the export of organic products.
>
> CCB Organic Beef is produced in a totally natural environment where NO chemicals, growth promotants, pesticides, non-organic fertilisers, feed additives, or introduced feeds are used.
>
> Due to the unique location and low incidence of pest species, CCB producers have been able to implement the change to organic management practices effectively.
>
> The cattle graze on the unique natural flora of the Channel Country, including the many native shrubs and herbs that occur in the area. Individual producers have researched the biodiversity of their properties and uphold a sound knowledge of the local flora and fauna. A scientific approach is very evident and many producers have undertaken flora surveys that identify naturally occurring species, providing knowledge of nutritional value such as protein content, palatability and energy

> content. This information assists in determining stocking rates and helps to preserve the unique and delicate balance of the eco-system (CCB Website)

Of significance to the thesis was the need by CCB to prove quality by aspiring to a system that demonstrated transparency of organic farm production, transportation, processing and packaging practices. As part of marketing the CCB system and in order to forge customer relationships congruent with the goals of CCB to 'enrich communication, build market related knowledge and enhance market responsiveness' (Nicholas, 2001, n.p.), strategies used by CCB focused on fostering a collaborative environment and the sharing of knowledge between all members of the chain including consumers. Many of the CCB producers had not only travelled to Japan to meet with customers to gain an understanding of their requirements but had hosted visits by Japanese customers to the Channel Country in order to promote the uniqueness of the region. Other marketing and promotional activities included educational sessions and excursions, newsletter distribution, point-of-sale advertising, email and web based communications.

Section Conclusion: Marketing Quality and Niche Market Beef Chains

An examination of the marketing activities occurring within the niche beef chains in this study have indicated a varying degree of marketing styles and strategies amongst producers. Common to the niche chains is the affiliation of the product to "place" and the need to verify "processes" of production. Concepts of "trust" and "knowledge" also command a key role in the promotional activities undertaken. Whilst producers in the CQ beef chain had very little input into the marketing activities conducted by AMLC on their behalf, niche beef producers

favoured a higher level of involvement in the marketing process. However, the level of personal involvement in marketing diminished as the more complex the chain became. As the distance grew between the producer and consumer, the need to emphasize production processes in order to demonstrate quality and verify trustworthiness in the product also became greater.

Conclusion: Quality and Beef Marketing

In the process of selling beef, the marketing activities that are occurring within the various beef chains are not simply about manipulating the consumer in the name of profit. As demonstrated by the marketing campaigns developed by the AMLC (now MLA) and also those activities conducted by niche market producers, the act of promoting beef involves a delicate process of elucidating consumer desires, forming associations between those desires and beef and establishing connections and relationships with other agents in order to stimulate demand for beef. The success of marketing activities for all beef chains in this study lies not only in the affiliation of consumer desires to the product but also in the way in which the product is positioned in the market.

For the CQ beef chain, it is apparent that marketing strategies are attuned to forming quality associations of 'nutrition and health' and 'tenderness'. Indeed in marketing beef, quality as conceived as tenderness is clearly a tangible concept that underpins marketing schemes. When quality is poor, the beef industry incurs losses along the network, placing beef producers at risk. Whist niche marketers esteem similar quality attributes and can benefit from the promotional activities

undertaken by MLA, the success of their businesses depends upon differentiating their product from mass produced beef. Regional imagery and the demonstration of production processes were specific tactics utilised by niche market producers. For niche beef producers of Central Queensland, primary involvement in marketing was important. However, the extent to which producers could be directly involved in marketing activities varied according to the complexity of the chain. As the distance between the producer and consumer lengthened, the type of marketing became more formal and the need to actively associate consumer desires for "nutritious and healthy", "clean and green" and "tender" beef became necessary.

In conclusion, the act of marketing beef is simultaneously an economic and cultural act. In the attempt to stimulate demand for beef, beef is associated with particular values and meanings that become central to how quality is conceptualised and realised amongst those involved in both its production and consumption. A diffusion of power across the beef network is discernible in the marketing of beef. Marketing involves a simultaneous collective of consumer agency, network affiliations and psychological expertise. Beef consumption, therefore, is not an effect of the network. This overturns modernist assumptions that consumption is determined by production, but also highlights that consumption is both material and social in nature.

Finally, an examination of the marketing campaigns has shown that the growth of the beef industry resides in the coordination of actions embracing a number of activities including production and consumption at multiple locations. Exploring

the marketing activities of AMLC and niche beef producers using ANT has enabled the researcher to view how relationships are negotiated in order to effect a secure selling network. A number of modes of quality including quality of life, health and tenderness, place and process were seen to influence beef consumption and thus the success of the beef industry. Beef marketing activities bring together a multiplicity of actor and spaces, by the utilisation of a common and uniting mode of ordering known as quality.

‘Eating Quality’: Consuming Central Queensland Beef

> *A very tender and fully flavoured steak, a full flavoured steak and tender, that’s all [people] want. Quality, just quality, something that you can sit down and eat and appreciate, and say, ‘jeez that was nice!’ without having to hack through it and chew it and there’s no taste or flavour into it at all (Larry, Butcher)*

Discussion posited in Chapters 5 and 6 saw the way in which ‘consumer demand’ was accorded principal status in the determination of production, processing and distribution practices of beef. Whilst attempts were made by marketers to gain knowledge of consumer desires through research with ‘representative’[51] consumer groups, overall, for mainstream beef there are virtually no points, apart from retail outlets (butcher shops), where direct contact with, or knowledge of, consumer wants is either sought or achieved. Despite this, it remains a common belief among producers and retailers that all Australian consumers demand lean and tender beef. Chapter 7 takes as it starting point the desirability to explore these beliefs with Central Queensland beef consumers.

As widely discussed in literature pertaining to food and food consumption, the act of eating and the associated practices of food purchasing and preparation are

51 The majority of market research undertaken by MLA is conducted in metropolitan Australia; mainly Sydney and Melbourne.

blended in a melting pot of social relationships, culture, biological need, politics and economics (See Caplan, 1996; Farb and Armelagos, 1980; Fiddes, 1995; Fieldhouse, 1995; Fischler, 1980; Marsden and Little, 1990; Murcott, 1988; Nestle, 1998). That is, our food selection is more than just a matter of preferences and choices; it is imbued with social meaning, cultural practice and political ideology (Willard, 2002). Beardsworth and Keil (1997, 51) note that 'when we eat, we are not merely consuming nutrients, we are also consuming gustatory experiences and, in a very real sense, we are also consuming *meanings* and *symbols*. In other words, what and how we eat are part of a larger network of social relationships that concern both private and public spheres of society (Willard, 2002). These relationships influence the decisions made in relation to the purchase, preparation and consumption of meat. The construction of 'quality' and the consumption of 'quality meat' are thus related to wider societal influences. Referring to processes of consumption as proposed by Dixon (1999), this chapter thus explores meanings of quality and the consumption experiences of beef by Central Queensland consumers. Whilst the results in this chapter evolve mainly from the focus groups and interviews conducted with consumers, notably, all participants in this study, whether categorised as producers, processors or retailers, were consumers of beef.

Conceptualisation of Quality for Central Queensland Beef Consumers

As indicated in Chapter 3, the purpose of conducting focus groups was to explore how consumers constructed beef quality. Thus, the exploration of quality for all

participants required consideration of the question 'What do you think makes quality beef?' Whilst an attempt was made to differentiate consumers of CQ beef from both distinct geographical areas, that is Rockhampton and Brisbane, and also differing types of beef consumers – organic and conventional – data analysis revealed little difference regarding the desires of consumers in relation to beef quality. Hence, the results reported in this chapter do not distinguish between these groups. While this result may be interpreted as a limitation to the study, an underlying assumption that could be prefaced is that any differences in consumer purchasing behaviour may have more to do with access to and availability of a variety of products rather than a selection of products based on other factors such as income, culture, gender, age and ethical considerations.

A list of terms used by participants to describe 'Eating Quality' is reported in Table 4 (Chapter 4, 135-136). These terms reflect how participants responded when directly asked to describe quality beef. As is demonstrated, participants described a piece of quality beef in terms of observable and sensory characteristics, and cooking was identified as a single activity that either enhanced or reduced quality according to these characteristics. Significantly, however, this list of terms neglects to reflect issues related to social experiences of food and eating, which were discussed in the wider narratives of participants.

In reference to consumption issues, therefore, the notion of quality for participants emerged in two ways. In the first instance, participant discussion pertained to the final product. Quality related to those features of beef meat that were deemed characteristics of the product. In fact, participants in all chains

viewed eating quality as determined by the sensory functions of taste, smell and sight. Quality meat tasted good, it had 'flavour', did not smell 'bad', was red in colour, and did not have a 'grainy' texture when eaten. Quality beef was not tough to chew, was not 'stringy' and was tender to bite into. A 'good' piece of beef was 'juicy'. These results are unremarkable and are similar to results reported in previous studies by Glitsch (2000) and Meiselman (2001).

In the second instance, quality related to characteristics of the social experience of food and eating. As discussed, the 'Making Quality' and 'Marketing Quality' chapters indicated that notions of quality were inextricably bound with perceived notions of consumer demand and, further, that processes of production, distribution and exchange had been structured in order to meet the concerns of consumers. For actors involved in production, distribution and exchange processes of beef, the demand for 'quality' by consumers was perceived to influence their work activities. However, 'quality' for consumers, as reflected in the narratives, was embedded within a variety of social, cultural, biological, economic and political contexts. Although it is recognised that all processes relating to the production and consumption of beef are embedded in these contexts, it is especially apparent for consumers of beef meat.

Five themes form the framework for an interpretation of the meanings of 'quality' for the participants in this study. 'Tenderness', 'Product Safety', 'Place', 'Culture' and 'Gender' form a basis for an interpretation of quality and contribute to demonstrating an understanding of how social relationships are entwined with

beef consumption processes. The following provides a description and discussion of the five themes.

‘Tenderness’

The previous chapters revealed that actors involved in the production, processing and retailing of beef perceived that consumers demanded tender beef. Producers, processors and retailers saw tender beef as the central aspect of quality. Data collected from consumers indicate that ‘tenderness’ certainly was a key aspect of ‘eating’ quality. For consumers, ‘eating quality’ relates to the palatability of beef and it was agreed by consumers that when eating a steak or another piece of beef they expected the meat to be tender, juicy and flavoursome. However, ‘tenderness’ was underpinned by health, culture and economic contexts.

One point of discrepancy among consumers was the presence of marbling through the beef. Although marbling was seen as contributing to the tenderness and the flavour of beef, many participants, especially women, would not purchase or eat marbled meat, as marbling, for these particular participants, was analogous with fat. Meat that contained excess fat was not seen as healthy. On the other hand, some participants commented that it was difficult to purchase marbled meat even if it was desired as high levels of quality were rarely available for domestic consumers.

Most of the consumers interviewed demonstrated a basic understanding of how beef was produced in Central Queensland at a farm level. They recognised that all beef, regardless of where it was going to end up, was produced in a similar

manner. However, they were puzzled as to why there were discrepancies between the 'quality' of meat sold domestically and that which was destined for export markets. In general, consumers commented that it was expected that one should be able to purchase quality meat in the Beef Capital whereas, more often than not, this was not the case. One participant, who resided in Rockhampton, stated:

> *Well, I don't eat it [meat in Rockhampton]; its crap meat. I'm from Hobart originally and we've got good meat. All the good meat is exported out of Rocky; they feed all the crap meat to the locals so you can't even get a good steak.*

On more than one occasion, similar comments were made in relation to the quality of beef purchased in Central Queensland: *'all the good stuff goes overseas'* and *'we're left with the crap'*. As a general summary of these concerns, consumers wanted to know why they were not offered export quality beef at a reasonable price since export quality beef was produced in Central Queensland. They were also perturbed that there was delineation between export quality and domestic quality.

In recent years, the Meat and Livestock Association has introduced a scheme that grades the quality of meat in terms of tenderness. Consumers voiced concerns that this meat was still not as tender as the meat which was exported even though the 'quality' was guaranteed. Interestingly, even though this 'quality' was guaranteed, many consumers in this study would not complain about the meat to their butcher in order to be refunded. Instead, consumers would not purchase that cut again, opting instead for another butcher, purchasing cheaper cuts, or cutting beef out of their diets. Although the majority of consumers in this study preferred

tender beef and stated they would pay more for tender beef than they would for lower quality meat, they also believed that the prices they already paid for beef were high enough to ensure tenderness and other aspects of quality. If beef did not meet their expectations, therefore, they were not necessarily willing to pay extra for higher quality beef from the same source. One participant stated '*why should I pay more for something that should already be good meat*?' Other participants echoed this comment.

Participants involved in the production, processing and retailing of meat commented that the cooking could affect the 'quality' of the meat. In fact, retailers of meat placed emphasis on this issue. Beef meat purchased in supermarkets was often labelled with instructions as to the best approach to cooking a particular meat cut. Similarly, many butcher shops had signs explaining the best way to cook different cuts. Butchers also explained to consumers the best way to cook meat when making sales. Those participants who owned, managed or cooked in outlets where beef was served commented that cooking could affect the 'quality' of the meat in terms of the meat shrinking and becoming dry by overcooking. Despite this, it was believed necessary to commence cooking with a quality product. According to Jason (manager of a hotel):

> *Cooking is very important. We can get the best steak, but the wrong cook can just burn the bum out of it or cook on the wrong temperature plate and that can ruin the steak. Conversely, if we haven't got top quality beef to start with, the best cook in the world can't make it good.*

Restaurateurs further commented that 'quality' was more than just the 'tenderness' or cooking of the meat. 'Quality' and the perception of a 'quality' meal was dependent on the size of the meal being served (in terms of receiving value for money), the 'quality' of the meal being consistent (where upon repeated returns the enjoyment of that meal was the same), and the level of service. In fact, providing consistency and good service was of great importance to restaurateurs. Victoria (a restaurant manager) commented in relation to serving a consistent quality meal that:

> *The customer knows what to expect and that's very important, especially if you have a lot of repeat business. It also gives us (I guess) confidence and the staff confidence in serving the product because they know that you know it's a reliable product – they're not going to have to be hearing complaints all the time… probably keeps the kitchen happy because they're happy not getting steak sent back. So I think that the consistency is important, everyone sort of knows what to expect and that is an important thing for both the customer and the staff.*

In a similar vein, Daniel reported that consistency of quality contributed to the enjoyment of the meal:

> *You've got to have quality and consistency. We went through many butchers, trying steaks and some of them were quite good and considered good steaks, but they were not great steaks. The hardest thing we found was consistency, consistency of supply, of a certain quality. You could always get supply, but you can't afford in a steak house to have someone have a good steak one week and an ordinary steak next week. Because he [the*

> *customer] will remember the ordinary one and tell everyone about the ordinary one, not the good steak.*

Further to providing consistency of a meal, Jason commented that the experience of service affects the 'quality' of the meal experience and of the meal in particular:

> *Service is a major thing; that's part of having your quality steak. You've got to have good service, regardless of what the people are like. We get a great thrill out of training our staff. If we get a customer that's a bit difficult, hard to handle, we get great pleasure out of that customer walking away and saying thanks very much for looking after me. Now we get great satisfaction out of turning that person around, to say that they've enjoyed the service, they've enjoyed the meal.*

Consumers in this study did not place much emphasis on eating meat in a place other than their own home. This was surprising considering that the consumers in this study came from a range of different age groups, different educational and professional backgrounds and living arrangements, and literature has indicated that there has been an increase in food consumption outside of the home (Bell and Valentine, 1997). Nearly all consumers discussed the purchasing, preparation and cooking of meat for home use. In relation to 'tenderness', only one participant mentioned cooking as something that could ruin the quality of the meat. In response to his comment, another participant replied *'you've got to start off with a good product. You can't make it good by cooking it.'* This response was similar to thoughts expressed by chefs and eating outlet owners, as demonstrated. In this light, consumers viewed 'tenderness' as an outcome of production processes and thus inherent to the product itself.

Of those consumers who did discuss eating out, the conversation was mainly focused on what they would prefer to eat if dining out. Surprisingly, the majority, regardless of gender, said they would order seafood, the reason being that seafood were something they did not cook at home. Steak was secondary to the choice of seafood. However, many commented that if seafood weas not available then a steak would be the first choice. Interestingly, consumers did not comment about the quality the meal exhibited when they ate out. It may be assumed from this that it is an expectation of consumers that when they eat out they expect to be served a quality meal.

The theme of 'tenderness' in relation to consumption processes presents a variety of facets relating to quality and beef consumption. Consumers described 'tenderness' as an inherent physical and sensory aspect of 'quality'; one which was achieved through production processes. However, the notions of 'quality' were affected by perceptions of health, price and personal expectations that are situated within social and cultural contexts. By contrast, those involved with both the retail of beef meat and the provision of meals outside the home environment, not only viewed 'quality' as an outcome of production processes but also as an outcome of processes that occurred following purchase. For eating outlets, 'tenderness' or 'quality' was more than just a combination of physical and sensory characteristics of the meat itself; 'quality' was about the whole meal and the meal experience. 'Quality', therefore, involved providing the experience of a 'quality' meal in terms of providing value for money, consistency and a level of service.

‘Product Safety’

Chapter 5 viewed ‘product safety’ as pertaining to producing and ensuring a product that was safe to eat. For those involved in production, ‘product safety’ was mainly related to the activities and practices of producers in regards to maintaining the health and welfare of cattle. For processors, ‘product safety’ was also related to ensuring the cattle were not harmed in any way prior to slaughter. Post-slaughter, processors were concerned with hygiene and microbial activity. Similarly, retailers were committed to following food health-and-safety guidelines.

Consumers in this study were concerned about the ways in which beef is produced. These concerns stem from an unease regarding the use of chemicals, hormones and antibiotics in beef production, the ways in which animals are treated, and food safety regulations. It is significant, however, that consumers were concerned about these issues in relation to their personal health status, and it is through individuals’ personal concerns that ‘product safety’ as an aspect of quality becomes embedded within a health context.

Meat was seen by consumers as contributing to a wide range of health effects. As previously noted, consumers – organic beef consumers in particular – were concerned about the residual chemicals in meat contributing to cancer and other health problems. Despite this, meat was seen as an essential part of the diet in terms of contributing to the needs of the body for essential vitamins, minerals and protein. Women especially discussed the need for protein and iron in their diets,

but in doing so they also broached topics of vegetarianism and the need to 'listen' to their own body when discussing the need to eat meat:

> *I think you need meat. I just don't believe a vegetarian diet… I mean, I like vegies and fruit and all that, but I think you've got to have protein. I think we're meant to eat it (Brisbane focus group participant)*

Similarly, another participant discussed her need for meat:

> *I know that if I don't eat meat sometimes I do feel like I lack iron. So I feel that I have been born a meat eater and that's probably, you know, why I eat meat – but not a lot of meat. I do not over-eat meat. I don't think you need to eat it three times a day or even three times a week-just when you feel you need meat. Your body tells you what you need and that's another way of eating (Bundaberg focus group participant).*

Correspondingly, a Yeppoon participant commented that:

> *I think that your body has needs, and I think also… like sometimes I'll get up and I will crave milk – I just want to drink milk, just drink milk, and for about a week that's all I want to drink. I think your body has cravings for what it demands, you know, like the nutrients that it needs at that time. Sometimes I'll go home and I'll have meat five times in a week and I'll think, wow, that's – gosh, I've been eating a lot of meat. Then all of a sudden, I'll just be like… well that's it, I just want to eat vegies and salad. I sometimes just really listen to my body and what it's telling me that I'm needing through cravings. I gauge it on that, you know, what my body feels like it needs (Yeppoon focus group participant)*

Conversely, there was debate regarding how much meat was considered as healthy. 'Too much' meat was also a cause for concern for consumers:

> *You don't have to be eating meat every day to be healthy, and my observation is – yeah, people who do eat meat every day are not healthy because of the fat content in meat, I do believe, it's pretty high. And I think, fine, if you want to eat it, that's your business, but I think you're better off if you cut down on your intake of meat (Male participant, Yeppoon focus group).*

For another Brisbane focus group participant, it was not just the amount of meat that was a cause for concern, but the amount of fat in meat. She commented that:

> *I'm surprised by this whole conversation actually because the number one killer in Australia remains heart disease and the fat content in the meat and its contribution to heart disease is my main concern when buying beef. However, I still buy beef. I always buy lean beef. I am usually fairly organised and plan my meals for the week. The majority comes out of a 'low fat' or 'good for the heart' cookbook. I buy accordingly. I purposely purchase lean beef; that's my major concern.*

Apart from heart disease, meat eating was seen as contributing to some forms of cancer:

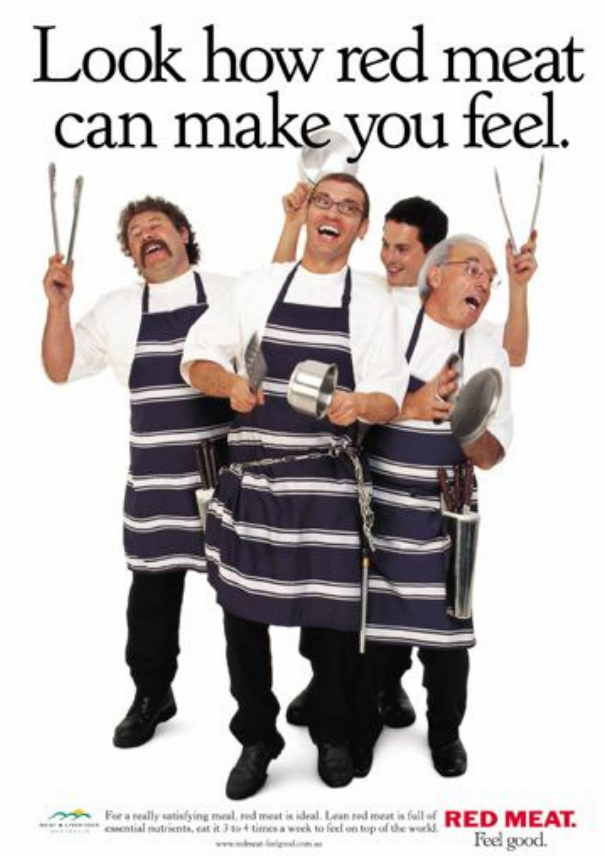
> *I do believe medical tests and all the rest of it over the years… I think they're probably pretty accurate in connecting the consumption of meat to different forms of cancer and all sorts of things – usually bowel cancer and things like that. I do*

> *believe for some there is a link there. I believe that (Male participant, Yeppoon focus group).*

The above quotes demonstrate that consumers recognised that meat influenced health in a way that either provided the body with essential nutrients or negatively affected the body. The reasons underpinning participant comments are supported by a plethora of health and medical research into this area. Meat provides an easy way to obtain a number of nutrients that the human body requires, yet also can adversely affect health through the residual chemicals used in its production and through the fat content that meat contains. Despite the competing discourses of meat for health within health related fields, health, as seen in Chapter 6, is a pivotal discourse within meat marketing strategies. Indeed, the current MLA (2003a) marketing campaign – "Red Meat. Feel Good" emphasises that red meat in the diet is an important source of vitality and well-being. This advertisement features a group of butchers singing about the nutritional benefits of red meat while dancing through a busy shopping area (see Figure 21). Overlaid is the message:

> To obtain an overall sense of vitality and wellbeing, you need iron, omega 3's, protein, zinc and vitamin B12. All of which you can get from your local butcher. Eat red meat at least three to four times a week and you'll feel better for it.

Figure 21: MLA Red Meat. Feel Good Campaign



Although meat marketers claim that following promotions of meat, meat consumption increased, one group of consumers in this study commented that they thought that meat advertising did not encourage them to purchase meat since 'meat is meat'. Meat was seen as a basic foodstuff that was purchased, regardless. However, some comments were made in regards to advertisements providing meal ideas:

> *I must admit that when the ads came out with the new range of stuff like the stir-fry-the pre-done stuff, I mean- that was good because it then gave you options (Male focus group participant, Yeppoon).*

Similarly another Yeppoon participant stated, '*It [advertising] might give you an option as to what – an idea of what to cook'*. The issue of advertising was not discussed among consumers in the other focus groups.

While not all groups mentioned advertising, the issue of how meat meals could be prepared was a concern for all groups. Women, in particular, liked the idea of stir-fries as they were not only quick and easy but allowed them to enjoy meat in smaller quantities which they perceived as healthier. Most women in this study preferred to eat meat prepared and cooked as a stir-fry, lasagne, or taco, for example, while the male participants preferred a whole piece of meat served with vegetables. The following statement demonstrates this: '*I'd prefer meat or meat and few veges. I go for the natural, none of this fancy stuff.'*

Despite the debate that meat could contribute to a range of health problems, all participants consumed meat at the time of this study. Some participants consumed more meat than others and some, in the past, had been vegetarian. All commented that red meat was needed in their diets to be healthy. However, participants further commented that eating healthily also amounted to greater cost. One participant stated:

> *The thing is, it's very, very, very expensive to eat well. It's more expensive to eat healthily than it is to eat second-grade stuff. And that goes across the board. It's cheaper to buy a packet of chips to send to school for the kids than it is to buy peaches, nectarines and whatever – the good food.*

Thus, although the price of food for participants in the Yeppoon focus group dictated what was eaten and the 'quality' of the food that was eaten, it also had consequences for the health of children. Similarly, participants in the Rockhampton and Brisbane focus groups were concerned about the price of foods and the health effects it had on children. They queried the size of children citing that children were larger than they used to be. They attributed this to the presence of hormones in meat, especially chicken meat, and easy access to fast food such as McDonalds that was considered reasonably cheap.

The theme of 'product safety' for consumers has focused on the ways in which meat consumption affects personal health. Health, therefore, is an aspect of quality that affects the decision by consumers to purchase and consume beef. Noting that beef consumption in Australia had declined due to research claiming that fat contributed to heart disease and cancer, producers, retailers and marketing bodies promoted the nutritional benefits of red meat. Following the launch of the campaigns, those involved in meat production and marketing noted an increase in domestic beef consumption. The price of food was also discussed as an influence on health in that price dictates what can be purchased or afforded. Healthy food was seen as expensive to purchase.

'Place'

According to Ilbery, Kneafsey, Bowler and Clark (2000), the links between product and place have historically been strong. The industrialisation of agriculture, the standardisation of food production processes, urbanisation and the globalisation of lifestyle across Westernised countries, nevertheless, have served

to erode the links between place and product and have contributed to a 'de-localisation' of food systems. In recent years, however, the topic of 'local foods' has attracted considerable interest within both the United Kingdom and Europe, where foods that can be clearly identified with a place of origin are being seen as an opportunity to further develop business prospects for farmers and more widely the economy of rural areas (Henchion and McIntyre, 2000; Ilbery et al, 2000; Morris and Buller, 2003). As seen in Chapters 5 and 6, the 're-localisation' of food production has also afforded niche beef producers in Central Queensland an avenue of marketing their product based on the perceived desires of consumers for locally produced foods.

The notion of place was a theme that reverberated throughout the consumer focus groups in this study. Indeed, consumers in all focus groups not only discussed the importance of knowing how beef was produced, but moreover, were similarly concerned with knowing the locality of production. One participant was absolute in highlighting this need:

> *…I honestly believe that anybody that eats meat should know what goes on… You can't keep your head in a paper bag, you know. If you consume a product, you should know where it comes from (Bundaberg focus group participant)*

For this participant, familiarity with the place of production was a key to resolving concerns pertaining to processes of production and food safety. This idea is akin to studies conducted by Ilbery et al (2000), Lockie (2001), and Holt (2005). For Lockie (2001), Morris and Buller (2003) and Holt (2005), the idea that 'local food' is perceived as safe and of high quality results partially from an

erosion of trust in trans-national food processing and retail companies, in which greater distances have been created between the production and consumption of food. In this study, the notion of trust in relation to 'distance' was similarly esteemed as an indicator of quality. As discussed in Chapter 6, niche market producers believed that trust in the quality of the product increased when the distance between production and consumption decreased. This was apparent in discussions with consumers. In fact, consumers expressed a greater confidence in the product if they were able to trace the production, processing and retailing of that product. For example:

> *I don't like to eat meat that has been bought from Coles and Woolies and stuff like that… because I know a lot of that is the feedlot beef whereas I know if I go to the butcher in my home town, that the cow has come from the paddock down the road, has been to the abattoir just down from home and then it's gone to the local butcher (Yeppoon focus group participant)*

As discussed in Chapter 2 and 4, the attempt by the beef industry to resolve consumer concerns about traceability and food safety has seen the development and implementation of a variety of Quality Assurance Schemes throughout the entire beef chain. While the majority of consumers in this study were aware that strict regulations guided beef production, processing and retailing in Australia, and were mainly content to purchase beef from retail outlets that were known to provide quality, some participants were sceptical of such systems, particularly if the actual place of production remained invisible. One participant in the Rockhampton focus group stated '*you'd want it to be marked, you know, where it was from. Again, that's open to abuse anyway*'.

Whilst place was deemed important to establishing a notion of quality for consumers in this study, this conception was not without dilemmas. While consumers agreed that they would prefer to purchase locally grown beef, for the Rockhampton and Yeppoon consumers, in particular, many references were made about the inability to access the good quality beef produced in the local area. As discussed earlier, participants were under the impression that all the high quality meat was exported, leaving only the remnants for the local market. As a result, these consumers relied heavily on their butchers for sourcing quality beef and realised that such beef could be 'imported' from other parts of Queensland or Australia. Here, preference for local beef gives way to other aspects of quality such as tenderness as a priority for consumers.

Preference for local beef was also determined by price. Most Rockhampton and Yeppoon consumers had indicated they were aware of GGB and would like to purchase it, but many claimed that they were unable to afford it on a regular basis. As discussed earlier in this chapter, although consumers indicated that they were prepared to pay a little extra for quality, for the most part, the feeling that resonated amongst these participants was that since Rockhampton proclaimed to be the beef capital, all beef sold should be of high quality and locally produced beef should not be much more expensive than that which was already being sold. On the other hand, the Bundaberg focus group participants all purchased NPB and believed that they were getting value for their money.

The theme of 'place' in relation to beef consumption has once again highlighted the complexities associated with identifying a shared meaning and understanding of quality amongst consumers in Central Queensland. Little wonder then that beef consumers do not automatically respond positively to marketing campaigns aimed at promoting a quality beef product.

'Culture'

According to Fiddes (1991, 173), 'meat eating, like any consumption, is a manifest expression of personal ideas in a cultural context'. 'Culture' emerged as a fourth theme that contributed to a discussion regarding the consumption of beef. Within this theme, the sub-themes of 'Meat Makes the Meal in Australia' and 'Gender' contributed to an understanding of meat consumption for these participants. For the purpose of this chapter, 'culture' is defined as 'the learned, shared and transmitted values, beliefs, norms, and lifeways of a particular group that guides their thinking, decisions and actions in patterned ways' (Leininger cited in Sidenvall, Fjellstrom and Ek, 1996, 213). Culture profoundly influences thinking and behaviour, and is an essential dimension of diet and eating habits. As suggested by both Fieldhouse (1986) and Spradley (1990), food habits came into being and are maintained because they are effective, practical and meaningful behaviours in a particular culture.

As is discussed in Chapter 4, the cattle industry in Australia commenced upon colonisation of Australia. As a result, meat became an essential part of the Australian diet and, as early as 1883, Australians had a reputation as a nation of meat eaters:

> Of course meat is the staple of Australian life…High and low, rich and poor, all eat meat to an incredible extent, even in the hottest weather (Twopeny, 1883 in Muncaster, 1996, 108).

Charles and Kerr (1988) believe that food reflects and symbolises social relations between people and carries its own social values. They write that values are placed on food and are systematised in the form of ideologies that order food in a hierarchy and attach different meanings and attributes to them. For participants in this study, there was no doubt that the consumption of meat was attributed to their cultural backgrounds and upbringing. For many participants, meat eating was part of being an Australian, one participant stating that it is *'a cultural thing in Australia to eat meat'*. A male participant commented that there was an expectation that Australians, and especially those who lived in rural areas, ate meat:

> *I think it's where we live, too. I mean I'm a country person and I've lived in the country all my life and if you live in the bush, in places such as Emerald and Rockhampton, the Beef Capital of the world, it's sort of expected that you eat beef and support the industry and the community.*

Similarly other participants stated: *'Well it's like they say: if you are from the bush you eat your steak, if you're behind the sea you eat the fish'* and *'if you live in the country you eat beef. That's what you do'*. Despite some participants in the study having been vegetarian, many participants considered vegetarians *'a bit loopy'*. Meat eating was considered a natural phenomenon.

A study undertaken by Twigg (1983) suggests that meat is the 'most highly prized of food...It stands in a sense for the very idea of food itself' (Twigg, 1983, 21). Further, Twigg argues that red meat has more status ascribed to it by the dominant food culture than is ascribed to white meats. Participants in this study took this idea further and implied that certain cuts of red meat were more acceptable than others. Steak, in particular, was upheld as the meat of choice. One participant stated that:

> *I prefer steaks, I don't like the offal parts; they're not real nice. I then go for taste. You know, there is nothing like a good barbie and a good steak.*

In fact, when participants were asked to describe 'quality' meat, they all referred to steak. Steak was not only reported to be tasty but it was something that was quick and easy to prepare and cook. It also was a meat of choice for social occasions. However, respondents could not always afford steak. For those participants with a family, good quality steak in sufficient quantity was expensive to purchase. Thus, other meats such as mince or sausages were used in the family meal. One participant explained that:

> *It has to do with money. Meat is reasonably expensive and you wouldn't buy top cuts of meat for a family. You buy 125 grams or 250 grams of mince to go and feed a whole family.*

For those participants born in Australia and, especially, Central Queensland, meat was considered a staple part of the Australian diet. According to one focus group participant:

> *The cultural thing is a big issue in Australian behaviour of meat consumption in that the meat has to be the central starting point for the dinner. Then things come around that. In a lot of other countries, meat is not. There is a bit of meat with the vegetables and the rice and whatever, but it is not the central staple like it is in Australia.*

This comment highlights that meat is more than just part of a meal. It is what defines the meal. This finding compares with Twigg's (1983, 21) result, which demonstrated that '[Meat] is the centre around which a meal is arranged.' Further, in congruence with studies undertaken by Murcott (1982) and Charles and Kerr (1988), this finding also suggests that a 'proper' meal had meat as the centrepiece – meat defined the meal. Meat gave the meal substance. For participants in this study, a meal without meat was not satisfying and did not have as much flavour. A participant in the Yeppoon focus group confirmed this by saying:

> *I feel that meat adds something to a meal and makes the meal more satisfying, and its got a certain taste. For example, say you're cooking a curry, you put beef in it. Well that just adds a certain taste.*

The meals that are consumed in Australia have changed significantly in the past two hundred years. Australian cuisine is extremely difficult to explain in broad terms due to physical and cultural divides. Modern urban, suburban and regional populations in Australia experience very diverse lifestyles, types of produce and styles of food. Despite this, the Australian barbecue continues not only to be a method of cooking but also a form of socialising that is highly revered. Participants in this study associated the cooking of beef with the barbecue. Apart

from taste, the smell of meat was enough to stir the senses. As a female participant stated:

> *The other thing that kills me is the smell of meat cooking. I love meat on a barbecue. I could not even be thinking about food, not even being hungry and then I'd smell a barbecue – I'd be (like), oh, yum!*

The mention of barbecued meat led on to a discussion about how participants liked their meat cooked. Once again, the differences in taste were attributed to upbringing:

> *It could have had a lot to do with upbringing, you know. If your Mum and Dad liked their steak fully, fully, fully cooked and you got it fully cooked from when you were five years old, that's how you like it now, maybe. But if Dad likes it a bit raw and Mum likes it a bit rare, kind of thing, you know, you're quite used to seeing that bit of pink in the middle of a steak.*

From the results reported in this chapter, meat consumption is part of an Australian way of life. Among factors of price, personal relationships and living arrangements, one's upbringing and experiences impact upon food habits. The following section pertaining to gender demonstrates how a sexual division of labour influences cultural food habits and how meat consumption can be seen as a gender-based phenomenon.

‘Gender’

Murcott (1982) writes that food provision is marked by gender differentiation. This is particularly evident when applied to a discussion of meat, culture and cooking. In Central Queensland, female participants reported that, although things were slowly changing, in terms of gender, attitudes towards women and their place in society were still conservative. One participant, in particular, commented that: *‘Rockhampton is still terribly conservative and very male dominated.’*

Results from this study indicated that the purchase of food for the household was mainly undertaken by women. Preparation and cooking on the other hand were dependent upon the dynamics of the relationship but, more often than not, it was still the responsibility of the woman. Statements in the narratives reinforce this idea and relate to women attempting to balance work, home duties, shopping, and cost of food and feeding the family.

One participant explained the difficulties she faced as a female and a mother attempting to juggle a household and work within a male dominated workplace:

> *I still have four children. By the time I get out of that meeting, at 8 o’clock and come home, cook tea; you know, it’s fine for the men, because they go home, and tea’s on the table; the kids are already bathed, and in bed. My children aren’t babies, but still, it’s still a factor, and when I raised the issue [within this workplace] – and there were four women there – it was: ‘if you can’t stand the heat, get out of the kitchen; this is how we do it’.*

Other comments related to what was put on the table for dinner. One female participant stated *'I'm married and he's not happy unless there is meat on the table at night. If I serve up a vegetarian meal I get, 'is that it?'*. On the other hand, another participant demonstrated how meal provision for the family was changing from the desires of the male in the household to those of the children:

> *My husband eats whatever the kids will eat. I don't cook food for my husband, specifically, I cook to feed the kids. If he [my husband] doesn't like what I serve, tough. He is big enough and ugly enough to look after himself.*

Although this quote is significant in that it demonstrates a changing dynamic within the family regarding who has influence over what is purchased and cooked, from the male to the children, it also signifies that women, in this study, as food providers continue to prioritise other people's needs over their own. This result aligns with studies conducted by Charles and Kerr (1988) and more recently Dixon and Banwell (2004).

Although the purchasing, preparation and cooking of meals that include meat were still viewed as a predominantly female role, meat has been discursively constructed as a masculine phenomenon. 'Real men' were expected to eat meat and most male participants in this study believed that humans were created to eat meat; *'it goes back to our making, I guess, with the canine teeth'*. The participants in this study saw meat eating as a natural phenomenon, especially for men. Literature about the consumption of meat suggests that meat eating is traditionally a gender-based phenomenon. Willard (2002) examined the discursive influences upon meat in the United States. What she discovered is that

meat eating practices are rooted deeply in historical antecedents which influence and shape contemporary meanings. Through her historical analysis of the growth of a beef industry, Willard demonstrated that meat consumption was related to the physical power and virility of men and, as a consequence, meat could be perceived as a masculine object.

Studies undertaken earlier than Willard's, however, also discuss meat eating as a masculine trait. Twigg (1983, 22) commented that meat eating symbolised 'a particular power', one which 'centres around the qualities of strength, aggression, passion and sexuality.' She deduced that as men see these qualities as desirable then meat would be a desirable food item. Adams (1990), similarly, links a carnivorous meal to sexuality, power, oppression, possession and violence — all of which, in the eyes of feminists, are related to a male domination of society. Bourdieu (1984, 192) also commented that 'meat, the nourishing food par excellence, strong and strong making, giving vigour, blood and health, is the dish for men…the natural meat eaters'.

Summing up the body of literature, Caplan (1996, 219) notes that within certain cultures, gender and power differences are symbolised, exaggerated and embodied through the practices of meat consumption. This section has illustrated that sexual divisions of labour may affect the pattern of food distribution within a family. Traditionally, meat has been viewed as a man's food and it was a food that was desired by men for its perceived strength-giving properties. However, traditionally, it was the role of the female to purchase, prepare and cook the family meal. Although Australian work and food consumption habits are

changing, results from this study indicate that for families in Central Queensland women remain the main purchasers and preparers of food.

Conclusion: Quality, Beef Consumption and Consumer Power

A discussion of the factors that affect the decision to consume meat implies a discussion of power. The above demonstrates that for these participants the notion of 'quality' in relation to meat is embedded within a wider network of social, economic and cultural relationships. For consumers in this study, 'quality' with regard to beef is viewed in terms of observable and sensory product characteristics, price, value for money, health, advertising, eating experiences, social arrangements, culture and gender. These aspects of 'quality' are also factors that influence and justify a decision to consume meat. Significantly, these factors are not unknown to the beef industry and they are recognised by those actors involved in the promotion of beef as is indicated by beef usage and attitude studies (Australia Marketing, 1997) and by other academic researchers (Lea and Worsley, 2001). The question that remains to be answered relates to how consumers communicate their concerns to other actors in the beef chain and influence the production and distribution of beef.

The results from this study suggest that consumers influence production and distribution of quality meat mainly through their decisions to not purchase beef. This finding is not new and indeed reflects that little has changed in relation to the marketing folklore of how consumers communicate their concerns about

food. Results from this study indicate, however, that even though consumers may be unhappy with the quality of beef they purchase; in most cases they will not report it to their place of purchase. Instead, they will shop elsewhere, reduce their consumption of beef or radically change their dietary habits. Thus, ultimately, the 'voices' of the majority of consumers generally are heard only when sales of a product begin to decrease or the pattern of consumption changes.

From this, it can be surmised that, although consumers and consumption practices of consumers are subject to a variety of powerful influences, consumer power is fundamentally based within economic relationships when it comes to influencing production and distribution. For consumers, therefore, 'quality' is a term that is not only used to describe the physical characteristics of meat, but it is used also to justify the decision whether beef meat will be purchased or not.

Chapter Eight

Conclusion

> Food is not food in itself, but becomes identified as such in relation to a whole system of ideas (Murcott, 1988, 11).

Food is more than a source of nutrients. In all human societies, food and its production, distribution and consumption is deeply embedded in social, cultural, political, religious and economic aspects of daily life (Helman, 1994). Moreover, food and the associated practices of production, distribution and consumption are a product and reflection of the norms and values characteristic of a society and an essential part of the way any society organises itself (Helman, 1994; Murcott, 1982). Increasingly, food production, distribution and consumption practices are being shaped in accordance with a range of discourses of quality. The turn to 'quality' as a strategy to remain competitive and maintain market share and to guide processes of food production, processing and distribution has been popular with food industry proponents. However, 'quality' is an ambiguous term for which meanings differ among actors, activities and situations of food production, distribution and consumption. At a fundamental level, therefore, this thesis represents an attempt to further understandings into the way in which Australian agricultural and food production networks are being restructured at a time when concerns regarding the quality and safety of food have increased in the public consciousness (Alexander and Fry, 1994; Allen, 1993; Arce and Marsden, 1993; James, 1993; Shaw, 1999; Straughan and Robert, 1999).

From the outset of the thesis, the challenge was thus to explore constructions of quality along food commodity chains and how such discourses of quality were used to mediate relationships and order or legitimise practices surrounding food and agriculture. Underpinning this challenge was the theoretical need to move towards understanding Australian agriculture and food production as a process that is 'partial, uneven and unstable; a socially contested rather than logical process in which many spaces of resistance and possibility become analytically discernible' (Whatmore and Thorne, 1997, 289). Utilising a framework that integrated Dixon's (1999) cultural economy model (CEM) with a phenomenological methodology and an actor network theory (ANT) inspired line of inquiry, the research thus embarked upon an exploration of quality in one of Australia's largest industries, the beef industry.

This chapter returns to the thesis aims. It provides a summary of the research findings and reflects upon the discourses of quality that exist along beef commodity chains in Central Queensland and what they mean for both the viability of the beef industry and the study of food and agriculture. In so doing, this chapter offers an appraisal of the approach taken to the study and suggests recommendations for future research.

Quality and Central Queensland Beef

From the time of colonisation, beef has been an integral part of the Australian diet and the Australian economy. The beef industry, subsequently, has grown to be one of Australia's and Central Queensland's largest industries. Traditionally,

the need to earn a living and maintain a livelihood through the acquisition of money underpins the efforts and activities of those involved in the production and distribution of beef commodities. Production and distribution activities are, therefore, frequently geared to meet the 'demands' of the market. One such market demand is 'quality'. As seen in Chapter 4, an exploration of the organisation of Australia's beef industry undeniably focused attention on the centrality of quality to processes of beef production, distribution and exchange. Findings indicated that quality assurance systems and quality concepts of food safety and hygiene standards directed the business activities of the beef industry. However, the emergence of niche beef operations in Central Queensland indicated the existence of a number of competing constructions of quality.

Indeed, discussion presented in Chapter 2 highlighted the ways in which agricultural and food studies have conceptualised quality and its role in the production and consumption of foods in a number of ways. To reiterate, one conceptualisation of quality (Arce and Marsden, 1993; Gereffi, 1994; Goodman and Watts, 1994; Marsden and Arce, 1995) articulated a socially constructed concept at the consumer level, which works its way back through the commodity chain. Quality, as conceived in this perspective, was connected with consumer demands for 'high quality', 'clean and green' foods, and the effect these had on material relations of food production. In essence, the thrust of this concept viewed quality as a set of physical characteristics that could be measured and standardised (Mansfield, 2003a).

A second conceptualisation of quality related to the examination of social relations along commodity chains. For Busch and Tanaka (1996), Ilbery and Kneafsey (1999, 2000), Marsden and Arce (1995) and Ventura and van der Meulen (1994), quality was seen as being constructed through the interrelationship among a multiplicity of actors involved in food production, provision and consumption. In this conception, quality was embedded in concrete social relations that occurred as foods were produced, distributed or consumed. However, as a social construction, individual actors were able to offer differing views as to what counted as quality; therefore, forming a site of conflict within commodity chains (Mansfield, 2003a).

A third notion denoted the conflation of quality as the characteristic that defined alternative food production processes (Nygard and Storstad, 1998; Ilbery and Kneafsey, 1999, 2000; Murdoch et al 2000; Parrot, et al 2002). Following from Nygard and Storstad (1998)[52], Murdoch et al (2000, 108), argued that 'quality is coming to be seen as inherent in more 'local' and more 'natural' foods' and that 'local ecologies of quality food production are frequently to be found in areas that have escaped the industrialisation processes that underpin globalisation'. As related by Mansfield (2003a, 5), this view highlighted key tensions between 'food production that is global, industrial and standard and that which is local, embedded and quality'. Quality in this paradigm was thus associated with certain niche markets such as branded food products, organic products or place-specific

[52] As outlined in Chapter 2, Nygard and Storstad (1998) suggest that food of local provenance is of higher quality than food that is mass-produced.

products that are protected by specific regulations (for example, European Protected Designation of Origin (PDO) products).

Whilst the conceptualisations of quality as presented above were echoed in the results of this research, the thesis attempted to offer a more thorough understanding of how quality is specifically enacted within the spheres of beef production, distribution and consumption. The following thus emphasises findings pertaining to discourses of quality in regards to the social processes involved in the commoditisation of CQ beef.

Beef Quality as a Social Phenomenon

Chapter 5 offered an examination of discourses pertaining to quality for actors involved in primary and secondary processes of beef production. Of particular interest to this chapter was the way in which producers and processors tangibly arranged their production processes and activities in accordance with a range of their own and perceived consumer discourses of beef quality.

As demonstrated in Chapter 5, the production of 'quality' beef commenced before conception. In Central Queensland, beef cattle were bred so that they could withstand the Central Queensland climate. Genetic characteristics were specifically selected to produce a beast resistant to ticks and with good conformation and temperament. Once a calf was born, every effort was made to preserve its 'quality'. The activities or management practices selected, adopted

and conducted by the producer were thus influenced by factors such as pests, climate and nutrition, all of which were seen to impact upon achieving quality.

From the farm, beef cattle were sold by a variety of methods to processing units. In Central Queensland, the processing units were involved in an array of functions. They acted not only as an abattoir where beef cattle are slaughtered and turned into meat product but, increasingly, were involved in scientific research, marketing (and related functions of market research and product development) and wholesale of beef meat both domestically and internationally. The wholesale function of the processing unit in regards to beef meat was enveloped in both economic and political processes such as trade agreements. The processing of beef was subject to health and safety factors such as the requirement to meet hygiene standards, cultural tastes (for example the Japanese market requiring highly marbled beef) and religious beliefs, such as Halal for Muslim people.

Three themes thus formed the basis of discussion in Chapter 5. The first, 'tenderness' resonated as a crucial business goal of both producers and processors. Therefore, the way in which this was achieved was a main issue of discussion. A significant finding related to the materiality of non-human actants - namely nature and meat processing technologies - and their capacity to order practices of beef production. 'Consumer satisfaction', the second theme, highlighted how a variety of socially constructed concepts of quality, including 'attraction and association', trust and knowledge' and 'specification and certification', had the potential to displace or re-arrange processes of beef

production. Finally, 'product safety' was seen not only to order production and processing practices but served to expose tenuous relationships between beef industry proponents. In effect, Chapter 5 served to substantiate that quality is very much a contested and negotiated concept which is embedded within a variety of social contexts. The chapter concluded that it should not be assumed that meanings ascribed to quality at any centre of calculation would be the same as those ascribed to it by another.

From the processing unit, beef products are sold to domestic retailers as either boxed meat or carcasses, or they are exported as boxed meat. Domestic retailers can include butchers, supermarkets, local stores and eating outlets, all of which are engaged in a number of political, economic and cultural processes. For example, all are required to conform to health and hygiene standards and all have methods for advertising and promoting their product.

Overseeing beef production and distribution processes are organisations such as Meat and Livestock Australia and AUSMEAT. These organisations are responsible for activities such as strategic planning, policy development, market access, research and development, animal health and welfare, meat safety and hygiene. In particular, marketing and promotion are core activities of these organisations. The marketing and promotion of quality beef was therefore the focus for Chapter 6.

Heeding recommendations by Dixon (1999), Marsden et al (2000), Mansfield (2003a) and Winter (2003) to study social relationships occurring between

cultures of production and consumption, Chapter 6 viewed a construction of quality that exemplified the intersection of the materiality of beef commodities with both the economic and cultural and symbolic aspects of beef. Drawing on work conducted by Miller and Rose (1997), an examination of the meanings and significations attributed to beef commodities saw quality used as a tool for negotiating markets for beef and for meditating retail and consumption practices through promotional activities and advertising. Key quality associations attributed to beef included notions of 'quality of lifestyle', 'tenderness', 'health and nutrition', and 'place and process'.

An analysis of quality in relation to the promotion of beef highlighted that production and distribution is equally about both meaning and materiality. This chapter demonstrated that discourses of quality are not just integral to consumption practices but also to processes of production and exchange. The story of quality in beef marketing exemplifies that the materiality of beef is steeped in an array of social and cultural meanings that add to the economic value of the product. Quality thus played an important role in creating economic and development opportunities for beef. Of further significance to this chapter, however, was the way quality served to unite a multiplicity of actors and spaces so that marketing and promotional activities could be successfully achieved.

Both Chapters 5 and 6 saw consumer demand for quality as a key influence in beef production, processing and distribution practices. However, results from this study indicated there were few widespread attempts by producers and marketers to ascertain exactly what it was that consumers meant by quality as attributed to

beef. It seemed that many beef chain actors simply assumed the dominant industry assumption for tender, lean meat. Starting from this point, Chapter 7 aimed to explore and describe what it was that CQ consumers meant by quality beef. Results exemplified that quality was much more than a signifier of the objective and/or sensory characteristics of beef. It coalesced with an array of social, cultural and economic relationships.

Findings from Chapter 7 indicated both a number of disparities and similarities from current food consumption trends. For instance, although a growing trend in Western countries is to consume more meals outside of the home, in Central Queensland the majority of beef meat is prepared, cooked and eaten within the home environment. For consumers in this study, women remained the predominant shoppers and meal preparers. Beef was seen by consumers in Central Queensland to be a staple food item. It provided the basis for a variety of meals and was described by participants as perhaps the most important of all meats. Apart from being convenient and versatile, it was considered relatively cheap compared to other cuts of meat. It was considered healthy if not eaten in large quantities. CQ beef consumers related quality to the physical product and the processes that contributed to making that product. In accordance with dominant industry discourses of beef quality, consumers in this study upheld tenderness, colour and flavour as key attributes of quality. A wider range of quality associations, such as health, culture, gender, place of production, food safety and price, however, underpinned the decision to purchase and consume beef.

Chapter 7, moreover, was concerned about the amount of influence consumers were able to exert along beef chains and the ways in which this was achieved. Beef industry proponents unanimously agreed that 'the consumer' possessed a considerable amount of power in the production of beef. Producers claimed that production was attuned to 'consumer demands'. Consumers, however, felt that they had very little control over what they were offered and its quality. Indeed the research highlighted a lack of mechanisms for consumer input. For the consumers in this study, the decision not to purchase meat was the main way of exerting influence. This strategy, however, was argued to have minimal impact unless it became a collective action (Holzer, 2006). Further research is indicated in regards to the relationships of power and how consumers and producers are mobilised to act in particular ways.

Collectively, the research findings thus denote that quality has become central to the operation of the beef industry. Whilst there is no single definition of quality, a plethora of conceptualisations combine to tangibly arrange processes of production, processing, distribution and consumption along beef commodity chains. An examination of the various conceptualisations of quality and how they condition beef production, distribution and consumption was facilitated by an adapted CEM framework as appraised in the following section.

Appraisal of Theoretical Framework

One intention of the thesis was to explore the meanings of quality by actors along beef chains in Central Queensland. Just as quality is a social construct, so too are

the beef commodity chains themselves. Therefore, for the study it was necessary to be able to articulate what was commonly referred to as beef commodity chains within food studies. The Cultural Economy Model was utilised as an overarching framework to identify key actors, processes and activities that constitute the various beef chains in Central Queensland. This approach to identifying key actors and activities along beef chains was utilised in the knowledge that actants and activities related to beef production, distribution and consumption are not static entities but instead respond to and activate stimuli that mobilise actants and activities throughout the beef chain. In other words, relationships, processes and activities that occur along and between beef chains are in a constant state of flux.

The CEM approach to identifying key actors and processes along beef commodity chains advocated a logical approach to the study and provided direction as to what areas of beef production, distribution and consumption were to be examined. However, the CEM does not detail a specific method of investigation. As the research was not just attempting to describe the production, distribution and consumption of beef, but also aimed to uncover meanings of quality which influence and inform relationships relating to processes of production, distribution and consumption, a method of data collection based upon broad principles of phenomenology was utilised. Phenomenology offered an inductive, descriptive approach that allowed for the uncovering of meanings of quality in relation to actors' lived experiences. This methodology not only allowed for the exploration and description of meanings along the beef chain, but also allowed the participants to relate their understandings of quality from their

experiences with beef. It was from this exploration that many of the underlying themes of quality were exposed.

An additional intent of the thesis, however, was the impetus to address a need in food commodity studies to theorise the social agency of quality and grasp an understanding of the partial and contested nature of relationships and processes that pertain to quality in food and agriculture networks. This required an approach that ventured beyond a mere exploration of meanings. Thus, actor network theory, with its dual capacity to enable an examination of the ways in which actors were socially constituted via engagement with the common discourse of quality whilst also allowing for an approach to viewing the nature of social relationships occurring along Central Queensland beef chains, facilitated this analysis (Woods, 1997).

The significance of an ANT approach to the analysis of relationships of quality along beef commodity chains is appraised here against its own key constituents and their affiliation to this study[53]. To reiterate, these concepts are a mode of ordering, where the focus is on the associative power of relationships; its treatment of agency as collective and the inherent process of translation; and finally in its symmetrical treatment of both human and non-human entities (Arrowsmith, 2001; Law, 1992, 1994; Lockie and Kitto, 2000; Lockie, 2002).

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[53] This appraisal follows an approach utilised by Arrowsmith (2001) in an analysis of niche grape networks.

An important attribute of ANT, developed through the notion of a 'mode of ordering', is a re-conceptualisation of power. In ANT, power is invested in social relations rather than in entities and power only exists when it is exercised (Latour, 1986). The construction of a network of actors is hence necessary for any desired outcome to be achieved (Woods, 1997). A theoretical matter for the thesis was the concern with how proponents involved in the beef industry constructed discourses of quality in conjunction with an array of mediating actants in order to effect various business goals and outcomes. The latter includes the production of clean, lean and tender beef and the attainment and retention of financially viable markets for beef.

Throughout the study, the relational nature of agency, in regards to securing markets for beef, was exemplified in a couple of ways. First, by beef producers who built a range of alliances with either each other and/or an array of other agents involved in the beef industry such as processors, marketers, retailers and government departments according to an array of shared discourses of quality such as QA standards and certification schemes. Second, by beef producers, processors, scientists, marketers and retailers who collaborate to produce and advance discourses of quality (tenderness and healthiness) in order to sell more beef. As applied here, ANT highlights the way in which actors within the beef chains were mobilised in the effort to maximise the viability of beef enterprises and acquire economic value through using formalised concepts of quality.

The ANT tenet of 'collectivity' encouraged a closer examination of how the social practices and capacities of producers and processors were woven together

in order to effect the production of quality beef. In this account, discourses of quality were positioned both socially and geographically. The production of quality beef, as discussed in Chapter 5, was understood as the collective representation of a number of individual but mutually occurring modes of quality[54]. These modes of ordering substantiated Whatmore and Thorne's (1997) assertion that different discourses can overlap but can also occupy separate spaces to either establish connections or challenge the same. The use of chemicals in beef production is a prime example. In one sense, chemicals are seen to contribute to maintaining the conformation and health of the animal. On the other hand, the use of chemicals may be seen to negatively affect the 'quality' of meat in terms of eating safety. Policies, regulations and standards based on scientific research regarding what are considered safe levels of chemical residues, in the case of non-organic beef, have thus been introduced to guide production methods. Similarly, organic beef production methods are required to adhere to policies and regulations/standards so that organic certification will be maintained. In this way, the activities or management practices selected, adopted and conducted by the producer are influenced by factors such as pests, climate and ethical motivations, all of which may impact upon achieving quality. Quality here is thus seen both as a mode of ordering and as a legitimisation strategy. The goal of producing quality is not only influenced by the materiality of factors that affect quality, but attaining quality is given as the reason for undertaking certain activities.

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[54] These are couched within the three themes of 'tenderness', 'consumer satisfaction', and 'product safety'.

The third concept of ANT addressed in the thesis relates to ANT's questioning of society and nature as distinct entities. ANT proposes that a hybrid constitution of human and non-human agents interact to mobilise actors and practices involved in beef production, distribution and consumption. Results demonstrated that this is the case. In the case of beef production, a plethora of technological and non-human entities materialised as fundamental to the durability of the beef chains. In all beef chains, non-human agents were seen to have a crucial bearing upon business fortunes. For beef producers, whether organic or non-organic, conformation of cattle was deemed highly important. Cattle that were not well conformed did not yield as much meat as those that were; hence, financial losses were likely to be incurred. Tenderness relied heavily not only on primary production practices, but was also reliant on meat processing technologies. The attempt to mobilise consumers for beef similarly relies on an array of non-human entities. Symbolic modes of quality, such as organic certification status, visible QA processes and branding, not only attempt to control quality standards, but can also underpin marketing activities. Attempts to promote beef in relation to socially constructed quality criteria are not only dependent upon language, but on other forms of visual, auditory or other sensory media. For consumers, the decision to purchase, prepare and eat beef is fraught with a variety of competing discourses, experiences and environments and are therefore, subject to a variety of powerful influences.

A hybrid conception of social agency facilitated an understanding of relationships occurring in Central Queensland's beef production, distribution and consumption from the perspective of both human and non-human entities. However, its use

required an acute awareness of a shortcoming of ANT. As posited by Law (1991, 11):

> While the network approach is good at showing the contingency of power relations by documenting in detail how the powerful become powerful, it tells us nothing about those who lie outside the power networks. Those who lack resources, a voice, visibility, will continue to be neglected if we simply concentrate on powerful networks.

This thesis thus made a deliberate attempt to illuminate the role of peripheral non-human entities involved in beef production, distribution and consumption to demonstrate the amount of influence they carried in regards to relationships occurring within beef chains and of the overall outcomes. In heeding Law's (1991) advice to be perceptive of the innate tendency of social agents to become excluded in the presence of more powerful actors, findings indicated that some social agents can be both powerful and peripheral at one and the same time. This result is significant in that it may be able to provide insights for the establishment of niche beef businesses in the face of large powerful beef enterprises. An example of this phenomenon is the growing influence of organic beef products permeating and supplanting conventionally produced beef markets.

The use of ANT in this thesis has allowed the exploration of apparently peripheral social agents within the CQ beef industry and demonstrated the ability they have to influence aspects of production, distribution and consumption. These include both human and non-human actants. Whilst the ANT perspective has demonstrated how non-human elements are integral to the performance of beef

chains, humans remain the 'hardware' (Daly, 2000) for production and marketing initiatives. This follows Law's (1986) notion of 'drilled people' (sailors and navigators), who were considered to be the most important agents in consolidating the expansion of the 16th Century Portuguese spice trade. Findings from this research thus infer the significance of both farming (beef breeders, producers, government and industry bodies) and non-farming actors (consumers, marketers, retailers and processors) in exercising control at various sites within both production and marketing networks.

One of the questions this raises, however, is the role of large supermarkets given the central role that other studies, such as Dixon's (2002), have attributed to them in shaping consumption patterns and tastes and in setting standards of quality. As indicated in Chapter 4, supermarkets in Australia are the largest retailers of beef and were responsible for the implementation of one of the first HACCP based quality assurance schemes in Australia (Australian Bureau of Agriculture and Resource Economics, 2004; Woolworths, n.d). Yet, as others have argued, the size and market penetration of supermarkets does not always give them direct control over other food chain actors (Lockie, 2002) and may in fact open them to particular vulnerabilities and risks (Busch and Bain, 2004). Demonstrating that the CEM model does not assume that size alone equals power, Dixon (2002) shows how psychographic research and health professionals are used as specific technologies and authorities in the matching of consumer desires, anxieties and needs with the perceived qualities of chicken-based products. Dixon (2002) explains that in order to exercise power, food retailers associate themselves with medical authorities and through these third party associations become more

authoritative. Advertising strategies and marketing campaigns are used to communicate a plethora of values and ideals that reflect and confirm those of the contemporary woman – a convenor of the family meal who is responsible for assembling family members, organising meals, eating times and places. Similarly, this result is demonstrated in the current research. However, it also seen that the authority of retailers is influenced by the type of beef chain and by interpretations and expectations of quality and food safety among consumers.

In the first instance, the niche beef market chains did not have a direct relationship with large supermarkets or retailers. As seen throughout these enterprises, concepts of quality were related more to attributes of beef such as 'health' and 'place'. Processes of production were more clearly visible along these chains and relationships between consumers, intermediaries and producers were closer. Second, while undoubtedly, large supermarket chains specified strict production and processing standards in order to ensure quality and food safety, and beef producers who supplied these retailers acted accordingly, there appeared to be a misalignment between these specifications and the meanings of quality expressed by consumers which suggested limits to the effectiveness of supermarket influence on understandings and communication of quality.

Consumers in this study, as indicated in Chapter 7, associated 'product safety' more with their personal health than with the standards for beef production and processing. Moreover, while the majority of consumers were aware that strict regulations guided beef production, processing and retailing in Australia, the issue of who developed these processes did not arise as a significant point of

discussion. Further, consumers indicated a lack of confidence in these systems, particularly when the specific place of production remained invisible. Issues of 'tenderness', 'flavour' and 'colour' were an expectation of consumers regardless of the place of purchase. Consumers overwhelmingly preferred to purchase beef from butcher shops rather than from large retailers. Meat purchasing from supermarkets was generally a matter of convenience and did not necessarily reflect any perception that supermarkets offered particular qualities.

Previous studies, such as Dixon's (2002), attribute power to large retailers and assert that the large supermarket chains have an increasingly influential role in determining quality and food safety standards. This is not disputed. From this study, however, it is evident not only that the influence of retailers varies across the cultural economy of different food commodities, but that a more fluid and relational conceptualisation of power is useful in understanding how concepts such as quality shape contemporary food practices.

Can an understanding of quality contribute to a sustainable beef industry?

The previous two sections have reiterated the key findings from the research. This section, in response to the question 'can an understanding of quality contribute to a sustainable beef industry', directly addresses each of the thesis aims. The first aim sought to explore the ways in which actors involved in the production, distribution and consumption of beef commodity chains construct quality. This thesis has explored multiple constructions of quality from the viewpoints of producers, processors, marketers, retailers and consumers. It has

been demonstrated that whilst there are some shared understandings of quality, shared meanings are most evident when the relationships between producer and consumer are closest. For example, the NPB consumers who had direct interaction with the NPB producer shared an understanding of quality in all its dimensions. Consumers who interacted with local butchers who sourced their product from local producers also demonstrated a close relationship and shared understanding of quality. This is opposed to consumers who purchased beef through supermarket outlets where origin of beef was largely unknown and specific information was unable to be obtained in person. In this situation, confidence and trust in the product was diminished despite attempts to demonstrate food safety and quality through a number of systems.

In relation to the second aim of the thesis – 'identify how quality impacts upon the conceptualisation of beef commodity chains and its importance relative to other signifiers and concerns' – results firmly established that quality concepts of food safety and hygiene, direct core business activities. This is so firmly entrenched that consumers expect and take-for-granted that food safety is a given. It is also an expectation that quality beef is tender, juicy and flavoursome. There is, however, an increasing demand by consumers for quality associations related to knowledge of 'place' and 'process'. As exemplified by the niche beef market chains, direct communication with consumers assisted in building close relationships between producers and consumers by establishing trust. It should be noted, nevertheless, that regardless of the purchasing context, affordability remained a significant contributing factor to purchasing decisions.

The third thesis aim aspired to 'determine the major factors that contribute to how the meanings of quality are constructed in relation to beef'. The research identified that beef industry proponents claimed that the market for beef is driven by consumer demand, thus processes and activities of production are adjusted in response to those demands. However, the thesis has determined that meaningful contact and communication with consumers has largely not occurred and that producers, processors, retailers and marketers only act on perceived and assumed consumer discourses or meanings of quality in the attempt to increase consumer demand for beef. For the majority of consumers in this study, the decision to purchase beef or not was, therefore, based on what was on offer, price and value for money, not necessarily on the quality that they desired.

In undertaking an exploration of quality, findings from this research have thus highlighted a number of implications for the domestic beef industry as it competes against other food choices that consumers may make in a highly competitive environment. It can, therefore, be confirmed that an understanding of quality does contribute to a sustainable beef industry.

Research Limitations and Recommendations

Research findings have demonstrated that quality, and its relationship to beef commodity chains in Central Queensland, is a valuable focus for an analysis of food and agriculture. Whilst the adapted CEM framework has allowed for some new insights into the study of beef commodities, it has not been without its issues. In utilising an integrated approach to studying food commodity chains, the

research is exposed to both the strengths and limitations that coincide with each of the approaches as described in Chapters 2 and 3. A major limitation of this study relates to Dixon's (2000, 14) comment that 'examining a single commodity could consume a life-time's research'. This is true of the nature of this study. This study focused solely on the central processes of domestic beef production, distribution and consumption. It is recognised that there are other actors and processes involved in constructing and maintaining quality, such as science, nutrition and transport. However, the list becomes exhaustive as each process is involved in a chain of its own. As such, the thesis does not examine these related processes and the influence that they may have in relation to beef production, distribution and consumption. Similarly, this research does not extend its examination beyond the domestic market or into the live beef cattle export industry and this must be considered a limitation to the research.

An examination of quality along beef chains in Central Queensland has directed attention to the ways in which the beef industry is being shaped in accordance with a range of socially constructed criteria. Whilst it is evident that the beef industry is aligning its practices with concepts of quality to be able to demonstrate food safety practices and meet the perceived demands of 'the consumer' for lean and tender beef, research in this thesis highlights the existence of a range of additional quality conceptualisations that underpin consumer decisions to purchase and eat beef. For the industry to effectively respond to a range of consumer demands, there is a need for more direct engagement with consumers of beef. Research opportunities thus relate to the further exploration of the relationships between quality and different types of beef consumers. In

particular, a focus on the ways in which beliefs and attitudes towards beef are shaped by notions of quality would permit greater insights into the social, psychological and economic factors that influence consumer behaviour. Related to this is the need to further examine the dominant discourses of quality perpetuated by beef industry proponents and the ways in which these conceptualisations affect attempts to assemble and mobilise consumers for beef.

Results have indicated that knowledge of the producer, place of production and of production processes contributes to a sense of trust amongst consumers and that this may be an important influence on beef purchases. Whilst CQ niche beef operations have recognised this and have started to address additional consumer desires for clean, organic or locally produced beef products, the accessibility to these products remains out of reach for many Central Queensland consumers in terms of affordability and availability at a range of retail outlets. Further research is thus indicated in relation to socio-cultural concepts of trust and knowledge and associations with quality.

As discussed in Chapter 2, a difficultly with food and agricultural studies has been an inability to successfully 'bridge the gap' between practices of production and consumption. Whilst this thesis has attempted in part to reduce this gap, through an analysis of quality, it is apparent that further studies need to be conducted into the relationship between quality, consumption and production practices. For a future study of quality along beef chains, this may include the attempt to investigate discourses of quality as articulated by consumers and the

ways that these are then used to assemble and mobilise producers and distributors of beef in order to satisfy consumer demands.

For the beef industry, a greater focus on building relationships and engaging directly with consumers will assist in the establishment of trust and will enable a greater understanding of consumer aspirations of quality in order to secure a financially and environmentally sustainable beef industry. It is recommended that in the immediate future, effort be directed toward providing easily available information regarding the specific 'place' and 'process' of beef production.

In conclusion, this thesis has demonstrated that there is no absolute portrayal of quality along beef commodity chains in CQ. Rather, it reveals that quality is a palimpsest, where each discourse seems to enact individual codes and representations of quality. The research highlights that quality cannot be taken for granted and that the meanings ascribed to it by one person may not be the same as those meanings ascribed to it by another. Quality, however, is not passive and its multiple constructions contribute to creating and maintaining economic development opportunities for those involved in beef. The extent to which quality can be used to pursue new market opportunities for beef is worthy of further investigation.

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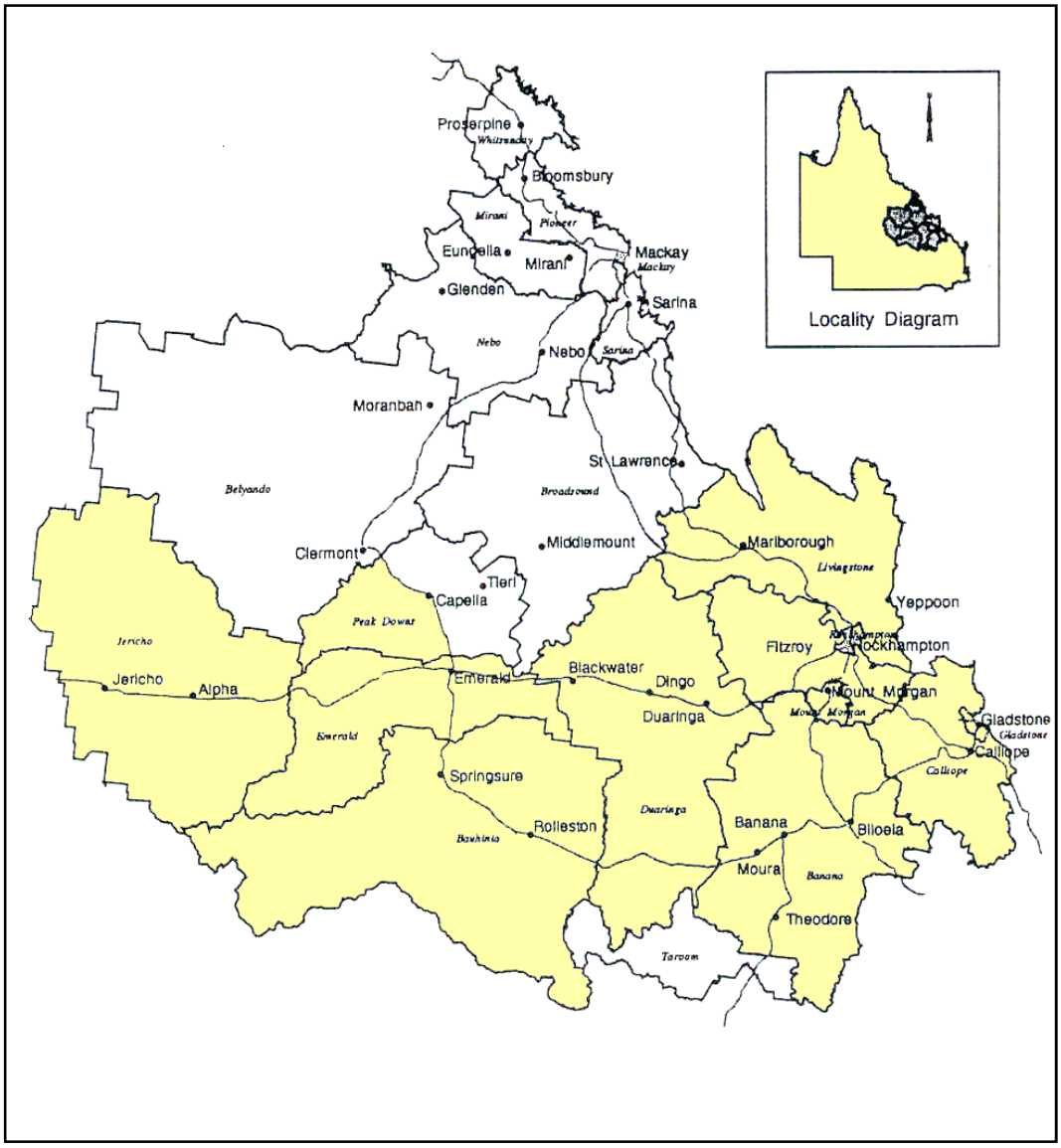
Appendices

Appendix 1

Map of Central Queensland



N.B. Shaded area denotes Fitzroy statistical division (Adapted from Garner, 1996).

Appendix 2

Sample Interview Guide for Beef Producers

1. **Can you describe how you got into beef production?**

- How long have you been producing beef?
- What breed of cattle do you run?
- Are there any particular reasons why you run this breed of cattle?
- Is your beef grass fed or grain fed? What are the reasons for this?
- Where do your cattle go after leaving your property?
- Can you describe the nature of your relationship between stock agents and your processors?

2. **Can you describe some of your experiences with and within the beef industry?**

- Has beef production and consumption changed over the years? In what way?
- What do you think are the factors that have contributed to this change?
- What are the main factors/issues that affect your production of beef?
- What do you think are the main issues affecting the beef industry at the moment?
- Do these issues have an impact on your production of beef?

3. **What do you think makes 'quality beef'?**

- What practices do you use to ensure quality beef?
- What are you doing (breeding, pasture management etc) to produce the kind of quality you have identified?
- What are the factors that pose threat to producing quality beef? E.g. Climate.
- How do you overcome these problems?

4. **Do you think that consumers have an impact on the production of beef? If so, in what way?**

5. **What do you think consumers look for quality wise, when buying meat?**

Appendix 3

Sample Interview Guide for Butchers

1. **Can you tell me a bit about yourself and your experiences with butchering?**

- What is a typical day?
- What is a typical week?

2. **Do you sell grain fed or grass fed beef?**

- What are the reasons behind your choice for this?
- Where do you get your beef from?
- What is the difference between grain fed and grass fed beef?

3. **What do you think are the most important attributes of quality beef?**

- What criteria do you use when you select your beef for sale?

4. **What do you think are the factors that affect people's decision to consume beef?**

- What do you think consumers look for when purchasing beef
- Do you have a particular type of consumer in mind when you present beef?
- Are there any particular ways in which you present the meat?
- Is there particular ways in which you package the meat? i.e.: special containers, are there regulations about meat should be packaged?
- Who decides on the different ways of presenting meat i.e.: stir-fry's etc. Is it from the industry, does the ideas come from elsewhere
- Do you watch cooking show, read magazines with recipes etc.

5. **How would you describe your product range?**

- How many beef products do you have?
- What beef product do you sell most of?

6. **Have you heard about organic beef?**

- What do you understand by the term organic beef
- Do you have any plans on selling organic beef?
- Have you had customers enquire about organic beef/meat?

7. **What makes a good cut?**

- How much time do you spend on the different cuts e.g. steak compared to a rolled roast or stir fry?
- What cuts do you make the most money on?
- How do you grade a cut of beef?

8. **How do you go about working out the value of a product?**

- How do you see value adding?
- Do you feel pressure to be innovative with your products and value add to them?
- Where is this pressure coming from?
- How do you price meat?
- To what degree of responsibility do you have for the creation of new products, improving sales, improving quality etc?
- How do you identify which product sells?

9. **Can you describe where you are situated in the beef chain?**

- What role do you play in this chain?

10. **Once qualified as a butcher is there any further training you need to undertake in regards to quality assurance, work place relations, etc?**

Appendix 4

Sample Interview Guide for Eating Outlets

1. Tell me about how you started to use GGB?

- Have you chosen and served another type of beef before GGB?
- What are the specific attributes of GGB that influence your decision to continue to serve GGB?
- Is it about quality or price?
- What are the other attributes eg: colour, tenderness, flavour?
- Where/who do you get GGB from?

2. Do you solely serve GGB?

- Are you niche marketing?
- Is this valuable to the way your conduct business?
- If not can you tell me about the other beef you serve?
- Is it grain fed or grass fed?
- Can you tell me about the differences between the two types of beef?
- Which is more popular?
- What do you think is the better beef? What are your reasons for this?
- Is it important to your business to offer both types?

3. What do you think are the most important attributes of quality beef?

Do these attributes affect how you choose beef? In what way?

4. How important is beef on your menu?

- How much do you sell?
- What type of cuts do you use?
- How do you use your beef?
- How do like to prepare it?

5. **What are you looking for when you purchase beef to serve to customers?**

- How do you ensure that you are getting what you want?
- Is it a certified product?
- Do you conduct your own inspection
- Is it a matter of trust between yourself and Acton or other beef producers?

6. What do you think your consumers are after when they select beef?

- Do you think that the types of beef you serve satisfies the needs of consumers?
- What is your most popular cut of beef?

7. Have you noticed any changes in beef consumption over the last few years?

- What changes have there been specifically?

8. What is your understanding of how quality beef is produced?

- What do you think producers do to provide the sort of quality you are after?
- Do you think that the production process of beef is important to the end product?

9. Have you heard about organic beef?

- What do you think organic beef is?
- Have you considered purchasing and selling organic beef?
- Do you get requests for organic beef?

Appendix 5

Sample Interview Guide for Supermarkets

1. Can you describe the process of how Woolworth's/Coles provide meat/beef to customers from the paddock to the point of purchase?

- Does Woolworth's/Coles have a stable network of producers, processors and distributors?
- What are the factors that affect how Coles/Woolworth's produce, process, market and sell beef/meat?

2. Can you describe what is a quality piece of meat?

- What do you think are the most important attributes of quality meat?
- What do you think consumers are looking for when they purchase meat?
- Do you think that Coles/Woolworth's meet customer expectations? In what way?

3. Does Coles/Woolworth's have their own quality standards?

- Can you describe these standards?
- Who do they apply to?
- How are they applied?
- What is needed to comply with these standards?
- How are the standards maintained?
- How were these standards first implemented?
  - Who decided on these standards?
  - What were the factors that influenced the decision to put quality standards in place?
- Do the producers, processors, distributors and butchers involved with Coles/Woolworth's have to undergo any particular training to meet the required quality standards?

4. Can you tell me about the type of meat that Coles/Woolworth's sell?

- Is the meat that you sell grain fed or grass fed?
- What are the reasons behind why you sell this type?
- Do you use any particular breeds of cattle?
- From where do you source your beef?
- Do you sell organic beef?
- Has there been a demand for organic beef?
- How would you describe your product range?
- What type of meat do you sell most of?

5. What do you think are the factors that affect people's decision to consume beef/meat?

- Can you describe the extent to which Coles/Woolworth's is interested in matters of consumption?
- How important are consumers?
- How important is customer satisfaction in relation to your meat sales?
- How much consideration is given to end consumers?
- In what way do consumers impact on the production and processing of beef?
- What processes, if any, are in place to provide customer feedback?
- Can you tell me about any changes in beef consumption over the past few years?
- Are you catering for a particular market/ region?
- How do you find out what that market is after?

6. How do you price meat?

- How important is value adding?

7. Can you tell me about how you present meat for sale?

- Are there particular ways in which you package the meat?

Appendix 6

Sample Interview Guide for Focus Groups

1. **Can you describe the factors that influence your decision to consume meat?**

- What do you look for when you purchase meat?
- What type of meat do you prefer?
- How often do you eat meat?
- How do you choose the beef that you buy
- Where do you purchase your meat?
- What cut of meat do you prefer?
- How do you like your beef to be presented?
- Who does the shopping?
- Who makes the decision on what is being cooked?

2. **Can you describe what makes a 'quality' piece of beef?**

- What is your understanding of how beef is produced?
- Do you know where your beef comes from? Is this important to you?
- Are you happy with the quality of beef you buy?
- What sort of problems have you encountered with meat?
- If you purchase meat that is not to your satisfaction, what do you do about it?

3. **Have you heard about organic beef?**

- What do you understand organic beef to be
- Would you consider purchasing organic beef?

Appendix 7

Participant Information Document and Consent Form

Centre for Social Science Research
Central Queensland University

From the Paddock to the Plate: A Cultural Economy Study of Beef Commodity Networks

Information for Participants

Short Description of the Research

The research aims to investigate the relationships that occur between production, distribution and consumption practices within a beef commodity network. The research also aims to examine how 'quality' in relation to beef is perceived and constructed by actors within a beef commodity network. In investigating these relationships, this research will contribute to further understandings as to how our food is produced and, as such, will aid in the development of a more sustainable commodity system.

Participants' Involvement

Information is being collected for this study through a series of face-to-face interviews and surveys with people who are involved in the production, distribution or consumption of beef.

Each interview will occur at a time and a place chosen by the interviewee. Length of the interview will depend on the time it takes for the information to be shared.

With your permission, the interview will be tape recorded and transcribed. You will be provided with a copy of the interview transcript and given the opportunity to add to or amend your comments.

Participant rights

Participants are invited to become involved in this project on a voluntary basis. You are also free to withdraw from participating at any time without giving a reason. This means you can withdraw permission for the information you have given to be used, even after the interview has taken place.

Anonymity

Access to the transcripts of the interviews will be limited strictly to those involved in analysing the information contained in them and the original tapes will be destroyed at the end of the research.

Anonymity will be maintained at all times in the presentation of the data and pseudonyms will be used.

Researchers' Role in the Research

We the researchers agree to maintain strict confidentiality at all times in dealing with the information you give us.

We also agree to answer any questions that you as a participant may have concerning your involvement in the project, or the project itself. To this end the address and telephone number for Dr. Stewart Lockie and Julie Reis are printed below. Both Stewart and Julie are available for you to contact at any time during your involvement with the study, if you have any queries or wish to withdraw from participating.

At the end of the study we will send you an executive summary detailing the main findings and you will be given details about how to access reports generated from the study. Stewart and Julie would also like to encourage feedback on the procedure as well as the outcomes of the research.

If you have any questions about this study please contact:

Julie A. Reis
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Rockhampton
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Rockhampton
Phone. 07 4930 6539
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Please contact the Central Queensland University's Research Services Office (phone: 4930 9828) should there be any concerns about the nature and/or conduct of this research project.

Central Queensland
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Where Students Come First

Centre for Social Science Research
Central Queensland University

From the Paddock to the Plate: A Cultural Economy Study of Beef Commodity Networks

Consent Form

I

_____

Have read and understood the information sheet provided and have had any queries answered to my satisfaction.

I understand I may freely withdraw from participating in this study at any time.

I give consent for the information that I will give in the interview to be tape recorded and published as part of this study, on the understanding that:

- Access to the transcripts of the recordings will be limited;
- I will be given the opportunity to read, and if necessary, revise the transcription of my interview; and,
- The anonymity of participants will be maintained at all times.

Special conditions:

_____

_____

_____

Signed_____Date_____

Please Contact:

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Please contact the Central Queensland University's Research Services Office (phone: 49 30 9828) should there be any concerns about the nature and/or conduct of this research project.

Sam's Organic Meat

General Information

Where does it come from?

We have a 300-acre cattle property not far from _____ This property has been certified 'A' by the Biological Farmers Association for beef production. What this certification means is that we do not use any 'unnatural chemicals' or processes, that our farm and farming practices are assessed by the B.F.A. every 12 months, and the meat itself has been thoroughly analysed for chemicals and has come up clean. We were very proud when we were granted 'A' certification on our first attempt in 1997, as this was the culmination of many years of work and preparation.

We do not use growth hormones or insecticides on the cattle or feed them chemically grown supplements. Our cattle are grass fed and we do not use herbicides, pesticides or artificial fertilisers on the grass. Therefore it takes a little longer to get our cattle to a marketable size.

Why are we selling this way?

Since we have had some very good seasons we now find ourselves in the position of having product ready to sell only to find that the local markets etc, are not set up to handle organic beef. At this stage we have decided to market our product ourselves. Our aim is to have families in the _____ area that we regularly supply with organic beef. This will allow us to maintain close contact with our customers and ensure they are happy with the quality of our product through surveys, phone contact, etc. How this works is that every five weeks I send a couple of beasts to the

registered meatworks and then to the registered butcher whom I have selected to process the meat.

I have endeavoured to develop a close working relationship with both the meatworks and the butcher, including personally supervising all processing, to learn more about the processes and ensure the quality of the product.

What You Get

Once the meat is cut up, it is done up in packages of 15 kilos. This package will contain a cross section of all the cuts coming off the animal, some mince, some sausages, some roasts, steaks etc. I have listed a complete breakdown of the 15 kilogram package at the end of this information sheet. I have 2 main reasons for only selling in packages of this size. Firstly I do not have any storage and retail facilities therefore I am unable to sell individual cuts and store others for sale later. The butcher is only cutting up and packaging the meat for pickup and payment on a given day (Sorry no credit cards. Cash or debit cards preferred. Cheques by prior arrangement).

What it Costs

The second reason for small bulk packages is price. Organic beef is usually at least 30% more expensive, because we are unable to run as many cattle per acre as 'conventional' properties and organic farming is more labour intensive. By selling in small bulk packages I am trying to keep the price as close to ordinary butcher prices as possible. At this stage I am looking at a price of $7 per kilogram. That may seem dear for sausages and mince but that should be compensated for by the dearer cuts one would normally pay a lot more for. I have surveyed butchers in _____ and found $7 per kilogram is comparable for bulk purchases of non-organic beef. At $7 per kilo a 15 kilogram package would be $105.

How it works

We have found that a 5 week period between pickup dates is the best compromise for our customers. We call all our customers 2 weeks before pickup date to find out if they require an order. We do it this way for 2 reasons. Firstly this allows us to ensure we have sufficient supplies to fill all the orders. Secondly it avoids the situation where people have to contact us just after a pickup date and then have to wait five weeks before the next pickup date. Two days before pickup we contact all the customers who have ordered to confirm their order. Once a package has been ordered and confirmed it is very important to have the package picked up on the date specified. This is because the sausages and mince have NO preservatives, are processed on the day and should be frozen as soon as possible. The collection point is Barry's Butchery on _____.

As Barry is only providing cutting and storage for us, all communications, orders, complaints (compliments?) etc, should be made to myself at the address below. I hope you find this information useful.

Sam
Address Omitted for Confidentiality

15 kilogram Package

Silverside Roast	1.3kg	Rump Steak	1kg
Topside Roast	1.3kg	BladeSteak (BBQ)	1.3kg
Rib Roast	1.2kg	T-Bone Steak	1.5kg
Eye Fillet Steak	150g	Coeliac Sausages	3kg
Rib Fillet Steak	750g	Mince	3kg
Round Steak	750g		