

finalreport

Project code: B.SCC.0006
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Date published: May 2007
ISBN: 9781741914795

PUBLISHED BY
Meat & Livestock Australia Limited
Locked Bag 991
NORTH SYDNEY NSW 2059

Alternative red meat production systems analysis

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

Executive Summary

Alternative red meat production systems, such as those defined as “organic” and “Natural” as well as a collection of niche certification systems, are being seriously considered as alternatives to conventional production by an increasing proportion of red meat producers.

These alternative red meat production systems are distinct from conventional production systems due to their deliberate attention to the prescribed and potentially certifiable principles of organic agriculture.

Although these principles may be common to both conventional and alternative agriculture, they are proactively pursued in alternative production and are generally governed by standards, audits or certification, thus presenting a potential marketing advantage.

Global and domestic demand for alternative produce has increased significantly over recent years. The organic industry is the most developed and well organised sector within the alternative production industry and is estimated to be worth 40 billion USD globally, of which the Australian organics industry contributes 350 million USD.

Mainstream supermarkets are now stocking dedicated lines of organic produce and specialty organic food stores are becoming established in markets in Australia and around the world. Increased demand has led to price premiums for organic and Natural produce and contributed to the development of these industries. The sustainability of premiums is, however, questionable in some markets with reports of consumer price resistance.

Much of Australia’s environment is compatible with alternative agricultural production. This is reflected by Australia now having the greatest amount of land of any country certified as organic. The majority of this certified land is in Australia’s rangelands and dedicated to extensive grazing.

Australia exports the majority of its alternative produce as certified organic with red meat comprising 43% of the total value of organic exports. Beef is by far the largest contributing sector with the organic lamb market remaining undeveloped and no established markets existing for organic goat meat. Apparent underlying demand for organic lamb and goat meat suggests significant opportunity in these areas. Pork and poultry contribute less than 1% of total value.

The market for alternative produce that is not certified organic is less developed and constrained by inconsistent or nonexistent standards and a lack of market awareness and acceptance.

The inconsistency of supply in both quality and quantity and the lack of organised supply chains remain the most significant factors limiting growth in the alternative red meat industry. This has been exacerbated in recent years by drought conditions and the inability of alternative agriculture producers, especially those supplying defined certified organic supply chains, to finish their livestock in accordance with certification.

Confusion surrounding certification, nationally and internationally, is further hampering industry development by discouraging producers and deterring consumers.

Significant opportunities exist for the development of the alternative red meat sector in Australia if supply constraints can be overcome. Opportunities exist for Meat & Livestock Australia to contribute to the development of the alternative red meat sector through producer education and supply chain development.

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1 Background

1.1 Industry overview

Modern alternative production systems have evolved as extensions of the organic ideal and in response to increased public and producer awareness of the issue of sustainability.

Organic production systems were first described in Europe in the 1920s and were developed in response to the perceived over-industrialisation of agriculture (IFOAM 2006a). These systems were introduced to Australia in the mid-1900s and are based on caring for the soil and other natural processes that form the basis of agriculture. This philosophy has developed into the organic and biodynamic alternative production systems.

Other alternative systems have been established to capitalise on the momentum of the organic industry and to specifically address issues of environmental sustainability, animal welfare and social responsibility. Examples include labelled “Natural” produce, Green Tick™ and Humane Choice. These production systems are, however, less defined than the organic industry and difficult to quantify.

Global and domestic demand for organic produce has increased dramatically over recent years. This has contributed to price premiums for organic produce and the development of the industry.

The International Federation of Organic Agriculture Movements (IFOAM) was established in 1972 as the international body responsible for uniting the organic movement. The principles promoted by IFOAM now form the basis of organic agriculture around the world.

Much of Australia’s environment lends itself well to alternative agriculture and Australia now has the most land of any country in the world by area certified as organic. The majority of Australia’s organic produce is exported with over 43% of the total value of exports coming from the red meat sector. Pork and poultry contribute less than 1% of total value.

The Australian alternative red meat industry is typified by inconsistent supply in both quality and quantity and the lack of organised supply chains especially for lamb and goat meat.

Confusion surrounding certification nationally and internationally is further hampering industry development.

1.2 Need for a scoping analysis

During the last five years, the Australian and international alternative food industries, especially organic, have grown sharply, albeit from a very small base. Increased consumer demand and price premiums for organic red meat product and increased producer awareness of the principles of organics, particularly sustainability, has driven a small but growing contingent of Australian beef, lamb and goat producers to invest in or to investigate alternative livestock production.

An investigation of the alternative industry supply chains associated with red meat production has been commissioned to deliver a situational analysis and scoping document. This will form the basis for research and development investment in this area and present a process for the evaluation of potential partners and recommendations put to Meat & Livestock Australia (MLA).

This analysis will assist MLA's Supply Chain Program to develop a research and development investment plan for the alternative production sector.

1.3 Scope of analysis

This *Alternative Red Meat Production System Analysis* (Analysis) will consider red meat production systems as a sector within the broader alternative production industry. Alternative production is considered to be any system that seeks to differentiate itself from conventional agriculture through the adoption of techniques that aspire to the principles of organic agriculture (Appendix 1).

The Analysis considers the entire supply chain from on-farm to consumer and includes the export and domestic markets. Red meat for the purpose of the Analysis is limited to beef, sheep meat (including lamb) and goat meat.

The Analysis has been limited to a desktop research and personal communication with key national alternative production system participants.

1.4 Methodology

A desktop review of information relating to alternative production systems was conducted. This information was critically analysed and its usefulness assessed according to reliability and relevance. Information gaps were identified and a questionnaire developed to guide industry consultation.

A contact list was developed in consultation with industry representatives and MLA. Telephone and, whenever possible, face-to-face interviews were conducted with these individuals. The information gained through this process was fundamental to the development of this Analysis.

It has been impossible to verify much of the statistical information contained within this report. This is due to a lack of reported information on the organic sector. Where ever possible figures have been verified and referenced however in many instances this has not been possible.

Figures and assumptions have only been incorporated where they have been deemed reasonable and substantiated as plausible through industry consultation.

1.5 Terminology

For the purposes of this Analysis, the following definitions apply:

- **Alternative production:**
Any system that seeks to differentiate itself from conventional agriculture through the adoption of techniques that aspire to the principles of organic agriculture.
- **Bio-dynamic:**
An agricultural system that introduces specific additional requirements to an organic system. These are based on the application of preparations indicated by Rudolf Steiner and subsequent developments for management derived from practical application, experience and research based on these preparations.
- **Certified/certification:**
Procedures by which an approved certifying organisation provides written assurance that an operator has conformed to The National Standard for Organic and Biodynamic Produce (*refer Standard*). Certification is based on the inspection of practices used, verification against records maintained by the operator and sampling of product.

- **Conventional (agriculture):**
An industrialised agricultural system characterised by mechanisation, monocultures, and the use of synthetic inputs such as chemical fertilisers and pesticides, with an emphasis on maximising productivity and profitability.
- **In-conversion:**
A production system which has adhered to The National Standard for Organic and Biodynamic Produce (*refer Standard*) for at least one year and has been certified as such but which does not yet qualify as organic or bio-dynamic.
- **Natural:**
A product containing no artificial ingredients or added colour and which has been only minimally processed. This is according to the United States Department of Agriculture (USDA) definition. The Australian Quarantine and Inspection Service (AQIS) does not currently maintain a standard for natural production.
- **Organic:**
The application of practices that emphasise the:
 - Use of renewable resources;
 - The conservation of energy, soil and water;
 - The recognition of livestock welfare needs; and
 - Environmental maintenance and enhancement, while producing optimum quantities of produce without the use of artificial fertiliser or synthetic chemicals.
- **Principles of organic agriculture:**
The principles identified by the International Federation of Organic Agriculture Movements (IFOAM) (Appendix 1). These principles are:
 - *The principle of health:* Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
 - *The principle of ecology:* Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
 - *The principle of fairness:* Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
 - *The principle of care:* Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.
- **Standard:**
The National Standard for Organic and Biodynamic Produce (ANS). The Standard is a regulatory instrument of the responsible authority, the Australian Quarantine and Inspection Service (AQIS).

2 Situational analysis

Alternative red meat production systems, such as those defined as “organic” and “Natural” as well as a collection of niche alternative systems, are being seriously considered as alternatives to conventional production by an increasing proportion of red meat producers.

These alternative red meat production systems are distinct from conventional production systems due to their deliberate attention to the prescribed and potentially certifiable principles of organic agriculture (Appendix 1).

Although these principles may be common to both conventional and alternative agriculture, they are proactively pursued in alternative production and are generally governed by standards, audits or certification, thus presenting a potential marketing advantage.

The organic industry is the most developed and well organised sector within the alternative production industry. Other alternative systems have been established to capitalise on the momentum of the organic industry and to specifically address issues of environmental sustainability, animal welfare and social responsibility. Examples include labelled “Natural” produce, Green Tick™ and Humane Choice. These production systems are, however, less defined than the organic industry and difficult to quantify.

2.1 Organic production

2.1.1 The global organic industry

Alternative production systems were first defined in Europe in the 1920's in response to the industrialisation of agriculture. Since this time the industry has grown in popularity among producers and consumers alike.

Producers have traditionally been motivated by the pursuit of sustainability and the thought of being good stewards of the land. This philosophy persists among a core group of organic producers however the lure of price premiums is now attracting additional producers.

Organic agriculture can be viewed relative to other agricultural production systems as demonstrated in figure 1, the clean continuum. The defining feature of organic agriculture is the existence of production standards and certification, which differentiate organic and provide a potentially valuable marketing platform for organic produce. This is not always realized due to the tedium of certification however the principle is sound.

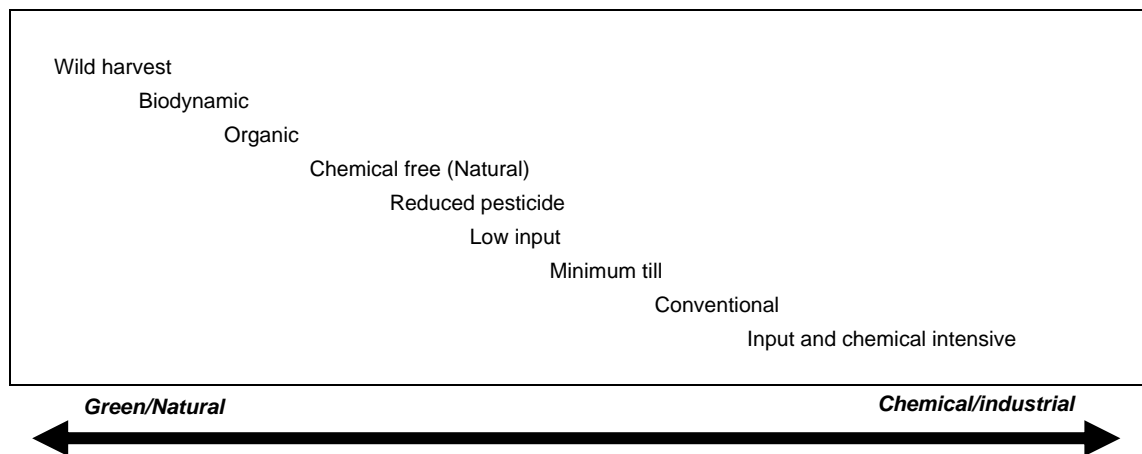


Figure 1: The clean continuum, adapted from Chang et al 2004

Consumers are increasingly looking to alternative productions systems as offering them an ethical, social and healthy alternative in their day to day purchasing activities. Increased awareness of issues such as the environment, chemical usage, animal welfare and animal diseases, for example bovine spongiform encephalopathy (BSE) and avian influenza A (H5N1), are increasing the demand for alternative produce.

Increased demand has translated to price premiums and the development of an industry dedicated to the supply of alternative product. This industry subscribes to the principles laid down by the internationally recognised peak body IFOAM. The IFOAM principles form the basis of certification around the world that underpins the integrity of the alternative production system known as organic agriculture.

Organic agriculture is now practiced in approximately 120 countries of the world and incorporates 623,174 farms covering 51 million hectares. Figure 2 shows the global regional breakdown of land under organic management.

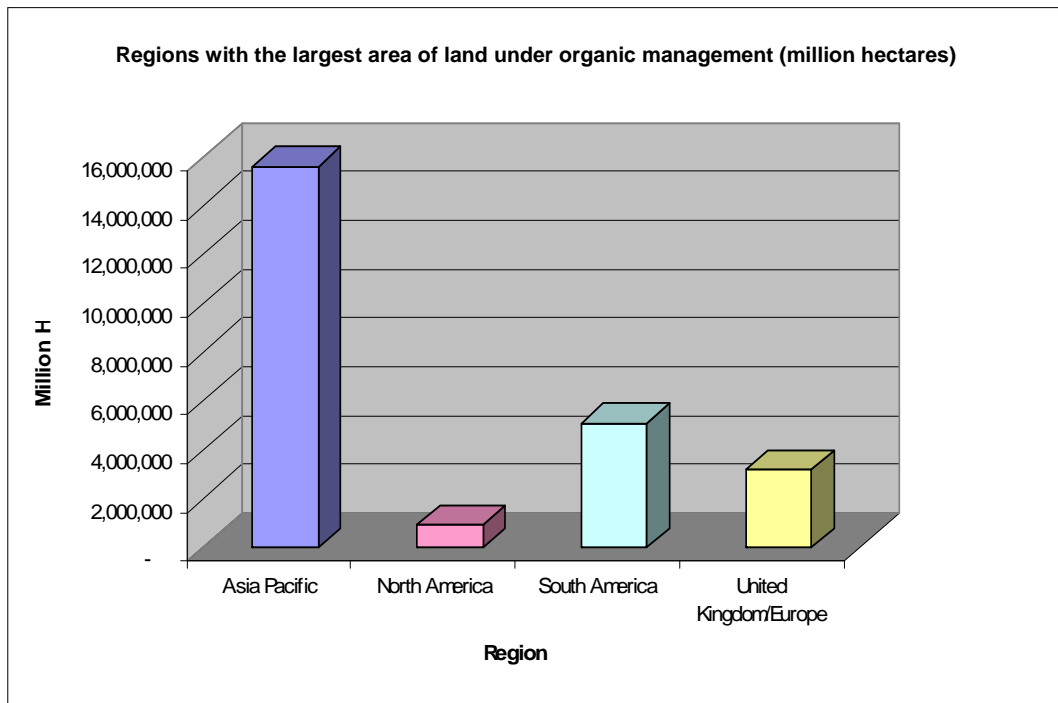


Figure 2: Regional breakdown for countries with the largest area of land under organic management

Market growth for organic produce continues not only in the world's largest markets, Europe and North America, but also among emerging markets in Asia Pacific such as China. Global sales of organic food and beverages were estimated to have increased by 9% in 2004 to total 27.8 billion USD (IFOAM) and to have exceeded 30 billion USD in 2005. According to a November 2006 report this value is now approaching 40 billion USD (Organic Monitor 2006).

2.1.2 The Australian organic industry

Much of the Australian environment is suited to extensive grazing production systems. Such areas can be converted to certified organic with relative ease and without significantly altering conventional farming and animal husbandry methods. Organic farming in traditional agricultural areas is more difficult due to Australia's ancient soils and relatively shallow topsoil.

The Australian organic industry was estimated to have a total value of 450 million AUD (BFA 2007) in 2005. This compares with a national organic farm receipt value of around 150 million AUD, the difference being accrued along the supply chain.

There were an estimated 1,500 certified organic farms in Australia not including in-conversion, pre-certified and deferred farms. 2,540 farms are registered with certifiers (AQIS 2006) however for various reasons a proportion of these farms are registered with more than one certifier; there are seven certifiers operating in the Australian organic industry. The number of deferred farms where the farmer has elected to forgo certification temporarily has increased dramatically over recent years due to the drought.

Despite the drought, organic production across all sectors has been increasing by 6 - 15% where as organic consumption has been increasing at 25 - 40% per annum (RIRDC 2006). The difference is made up by imports however the red meat sector is a net exporter.

The total certified organic area within Australia is estimated to be 12.1 million hectares (IFOAM 2006) to 12.7 (BFA 2006) million hectares, the greatest organic area for any one country in the world followed by China (3.5 million hectares) and Argentina (2.8 million hectares). Much of this land is dedicated to extensive grazing and not as productive as some country in other parts of the world.

The majority of certified farms are in New South Wales, Queensland and Victoria as shown in figure 3 (AQIS/BFA).

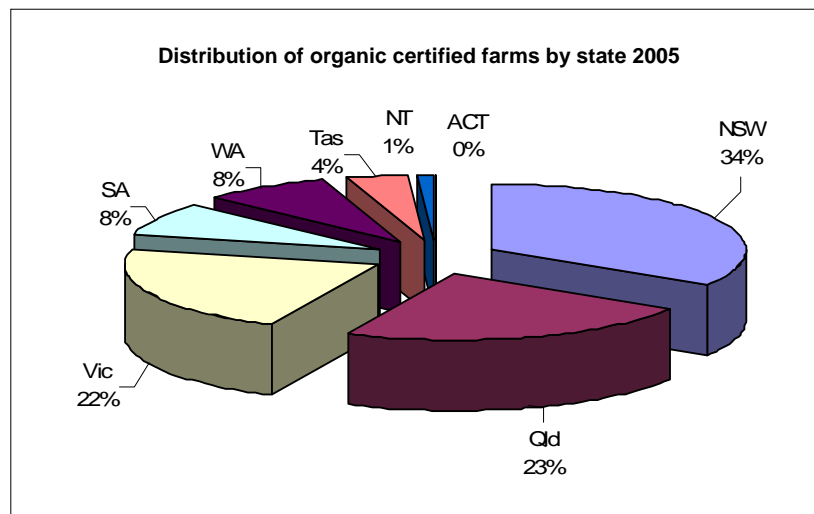


Figure 3: Distribution of organic certified farms in Australia

A 2004 Department of Agriculture Forestry and Fisheries (DAFF) survey of 397 farmers found that 77% of organic farmers stated primary production to be their main source of income. This is contrary to the common perception that organic farming is dominated by hobby farmers. The average age of producers was found to be 51.

One third of producers had a university degree or higher level of academic achievement, 40 % were from non-farming backgrounds and one quarter were women. Women were identified as often being the driving force behind organic enterprises as they typically were responsible for the shopping and food preparation in the family environment.

2.1.2.1 Organic red meat industry

The organic red meat industry accounts for the majority of organic production in Australia by production area and by value with beef being the largest category within the red meat sector, as shown in table 1. The accuracy of these figures is difficult to verify however it does provide a useful assessment of the relative contribution of red meat production to the organic industry. This organic beef value represents 0.07% of the total annual Australian beef production value.

Product category	AUD estimated total	Total organic category
Beef	52,349,101	40.93%
Sheep and goat	2,915,387	2.23%
Pigs	745,750	<1%
Poultry	353,750	<1%
Eggs	795,755	<1%
Milk	7,410,000	5.79%
Cereals	17,565,525	13.73%
Vegetables	24,384,964	19.07%
Fruit and nuts	21,373,875	16.71%
Total	127,893,695	100%

Table 1: Estimated farm gate value of organic produce by category 2003

Not all of the produce from organic farms is marketed as organic instead being sold as conventional. This occurs for several reasons:

- Volatility of supply
- Undefined supply chains
- Lack of collaboration between farmers and critical mass
- Inability to dispose of full carcase
- Prohibitive cost of organic supplementary feed
- Lack of organically certified kill space
- High conventional stock prices and insufficient premium to warrant organic production

The proportion of organic red meat product was being sold as conventional was estimated in a 2003 survey by DAFF and is shown in table 2. This proportion is expected to have increased due to the drought and the inability to finish organic livestock.

Product	Sold as organic (kg live weight)	Sold as conventional (kg live weight)	Sold as organic % of volume
Beef	11,544,824	4,676,113	71.2%
Sheep and goats	1,733,697	3,239,156	34.9%

Table 2: Farm-gate sales volumes from certified organic farms in Australia, 2003 (Source farm survey data n=397)

The low proportion of sheep and goat meat sold as organic is a reflection of the poor supply chain development and the lack of marketing alternatives available to these sectors. A proportion of organic producers pursue organic production based on ideals rather than the desire to differentiate their product in the market place. Some of these producers adopt an apathetic approach to marketing their product as organic. In some instances the pursuit of monetary gain is considered to conflict with the organic ideal.

2.2 Natural production

“Natural” describes a product that contains no artificial ingredients or added colour and which has been only minimally processed.

The concept of a Natural product, as opposed to organic or conventional, is accepted and aggressively marketed in the United States of America (US). Australia does not have a standard for the production of Natural produce.

The USDA Food Safety Inspection Service (FSIS) classifies all fresh meat as natural however for a product to be labelled as “Natural” it must adhere to several production requirements. Natural meat cannot contain any artificial flavour or flavouring, colouring ingredient, chemical preservative, or any other artificial or synthetic ingredient; and the product and its ingredients must not be more than minimally processed (for example: ground, frozen or smoked).

The labelling of products as Natural in the US is regulated by the US Food and Drug Administration. Label claims that a product is Natural must be able to be verified through an audit should such claims be challenged. Most such labelling challenges in the US are brought by competitors or consumer watch dog groups.

Some supply chains in the US have elected to guard against uninvited scrutiny and further differentiate their product by implementing natural certification systems. Such systems involve third party audits and certification which allow the use of guarantees such as the USDA Process Verified shield (figure 4) through certification with USDA Process Verified.



In May 2006 it was estimated that there were about 375,000 – 425,000 cattle in the US that had been raised according to Natural labelling requirements.

Consumer perception of natural is that the cattle are raised on local farms and by people with an identity that they can relate to. Although natural is not subject to the same stringent certification as organic, compared with conventional product natural is regarded as a superior product by a proportion of consumers and attracts a premium accordingly.

Natural labelling is varied and provides the opportunity for producers to differentiate their product. Examples of natural product descriptions in the US markets were described in a paper from Iowa State University (Clause 2006). Laura's Lean Beef of Lexington, Kentucky - supplies about 5,000 retail outlets in 44 states. The company states that it produces “Naturally lean beef from cattle raised on natural grains and grasses. Neither growth hormones nor antibiotics are used in the raising of the cattle.”

Coleman Natural Meats of Denver, Colorado, supplies retail outlets in 41 states and the District of Columbia. The company states that "Our animals never receive antibiotics or added growth hormones from the time they are born. Any animal requiring therapeutic treatment is treated and removed from the herd. No antibiotics are ever added to the feed, only vitamins and minerals." Coleman beef sales reportedly increased by 38% in 2004, due in part to natural product uptake by several mainline grocery stores.

There is concern among major suppliers of natural red meat that the product will be devalued by price competition between large retailers. Wal-Mart is said to be investigating the potential of the

Natural sector to supply its stores with lines of product and there are concerns that the integrity of Natural production will be compromised to deliver the volume required to satisfy this demand.

This concern reportedly extends to the regulatory authorities who are apparently conducting a review of the Natural alternative production sector and may possibly ban the use of the term in product description.

2.2.1 Natural in Australia

Several Australian exporters currently supply Natural beef product into the US including Teys Bros Pty Ltd, Sanger and McFee Bros. This product meets USDA requirements for Natural labelling. In the case of Teys, product is supported by a company initiated vendor declaration stating that the cattle have been raised according to the requirements of Natural labelling.

Inconsistent supply is currently limiting the development of export markets for Natural lamb and goat meat.

2.3 Niche alternative systems

There are a multitude of eco friendly certification programs in the market however few of these are relevant to red meat producers.

Several niche alternative certification systems do exist however these tend not to be supported by developed supply chains and have little consumer recognition. Such programs include Humane Choice and the New Zealand based GreenTick™. The Royal Society for the Prevention of Cruelty to Animals' (RSPCA) National Food Accreditation program was been introduced to encourage certified animal welfare standards however this currently only applies to poultry and pig farms.

a) Humane Choice

In August 2006, the Humane Society International and the Australian organic certifier National Association for Sustainable Agriculture (NASAA) formalised the introduction of a Humane Choice alternative. This has been described as being similar to the Natural alternative by NASAA.

The Humane Choice label will initially cover beef, pork, lamb, chicken and eggs and will guarantee the consumer that the animal has been treated with respect and care, from birth through to death. This will require the animal to be allowed to satisfy their behavioural needs, to forage and move untethered and uncaged, with free access to outside areas, shade and shelter, with a good diet and a humane death.

Procedures such as mulesing, nose ringing, dehorning, beak trimming or any form of mutilation will not be allowed. Weaning of animals must not involve intervention and transportation must be kept to a minimum.

NASAA will certify the process and audit producers who wish to use the Humane Choice label (figure 5).

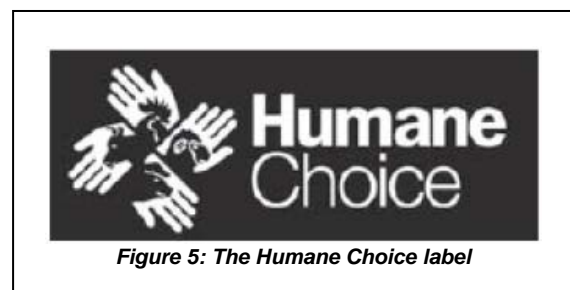


Figure 5: The Humane Choice label

The Humane Choice standard is based on the current Australian Standard for organic farm produce with the new animal welfare standards incorporated and NASAA believes that certified producers will have little difficulty adding Humane Choice certification to their current certification status. Organic certification is not a prerequisite for Humane Choice certification.

b) Green Tick™

GreenTick™ is a New Zealand based certification scheme designed to conform to international standards for sustainability and environmental management. The GreenTick™ indicates that a product or service has been independently certified as environmentally sustainable.



GreenTick™ claims to be the only independent, performance-based certification system for conventionally-produced goods and services (GreenTick™ 2007).

Several levels of certification or options exist within the GreenTick™ program and each is governed by standards, a certification process and terms and conditions.

Of interest to the red meat sector are the GreenTick™ ORGANIC (figure 6) and the GreenTick™ NATURAL (figure 7).

In order to be certified “GreenTick™ ORGANIC” the approved product must:

- Meet the standards noted above for “GreenTick™ Sustainable”; and
- Hold a current organic certification from a Testing Authority approved by the International Federation of Organic Agriculture Movements (IFOAM)®.

In order to be certified “GreenTick™ Natural” the approved product must:

- Meet the standards noted above for “Green Tick Sustainable”; and,
- Be tested by a testing authority to confirm that it contains no artificial content.

GreenTick™ complies with or exceeds the requirements of ISO 14001, the international quality standard for environmental management systems (ISO 14000 series).

In 2005, several Queensland sheep producers became the world’s first independently certified producers of genuinely sustainable and genuinely natural lamb. Through the certification process it was demonstrated that the lamb was pesticide-free and contained no artificial substances.

The uptake of GreenTick™ in Australia has been limited with only 3 Queensland sheep producers listed on the GreenTick™ register (GreenTick™, 2007a).

2.4 Australian organic industry structure

The Australian organics industry is well structured to support industry growth. Positioning by various organisations has characterised the industry over recent years however this has largely been resolved through the endorsement of an industry peak council, the Organic Federation of Australia (OFA). The OFA is now working to develop a foundation for industry growth by working strategically with industry, research and development corporations and government.

2.4.1 Industry peak representative body

The Organic Federation of Australia (OFA) was established in 1998 as the peak body representing the organics industry. According to the OFA website:

The OFA aims to:

- Encourage the adoption of organic farming systems.
- Actively lobby and liaise with government to develop policy that supports organic farming systems that deliver environmental, social justice and health benefits.
- Make food and fibre consumers aware of the benefits of chemical-free food supplied by the Australian Certified Organic Industry.
- Stop the spread of Genetically Modified Organisms (GMO) which are not proven safe and may contaminate organic and biodynamic farms.

The OFA was restructured in 2005 as part of a DAFF project under the Industry Partnership Program to establish structures necessary to support growth in the organics industry. During this process, the OFA was transformed into the first peak industry organisation that represents the whole supply or value chain.

The structure allows for extensive stakeholder participation while ensuring that the organisation is overseen by a skills-based board of directors organised on the current best practice models of corporate governance.

As part of the consultation process, several of the states have formed Ministerial advisory groups to influence policy and promote the interests of the industry at a departmental level. These include the recently formed NSW Organic Ministerial Advisory Council and Tasmanian Ministerial Organic Advisory Group.

A comprehensive business and marketing plan is currently being developed by OFA and will be available in the first half of 2007.

2.4.2 Standards

The integrity of the Australian organic industry is underpinned by the Australian National Standard for Organic and Biodynamic Products (ANS). The ANS was developed and is maintained by the Australian Quarantine and Inspection Service (AQIS) and is in line with other major international standards such as IFOAM and the EU Regulations.

All Australian exports of organic produce must be certified as having been produced in accordance with the ANS and, where applicable, with importing country requirements. There are currently seven certifiers administering the ANS within the Australian organics industry.

The ANS, developed and administered by AQIS, forms the minimum mandatory requirements for export of products labelled as organic or biodynamic and is consistent with the principal international standard; the IFOAM Basic Standard.

There are no mandatory requirements for the labelling of organic product on the domestic market however labelling claims are subject to truth in labelling regulations (The Trade Practices Act 1974 and associated state and territory food laws). This is an issue for the industry and is contributing to consumer and producer confusion about the veracity of organic claims.

The standards process has been under review since May 2005. In November 2006, the Board of Standards Australia agreed to the OFA formal request to proceed with the development of an Australian Standard for Organic and Biodynamic Produce.

The development of an Australian organic standard will provide the organic industry with a uniform national benchmark for the production and marketing of organic produce on the domestic market. Compliance with the standard will be enforced through the Australian Competition and Consumer Commission (ACCC), Food Standards Australia New Zealand (FSANZ) and state regulatory agencies.

It is hoped that the development of the standard will foster consumer confidence and standardize the labelling of organic produce in the domestic and export market.

Not all certifiers agree with the OFA position on the need for a standard and who should enforce the standard and the issue has proved a flash point for the industry over recent years.

2.4.3 Certification

There are currently seven certifying organisations operating in the Australian organics industry. Table 3 shows these organisations, their relative market share and the number of entities they have certified. This includes producers, processors and manufacturers as well as distributors, wholesalers and exporters as shown in figure 8.

These organisations accredit and audit organic operators according to the Australian National Standard for Organic and Biodynamic Products (ANS). Organic export certification generally takes about three years for a producer to achieve.

Certifiers are audited annually by AQIS to ensure that policies and procedures conform to export legislation, importing country requirements and the ANS.








Mark	Certifier	Number certified*	Market share
	Australian Certified Organic (ACO) ACO is a fully-owned subsidiary of Biological Farmers of Australia (BFA)	1100	43.3%
	Bio-Dynamic Research Institute (Demeter)	160	6.2%
	National Association for Sustainable Agriculture Australia (NASAA)	664	26.1%
	Organic Food Chain (OFC)	57	2.4%
	Organic Growers of Australia (OGA) OGA has been absorbed by BFA but remains a certifying entity	506	20%
	Safe Food Production Queensland (SFQ)	3	0%
	Tasmanian Organic-Dynamic Producers (TOP)	53	2%

Table 3: Certifying organisations and relative market share 2005, source: AQIS 205

*Includes producers, processors, manufacturers, wholesalers
Some information was unavailable and has been estimated based on previous years.

The majority of certified entities in table 3 are producers as indicated in figure 8.

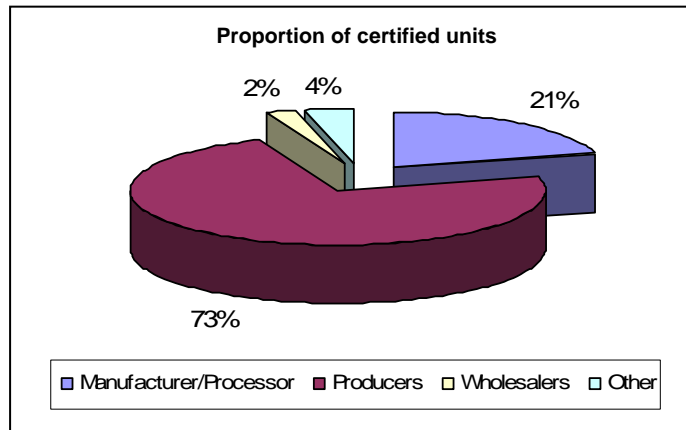


Figure 8: Relative proportion of certified units by supply chain sector

In consultation with industry, AQIS recently developed the “Australian Government Certified” regulatory mark as shown in figure 9. This mark was intended to be independent of the certifying marks and designed to provide greater assurance of the veracity of certified organic produce. For various reasons uptake of the mark has been very poor and its redevelopment is currently under consideration by OFA.



It is generally agreed that a unifying national logo is required and that the proliferation of logos creates confusion and a lack of confidence among consumers in the marketplace. There is however a lack of agreement among the certifiers as to what that logo should be and whether an existing logo should be adopted as being representative of all certified organic produce. Figure 10 illustrates the certification framework of the Australian organic industry.

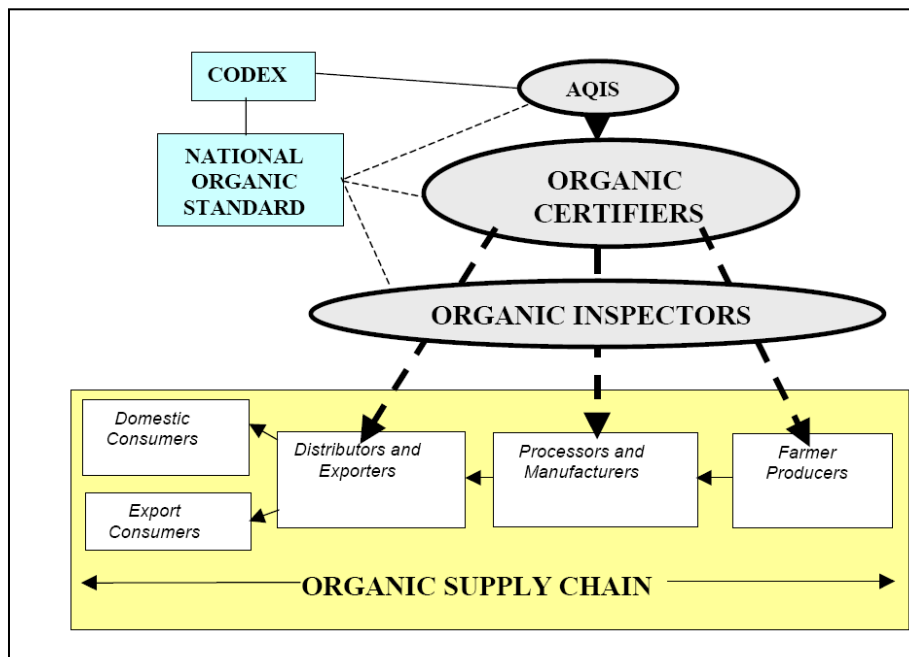


Figure 10: Certification framework for the organic industry (RIRDC 2001)

2.4.4 International certification

Market access for organic product is not as simple as complying with the AQIS administered ANS or the IFOAM standard. Various countries have different certification and labelling requirements. The main regulations effecting Australian organic red meat exports are:

- Article 11 of EU Regulations 2092/91
- US National Organic Program (NOP)
- Japanese Agricultural Standards (JAS)

AQIS has successfully negotiated organic certification equivalence agreements with the European Union, Switzerland and Japan which accept the ANS; however product must achieve USDA NOP certification to enter the US. Several industry participants indicated that this is not always made clear to producers and after becoming certified they are then required to meet further requirements to be eligible for the US market. This may involve several additional years that may otherwise have been served during the initial conversion phase had the process been made clear.

3 Marketing analysis

3.1 Market size/growth

Organic agriculture is now practiced in approximately 120 countries of the world and incorporates 623,174 farms covering 51 million hectares. This reflects the market growth for organic produce, not only in the world's largest markets, Europe and North America, but also among emerging Asia Pacific markets such as Japan and China.

Global sales of organic food and beverages were estimated to have increased by 9% in 2004 to total 27.8 billion USD (IFOAM) and to have exceeded 30 billion USD in 2005. According to a November 2006 report this value is now approaching 40 billion USD (Organic Monitor 2006).

Although the rate of growth varies between sectors and is subject to debate, it is generally accepted that the organics industry is experiencing double digit growth compared to growth of 1 - 2% for conventional food products.

The Australian organic industry was estimated to have a total value of 450 million AUD (BFA 2007) with a farm receipt value of around 150 million AUD, the difference being accrued along the supply chain. The red meat sector contributes about 43% of this total with the beef sector being the single biggest contributor.

The majority of certified organic red meat and natural red meat is exported although it is impossible to estimate the proportion due to inadequacies in data collection. Furthermore not all eligible organic product is marketed as organic.

The global demand for organic produce and the area dedicated to organic agricultural production has experienced dramatic growth over recent years as shown in figure 11.

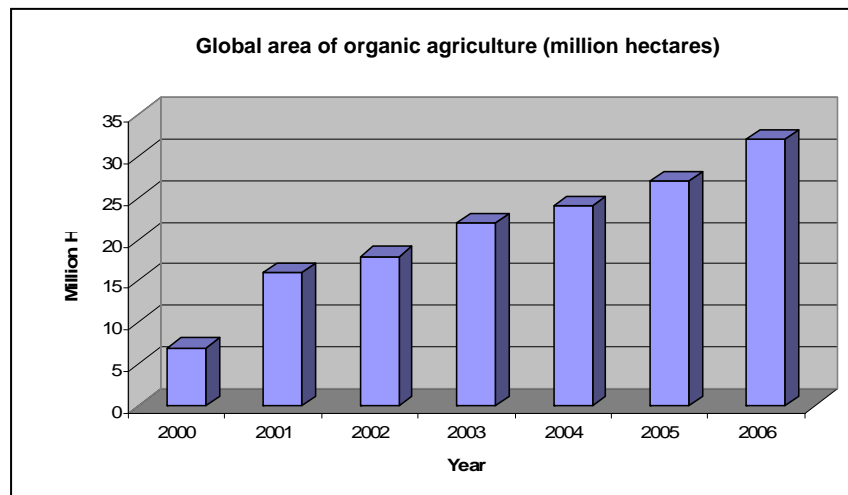


Figure11: Global area of organic agriculture - SOEL/FiBL surveys 2000-2006 (IFOAM 2006)

AQIS collects and collates information on organic exports as part of the certification process. This information is based on volume and does not consider value. Furthermore, not all product certified as organic is traded as organic.

Australian organic meat exports, predominantly beef, experienced dramatic export growth from 1999 to 2002 but declined sharply from 2001 to 2003, as shown in figure 12. This was largely due to the drought and the increasing value of the Australian dollar. Up-to-date figures were not available and the accuracy of these figures is questionable however exports have remained depressed due to the drought.

Insufficient data is available to demonstrate long term trends although interest in the industry is demonstrating an increasing trend. The drought has persisted since 2003 and according to industry consultation supply has remained very tight.

Drought reduces the number of animals available to the organic supply chain in several ways:

- Producers choose to defer certification during drought years as a cost saving measure, disqualifying their produce from the market.
- General reduction in carrying capacity of certified land.
- Inability to finish livestock according to specifications.
- Exorbitant price of organic feed compared to conventional feed. Organic grain can sell for 2 - 3 times the price of conventional feed during drought.



Figure 12: Certified Australian organic meat product exports (RIRDC 2006)

The main export markets for organic meat products in 2004 were Japan, the UK and the US totalling 226,656 kg (RIRDC 2006), figure 13. The majority of this product was red meat.



Figure 13: Major export markets for Australian organic meat product (RIRDC 2006a)

Several companies are now exporting natural product to the US. The exporters regard this as a small volume, opportunistic exercise but one with significant potential.

The size of the domestic red meat market is growing but difficult to quantify due to fractured supply chains, irregular product description and a lack of data collection. The market is growing however uncertainty about labelling and certification and the addition of price premiums have led to some resistance in the market place.

3.1.1 Demand for alternative produce

According to the International Federation of Organic Agriculture Movements (IFOAM), farmers are increasingly moving toward organic agriculture because of the health and environmental benefits, where as consumers are responding by purchasing high quality, ethical products. Organic certification however is not a quality guarantee. The claims made regarding the quality of the product are rarely substantiated by adoption of quality assurance programs in conjunction with organic certification.

A 2006 RIRDC report identified the key demand drivers for the purchase of organic products as belonging to two categories; emotional and rational as summarised below (RIRDC 2006a):

i) Emotional demand drivers for organic products

- *Perceptions of naturalness:* Advocates tend to claim distinct taste and quality advantages for organic produce. Organic certification is not a quality guarantee.
- *Getting back to basics:* Organic produce is seen as a way of connecting with ones humanity.
- *Environmental sustainability and environmental friendliness:* Organics is seen as a way of actively contributing to environmental sustainability. People are becoming increasingly conscious of their role as stewards of the environment especially due to intense media coverage of issues such as the drought in Australia, global warming and the industrialisation of developing countries.
- *Animal welfare:* Animal welfare is increasingly playing a role in consumer decision making. Much of the emotion surrounding animal welfare is based on misinformation circulated and aggressively communicated by animal activists and liberationists. The organic option is seen by some consumers as a way of appeasing their conscience.

ii) Rational demand drivers for organic products

- *Concerns about long-term health benefits:* Instances of cancer and disease being traced to chemical exposure have motivated some consumers to actively seek to minimise their potential exposure to chemicals. The principles of organic production provide this alternative.
- *Specific allergies and health complaints:* People on special or restrictive diets are a large and growing proportion of organic food buyers. Organic products are often preferred by people with apparent hypersensitivities to conventional produce.
- *Better taste:* In some instance organic produce may taste better due to the adoption of production techniques foregone in conventional agriculture such as vine ripening and hand picking. Red meat organic products are not necessarily considered to taste better than the conventionally produced product of a similar geographical area.

Many of the rational and some of the emotional demand drivers listed have limited application in the Australian domestic red meat market. This is due to the general acceptance that Australian animal husbandry practices, disease status, processing and testing are among the best in the world. This probably contributes to the reported price sensitivity in the domestic market and also contributes to Australia having the highest certified land area in the world; conventional practices in some production systems are not far removed from certified organic.

Issues such as bovine spongiform encephalopathy (BSE) or mad cow disease, foot and mouth disease (FMD), avian influenza (H5N1) and genetically modified organisms (GMOs) have increased the appeal of organic product in global markets. Through fortunate and good management, Australia has avoided these issues and maintains the highest disease free status as a red meat supplier. This has served to increase the appeal of conventional, natural and organic Australian red meat in the global market place.

Various groups, such as the Organic Consumers Association in the US, are actively lobbying the government to increase the presence of organic agriculture. This group, established in 1998, claims to represent 850,000 members in the US and has the objectives of achieving:

- The conversion of American agriculture to at least 30% organic by the year 2015, including major reforms in agricultural subsidies and appropriations to help family farmers make the transition to organic, develop local and regional markets, and adopt renewable energy practices.
- Fair Trade and economic justice, not so-called corporate-driven "Free Trade" as the global norm.
- A global moratorium on genetically engineered foods and crops.
- A phase-out of the most dangerous industrial agriculture and factory farming practices.
- Universal health care with an emphasis on prevention, nutrition, and wellness promotion.
- Energy independence and the conversion of US and global agriculture, transportation, and utilities to conservation practices and renewable energy.

The presence of such groups will serve to reinforce demand for organic produce in the US market in the short to medium term.

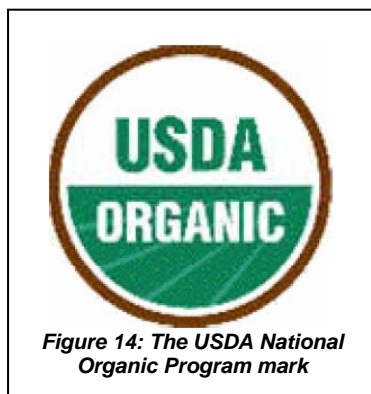
3.2 Export market profile

Organic exports represent an attractive proposition for Australian red meat producers with strong demand and the potential to deliver a significant premium to conventional exports in most markets. The size of this premium is however variable, cut dependent and generally not easily realised.

3.2.1 United States market

Consumers in the US are becoming increasingly conscious of personal health and wellbeing. This has been encouraged by high profile television shows and movies such as "Super Size Me" and "The Biggest Loser".

The meat sector is the fastest growing sector in the US organic industry with sales increasing 51% in 2005 (Organic Monitor 2006c). The majority of this growth was reported to have been in the organic beef sector which has been doubling each year since BSE was first reported in 2003.



The National Cattlemen's Beef Association reported a less optimistic, but still impressive, growth rate in the US natural and organics beef sector of 17.2% in 2005. Natural and organic beef now make up 1.1% of the total US beef market.

Local production is struggling to satisfy this demand and NOP certified imports from South America, Australia and Canada have been making up the short fall.

Mainstream retailers and specialist stores have been working to develop supply chains to resolve some of the distribution problems they are currently experiencing in the market place.

As part of the USDA NOP, all certified organic product, including imports, now carries the USDA organic mark, as shown in figure 14. This has significantly improved consumer confidence in organic produce. Research indicates that 40% of the US population consumes organic produce. This research also demonstrates that price is the greatest barrier in purchasing organics (RIRDC 2006a).

Price premiums are expected to be sustained in the short term due to the imbalance in supply and demand however the extent of the premium is expected to fall as the industry matures.

The supply shortage of organic red meat has contributed to the growth of the Natural sector in the US. This is seen as a more affordable and reasonable alternative by some consumers. Several Australian companies have developed auditable systems to supply this market. One threat to the natural sector is the loose definition governing natural product and alleged attempts by at least one of the five major supermarkets in the US to dilute this definition to improve supply. There is a risk that natural will be commoditised and only attract a meagre, if any, premium over conventional produce.

Organic produce now has a significant presence in mainstream US retail through specialty food stores such as Whole Foods Market, Central Market, Wild Oats, Planet Organic and Wegmans. In addition, 57% of supermarkets are now marketing dedicated lines of organic produce (RIRDC 2006a). Major retailers such as Wal-Mart are increasingly seeking formal alliances with major suppliers to ensure supply.



*Image 1: Whole Foods Market, Greenwich, Connecticut USA
SCG Image Library ©*

Whole Foods Market (USA store pictured in image 1, left) is the biggest retailer of organic products with 2005 revenue in excess of 5.6 billion USD, up from 3.9 billion USD in 2004, and almost 39,000 direct employees.

The company has 180 stores in the US, with a further 74 under development. Each of these stores is roughly the size of the average Coles or Woolworths in Australia.

Whole Foods Market has now expanded into Canada with three stores and into the UK with six stores.

One store under development in Kensington, London will incorporate 7,000m² of floor space, approximately twice the size of the average Australian Coles or Woolworths.

Contrary to popular belief, Whole Foods Markets do not stock organic food exclusively (Solman 2007); they also carry Natural produce.

Whole Foods is publicly listed and investors reacted dramatically in 2006 to a slow down in growth from 13% to 7% from 2005 to 2006 with a 40% decline in share price.

Whole Foods CEO John Mackey believes that it is inevitable the company will lose market share due to an increasingly competitive organic food market.

The US natural and organic market presents significant opportunity for Australia. Australian product is well regarded in the market and systems are in place to achieve USDA NOP certification through the seven registered certifiers. Furthermore, the free trade agreement between Australia and the US and the suggestion of further possible trade concessions will add to the potential of this valuable market.

Unconfirmed reports suggest that the use of the term “Natural” to describe product may be subject to increased restrictions or outlawed in the US. This should be considered in subsequent MLA program development.

3.2.2 United Kingdom market

The UK organic food and beverage market is the most developed in the world and is considered to be approaching maturity. The market was propelled into mainstream retail in the late nineties with sales doubling in 1998/99. Food safety concerns such as BSE contributed to increasing demand, especially for red meat. Organic red meat remains the fastest growing sector increasing by 12.3% per annum (RIRDC 2006). It is now estimated that about three quarters of UK households buy some organic food during the year.

Most organic produce is sold through supermarkets however specialty organic produce shops, farmers’ markets and home delivery stores are also operating.

Major organic store chains such as Fresh and Wild (London store pictured image 2, right), operated by Whole Foods Market from the US, and Planet Organic (image 3) and the increased popularity of farmers’ markets, has led to a decline in supermarket market share over recent years.



*Image 2: Fresh and Wild
Notting Hill, London UK
SCG Image Library ©*

Supply is tight for organic meat with major supermarkets offering fixed price contracts to secure supply. Sainsbury and Tesco’s are reportedly offering producers five-year price guarantee contracts. UK supermarkets purchase imported product to make up the shortfall in supply but are increasingly only dealing with major suppliers who can deliver critical mass. This has implications for Australian exporters with smaller suppliers struggling to generate the required year-round supply capacity.

Australia is one of eight countries to have negotiated equivalence agreements with the EU and is consequently listed on the “third list of countries” from which organic imports are allowed subject to other trade restrictions.



*Figure 15: The Soil Association
Organic Standard*

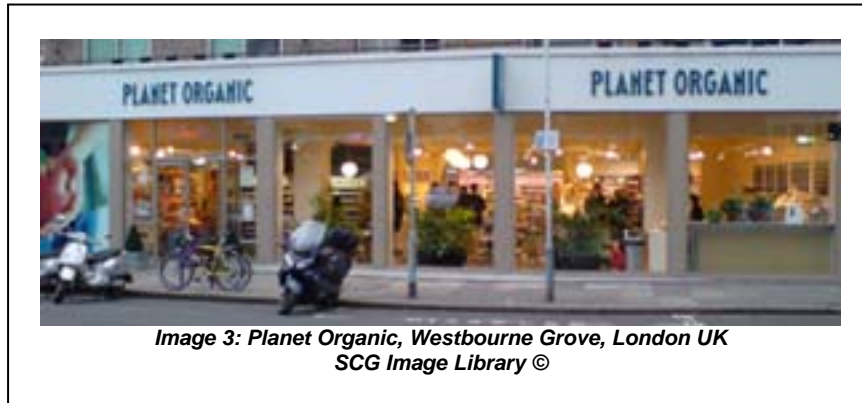
The UK’s domestic organic production volume appears to have reached capacity with the proportion of imported product stabilising at about 46%.

The Soil Association (figure 15) is the UK’s leading environmental charity promoting sustainable, organic farming and championing human health and is the UK’s largest organic certification body. All food labelled as organic in the UK must conform to specific EU regulations defining the inputs and practices which may be used in organic farming and processing.

Recently, there has been a move to support local produce at the expense of imported product. This is part of a backlash against major retailers who have reportedly preferred to deal with large suppliers of imported product rather than smaller local farmers. Although this may make rational business sense, it has served to offend local communities and led to the promotion of the “Food-Miles” concept.

Food-Miles is an environmental cost that is applied to food based on the distance it has travelled and the mode of transport to market. This counts heavily against imports and can neutralise any perceived benefit of the organic status for imported product.

The promotion of local product is evident in many of the red meat labels such as the Daylesford Organic range sold through the Planet Organic chain of stores (pictured below image 3).



The label of the lamb mince (pictured image 4, below) bearing the Soil Association certification logo (figure 15) and retailing for £10.22 per kg (25.68 AUD), reads:



“Our organic lamb is reared from British breeds suited to local conditions – Scotch half-breeds, Romneys and Lleyens. They develop at their own pace, grazing our rich organic pastures. We are especially proud that our animals do not suffer the distress of long-distance transport.”

Other labels from the same range read:

“Our organically reared beef herd grazes our clover-rich pastures from spring until winter. The calves are weaned at their own pace, as part of our policy of maximizing their health and vitality, by avoiding stress. The beef is hung for up to four weeks, resulting in unbeatable quality and maximum flavour.”

Australia and Australian produce is highly regarded in the UK and often enjoys premium shelf space. The opportunity for organic red meat in the market is however severely constrained by quotas, low cost competition from importing countries, price sensitivity and resistance against the organic premium and the concept of food miles.

3.2.3 Japan market

The market for alternative produce in Japan is the most developed in Asia. Food safety concerns regarding chemicals and diseases such as BSE have fuelled the development of the industry which is now considered to present an obvious alternative to conventional produce.



Organic products must comply with the Japanese Agricultural Standards for Organic Agricultural Products (JAS) and bear the JAS mark (figure 16) demonstrating compliance to be labelled as organic.

The Australian industry has negotiated organic standards equivalence agreements with Japan with the exception of several treatments allowed under the Australian National Standard that are not permissible for product exported to Japan. Product must be JAS certified through an accredited Australian certifier or be accompanied by an Export Declaration stating that the product complies with the ANS and a statutory declaration guaranteeing that prohibited products have not been used in the production of the item. The production systems must be auditable.

The “Green Foods” concept in Japan is similar to the natural concept in the US market and describes food produced without chemicals and with minimal processing. There is some confusion in the Japanese market place about the difference between organic and Green Food.

Japanese red meat supply chains are notoriously convoluted and can act as a significant barrier to market entry. Furthermore several exporters in Australia indicated some frustration at the time taken in negotiations. The market is however seen to hold significant opportunity for beef and lamb and has the potential to grow quickly.

3.2.4 Taiwan market

Taiwan is the second largest export market for Australian goat meat and currently their organic market is small and growing gradually. As the market grows Australia will be well placed to become the preferred supplier of organic goat meat.

3.2.5 Other markets

There is demand in South Korea for organic beef however confusion in the market about certification and importing requirements has impeded market development. This is expected to improve over time and South Korea may well become an important market for Australian organic beef.

Several companies are attempting to establish a presence in China and opportunities for organic red meat are expected to increase as the level of affluence and western influence increases.

3.3 Domestic market profile

The only alternative production sector developed to any degree in the domestic market is the organic industry. The Australian organic industry is estimated to be worth 400 - 450 million AUD and has been expanding over recent years. Red meat is the largest sector within the organics industry, owning 43% of the entire organic market by farm gate value.

The domestic organic market is growing although the export market remains the key driver for red meat production.

There is insufficient domestic market demand for organic red meat to sustain substantial dedicated production systems however the domestic market is benefiting from a developing export trade. Major supermarkets are now stocking dedicated lines of organic red meat and specialist organic stores such as Macro Wholefoods Market are being established. The food service sector is increasingly incorporating organic beef and lamb in their menus.

Supply remains a problem for the industry and has been exacerbated by the drought. Wholesalers are tending to align themselves with major suppliers at the expense of smaller producers in an attempt to secure consistent supply.

The majority of organic produce is sold through supermarkets as demonstrated in figure 17. Coles (image 5) and Woolworths (image 6) now have dedicated organic red meat sectors and IGA is seriously considering expanding into this area.

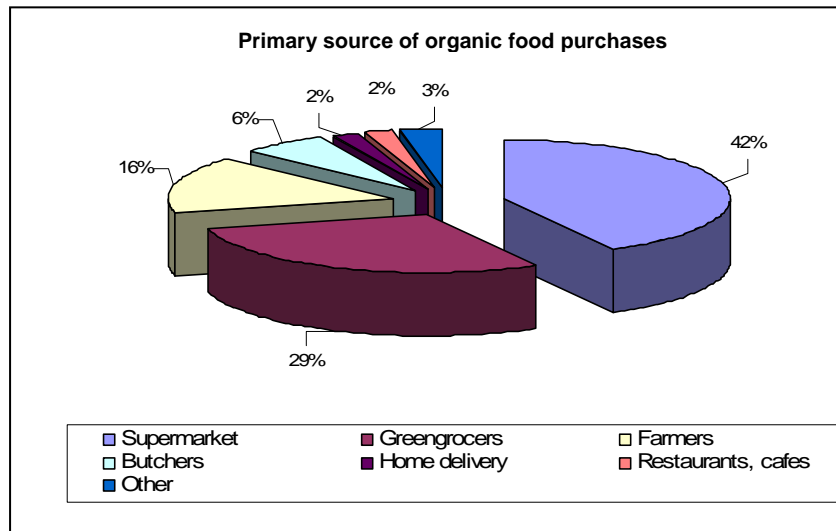


Figure 17: Primary source of organic food purchases (RIRDC 2004)

Macro Wholefoods Market (Crows Nest site pictured below in image 7) has grown from one store in Bondi in 2004 to eight stores nationally through the investment of entrepreneurs Pierce Cody and Brett Blundy. Further expansion is planned in 2007 and 2008.



Entrepreneurial butchers are investing heavily in the organic red meat industry, particularly those targeting the high income demographic. Sam the Butcher (figure 18) is one such example where retailer outlets are complemented by online marketing and sales, guaranteeing delivery to your door within 24 hours.



3.3.1 Pricing

Organic red meat attracts a premium price in the domestic market. This does not guarantee the quality of the product (as Meat Standards Australia grading does) nor necessarily translate to increased producer returns.

RIRDC conducted a retail survey in 2003-2004 to determine the extent of the organic price premium. Across all sectors this was found to be 80% while the percentage premiums for several common red meat categories are identified in figure 19, below:

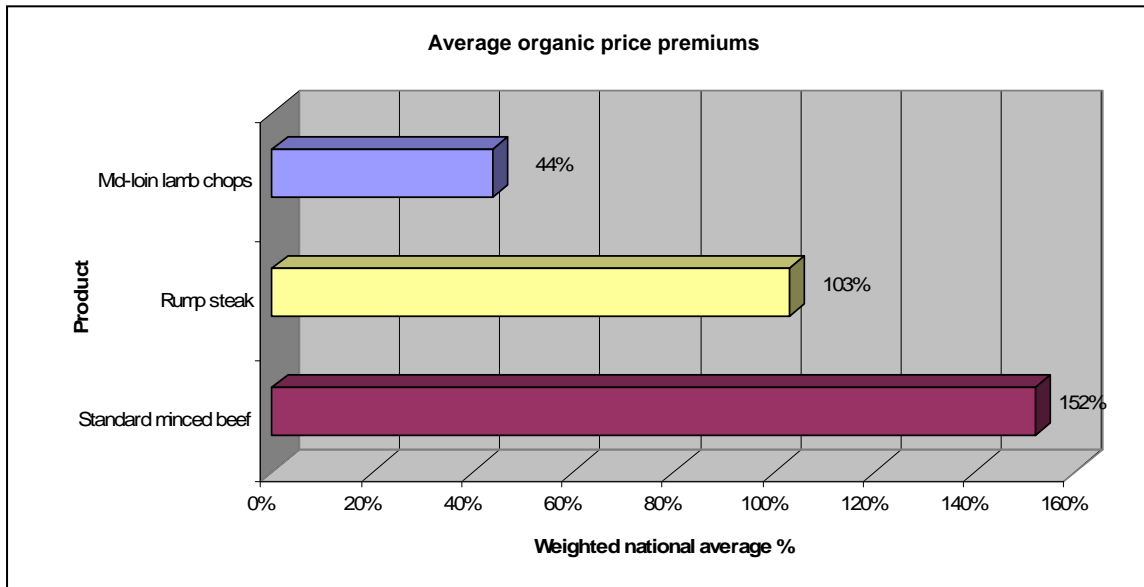


Figure 19: Average organic price premiums compared with conventional product prices (RIRDC 2004)

The average price premium for organic meat products varies considerably from state to state and between supermarkets and other retail outlets, as shown in table 4.

	SA	WA	Qld	Tas	Vic	NSW
Overall organic meat premium	33%	19%	56%	No data	92%	65%
Supermarket premium	87%	75%	102%	112%	56%	48%
Other retail outlets premium	52%	92%	94%	79%	122%	64%

Table 4: Average organic meat price premiums (RIRDC 2004)

The fluctuations demonstrated above were concluded by RIRDC to demonstrate that the organic price premium is only loosely associated with increased cost of production and distribution. It was concluded that stores basically charged what they were able to charge given their general clientele. Premiums were highest in areas of increased affluence.

Some industry participants speculate that the current price premiums are too high and are likely to stabilise at around 15% as the industry matures.

There is a significant amount of conflicting information regarding the relationship between demographic and the inclination to purchase organic produce. Some studies have correlated increasing income with an increasing propensity to purchase organic produce while others have not.

Further studies have described a negative correlation between education and the purchase of organics while other studies found the opposite. The broad range of organic products surveyed in these studies further confuses the issue.

Personal communication with industry participants has identified a significant degree of price sensitivity among consumers in the organic red meat market. One prominent supplier described a situation where a product would sell reasonably well at \$14.00 per kg, meet significant resistance at \$14.30 per kg and “walk out the door” at \$13.00 per kg.

This can be partly attributed to the ready availability of what is generally seen as a very good, responsibly and ethically produced, clean, green conventional product. The general attitude of “Why pay more?” contributes to price sensitivity.

Confusion about certification and the apparent regular discounting of organic product to clear stock in major retail outlet further erodes demand. The three products shown in figure 20, below reflect the divergence of certification labelling.

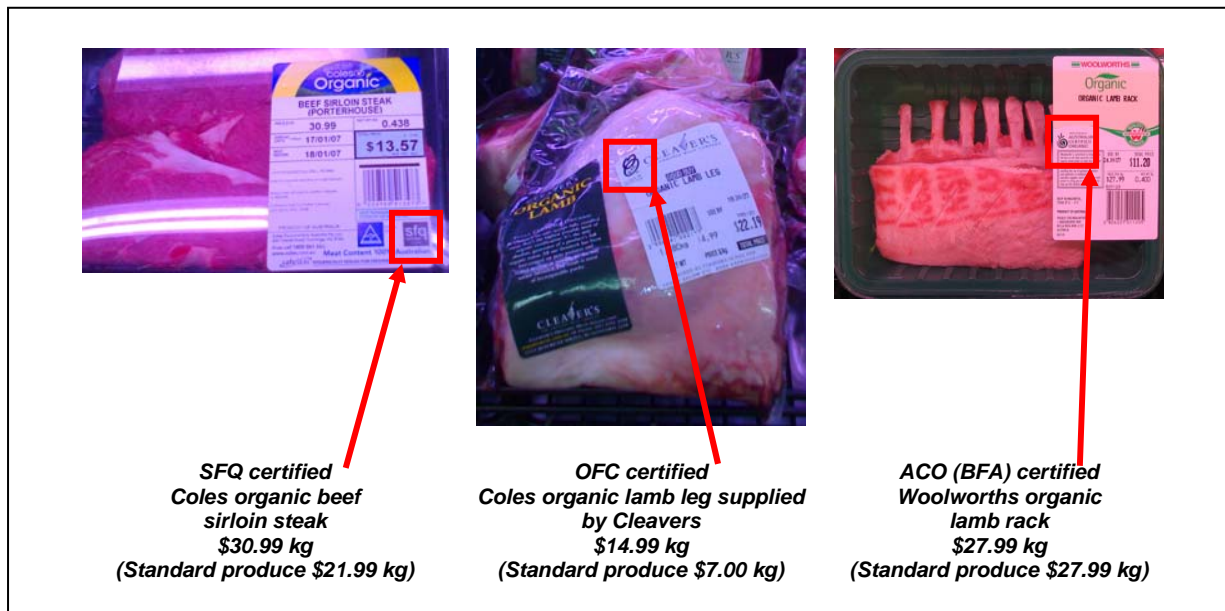


Figure 20: Example of labelling divergence in organic red meat. SCG Image Library ©

The multitude of certification logos and the lack of a national standard contributes to confusion among consumers about what constitutes organic and what can be trusted.

3.4 Supply of alternative produce

The organic beef industry is the dominant organic red meat sector with an estimated farm gate value of \$52,349,101 compared to the sheep and goat meat sectors combined value of \$2,915,387 (RIRDC 2006a). Very little product is marketed as Natural in the domestic market however trials were conducted in Queensland in 2005 delivering a GreenTick™ NATURAL product to several local butchers.

The major constraints facing the development of the Australian alternative production industries are related to supply. The beef industry is more developed than the lamb industry which is more developed than the goat meat industry. The lamb and goat meat industries do however have the potential to increase supply relatively quickly compared to the beef industry.

Supply constraints are related to the inability of the industry to supply a critical mass of quality product on a consistent basis. This is due to a lack of established supply chains particularly in the lamb and goat industry.

3.4.1 Supply vulnerability

Organic produce consumers have traditionally been tolerant of inconsistent quality, seeing this as a reasonable trade-off for the benefits associated with the produce. The degree of tolerance has diminished as organic and natural produce has entered the mainstream retail industry and consumers now generally expect to receive a premium product for the price they are required to pay.

The ability to finish a critical mass of premium product is contingent upon a substantial and diverse supply base and defined finishing systems. The recent drought has resulted in a disruption in supply due to producers being unable to finish livestock and a lack of opportunity to have those livestock finished elsewhere. Adjustment on certified country has been scarce, the supply of organic feed has been extremely tight and prices unsustainably high and animals have not been able to be finished in feedlots or with conventionally produced fodder as this contravenes the requirements of organic certification.

This has been an issue for the past few years for the organic and natural beef sector with even the most developed supply chains struggling to accumulate product. Some exporters have been working with producers to identify finishing options such as adjustment and feed availability and thus help ensure some level of supply.

The expansion of organics into northern Australia is seen as a potential long term option for increasing the supply of organic and natural beef however the markets resistance to Bos Indicus cattle and the lack of non chemical tick control methods for non tick resistant cattle will delay the expansion of production in this area.

Organic lamb supply has primarily targeted the domestic market due to a lack of volume to fill export orders. Seasonality has been a major constraint in the development of organic lamb with supply being very difficult to procure during winter months. The development of the western division supply capacity through the introduction of breeds and production systems suited to rangeland environment is seen as critical to the expansion of the organic lamb sector. Supply from these regions can be combined with supply from traditional lamb production areas to achieve critical mass allow expansion into potentially lucrative export markets, namely the US. The sheep industry is not constrained by the long gestation period and time to market of the beef industry and should be able to respond to market forces relatively quickly.

There is very little organic goat meat marketed into the domestic market and no known exports. Some product is marketed through farmers markets and specialist butchers domestically and this is usually processed on a service kill basis, broken down by a certified butcher and distributed by the producer. Organic goat meat may be marketed through the food service sector however inconsistent supply in quality and quantity has constrained industry development.

There is definite interest in organic goat meat in the US and discussions are currently underway to identify potential supply partners. Rangeland production systems and goats from these areas are ideally suited to organic production however supply chains have yet to be developed to guarantee supply on a year round basis. 90% of goat meat is derived from rangeland areas and it follows that there is significant potential for an organic goat meat industry to develop quickly. Industry initiatives such as electrical stimulation trials to improve eating quality and the introduction of traceability will assist this development.

Full carcass disposal remains an issue for the organics and natural industries. In the past only premium cuts have been readily promoted as organic with secondary cuts and trimmings being sold into the conventional markets as standard product. This situation is reportedly changing in the beef industry with product development work resulting in the development of markets for organic processed goods such as mince, sausages and hamburgers.

3.4.2 Producer case studies

The majority of organic beef is processed by Nippon, OBE Beef (Stockyard), Australian Country Choice and the Organic Meat Company/Sanger (Bindaree Beef).

The major organic lamb processors are CRF (Colac Otway), Norvic Food Processing and Radfords with a number of other works processing smaller lines. Small volumes of organic goat meat are processed for specific supply requirements. Cleavers is the dominant wholesaler in the domestic market for beef and lamb.

Three organic red meat producers have been reviewed and case studies outlined below.

3.4.2.1 Organic beef - OBE Beef Pty Ltd, Channel Country, NSW/QLD

The OBE Beef Pty Ltd was established by a group of Channel Country cattle producers in 1995 and now has over 30 producer members drawing cattle from over 7 million hectares.

The OBE Beef producers have effectively taken advantage of the Channel Country production system that naturally incorporates many of the principles of organic agriculture to effect conversion.

The company has achieved supply chain integration through production, transport, processing, export, import, distribution and marketing and the idyllic, clean, green Channel Country of outback Australia remains central to the OBE Beef brand.



OBE Beef manages relationships throughout the supply chain and works closely with its logistics partner Stockyard to ensure that product is delivered on time and according to specifications. OBE Beef and Stockyard are developing exclusive distribution arrangements with highly respected businesses in Japan and the US that are committed to establishing long term relationships with suppliers and customers.

Simone Tully, General Manager, OBE Beef Pty Ltd attributed the company's continued success to the relationships that they have developed throughout the supply chain and especially with retailers.

The recent severe drought in the Channel Country has presented serious challenges to OBE Beef. Finishing properties closer to processing facilities have been rendered obsolete by the drought and the price of feed has been difficult to accommodate.

Producers have worked together through this period through adjustment arrangements and the supply of hay to maintain a supply, albeit reduced, of finished animals and now, after good general ran in the area, OBE Beef can again look forward to increased production in seasons to come.

3.4.2.2 Organic lamb - Garry Hannigan, Churinga Station, Wilcannia, NSW

Organic farmer, Garry Hannigan, won the inaugural NSW Farmer of the Year Award in 2004.



Image 9: Garry Hannigan, Churinga Station
(www.macrowholefoods.com.au/hannigan.html)

Garry's property, Churinga Station, has been in the family for generations but it was only in 2003 that, motivated by successive years of poor wool prices and uncertainty about the future of the live sheep export trade to the Middle East, Garry moved to organic certification.

Garry now joins 5,000 Dorper and Damara-Wiltshire cross ewes annually on his 50,000 hectare property. Such breeds importantly shed their fibre and are thus far less prone to fly strike than Merinos or traditional crossbred sheep and they tend to do particularly well in the harsh environment being excellent foragers.

Garry reports lambing percentages of consistently 100% to 120% and even as high as 180% for some mobs. These results are at least twice what could be expected for Merinos under the same conditions.

Garry turns-off 18 – 22 kg lambs at fat score 3 for the domestic market and has the added advantage of being able to turn-off good quality lambs during the winter months. One of the biggest problems for the organic lamb industry is maintaining supply during this time. Garry has a good relationship with Cleavers who work with producers to establish supply chains capable of supplying them and their customers such as Coles on a year round basis.

Garry also runs about 1,000 certified organic goats but is not currently marketing these as organic due to a lack of market opportunity. An exporter has expressed interest in developing a market for organic goat meat and Garry is keen to see this develop.

The drought has had minimal impact at Churinga Station due to the adoption of conservative stocking rates and the development of a system that utilises salt bush, blue bush and other native plants to finish animals rather than grain.

Garry was awarded the 2005 Nuffield Scholarship for a livestock producer supported by Meat & Livestock Australia and travelled to the US and Europe to gain a better understanding of the market for organic lamb. Garry commented that demand for organic produce in these countries was significant and that the local industries faced similar supply constraint problems to Australia. This was particularly evident in the UK where the industry struggle to supply quality lamb on a year round basis due to a chronic shortage of product in the winter months. Australia may be able to take advantage of this local production shortfall although trade restrictions limit current market potential.

3.4.2.3 Organic goat meat - David and Mary Booth, Buronga Organics, Cootamundra, NSW

David and Mary Booth have had many years of experience in organic goat meat production in both the rangelands and higher rainfall agricultural country. Their 4,000 acre farm near Cootamundra produces a variety of organic livestock and cereals, including goats, sheep, cattle, spelt, wheat and triticale. About 800 does are joined each year with other certified organic goats brought onto the property to fill orders and finish as required.

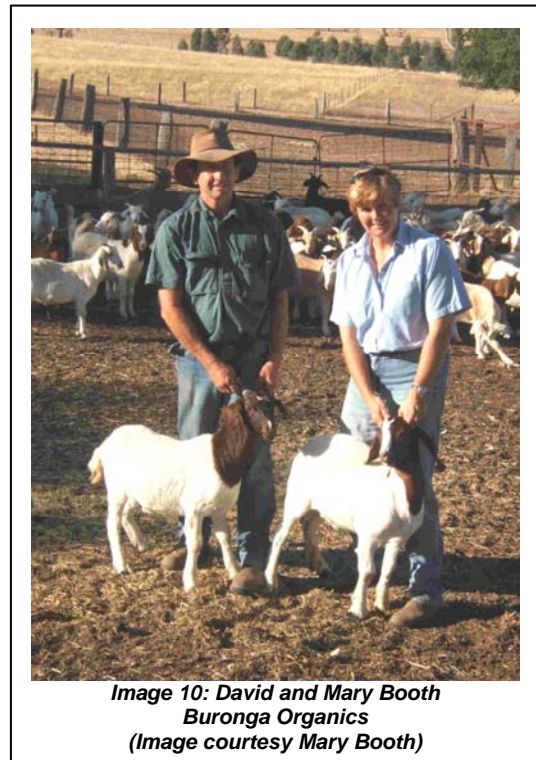
There is limited opportunity for the Booths to market their goat meat as organic due to a lack of demand and the perception that goat meat is natural and chemical free even when not certified organic.

Organic sales tend to be limited to the direct sale of service killed and butchered produce through farmers markets and the Booth's website www.burongaorganics.com.au

A price premium for organic can be realised through these channels. Butchers tend not to bother to differentiate product as certified organic. Consequently, the vast majority of the Booths organic goat meat produce is sold on the conventional market.

The drought has had a significant impact upon the Booths ability to finish stock for market due to the need for drought feeding and the extremely high price of organic grain. Prices for organic feed currently range from \$600/tonne for feed oats, \$400/tonne for feed wheat and \$150/tonne for oat straw.

Mr Booth commented that producers should not be motivated by increased profits when pursuing organic or bio-dynamic certification. Production can be expected to decline and not necessarily offset by increased prices.



4 A SWOT analysis of alternative production systems

<p>Strengths</p> <p>Strong export demand US demand particularly strong Export opportunity for untapped markets</p> <p>Growing domestic demand Increasing demand through supermarkets Development of specialty stores and supermarkets</p> <p>Suitable land and production systems Rangeland production compatibility Exotic sheep breeds performing very well</p> <p>Existing industry systems NLIS, LPA</p> <p>Australia's reputation Disease free status Clean and green reputation</p> <p>Certification Competition between certifiers Certified differentiation</p>	<p>Weaknesses</p> <p>Confusion over certification Producer and consumer confusion over certification Different interpretation between certifiers within a certifying organisation Lack of natural standard and certification</p> <p>Industry politics Lack of industry unity Competition between certifiers – divisive Industry peak body yet to be accepted by all industry participants</p> <p>Inconsistent quality Lack of QA, systems, consistency</p> <p>Inadequate supply capability Undeveloped supply chains Organic feed shortages Lack of full carcass disposal Lack of organic kill space for small producers Distribution problems domestically Lack of organic yards to trade livestock Seasonal supply capacity particularly winter lamb</p> <p>Branding Lack of natural brand and recognised logo Loose definition of Natural in US Lack of domestic drivers: Conventional food seen as clean and green.</p> <p>Trade restrictions EU trade restrictions</p> <p>Lack of information Lack of science to support claims of organic advocates Producers need to be smarter and target market specifications Lack of producer information regarding organic production principles Lack of information on certification Lack of benchmarking of organic compared to conventional Lack of mentors Lack of red meat sector R&D plan Consumer resistance to Brahman takes organic production out of Nth Qld Organic not equally viable in different environments</p> <p>Insufficient economic return Price resistance in domestic market Lack of price incentive for organic producers compared with conventional</p>
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<p>Opportunities</p> <p>Rangeland production – particularly lamb Western division lamb Damara/Dorper/Wiltshire in rangeland. Banning of Dijet, mulesing, blowfly etc</p> <p>Food service, specialty shop and restaurant demand McDonalds, Macro Foods, etc</p> <p>Existing QA technology MSA/SMEQ/Goat ES SMEQ on western division mutton</p> <p>Applied research Need to review overseas practices and apply these where possible to Australian production Substantiate organic claims (10% more OTH) RIRDC interest Comparative nutritional status of organic produce</p> <p>Establishment of Natural category Natural certification through existing industry systems Natural grading to introduce producers to organic concept</p> <p>Political positioning Define organics position to policy makers Sustainability Increasing consumer awareness of environment/health Animal welfare</p> <p>Trade liberalisation US FTA</p> <p>Untapped goat meat potential Rangeland goat US west coast ready market for goat. Uniquely differentiated product (saltbush lamb, rangeland goat)</p>	<p>Threats</p> <p>Potential oversupply Major meat suppliers could enter the market and oversupply market</p> <p>Corruption of standards Dilution of Natural by major retailers (particularly US) Natural/conventional consumer confusion Uncertainty about veracity of imported organic product Lack of rigor in certification Alleged instances of non organic being marketed domestic and export as organic</p> <p>Lack of QA</p> <p>Low cost international competition South American expansion into organics and potential for Natural</p> <p>Environmental Drought Exotic disease BSE Not for everyone, geographically specific</p> <p>Protectionism Green payments (EU), potential protectionist policies US (Farm Bill) Food Miles concept Buy local campaigns in major export markets</p> <p>Over pricing Premium expectations Current high price of conventional red meat Consumer price sensitivity</p> <p>Over regulation Overburdening organic producers and therefore pricing product out of market Transport distances and organic compliance</p> <p>Opportunistic behaviour Entrepreneurial opportunists entering and exiting industry (esp processor/wholesaler/retailers)</p>
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4.1 Critical success factor study

Based on the SWOT analysis, the following factors must be leveraged in order for an alternative production system to be a viable option for Australia.

- Applied research should be initiated through RDCs to correct the lack of information available to producers and consumers.
- Strong export demand should be central to the development of the alternative production sector value chain. This will improve supply capacity, minimise the risk of over supply, reinforce the financial return to producers and guard against potentially damaging opportunistic behaviour.
- The opportunity presented by Australia's rangeland production potential should be leveraged against increasing global demand for red meat produced through the alternative production sectors and Australia's reputation as a provider of clean, green food.
- Existing industry systems such as Livestock Quality Systems and the National Livestock Identification Scheme should be employed to minimise the threat posed by disease and may be used to provide a system for the development of an alternative category. This will also strengthen branding and reduce the threat posed by low cost international competitors.
- Industry quality assurance technology and initiatives should be adopted to minimise the threat posed by the lack of a QA system in the alternative production sectors and improve general product quality.
- The alternative production sectors, of which the organic industry is the market leader, should be encouraged to unite behind a national certification system and an integrated research and development plan. This will encourage policy advisors to champion the cause of the sector in key policy areas such as trade.
- The certification process must be clarified and ideally consolidated to reduce the potential risk presented by a corruption of standards and over regulation. This will facilitate effective branding and reduce the current interference caused by divisive industry politics.

5 Conclusions

Global demand for produce derived from alternative production systems is growing dramatically. In response to this demand and increased producer awareness of issues relating to health, welfare and the environment, alternative red meat production systems, are being seriously considered as alternatives to conventional production by an increasing proportion of red meat producers.

Alternative red meat production systems are distinct from conventional production systems due to their deliberate attention to the prescribed and potentially certifiable principles of organic agriculture. These systems are not necessarily organic but tend to share common production principles.

Mainstream supermarkets are now stocking dedicated lines of alternative produce and specialty organic food stores are becoming established in markets in Australia and around the world. The inconsistency of supply in both quality and quantity of produce, the lack of organised supply chains and confusion about produce certification are however limiting this growth.

Significant opportunity exists for MLA to assist the alternative red meat sector in Australia by addressing these issues through the development of programs designed to leverage the critical success factors outlined in section 5 of this paper.

This may be pursued in partnership with industry and government through value chain development and by increasing the appeal of the industry to conventional red meat producers through the provision of information and education tools.

There is a general sense that the industry is poised to expand and has developed to an extent warranting serious investment consideration.

6 Acknowledgements

The author would like to acknowledge the follow individuals and organisations for their assistance in providing information in the development of this paper:

- **Alister Ferguson**, Organic Meat Company (OMC)
- **Alison Ryan**, Department of Agriculture, Fisheries and Forestry (DAFF)
- **Andre Leu**, Organic Federation of Australia (OFA)
- **Blair Brice**, Meat & Livestock Australia (MLA)
- **Bradley Nott**, National Association for Sustainable Agriculture Australia (NASAA)
- **Caroline Lemerle**, Rural Industries Research and Development Corporation (RIRDC)
- **Dalene Brook**, OBE Beef Pty Ltd
- **David and Mary Booth**, Buronga Organics
- **David Jones**, Meat & Livestock Australia (MLA)
- **David Marland**, Victorian Department of Primary Industries (Vic DPI)
- **Don Fraser**, Rural Industries Research and Development Corporation (RIRDC)
- **Els Wynen**, Eco Landuse Systems
- **Eric Love**, Organic Federation of Australia (OFA)
- **Garry Hannigan**, Murray Darling Organics Group
- **Geoff Teys**, Teys Bros Pty Ltd
- **Greg Brennan**, Western Australian Department of Primary Industries (WADPI)
- **Hamish Mackay**, Organic Federation of Australia (OFA)
- **Hamish Webb**, Outback Organics
- **Kate Linden**, Victorian Department of Primary Industries (Vic DPI)
- **Michael Blakeney**, Biological Farmers of Australia (BFA)
- **Paul Gibson**, Australian Country Choice (ACC)
- **Pierce Cody**, Macro Wholefoods Market
- **Peter Gall**, Organic Meat Company (OMC)
- **Robyn Neeson**, New South Wales Department of Primary Industries (NSW DPI)
- **Sally Ware**, New South Wales Department of Primary Industries (NSW DPI)
- **Scott Seaman**, New South Wales Department of Primary Industries (NSW DPI)
- **Simone Tully**, OBE Beef Pty Ltd
- **Toby Scales**, Cleaver's: The Organic Meat Company
- **Viv Burnett**, Victorian Department of Primary Industries (Vic DPI)

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8 APPENDIX A: The Principles of Organic Agriculture

(IFOAM: <http://www.ifoam.org/>)

Preamble

These Principles are the roots from which organic agriculture grows and develops. They express the contribution that organic agriculture can make to the world and a vision to improve all agriculture in a global context.

Agriculture is one of humankind's most basic activities because all people need to nourish themselves daily. History, culture and community values are embedded in agriculture. The Principles apply to agriculture in the broadest sense, including the way people tend soils, water, plants and animals in order to produce, prepare and distribute food and other goods. They concern the way people interact with living landscapes, relate to one another and shape the legacy of future generations.

The Principles of Organic Agriculture serve to inspire the organic movement in its full diversity. They guide IFOAM's development of positions, programs and standards. Furthermore, they are presented with a vision of their world-wide adoption. Organic agriculture is based on:

- The principle of health
- The principle of ecology
- The principle of fairness
- The principle of care

Each principle is articulated through a statement followed by an explanation. The principles are to be used as a whole. They are composed as ethical principles to inspire action.

Principle of health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible. This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems - healthy soils produce healthy crops that foster the health of animals and people.

Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health.

The role of organic agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being. In view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

Principle of ecology

Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them. This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling.

Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment.

Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature. These cycles are universal but their operation is site-specific. Organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced by reuse, recycling and efficient management of materials and energy in order to maintain and improve environmental quality and conserve resources.

Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

Principle of fairness

Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities. Fairness is characterised by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.

This principle emphasises that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties - farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products.

This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behavior and well-being.

Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

Principle of care

Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardising health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed.

Given the incomplete understanding of ecosystems and agriculture, care must be taken.

This principle states that precaution and responsibility are the key concerns in management, development and technology choices in organic agriculture. Science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound. However, scientific knowledge alone is not sufficient. Practical experience, accumulated wisdom and traditional and indigenous knowledge offer valid solutions, tested by time. Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.