





# final report

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### **Determining environmental barriers to trade**

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### PART A

### INTRODUCTION, OBJECTIVES and METHODOLOGY

### INTRODUCTION

Environmental trade barriers (ETBs) are increasingly becoming more important in global trade. Unlike traditional tariff and quota trade barriers, ETBs are more difficult to identify and deal with making it frustrating, onerous and expensive for exporters to negotiate their way through the maze.

This report seeks to understand the range of ETBs faced by Australia's red meat exporters in their key markets and develop strategies to combat them so as to assist Australian red meat producers to support a profitable export sector. This report is divided into six sections:

- Part A includes the introduction, objectives and project methodology
- Part B defines the scope of the topic of environmental trade barriers and identifies the international laws under which they are governed
- Part C identifies the key trends and issues that are driving the ETB agenda globally. The factors are broken down into three categories: regulatory issues, commercial issues and social issues
- Part D identifies current and future ETBs in Australia's key markets for red meat and their implications
- Part E provides the report conclusions.

### **O**BJECTIVES

The project terms of reference as detailed in the brief are repeated here as a matter of acknowledgement.

### Issues to be addressed

The successful researcher will:

- Assess and document environmental related market access requirements of importing countries (existing and in the pipeline)
- Ascertain the significance of these barriers
- Prioritise key barrier.
- Suggest alternative strategies to reduce or eliminate the targeted market issues investigated

### **Objectives**

This project seeks to discover potential future demands on the Australian export industry in an environmental context from the major overseas markets. This market intelligence will permit effective strategies to be developed to counter these potential market access risks.

### Scope

The following items refine the scope of this project:

- The focus is on environmental issues that are, or could affect the export trade of the Australian Red Meat Processing Industry.
- Live animal export is specifically excluded.
- Both beef and lamb supply chains should be considered.

The study should focus on Australia's key export markets for beef and lamb, namely:

- United States
- Japan
- South Korea
- South East Asia
- Europe
- Middle East

### **M**ETHODOLOGY

The methodology adopted is represented schematically below.

- 1. Familiarisation & Briefing
  - 2. Desk Research
- 3. Interviews with key government stakeholders
  - 4. Final report

### PART B

### **DEFINING ENVIRONMENTAL TRADE BARRIERS**

### ENVIRONMENTAL TRADE BARRIERS

### **4.1 OVERVIEW**

For the purpose of the research, a very broad definition has been adopted for ETBs. An ETB is defined as any measure introduced by an importing country, or enterprise within an importing country to protect the environment, as well as the health and safety of wildlife, plants, animals, humans and the wellbeing of society/culture and which is not a tariff or a quota.

Given this broad definition, the area of ETBs is a very large subject and a framework needs to be established in order to adequately categorise and deal with the issues. Two approaches are taken here. The first is to separate environmental barriers into three key areas:

- 1. **Regulatory ETBs -** Measures imposed by governments.
- 2. **Commercial ETBs** Measures imposed by commercial enterprises.
- 3. **Social ETBs** Those barriers created by consumer boycotts of certain products based on ethical grounds.

Sections 7 - 10 of the report consider the major trends and issues with respect to ETBs and the above framework has been utilised to categorise the major factors. However, these definitions are not necessarily clear-cut and can overlap. For example, what begins as a consumer concern such as opposition to GMOs can filter through into the buying policies of supermarkets and also drive government policy makers to implement regulatory measures to prevent or restrict their importation. The approach also categorises ETBs by the World Trade Organisation (WTO) and United Nations (UN) rules by which they are governed in the international arena. Based on this scenario, ETBs fall into three categories:

- 1. Sanitary and Phytosanitary (SPS) requirements typically imposed for the protection of human, plant and animal health and safety and are governed by the WTO.
- 2. **Technical barriers to trade (TBT)** are mandatory regulations and voluntary standards which aim to protect consumers; plant and animal welfare; the environment; address quality issues; and other factors such as social, cultural and religious agendas and are governed by the WTO.
- 3. Trade measures under Multilateral Environmental Agreements (MEAs) include both mandatory and voluntary obligations developed under international

law which enable countries to work together to tackle global environmental issues. Pronouncements of MEAs can impact on trade and therefore can present environmental barriers to trade in some instances. MEAs are governed by the United Nations. Appeals can be directed to be WTO based on trade issues.

These three categories are discussed in greater depth in the following pages.

### 4.2 SANITARY AND PHYTOSANITARY (SPS)

Sanitary and Phytosanitary (SPS) requirements are generally focused on restricting trade in the interests of ensuring food safety and the protection of human, animal or plant life (or a country) from plant or animal carrying diseases or other threats. The definition of a SPS requirement can be broken down into four measures of protection as shown below:

Measures taken to protect:	From:
Human or animal life	Additives, contaminants,
	toxins or disease-causing
	organisms in their food,
	beverages or feedstuffs.
Human life	Plant or animal carried
	diseases (zoonoses).
Animal or plant life	Pests, diseases or disease
	carrying organisms.
A country	Damage caused by the
	entry, establishment or
	spread of pests (including
	native species).

Source: WHO & WTO, 2002

Examples of SPS requirements for red meat products include:

- Requiring red meat products to come from disease-free areas
- Setting maximum allowable residue levels (MRLs) for red meat products.

A key condition of an SPS measure is that is must be scientifically measurable and valid.

### 4.3 TECHNICAL BARRIERS TO TRADE (TBT)

Technical Barriers to Trade (TBTs) are standards and regulations, which, broadly speaking, can be defined as any measure which does not fall under the four SPS definition categories citied above, and which is not a tariff or a quota.

TBTs can be based on product characteristics i.e. size, shape, functions and performance, or based on production and processing methods. In this way, the area of TBTs is far more wide ranging in its scope and purpose than SPS measures, and is subject to greater interpretation, given there is no scientific imperative to their development or implementation.

### Regulations, standards and procedures

At the first level, TBTs can be segregated into those measures which are regulations (mandatory); those which are standards (voluntary); and those which are procedures for ensuring compliance with regulations and standards.

### Regulations

Technical regulations pose a greater barrier to trade than standards, as compliance with technical regulations is mandatory and products which do not meet the required technical specifications, will not be permitted to be sold in the importing country. While onerous for suppliers and often driven by the political agenda of the day, demanding technical requirements can, in some cases, reinforce consumer confidence and boost the sales of products of both domestic and foreign origin. Labelling products for ingredients and nutritional content is a common example of a regulatory TBT.

#### **Standards**

Technical standards pose a less significant but noteworthy ETB. A product standard may take the form of quality, environmental considerations or other factors. Compliance with product standards is not mandatory; however, noncompliance may result in poor consumer acceptance. Ecolabelling and quality measures such as the USDA and MSA frameworks are typical standard based TBTs.

#### **Procedures**

In addition to the dichotomy of regulations versus standards, the procedures for assessing conformity with both types of ETBs can be considered to be a TBT in their own right if they become particularly onerous or costly. In this way, the barrier created by the procedure for compliance with both SPS and TBT measures may be a greater obstacle to international trade than the measure, regulation or standard in question. Compliance procedures are therefore considered to be, in many instances, the most trade inhibiting TBT as they can exert the greater cost and therefore disincentive to trade.

### Agenda categorisation

TBTs can also be categorised by the agenda which drives them or the focus of their protection. TBTs can cover a wide range of areas including the protection of the environment, as well as the health and safety of wildlife, plants, animals, humans and society/culture.

Consumers are becoming more and more concerned about the impact industrialisation is having on the environment and wildlife; take greater interest in animal welfare and social issues such as child labour; as well as demanding products that meet particular cultural sensibilities. These agendas can be driven by Non-governmental organisation (NGOs) which put pressure on the government of the day to restrict products through the implementation of regulations for products based on various arguments in relation to any one or more of the above factors.

Examples which show the growing importance of such factors in international trade are numerous. Global warming and the problems of air, water and soil pollution are becoming top-of-mind for a growing number of consumers and governments are responding by imposing regulations and standards aimed at protecting the environment.

Regulations to protect animal health, endangered species or to ensure the humane treatment and slaughter of animals are also increasing. Religious and cultural issues such as the varying standards for Halal slaughter in the case of meat are also influencing global trade.

These issues are covered in greater detail later in the report but are raised here to provide a context to the wider definition of a TBT.

## 4.4 TRADE MEASURES UNDER MULTILATERAL ENVIRONMENTAL AGREEMENTS (MEAS)

The major environmental challenges faced by the global community have had the effect of driving the environmental agenda through the development of Multilateral Environmental Agreements (MEAs). MEA's are a vehicle by which countries can work together under international law on global environmental issues. MEAs can take the form of both 'soft-law' and 'hard law' pronouncements. 'Soft laws' are non-legally binding principles which signatories will respect when considering actions that affect a particular environmental issue. 'Hard-laws' specify legally-binding actions to be taken by signatories to work toward an environmental objective (e.g. ban of CFCs to reduce damage to the ozone layer).

The United Nations is the key international platform by which MEAs are developed and ratified. Out of approximately 200 MEAs, the WTO (2006A) suggests that there are around 20 that include provisions that can affect trade. For example, the provision of an MEA can ban trade of a certain product or allow countries to restrict trade in certain circumstances. Among them are the *Montreal Protocol on Substances that Deplete the Ozone Layer*, the *Basel Convention on the Trade or Transportation of Hazardous Waste Across International Borders*, and the *Convention on International Trade in Endangered Species (CITES)*.

While none of the current MEA provisions directly affect the red meat industry at present, by their nature, MEA provisions can present an environmental barrier to trade and are therefore acknowledged here. As is discussed later in the report is the concern that MEAs may, in the future, focus harder on carbon emissions, and given that methane is a carbon, should be acknowledged.

# ENVIRONMENTAL TRADE BARRIERS, PROTECTIONISM and the WTO

#### 5.1 ENVIRONMENTAL TRADE BARRIERS and PROTECTIONISM

Over the last fifty years much effort has been made by the global community towards reducing tariffs with the objective of facilitating international trade. The General Agreement on Tariffs and Trade (GATT) of 1947 was an important first step in reducing tariffs and other international trade barriers. The World Trade Organisation (WTO) was established in 1995 and is now charged with the duty of administering and extending the principals of the GATT.

While serving to better facilitate global trade, the reduction of tariff and quota protection regimes has also had the effect of causing some governments, in some instances, to use ETBs to create unnecessary obstacles to trade for protectionist reasons. Alarmingly, it is estimated that 88% of global trade is affected by ETBs and this statistic is increasing, and while the majority are potentially legitimate, they still have the affect of inhibiting global trade (Walkenhorst, 2003). It is suggested by Mattson et al (2004) that ETBs may now form a greater barrier than tariffs.

As alluded to previously, where compliance with technical regulations and standards is overly onerous, it can inflict substantial costs to exporters. The costs associated with compliance can result from required modifications to production facilities; the cost of testing, certification and inspection to confirm compliance; the time and expertise required to translate and disseminate international regulations; and the cost of adjusting to meet the requirements of new regulations. Therefore, the introduction of SPS and TBT measures can have the effect of making foreign products uncompetitive vis-à-vis domestically produced goods. In extreme cases, this may provide a disincentive to trade altogether.

In doing so, such environmental barriers to trade have the effect of undermining international markets and cause economic inefficiency.

In response to mounting concern that SPS and TBT measures were being used for protectionist reasons, the SPS and TBT Agreements of 1994 were introduced. These are covered in greater detail in the following pages.

#### **5.2 WTO SPS AGREEMENT**

The agreement of the Application of Sanitary and Phyosanitary Measures (the 'SPS Agreement') was introduced in 1994 by the GATT and subsequently taken over the superseding WTO in 1995. The SPS Agreement sets out the basic rules for food safety, animal and plant health standards for WTO members. SPS measures can take a range of forms including: the imperative that products come from disease free areas; various quarantine inspection measures; setting MRLs; etc.

While countries are allowed to set their own regulations and standards, the SPS Agreement states that such measures must be scientifically justifiable and should not arbitrarily discriminate between countries where identical or similar conditions exist. The same rules must also apply to domestically produced products as are applied to imported products.

A key motivator of the introduction of the SPS Agreement was to mitigate the increasing problem of the use of SPS measures based on protectionist grounds as highlighted previously. A SPS measure can be a very effective protectionist device, which, due to its technical complexity, can present a difficult trade barrier to challenge.

## 5.3 WTO AGREEMENT ON TECHNICAL BARRIERS TO TRADE (TBT)

In addition to the SPS Agreement, acknowledging the increasing problem of environmental trade barriers which fall outside of SPS measures, the Technical Barriers to Trade Agreement (TBT) was also enacted in 1994.

Like the SPS Agreement, the TBT Agreement acknowledges a government's right to implement its own standards and regulations with the aim of protecting consumers, plant and animal welfare and the environment. However, the objective of the TBT Agreement is to 'to ensure that technical negotiations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade' (WTO, 2006B).

Under the TBT Agreement, there are five legitimate motivations for the introduction of a TBT by an importing country, namely:

- Protection of life and health (human, plant and animal);
- Protection of safety
- Protection of national security
- Protection of the environment
- Protection of deceptive marketing practices

Important themes in the pronouncements of the TBT Agreement are as follows:

- That standards be enforced without favouritism and that similar treatment be accorded to both foreign and domestically produced goods and services.
- That technical regulations are not prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade.
- That where possible, all efforts are made to achieve the harmonisation of international standards.
- That technical regulations be based on product requirements in terms of performance rather than on design or descriptive characteristics. This is the so called PPM clause (process or production methods) which disallows discrimination based on the way in which products are processed or produced. All 'like' products must be treated equally regardless.
- That there be transparency about the adoption of and changes to standards and technical regulations and that members be required to establish an enquiry point for use by other members.

#### 5.4 THE EFFECTIVENESS OF THE WTOTBT & SPS AGREEMENTS

To the best knowledge of this consultancy, no research has been undertaken to quantifiably measure the effectiveness of the WTO SPS and TBT Agreements in reducing the impact of ETBs on international trade and efficiency. However, it is the assessment of this consultancy that the use of ETBs for protectionist reasons is occurring globally.

The problem is that nowhere do the SPS nor TBT Agreements state that WTO members must use international standards, but rather that they be based on them. This limits the agreements' ability to adequately control the problem of environmental barriers to trade.

Moreover, based on our discussions with key government stakeholders, the decision to go to the WTO with a complaint against another country's import control measures is costly, time consuming and resource intensive and therefore governments tend to pick their battles carefully. There are also issues of countervailing policies whereby the accused government may impose reactive counter measures against the country lodging the complaint to the WTO. Therefore, in many instances, violations of the SPS and TBT Agreement can go unchallenged if the market they protect is small or the political agenda of the day is such that it may be unworthwhile to do so.

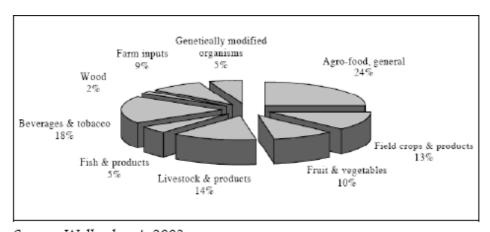
In the main, bilateral negotiation with the importing country is the preferred avenue to counteract a problems caused by ETBs. Like most countries, Australia prefers this approach to trade negotiations and the WTO is considered an avenue of last resort.

## 5.5 ENVIRONMENTAL TRADE BARRIER DISPUTES RELATING TO RED MEAT 1995-2006

The WTO established the TBT Committee whose role is to oversee the implementation and operation of the TBT provisions and assist members with any problems or concerns they may have. The TBT Committee typically hears complaints that cannot be solved bilaterally (Walkenhorst, 2003). It is therefore worthwhile to review those complaints lodged with the WTO with respect to ETBs and red meat to provide an initial understanding of those barriers which have been challenged.

Agrifood products are by far the most controversial product trade group with respect to ETBs, with more than half the complaints made to the WTO being related to this category. Of those Agrifood complaints received between 1995 and 2001, 14% related to livestock and related products (figure 1).

Figure 1: TBT Notifications concerning agrifood products (2001) Source: Walkenhorst, 2003



Source: Walkenhorst, 2003

The specific complaints received by the WTO during the period 1995 – 2006 related to red meat were:

**1995** The US lodged a complaint against South Korea shelf life requirements for frozen processed meats and other products. This complaint was supported by Canada and Japan.

**1996** The US and Canada lodged a complaint against the EU's import prohibition for meat produced with growth-promoting hormones. Initially upheld by the panel, the complaint was later overturned through appeal and the measure is still enforced today.

**1999** The US and Australia lodged a complaint against South Korea with respect to (i) Korea's measures affecting the importation, distribution and sale of beef; (ii) Korea's 'dual retail system' for sale of domestic and imported beef; and (iii) Korea's

agricultural support programs with respect to beef. Complaints (i) and (ii) were upheld by the panel.

**1999** Australia and New Zealand lodged a complaint against the US with respect to the US safeguard measure on imports of fresh, chilled or frozen lamb. The WTO partially upheld the complaint and the US agreed to adopt the WTO recommendations.

### PART C

# GLOBAL ENVIRONMENTAL ISSUES AND KEY ETB TRENDS & DRIVERS

### SECTION 6

### GLOBAL ENVIRONMENTAL THREATS

There are a number of emerging global environmental threats which, if not managed, will almost certainly impact on the red meat industry either directly or indirectly. These environmental issues are becoming increasingly prominent in the minds of consumers, activists and regulators when considering trade policy. Key issues include:

- 1. Global energy use is projected to increase by 2% annually over the next 15 years raising greenhouse gas emissions by 50% over current levels unless strenuous effort is made to increase efficiency and reduce dependence on fossil fuels.
- 2. Excess nitrogen from fertilizers, sewerage and fossil fuels has begun to overwhelm the natural nitrogen cycle resulting in reduced soil fertility and over feeding of water ways.
- 3. Deforestation continues to accelerate. Twenty percent of tropical forests have been cleared since 1960 due to extension of unsustainable subsistence farming and government backing conversion to ranching and plantations.
- 4. Bio-diversity is threatened worldwide due to habitat reduction, pollution and competition from non-native plants.
- Global water consumption is rapidly outpacing availability and the third of the world's population currently experiencing chronic water shortages is expected to be two-thirds within 30 years in the absence of serious water conservation improvements.

### SECTION 7

### ETB KEY TRENDS and ISSUES

While a key objective of the research is to identify current and potential ETBs in Australia's key export markets, it is important to acknowledge the major issues and trends which are occurring globally, as these set the agenda for much of the more region specific ETBs identified later in the report.

Under the broad definition which has been adopted for ETBs, the scope of the major trends and key issues is wide ranging. In order to manage the breadth of the subject matter at hand, a taxonomy based on three categories has been employed:

- 1. **Regulatory ETBs -** Measures imposed by governments.
- 2. **Commercial ETBs** Measures imposed by commercial enterprises.
- 3. **Social ETBs** Those barriers created by consumer boycotts of certain products based on ethical grounds.

The major trends and issues as identified by the research have therefore been classified as follows:

### Regulatory

- 1. Increasing regulation in developing economies;
- 2. Smuggling and counterfeit product;
- 3. Recycled water;
- 4. Relationships of understanding;
- 5. Trade negotiations;
- 6. Import licenses;
- 7. BSE Compliance costs
- 8. Domestic versus international auditors;
- 9. Carbon trading; and
- 10. Eco-labelling.

### Commercial

- 1. Commercial barriers to trade;
- 2. Increasing cost of compliance; and
- 3. Quality standards.

#### Social

- 1. Religion;
- 2. Fair Trade;
- 3. Food miles;
- 4. Animal transport;
- 5. Organics;

- 6. Genetically modified organisms (GMOs); and7. Anti-globalisation.

These issues are discussed in greater depth in the following sections.

### SECTION 8

### REGULATORY TRENDS & ISSUES

### 8.1 INCREASING REGULATIONS IN DEVELOPING ECONOMIES

Over the last fifty years the world has experienced tremendous change, a part of which has been the spectacular growth of new and emerging economies, particularly Asia. As economies develop, they have more resources available to dedicate to falling in line with world's best practice in a magnitude of areas, including the improvement of regulations and standards for food products.

As noted previously, while the WTO encourages international standardisation, countries are given the freedom to develop standards as they see fit (within the SPS and TBT Agreement guidelines). This means that there is room for further standard fragmentation as more standards are introduced; this has the resultant effect of increasing the complexity of international trade. Markets that once had fairly low non-tariff trade barriers are becoming increasingly more difficult and/or costly to access because of compliance.

This situation advantages developed economies better equipped to anticipate regulatory changes and assist exporters in ensuring compliance. Conversely, developing or third world countries tend to get locked out of markets they once enjoyed access to.

### **8.2 SMUGGLING AND COUNTERFEIT PRODUCT**

The situation of increasingly stringent SPS measures and TBTs in developing economies such as Asia has had an ancillary effect of increasing the prevalence of smuggling and counterfeit product. Our discussions with key government stakeholders indicated that there is a growing prevalence of Indian meat in particular being exported under the fraudulent guise of those countries with an excellent compliance record such as Australia. Import certificates and documentation are counterfeited and the product is illegally imported as being of Australian origin. This situation is particularly prevalent in the Middle East and Asia.

Illegal access of product into China through the 'grey channel', mostly through Hong Kong, is mainly used to avoid or minimise import duty. However, it is widely believed that the United States is using the grey channel to avoid the age limit restrictions on BSE which prevent young calves (under 30 months) from being imported into China.

The ramifications for Australian producers are significant and potentially very damaging. Australian red meat products are internationally recognised for their

quality and disease free status and can achieve a premium in certain markets based on consumer awareness of these attributes. The sale of smuggled, poor quality meat which does not comply with the standards of the importing country and which is passed off under 'Brand Australia' has the potential to cause serious damage to Australia's excellent reputation in red meat and erode consumer confidence in Australia red meat products. Moreover, the smuggled meat has the potential to erode the prices and returns for Australian producers.

The issue of smuggling and counterfeit product is more prevalent in those countries which lack sophisticated IT supported supply chain infrastructure. Australia has a potential competitive advantage in this area, the introduction of compulsory National Livestock Identification Scheme complete the loop in terms of complete traceability of meat throughout the supply chain.

### **8.3 RECYCLED WATER**

Australia is in a severe long-term water crisis that will inevitably result in the introduction of water recycling programs particularly for industry. The issue has come to the forefront in recent years as a result of the drought. As demand for water outstrips supply, recycling will inevitably become more commonplace.

The key issue with recycled water is that international regulations mandate that all water used for food processing must be not only 'potable 'meaning free from microorganisms and below maximum allowable chemical concentrations, but also 'palatable' in that it is inoffensive to the taste, smell, and sight. The definitions and standards regarding potable and palatable water are largely determined by the local government authorities.

In most cases, the regulations state that potable/palatable water must be used in food production and processes. Typically, the authorities accept the definition and standards of the local government authority. In Australia, there is a national standard which most state, local and water authorities adopt.

Although potable/palatable water can be achieved by filtering recycled water using a range of methods resulting in varying degrees of purification and cost, the topic of recycled water is highly controversial and emotive and prone to much misinformation.

Not only is there an emotional 'yuck' factor in the minds of consumers, there is increasing concern about the presence of chemicals such as detergents, wetting agents and plasticisers that can have oestrogen like effects in the body. Some research has linked water borne oestrogens to falling male fertility and concerns with developing males in utero. Recycled human effluent may contain significant levels of oestrogens from oral contraceptives in human urine.

Given the seeming inevitability of recycled water and the concern about hormones, it is likely that the definition and standards for potable/palatable water will come under greater scrutiny in coming years. The question regarding market access for red meat products, and the Australian food industry at large, is whether recycled water

conforms to recognised MRLs for certain chemicals and hormones required for potable/palatable water.

Based on our discussions with key government stakeholders, the AQIS has considered the issue and does not envisage that it will present a market access problem for Australian industry if water recycling is introduced. Key to their approach is holding discussions with international standardisation bodies as well as the relevant authorities in Australia's key markets to bed down an agreement on standards for potable/palatable water.

However, it is the opinion of this consultancy that this issue needs to be monitored very closely. A key driver of change in this area would be the release of any significant findings linking oestrogen levels in recycled water to negative impact(s) on human health. Such findings could change the dynamic of the international marketplace dramatically, given the issue is highly contentious and therefore highly reactive.

One way of mitigating this issue is for industries to self regulate that all water recycling programs employ the latest technology such as Advanced Oxidation Processes that eliminate or neutralise potentially harmful chemicals and hormones.

Figure 1 provides a comparison of various filtration methods and their relative levels of purification.

PARTICLE SIZE REMOVAL RANGE BY FILTRATION These sizes of well known objects and particulates illustrate the size of the micrometer (or micron) Rosin Smok Synthetic Oil Smokes Fly Asi Tobacco Smok Coal Dust urgical Dusts and Furnes Sulfuric Concentrator I Aqueous Salt Metal Ion Zinc Oxide Fun Insecticide Dusts Ground Talo Colloidal Silica Spray Dried Mill Alkali Fume Milled Flou Hadi Atmospheric Dust Red Blood Cell Diam A.C. Fine Dus Reverse Osmosis Ultrafiltration Particle Filtration Nanofiltration Micro Filtration PARTICAL DIAMETER Angstrom Units, A PARTICAL DIAMETER Migrometors, u

Figure 1: Water recycling methods and levels of purification

Source: Free Drinking Water, 2006

#### 8.4 RELATIONSHIPS OF UNDERSTANDING

In the realm of international trade, regulations and standards are not necessarily black and white. Typically, there is a significant grey area which is subject to interpretation and political interference. In some instances, countries develop a 'relationship of understanding' based on a long history of international trade which may mean that 100% compliance is not necessary.

The problem with such relationships of understanding, is that, should the political situation change or a new regulatory officer be introduced, it may result in the schizophrenic enforcement of regulations. The new relevant power may choose to not acknowledge that Australia has been exporting product under certain conditions for a long period of time and demand 100% compliance with importation measures. Often the greyness and fluidity in relationships of understanding are used by countries to their advantage. Sometimes it is used for political expediency to protect a particular industry which is encountering difficulty due to low prices, drought, etc.

Markets that Australia has enjoyed and ongoing history of an excellent trade relationship may become temporarily blocked until the issue is resolved and/or compliance is achieved. This is a matter of negotiation and or adjustment, but presents an ongoing market risk for many industries, including red meat.

This is often the case in countries such as Malaysia and Indonesia, where interpretation and enforcement is subject to a high degree of quasi-political interference.

#### 8.5 TRADE NEGOTIATIONS

It is commonplace in trade diplomacy to use SPS or TBT measures as a bargaining tool. A common tactic is to raise a number of bio-security or technical trade barriers to muddy the waters and as a delaying tactic even though the particular issue raised may not in reality pose a threat, it frees up the country to build a defence wthin in the extended time obtained. Another tactic is to trade off the threat of a challenge on technical grounds as an offer for some other concession.

#### **8.6 IMPORT LICENSES**

Import licenses are an effective method of restricting imports without the use of tariffs and quotas and form and ETB for this reason. An import licensing system works to protect the domestic industry by requiring importers of a commodity to obtain a license from the government for each shipment of product they wish to export. The importing country can restrict the quantity of product coming in through the allocation of import licenses. While not explicitly a quota, import licensing has the same effect that is to restrict trade. The Middle East has historically utilised an import licensing

regime to restrict the importation of red meat; however, with the accession of the major trading powers to the WTO, the impact of import licensing is decreasing.

Import licensing is subject to regulation under the WTO Agreement on import licensing which states that import licensing should be simple, transparent and predictable. This agreement requires transparency to traders on how licenses can be obtained and requires countries to notify to WTO on new procedures or changes to their import licensing regimes.

### 8.7 BSE COMPLIANCE COSTS

While Australia enjoys a BSE free status, our key export markets for beef have in the main taken a very hard line on the BSE issue. Korea, the EU and Japan banned US imports of beef following one reported BSE case in Washington.

The ramifications of this for Australia are that the process of BSE-free certification has become increasingly burdensome and have impeded the flow of beef products from those that are able to comply. In this way, it is the procedure for compliance with the standards, rather than the standard itself, which forms the greater ETB.

### 8.8 DOMESTIC VERSUS INTERNATIONAL AUDITORS

Another issue related to environmental trade barriers is the method by which compliance with such regulations and standards are measured. While the WTO agreements specifically state that the same rules must apply to product produced domestically as those sourced internationally, our discussions with key government stakeholders indicates that there can be much discrepancy in terms of the degree of enforcement and depth of interpretation.

In the case of red meat, it was noted by one DAFF official that the United States' use of two different compliance auditing teams, a domestic and an international division, tends to cause some inequalities and disadvantages importing countries. It was felt that the international auditing teams were much stricter in their interpretations of the regulations and standards and this discrepancy in the degree of enforcement disadvantages the importing country.

This issue was raised with the United States, and for a period the auditing teams were cycled from domestic to international duties; however, it was advised that this situation appears to have returned to the two division system which is causing a few headaches.

#### 8.8 CARBON TRADING

In response to the problems of climate change and global warming, carbon trading has been put forward as one of a range of solutions to reduce greenhouse gas emissions. A key milestone in the history of carbon trading was the ratification of the Kyoto Protocol by more than 160 countries. At the heart of Kyoto is that signatories commit to reducing their greenhouse gas emissions or participate in carbon trading schemes. The Kyoto Protocol now covers over 55% of global greenhouse gas (GHG) emissions.

Carbon trading essentially involves placing a cap on the level of carbon emissions permitted in a region or country, and then establishing a market for carbon permits are issued to firms to emit a stated amount of carbon dioxide over a designated time period.

In developing a market for carbon, firms and industries are given an economic incentive to reduce their carbon emissions. Those firms that reduce their carbon emissions can sell their credits on the open carbon market to other firms that need them. Given that there is a cap on the total supply of carbon in the market, a shortage of credits will drive up the price and make it more profitable for firms to engage in carbon reduction.

As a part of their commitment to their Kyoto obligations, the European Union has been the first signatory to introduce a mandatory carbon trading scheme; the EU Emissions Trading Scheme (EU ETS) is one of the policies being introduced across Europe to reduce emissions of carbon dioxide.

While Australia is not a signatory to the Kyoto Protocol, agriculture accounts for around 16% of Australia's total greenhouse gas emissions. Livestock is a major emitter of greenhouse gases as a result of enteric fermentation, manure management and emissions from agricultural soils.

It is hard to reach any conclusion of the possible implications of carbon credits for the meat industry. It is our view that carbon credits will take an increasingly higher profile and that businesses and industry will have to develop plans to deal with any future negotiations on carbon. The red meat industry is no better or worse than the food industry in general with respect to carbon credits (given the emissions from food processing). The whole issue of methane gas emitted by cows in is gaining greater public awareness; however, it is hard to see what type of strategies could be adopted to deal with them and whether it could impact on trade.

### 8.9 ECO-LABELLING

Globally, consumers are becoming increasingly frustrated by the slow reaction of their governments to the major environmental problems facing us in the twenty first century. There is a tremendous groundswell of support for action and change. To many around the world the environment is a major concern and many feel helpless as to what they as individuals can contribute to prevent further destruction of our natural resources. This has lead to a situation whereby programs that seemingly enable individuals make a contribution to improving global environmental sustainability at the checkout are particularly salient and has driven the eco-labelling phenomenon to a large extent.

Eco-labelling is a relatively new phenomenon having its impetus with the introduction of the German *'Blue Angel'* label in 1977 (Melser & Robertson, 2005). Since this time, eco-labelling has become a global phenomenon, having been explicitly endorsed by 156 countries at the 1992 Rio Earth Summit.

Eco-labelling programs are in many ways very similar to other health and safety labelling programs. Both approaches require producers to comply with certain labelling requirements and are imposed with the explicit purpose of enabling consumers to make informed choices about the products they purchase.

In that same way that concern exists that health and safety labelling requirements may form an ETB and be used for protectionist motives, eco-labelling programs also have the same potential to restrict trade and access to markets. The bigger issue with eco-labelling programs vis-à-vis regular health and safety labelling is that eco-labelling standards and compliance are often based on the environmental perspective of the country in which they are imposed. Globally, views on what constitutes environmental sustainability are not homogenous. As noted by Melser & Robertson (2005):

"...there is often scope for disagreement between countries over the validity of a specific requirement. Moreover, since demand for environmental quality tends to be income elastic, these differences in attitude are often greatest between developed and less developed countries."

This situation means that the standards for various ecolabelling programs can differ dramatically and this fragmentation in itself can form an ETB as varying compliance requirements limit the ability to label and market the same 'environmental friendly' product to the global marketplace. Examples of some international labelling programs are provided in figure 1 below.

Figure 1: Eco-labels



WTO trade rules also make it difficult for countries to use other types of measures to restrict the importation of what are perceived by the country to be 'environmentally unfriendly' products and production methods through quantifiable trade barriers such as tariffs or quotas. In this way, eco-labelling is often a politically expedient way for a government to introduce a trade policy that addresses an environmental concern without necessarily violating their WTO obligations. Typically taking the form of a voluntary standard based TBT, the effectiveness of eco-labels is based on consumer

uptake, rather than mandatory regulations and therefore considered to be less trade restrictive.

However, the political expedience of the introduction of ecolabelling programs vis-àvis other policy alternatives and their effectiveness in placating the concerns of NGOs and consumer groups by providing consumers with choice means that ecolabelling is becoming an ever popular avenue for policymakers in their efforts to show they are actioning the environmental agenda.

The impact eco-labelling has on a particular industry is largely dependent on the nature of the environmental concern it addresses and the degree to which this concern can be mitigated by changes in production or harvesting method. For example, 'dolphin friendly tuna' eco-labelling has a pronounced effect in the marketplace because this is a highly emotive issue for consumers and one that can be mitigated through the use of dolphin safe nets. Consumer awareness of this issue is high, and therefore while it is not a mandatory TBT to comply with such standards and market product as 'dolphin safe' in all markets, failure to do so can result in poor consumer acceptance of the product.

### SECTION 9

### COMMERCIAL TRENDS and ISSUES

### 9.1 COMMERCIAL BARRIERS TO TRADE

Offsetting WTO efforts to reduce trade barriers (tariff, quota and SPS/TBT) is a new level of market access, which, to a large extent, is occurring at a commercial level but is often underpinned by government policy. In the last decade the global supermarkets, such as Carrefours, Tesco, WalMart, Macro, Sainbury's, etc. have become a major force in global food. In most developed economies, the food retail market is dominated by two major large global supermarkets. These companies, as part of their trading policies, have introduced very strict quality and product integrity standards.

Initially, these were focused on food safety and product integrity issues, but increasingly they are now introducing standards and codes of practice covering ethical issues such as environmental sustainability, animal welfare and labour practices.

Progressively, major supermarkets are adopting uniform global standards, such as EurepGAP, SQR, the International Organisation for Standardisation (ISO), British Retail Consortium (BRC), and other such schemes. Most of these schemes are based, to some extent, on the Codex Alimentarius.

A key platform of these schemes is that the supply must come from environmentally sustainable sources and be produced with ethical systems covering animal and child labour exploitation. Whilst the environmental aspects are not strongly enforced at this stage, it is likely that progressively these will become more important.

Supermarkets have fundamentally changed agri-food supply chains because other users, including the major global food service companies are also adopting the supermarket standards to the point where they have become almost universal and have overtaken government regulation and standards. That is, supermarkets demand far higher standards than those covered in government regulations. In this way, commercial standards are also starting to influence government policy.

Supermarkets in the United Kingdom appear to be leading the charge with respect to product labelling. Overwhelming, fresh food products (and increasingly also shelf stable products) are packaged under supermarket private label and store brands. Increasingly, supermarkets are utilising consumer friendly labelling systems covering

nutrition, product integrity and environmental friendliness. For example, it is reported in the media that Tescos is considering the introduction of carbon labelling on fresh food so that shoppers can factor environmental sustainability into their purchasing decisions.

### 9.2 INCREASING COST OF COMPLIANCE

As alluded to previously, compliance costs are often significant trade barriers in their own right. As the regulatory environment becomes more stringent, the cost of compliance increases. Compliance costs involve not only those associated with government regulations but the supermarkets integrity standards. Compliance cost include fees and charges; infrastructure and facilities for inspection services; third party audits and independent testing; IT hardware and software; and administration.

Compliance costs are increasingly becoming a barrier for small and medium enterprises that do not have the volumes and management sophistication to support the onerous costs. An example of onerous compliance costs is that of BSE. While Australia is a BSE free supplier, exporters must still comply with the BSE export procedures and this brings an added cost to industry.

### 9.3 QUALITY STANDARDS

Quality and product performance attributes are overwhelmingly covered by commercial imperatives and market forces and are rarely covered by regulations except when there is a religious or cultural requirements e.g. Halal. As have been previously mentioned, the quality standards of global supermarkets are far higher than the regulation requirements.

### SECTION 10

### SOCIAL TRENDS and ISSUES

### **10.1 RELIGION**

Both the Muslim and Jewish faiths have specific requirements for the slaughter of religiously acceptable animals.

Of particular relevance though, are Muslim expectations for the slaughter of red meat given that Muslim regions are significant export markets for Australian red meat products. In the ever-growing global economy the concept of 'Halal' is becoming a new global market force. As around one third of the world's population is Muslim, Halal is not only an issue in Muslim countries but there is also growing demand in Western countries where there is a significant Muslim population.

Islam is a systematic way of life and requires comprehensive standards and guidelines to be adhered to by Muslims. One of these standards is the concept of Halal which means 'permitted' by Shariah Law. Shariah Law regulates all aspects of a Muslim's life. When used in relation to food, Halal refers to food which is in compliance with the laws of Islam. The Koran expressly forbids Muslims to eat that which is not Halal. The opposite of Halal is 'haram' meaning unlawful or forbidden.

The issue with respect to market access is that Halal standards are subject to interpretation, as are the scriptures on which they are based. The key issue with respect to Halal slaughter is the practice of stunning and debate over the cause of death of the animal. Opinion differs across the Muslim world on what constitutes the death of an animal. The issue in terms of market access requirements is often a reflection of this very view of death. At the extreme end of the dichotomy, for stunning practices to be utilised, the animal must be able to fully recover from the effects of the stun. In this way it is certain that death occurred as a direct result of the bleeding of the animal. Shiite and Sunni cultures tend to adopt this view of what constitutes 'Halal'.

At the other end of the spectrum, the view is taken that the method which stops the heart from beating is the means of death. This view therefore does not necessarily require the animal to be able to recover from the stun, the animal must simply be 'alive' at the point of bleeding. Egypt and Jordan tend to adopt this softer view of Halal.

An interesting dynamic in the Muslim world is the push by Malaysia to positioning itself as a hub for Islamic 'best practice'. Malaysia recently introduced legislation and Halal certification procedures and standards which it has put forward as the model for a global standard.

In 2004, the Malaysian Prime Minister Abdullah Ahmad Badawi with much fanfare launched the *'Halal Food: Production, Preparation, Handling and Storage – General Guidelines MS 1500:2004'* (MS 1500) developed the Ministry of Science, Technology and Innovation.

The MS 1500 takes an extremely stringent approach to Halal certification and compliance is costly and onerous. The key issue with the MS 1500 standard is reflected in the stunning requirements which require the use of a pneumatic gun rather than the typical mushroom style cartridge based gun used by most Halal abattoirs. This issue with the pneumatic technology is that it needs to be recalibrated for each animal and requires much skill in its application. This increases the cost of production. Moreover, the pneumatic technology can result in understunning of the animal which is a cruel outcome. Currently, only Malaysia is demanding such high standards and has approved three Australia abattoirs for certification. It is the feeling of the government stakeholders consulted that Malaysia could have certified all abattoirs, but in the interest of promoting live trade, has not.

If other Muslim nations were to adopt the Malaysian standard it would be disruptive to industry because the Malaysian standards are much stricter than traditional Halal procedures and greatly slow down a Halal production line, decrease the 'certifiable' success rate and therefore increase cost.

The jury is still out on whether other Muslim countries will adopt the Malaysian standard. The feeling is that if others were to follow suit, it would be those Muslim nations which adopt a stricter approach such as Iran and Saudi Arabi. Importantly, should the Malaysian standard become best practice (which is considered unlikely) Australia is already well positioned to comply given that three Australian abattoirs have already been certified.

New stunning technology based on research being conducted at the University of Queensland may mitigate the issue altogether. The margin of error in the current system puts a significant cost on processors given that a percentage of the slaughter is not deemed Halal. The new technology has the potential to resolve this issue with a 100% success rate given that all animals can recover from the stun and therefore would potentially meet the requirements of the most strict standards, while at the same time being more efficient for processors.

#### **10.2 FAIR TRADE**

Fair Trade schemes are designed with the objective of reducing poverty and human rights abuses against the world economies' poorest contributors. Fair Trade food products are sold at a higher price than their conventional counterparts, with the expectation that the mark up is passed onto the farmer and therefore improves their prosperity and serves to redistribute global wealth to those who need it most. Fair Trade products are also required to be produced under ethical working

environments. The following conditions are implicit in the Fair Trade ethos (Young, 2003):

- paying a fair wage in the local context;
- offering employees opportunities for advancement;
- providing equal employment opportunities for all people, particularly the most disadvantaged;
- engaging in environmentally sustainable practices;
- being open to public accountability;
- building long-term trade relationships;
- providing healthy and safe working conditions within the local context; and
- providing financial and technical assistance to producers whenever possible.

Indeed, the Fair Trade movement is grounded in some very positive and socially responsible beliefs and studies conducted by organisations such as Oxfam have shown that those producers registered with Fair Trade schemes have seen the benefits of the programs; although dependency has been cited as a problem of the projects. The ideal is to help the world's poorest producers help themselves to develop sustainable and profitable agricultural industries.

Interestingly, there is an economic argument to suggest that Fair Trade actually runs against its own objects in the long run. The terms of trade for agricultural products are declining for agricultural products globally as supply in most categories outstrips demand, putting downward pressure on prices. By essentially subsidising poorer farmers, it encourages them to increase production and therefore global supply, this having the resultant effect of putting further downward pressure on global commodity prices. In this way, Fair Trade can actually serve to place the world's poorest producers at more of a disadvantage and work counter to its original objectives. Without this market distortion, the argument goes that producers would be forced to diversify in to more sustainable and differentiated commodities which can command a higher price. The argument also implies that 'freer trade' (i.e. reducing trade barriers) would produce a better outcome for poorer farmers who would be able to compete on price should they have better access to key markets.

Despite this economic rationalisation against Fair Trade, it is a potent marketing mechanism and consumers wanting to improve the lot of the world's poor are keen to show their support at the checkout. The United Kingdom and Europe are particularly driving this agenda where free trade is a major consumer trend. Worldwide retail sales of Fair Trade labelled products for the year 2002 were €260 million. This represented an increase of 22% on 2001 (Young, 2003).

As Fair Trade is essentially a labelling scheme, it can be classified as a standard based TBT. Indeed, there is a strong argument to say that the very notion of Fair Trade is in direct violation of the WTO TBT Agreement. As was noted earlier in the report, under the TBT Agreement, this is the so called PPM clause (process or production methods) which disallows discrimination based on the way in which products are processed or produced; all 'like' products must be treated equally regardless in the interest of fair competition. To the best knowledge of this consultancy the WTO rules have not been tested for Fair Trade. The WTO makes a

number of concessions for underdeveloped countries and it would seem likely that, if the economic benefits of Fair Trade are proven, an exemption may be made.

At this point in time, Fair Trade is not considered a significant threat the Australia red meat industry. Key commodities involved in Fair Trade are coffee, other horticultural and crop products. With respect to market access, the issue with Fair Trade is that developed countries cannot comply with the standards and therefore cannot access this segment of the market. Those who promote the schemes would argue that this is the beauty of it. While Fair Trade is not an issue in the context of this research, it is raised to show that consumers themselves are increasingly driving the agenda when it comes to trade, and with enough support, can have the power to impact on it (for better or worse). In this way, ETBs can transverse government policy and trade rules.

The key point is that in affluent countries, the consumers' social conscious is impacting on food choices. This agenda is more likely to be driven by global supermarkets rather than regulatory bodies. As an issue gains momentum, supermarkets will introduce standards and product features as a differentiated marketing point to gain a competitive advantage in response to consumer needs.

#### 10.3 FOOD MILES

In the course of the research, a survey of the fourteen DAFF global agricultural councillors was conducted. Flagged by a number of the respondents is an increasingly major issue in Europe in particular was that of food miles.

Food mileage pertains the distance a unit of food travels before reaching the plate. In the globalised economy the transport distance (and therefore environmental cost of transporting food) can in many cases be significant. To give a simplistic example, with a can of peeled baby carrots, it is possible that the germplasm for the carrots was sourced from the United States; grown and harvested in South Africa; sent for processing and canning in Malaysia; before being exported back to the United States. Mind you, this is only the mileage for the food, when the mileage for the can itself is included from the raw bauxite sourced Queensland; to the aluminium processor in China; and then imported by Malaysia to can the carrots, the miles really start to clock up, as do the shoppers miles to and from the supermarket.

As the global food industry consolidates and market power is increasingly concentrated among a small number of major global supermarket giants, global sourcing as described above will become more and more common. Indeed research undertaken by the United Kingdom's DEFRA (2005) found that food transport has a significant and increasing impact on the environment. In light of such findings, the crux of the food mile argument is to buy local and therefore minimise the impact the transport of your food has on the environment. In this way, food miles is one of the key drivers of the growing popularity of farmers markets.

The validity of the food miles argument has been questioned by some. While it is true that food in the global market now travels some extraordinary distances, it does so in bulk form. The DEFRA study (2005) found that almost 50% of the food miles in

Britain were attributable to consumers travelling to the shops to purchase their groceries. If a significant proportion of British consumers began travelling greater distances to access farmers market, this could have the effect of actually increasing the number of food miles travelled.

Nevertheless, food miles are a hot issue, particularly in Europe. The concern for Australia is our distance from the key Northern Hemisphere markets of Europe and the United States. If food mile labelling schemes were introduced or the imperative to 'shop local' became a strong movement, Australia may find its market share decline based on consumer boycotting of foreign products, or through an inability to comply with acceptable 'food mile' labelling standards in these key markets.

#### **10.4 ANIMAL TRANSPORT**

Quite apart from the issue of food miles, is the issue of animal transport. There is growing concern among animal welfare groups that there should be limits on the distance that live animals are allows to be transported. Given the vast distances livestock are transported in Australian from paddock to sale yard to abattoir, this has the potential to cause a major headache for industry.

#### **10.5 ORGANICS**

The growth of organics have also introduced a new level of complexity to market access. Demand for organic products is growing at a double figure rate and in most cases, demand is outstripping supply. Organics, as a percentage of total food in each category, are growing rapidly in most markets. The issue is that there are no uniform standards of accreditation for organics; Australia alone has seven accreditation bodies (albeit based on the one national standard).

Each country is developing its own standards for organic production, and the level of fragmentation in standardisation is higher in the organic arena than any other area of global food trade. This situation means that organic products that are accredited in Australia may not qualify for organic status in Japan. Organic products that meet Japanese standards may not be allowed access to the United States market. This limits the ability for organic producers to trade freely and take advantage of global market opportunities as they arise. Rather, organic producers must carefully identify their export market and produce product in line with the applicable standard.

This situation presents a significant ETB and one which only appears to be getting worse as more developing economies, including China, begin to bring in their own standards for organic products.

It is likely that with the growing popularity of organics, there will be a global rationalisation of organic certification standards; however, we are a long way off the ultimate goal of having one global standard.

#### **10.6 GMOS**

Genetically Modified Organisms are a hot issue with consumers and there is much debate about whether GMOs are harmful to human safety and also the environment on bio-diversity grounds. Although governments want to ensure that GMOs do not pose a threat to human health or the environment, there is much disagreement as to the best approach to protect against these potential threats. It is this disagreement and varying approaches which are causing headaches for producers of GMO products and present a significant environmental barrier to trade.

As noted by the WTO (2006C):

"Trade problems arise when countries have different regulations regarding the testing and approval procedures necessary to place GMOs and their products on the market, or when they disagree about labelling and identification requirements. Some countries ban imports and sales of GMOs and their products altogether."

Another issue is that of aggregation. In some countries, a significant proportion of production, particularly for crops, is GMO. This GMO product is then aggregated with non-GMO product before it is ready for sale on the global market. The major argument of such producers is that it is unnecessary and uneconomical to segregate GMO and non-GMO product and argue that labelling requirements or import bans on GMO products are unnecessary trade barriers.

The bigger issue on the horizon with GMOs and red meat products is the use of GMO stock feeds. The research has not identified any instances where GMO stockfeeds are banned, but it is conceivable that this would become an issue in the future. The issue is more likely to impact on poultry and pigmeat industries than red meat given their greater dependency on feed. There is huge potential for animal cloning to come under scrutiny if it is adopted by industry in commercial livestock production.

#### **10.7 ANTI-GLOBALISATION**

The Economist magazine and other media are increasingly commenting on the antiglobalisation movement. Many developed countries, particularly the United States, are protesting about the threat posed by low cost developing countries (notably China and India), particularly to the manufacturing sector.

The combination of liberalised market access (largely due to WTO and bi-lateral trade agreements), the internet and increased freight and supply chain efficiency means that jobs are being lost to the cheapest global supplier.

Increasingly, this will become a political issue as politicians struggle with the rhetoric of free trade in the global arena whilst talking up anti-globalisation in the struggling electorates most affected by globalisation.

The risk is that these countries may invent new environmental hurdles as a solution to this dilemma.

# PART D

# ETBs in Australia's Key Markets

### **UNITED STATES**

#### 11.1 PROTECTION OF ANIMALS DURING TRANSPORT

Like many other geographically large nations, the United States has introduced laws with respect to the distances and conditions under which live animals are transported within its borders. The so-called '28-hour law', enacted in 1873 and amended in 1994, requires livestock transported across state lines to be humanely unloaded into pens for food, water and at least 5 hours of rest every 28 hours.

Animal welfare groups argue that the 28-hour law does not comply with international best practice and should be changed to an 8-hour law. Such NGOs also claim that the law is largely not enforced in the United States in any case. There has been a concerted effort to raise public awareness on the issue and have the laws changed.

Should the United States adopt an 8-hour transport law it would add significant costs to the domestic industry. Given this, it is possible that the same rules may be applied to imported product to ensure that the local industry was not unfairly disadvantaged.

The Australian 'Land Transport of Cattle: Model Code of Practice' (1999) does not set limits on the travel time for cattle. Rather it states:

"Acceptable total travel times will vary greatly... It is the responsibility of the livestock transport driver to carefully assess and monitor the condition of the stock, prior to loans and during transport, to ensure the welfare of the cattle is maintained at an acceptable level."

If the United States were to introduce new laws and regulations with respect to livestock transport times, Australia would not be in a position to comply as the mechanisms are currently not in place. Yet, given the sheer size of the United States and the cost such a law would impose on the local industry, it is assessed that changes to the law are unlikely.

### JAPAN

#### 12.1 BEEF SAFEGUARD

Following a case of BSE in domestic production which lead to a rise in beef imports, Japan introduced a beef safeguard. The safeguard is triggered when imports increase by more than 17% on the last financial year. Once the safeguard is activated, tariffs on beef increase from 38.5% to 50%.

#### 12.2 WITHDRAWAL OF 42 ADDITIVES

Japan has recently announced that it intends to withdraw 42 additives from its list of approved additives, not on health and safety grounds, but rather because it claims they are no longer in wide use. The additives will be banned in food sold in Japan from September 2007. It is unknown how many (if any) of the withdrawn additives may be used by Australian red meat exporters.

### SOUTH KOREA

#### **13.1 PROTECTIONISM**

South Korea is characteristically protectionist when it comes to international trade. No area is this more overtly prevalent than agriculture. In 2005, the weighted average of bound tariffs on all agricultural products in South Korea was 64.1% compared with 4.5% for industrial products (USTR, 2005). Meat products are currently subject to tariffs of 40% or higher. South Korea often applies prohibitively high tariffs even in the absence of domestic production.

Pressure was placed on South Korea during the Uruguay Round of WTO to reduce its tariff structure in line with WTO objectives. South Korea in turn has phased in tariff reduction programs for a range of non-agricultural sectors.

In line with the global trend, it is therefore likely that further pressure will be placed on South Korea to reduce tariff and quota based trade barriers on agricultural products. However, as was alluded to in the opening section of this report, the reduction of quantifiable barriers can lead to the implementation of ETBs for protectionist reasons. For South Korea, the likelihood of this occurring is considered to be high. Indeed, the WTO case against segregated retail beef distribution in South Korea as covered earlier is a case in point. For this reason, South Korea needs to be carefully monitored.

# 13.2 REGULATORY TRANSPARENCY AND ARBITRARY ENFORCEMENT

The lack of transparency in the system is a major issue. South Korean laws, regulations and rules have been known to lack specificity and their implementation can be arbitrary and divergent from the laws themselves. This causes major headaches for those trying to navigate their way through the system and get product into the country. Another major issue is South Korea's track record of not adequately informing trade partners of regulatory changes. In addition, there have been cases where fairly vague and nonprescriptive laws and regulations are reinterpreted and then enforced retroactively serving to penalise firms who thought they were adequately complying with South Korean law.

This lack of transparency in the South Korean regulatory system is troublesome in the context of the previous point. Should South Korea be pushed to reduce tariffs and quotas on agricultural products, in the current South Korean regulatory environment, it will be difficult for Australia to identify and comply with those ETBs which may emerge in their place.

#### 13.3 IMPORT CLEARANCE PROCEDURES

Although reports suggest that the situation has improved somewhat in recent years, South Korea's import clearance procedures for agricultural products are slow and tend to be arbitrarily enforced. Standard clearance times for Asia are around 3-4 days, however, in South Korea this process can take anywhere from 10-18 days or six months to a year if a food additive becomes an issue (USTR, 2005). While this is more of an issue for perishable horticultural products, there is concern that South Korea's procedures are not based on hard science and do not conform to international standards.

Problems encountered by producers exporting meat to South Korea are often related to clerical errors on export certificates (as small as a post code) which can result in product detention. Thus, South Korea's import clearance procedures can present an ETB in that they increase the cost of trade and disadvantage exporters.

#### **13.4 MRLS**

In 2003, South Korea introduced a new import inspection program. Under the program importers are required to pay US \$500 for MRL testing (the initial fee was \$1960 but was reduced following an international backlash). The problem is, domestically produced commodities are only subject to random testing, and the cost of this is borne by the South Korean government. This situation, however, unfairly advantages domestic producers and is therefore an ETB and in breach of WTO rules.

#### 13.5 BEEF LABELLING FOR FOOD SERVICE

In 2004, a draft bill was put forward to implement a program of mandatory 'country of origin' labelling for beef served in South Korean restaurants. If the bill goes ahead, this would limit restaurants' ability to source beef based on market principles; once the menus are printed they are essentially locked in to sourcing from one country. This would not necessarily be an issue for a country like Australia which has BSE free status. The situation does make the market less agile and Australia's ability to take market share from other countries in the food service sector would be diminished somewhat.

### 13.6 EXTENDED PRODUCER RESPONSIBILITY (EPR) SYSTEM

South Korea is in the process of implementing what is called an Extended Producer Responsibility (EPR) system. The system is to be regulated by the Korean Ministry of Environment (MOE) and will impact on the packaging requirements of meat producers. The MSA program and Australia's best practice traceability system should enable compliance with the EPR program.

#### 13.7 CHANGES TO INGREDIENT DISCLOSURE LAWS

South Korea has recently amended their requirements for ingredient discloser on import applications and product labels for red meat (and other livestock products). The new regulations will come into effect 1 January 2007. The new rules state that the import application and product label must list all ingredients including food additives in Korean in order of predominance by weight. This is considered to be a fairly standard requirement for international trade and given that it is not particularly onerous for producers, is not considered to be a significant ETB.

### South East Asia

#### 14.1 INDONESIA AND OFFAL

Offal accounts for around 50% of Australia's meat trade with Indonesia. Indonesia has introduced a policy which bans the importation of some types of offal with the goal of protecting consumers from diseases caused by consuming certain parts of offal. This is considered to be an ETB as domestic offal is not banned for human consumption.

#### 14.2 MALAYSIA AND HALAL 1500 STANDARD

As was mentioned in Part C, all meat imported by Malaysia must comply with the Halal 1500 standard. Only three of Australia's Halal abattoirs have been approved under the Malaysian 1500 standard. Based on our discussions with AQIS, there is a view that this was not because the other Halal abattoirs do not comply, but rather, there was the number of certifications that Malaysia deemed necessary. There is an economic incentive for Malaysia to force Australia to export live animals rather than processed product as it helps to support their domestic meat processing industry. Another issue with the Halal standard is that while re-inspection should occur annually, it can be as long as three years which limits the abattoirs' ability to bring new products online.

### **EUROPE**

#### 15.1 PRECAUTIONARY PRINCIPLE

With the reduction of tariff and quota trade barriers, the EU has come under increasing criticism that its complex regulatory framework is becoming a de facto trade barrier in itself. A common complaint is that many of the new technical requirements coming online are more restrictive than the policy goal requires.

A key concern is the so-called EU 'precautionary principle' which is often applied in setting technical requirements for agricultural products. Whereas most other markets regulate if a product is proven to be unsafe, the EU approach is to regulate until a product is proven to be safe. An example of the precautionary principle in EU technical regulations and standards is the ban on beef injected with growth hormones and the limits on GMO products.

While this does serve to increase consumer confidence, those countries seeking more open trading regimes view the precautionary principle as a justification for non-tariff trade barriers. The concern is that technical regulations and standards are imposed in the context of environmental and health concerns can be done so regardless of cost and scientific evidence.

#### 15.3 PROTECTION OF ANIMALS DURING TRANSPORT

As was covered under the Unites States, the issue of the protection of animals during transport is also relevant in Europe. Transportation of livestock within Europe was governed by Directive 91/628/EC, as amended by 95/29/EC until recently. These laws set out EU-wide maximum journey times, feeding and watering intervals, and rest periods for animals. They allowed transport journeys up to 24 hours for live cattle and a 30-hour law with a one-hour break applied for live sheep transport.

The long distance transport of animals for slaughter or further fattening has become a hot topic in Europe and action by NGOs has helped put this issue on the agenda. European consumers are characteristically responsive to any issue with respect to animal welfare and the current laws are increasingly being viewed as inadequate. In response, EU regulation 1/2005 Welfare of Animals During Transport came into force on 5 January 2005, replacing EU Directive 91/628/EC as amended by 95/29/EC.

However, the new laws do not meet the 8-hour best practice model sought by animal welfare groups. There are no radical changes contained in the new laws with respect

to journey times<sub>1</sub>, feeding, watering and rest periods during a journey or space allowances. The new laws do, however, require those transporting animals over hours to obtain vehicle approval. The new laws have also tightened the conditions under which animals may be transported. By 1 January 2009, transporters moving livestock over eight hours must use a navigation system for their journeys and keep records for at least three years. Given the recent introduction of the new law, it is unlikely to be amended in the near future. Whether or not the EU is likely to place similar conditions on imported product is yet to be seen.

#### **15.4 ANIMAL FEED**

As mentioned previously, the EU has a ban on the use of any substances that have a hormonal growth-promoting effecting in raising food producing animals. This situation effectively bans beef exports from the United States. Conversely, as Australian beef is raised without hormones, this serves to benefit Australia and creates a comparative advantage.

# 15.5 REGISTRATION OF CHEMICALS USED IN ANIMAL PRODUCTION

On the more distant horizon in Europe is the potential implementation of regulations that require producers to register all chemicals used in livestock production. Such regulations are already applied to plant products. The issue here is that if the chemicals used in production are not registered in Europe, the onus will be on the chemical user to have the chemicals officially registered which is invariably a very costly process because of compliance paperwork, testing requirements, etc.

#### **15.6 GMOS**

Regulation 1829/2003 sets out the rules for the correct labelling of products containing GMOs that have undergone varying degrees of processing. The regulation also sets out traceability rules which require firms to keep records of the movement of GM products from paddock to plate. At present, meat produced from animals fed with GM feed or treated with GM medicinal products do not require GM labelling (USDA, 2006).

#### 15.7 BEEF LABELLING

The EU beef labelling scheme was put into effect in 2002 and requires all bovine meat sold in the EU to the labelled with information about the movement of the animal from birth to processing and a traceability code.

### MIDDLE EAST

#### **16.1 HALAL CERTIFICATION**

Like South East Asia, supplying red meat the to Middle East requires Halal slaughter and certification. As was mentioned under the section on ETB trends and issues, there is much variation in the level of stringency of Halal standards. This, to a great extent, is up to the regulators' interpretation of the Koran. Given Australia complies with the most stringent Halal standard in the world, the Malaysian 1500, should more countries elect to take a harder line, Australia would be well placed to continue accessing its key Muslim markets. The real issue is that of cost, not continued access. With more stringent regulations come increased production and compliance costs which decrease the competitiveness of Australia and form an ETB.

#### **16.2 COMPLIANCE ISSUES**

The general trend in the Middle East has been a gradual process of trade liberalisation and increased market access. The trends in some of Australia's key Middle Eastern markets for red meat are summarised below.

In the past, Saudi Arabian trade has been dogged by market access issues such as preferentially treatment to Gulf producers; being more trade restrictive than necessary; and has been accused of lacking transparency, causing some angst for those countries seeking to export product. Other issues include import licensing, onerous documentation requirements, country of origin labelling and shelf life requirements which all serve to increase the cost of trade. However, in December 2005 following 12 years of talks, Saudi Arabia became a member of the WTO. It is hoped that the country's accession to the WTO will mean that this once highly protected market will become more open as the country strives to fall in line with its WTO obligations.

Like Saudi Arabia, Egypt is also going through a process of increased market access and trade liberalisation. Egypt was one of the founding members of the WTO and has pledged full compliance with WTO objectives by 2005. However, despite this, tariffs remain high at around 40% and there have been complaints, particularly by the United States that Egypt's application of SPS measures on a number of agricultural products (including beef) are no transparent and are overly burdensome (USTR, 2005). Another issue is the slow import clearance rates. It often takes at least two weeks for the imported product to complete all customs formalities which causes headaches for suppliers.

#### 16.3 SHELF LIFE

Imports of foodstuffs for a number of Middle Easterncountries including Saudi Arabia and Egypt have restrictions on shelf life. In Egypt, most foodstuffs must have at least 50% of their shelf life remaining. For products such as chilled red meat, this can be burdensome on suppliers and create an ETB.

#### **16.4 QUALITY CONCERNS**

Egypt applies quality standards on beef imports that serve to restrict trade. All frozen beef imported into Egypt must contain no more than 7% fat. This quality standard is not applied to domestically produced beef and is therefore in conflict with the TBT agreement and Egypt's obligations under the WTO.

#### 16.5 PACKAGING AND LABELLING

Egyptian regulations require quite onerous packaging and labelling requirements which place a burden on exporters. Red meat products destined for Egypt must be shipped directly from the country of origin and be packaged in sealed bags.

Labels (in Arabic) must be inserted inside the package as well as on the outside carton. If there is any discrepancy between the pre-approval license and the shipping documents, the product will be rejected. This issue was raised at the WTO in 1998 by the United States who felt that the labelling laws were technically difficult to comply with and not in conformity with international practice. Based on these grounds, it was argued that the regulation formed a TBT. Egypt's response was that the regulations were driven by religious motivation in as much as it made it possible to confirm that the animal had been slaughtered under Halal standards. The regulation still stands.

## PART E

# SECTION 17

### Conclusions

- 1. ETBs are increasingly becoming more important in global trade. It is likely that as the world moves towards a freer trade regime through the efforts of the WTO and bi-lateral trade agreements, non-tariff and non-quota barriers are likely to become increasingly prevalent.
- 2. The whole area of ETBs is extremely complex and quite ambiguous. Unlike traditional tariff and quota barriers, ETBs are more difficult to identify and deal with making it frustrating and expensive for exporters to negotiate the minefield. Furthermore, many of the ETBs are subject to interpretation with no clear and definitive guidelines.
- 3. ETBs are essentially divided into three groups: regulatory ETB which are measures imposed by governments; commercial ETBs which are measures imposed by commercial enterprises; and social ETBs which are consumer boycotts based on ethical grounds or personal principles.
- 4. Alarmingly, it is estimated that 80% of all global trade is affected by ETBs and this percentage is increasing. It is now believed that ETBs form a greater barrier to trade than tariffs and quotas.
- 5. In many industries, ETBs are making trade increasingly uneconomical because of the cost of compliance including testing facilities, inspection and audits as well as the time and effort involved.
- 6. The increasing global environmental threats are likely to lead to the introduction of new ETBs which will have the potential to impact on the Australian red meat industry either directly or indirectly. Governments are likely to introduce standards and regulations with respect to environmental management practices which will have the potential to influence trade.
- 7. The dramatic concentration of the supermarket industry in most developed countries is driving a push to new commercial ETBs. Global supermarkets have very rigid standards and conditions of supply which are often far more comprehensive and therefore impose a higher level of compliance cost. In the past, supermarket standards primarily focused on quality, product integrity and safety issues but are increasingly, in response to customer pressure, taking into account other aspects such as environmental sustainability, ethical production and so forth.

- 8. Following on from the above point, it is likely that in the future social pressures and consumer values will lead to new and more daunting ETBs in their own right. Schemes such as fair trade, food miles, animal welfare, organics, GMOs, environmental labelling, etc. are becoming commonplace and an increasing percentage of consumers are now taking into account these ethical or social issues as a key part of their purchase decision. In response, supermarkets are developing labelling systems and procurement practices to appeal to the sensibilities of their customer base.
- 9. There is an increasing anti-globalisation push that is likely to impact on ETBs. Many countries are disadvantaged by globalisation, with many of the low cost jobs being transferred to countries such as China and India. Politicians are therefore caught between the dilemma of talking the rhetoric of globalisation and free trade on the one hand, and protecting their electorates from job losses on the other. ETBs provide a solution to this dilemma.
- 10. On balance, it is difficult to know what extent ETBs will impact on the Australian red meat industry. In many respects, Australia gains a competitive advantage from the introduction of many ETBs because of its generally superior product integrity standards and systems and environmental sustainability practices. In particular, Australia's disease free status is a major benefit and point of sustainable competitive advantage in markets such as the EU, Japan and Korea. The loss of BSE and Foot and Mouth freedom would be a catastrophic blow to the Australian red meat industry.
- 11. One possible areasof concern relates to recycled water. It is likely that one consequence from the drought will be increased pressure on industries to use recycled water. At present, there is much vagueness with respect to the definition of potable/palatable water and how this is interpreted in different markets. It is possible that in the future, as the amount of recycled water used increased, governments will more closely scrutinise the water quality with respect to hormonal residues, etc. This could become a major issue for the red meat industry.

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