

SUBMISSION BY

**THE STOCK FEED MANUFACTURERS’
COUNCIL OF AUSTRALIA**

TO THE

**INQUIRY INTO THE PRODUCTION AND/OR USE
OF BIOFUELS IN VICTORIA**

SEPTEMBER 2006

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IDENTIFICATION

This submission is presented by the Stock Feed Manufacturers' Council of Australia (SFMCA).

SFMCA is the Federal Council body representing the State stock feed manufacturers' associations. Individual companies involved in stock feed manufacture belong to their relevant State association. SFMCA members manufacture in excess of 90% of commercial feeds sold within Australia.

These companies manufacture over 4,600,000 tonnes of animal feeds annually, the major ingredients of which are cereal grains, together with vegetable and animal derived protein meals, oils and other raw materials. The value of commercial stockfeed sold within Australia exceeds \$1,300M.

The Australian stockfeed industry is responsible for the manufacture and supply of animal feeds to Australia's livestock producers. As such the industry adds value to primary raw materials produced within Australia, these being converted into meat, milk and eggs. Lesser quantities of feed are manufactured for animals involved in leisure and hobby activities.

Commercial feed manufacturers are located in all States and supply by sale to livestock producers feeds for poultry, pigs, cattle, sheep, horses, aquaculture and various other animal species.

SUBMISSION

This submission is made in response to the invitation received from Jenny Lindell, Chair of the Inquiry into the Production and/or Use of Biofuels in Victoria. The content of this submission seeks to address the terms of reference for the inquiry, in particular the area of **Potential Environmental, Economic and Social Impacts of Increased Manufacture and Use of Biofuel for Transport Applications**.

The manufacture of biofuels will have both direct and indirect impacts upon the stock feed industry. In addressing these impacts, the SFMCA needs to provide background information relating to the structure of the stockfeed industry and how it operates within Victoria.

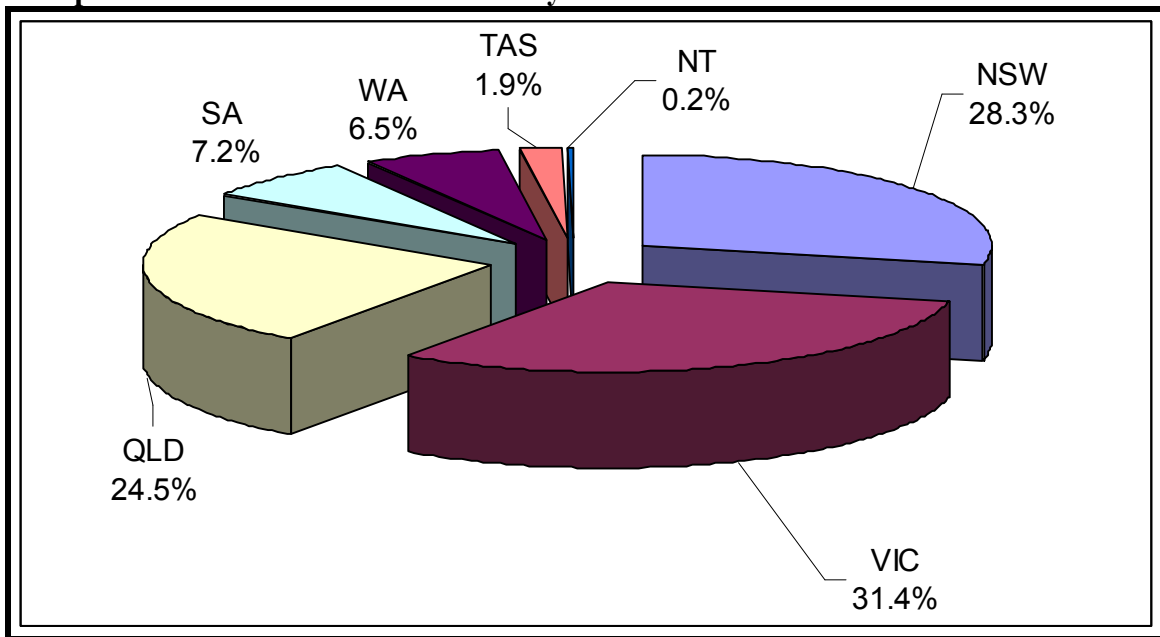
1. Stockfeed Industry Overview

The stockfeed industry acts as a service provider which links together the supply of primary raw materials which are blended into stock feed for supply to Victoria's livestock industries, as

illustrated within Diagram 1. The stock feed industry thus value adds Victorian raw materials as they are converted into stock feed and then supplied to dairy, pig, poultry, beef, sheep and horse owners for the production of meat, milk, eggs, fibre and racing outcomes.

Victoria is the leading Australian state in the manufacture of stockfeed supplied to commercial farming operations as shown within Graph 1. Manufacturer survey data collected by the Victorian Stockfeed Manufacturers' Association defines the volume of prepared stockfeed manufactured in Victoria in 2005 as being 1,990,313 tonnes, this being valued at around \$600M annually. This feed production figure excludes feeds manufactured on farm.

Graph 1. Stockfeed Demand 2004-05 by State

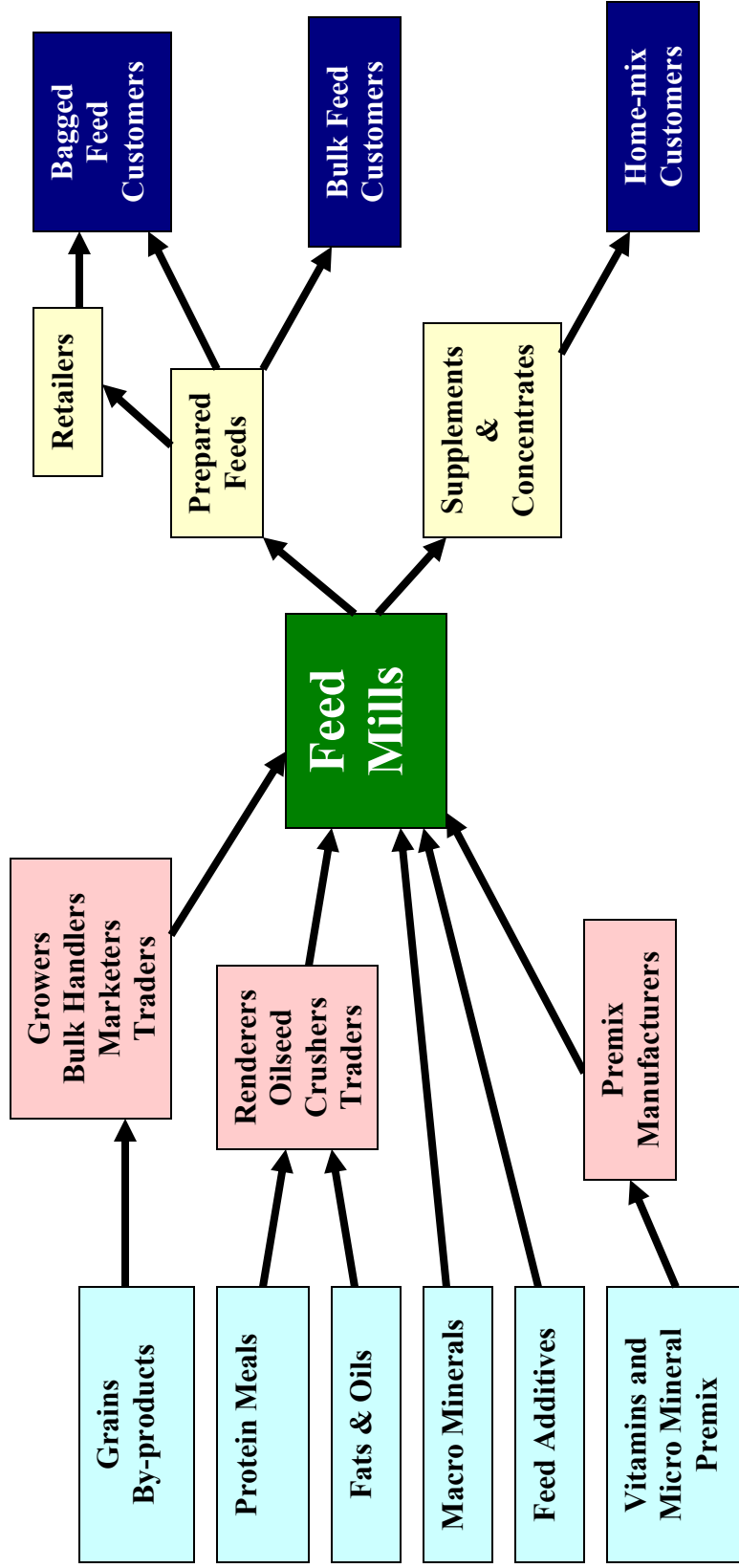


Source: Victorian Stockfeed Industry Sector Plan 2005

The Victorian stockfeed industry has experienced significant growth over the last 10-15 years, this being estimated to be in the order of 15% annually over this period. This growth has been the result of Victoria's increased demand for livestock feeding, in particular that required in the dairy, chicken meat and pig industries as these sectors have expanded livestock production.

Further more detailed information relating to the supply of stockfeed to each of these industries is provided with the Victorian Stockfeed Industry Sector Plan 2005 which was developed with the support of Regional Development Victoria and the Next Generation Food Strategy initiatives.

Diagram 1: Movement of Materials through the Stockfeed Industry



It should be noted that the Victorian dairy industry is the major user of stockfeed within Victoria. This feed demand has been driven by a shift in farming practices as dairy farms have increased in herd size and producers have been forced to become more efficient by increasing milk production per cow. Much of this increased efficiency has been achieved through higher levels of feeding, in particular the use of prepared stockfeed in better meeting the cow's nutrient requirements. The stockfeed and dairy industries have grown together, with many feed mills being built or expanded their manufacturing capacity over the last 10-15 years to cater to the needs of the dairy industry.

Stockfeed manufacturing mills are located throughout Victoria, their locations, as shown in Diagram 2, are in the greatest feed demand regions, these being:

- Gippsland – dairy and beef

- Outer Metropolitan Melbourne – layer, chicken meat

- Northern Victoria – dairy, pig, layer, chicken meat, beef and sheep

- Western Victoria – dairy and beef

The majority of feed is supplied in bulk form to commercial livestock producers. Smaller volumes of bagged feeds are supplied through retail stores to smaller commercial and hobby farm users.

2. Raw Material Demand for Livestock Production

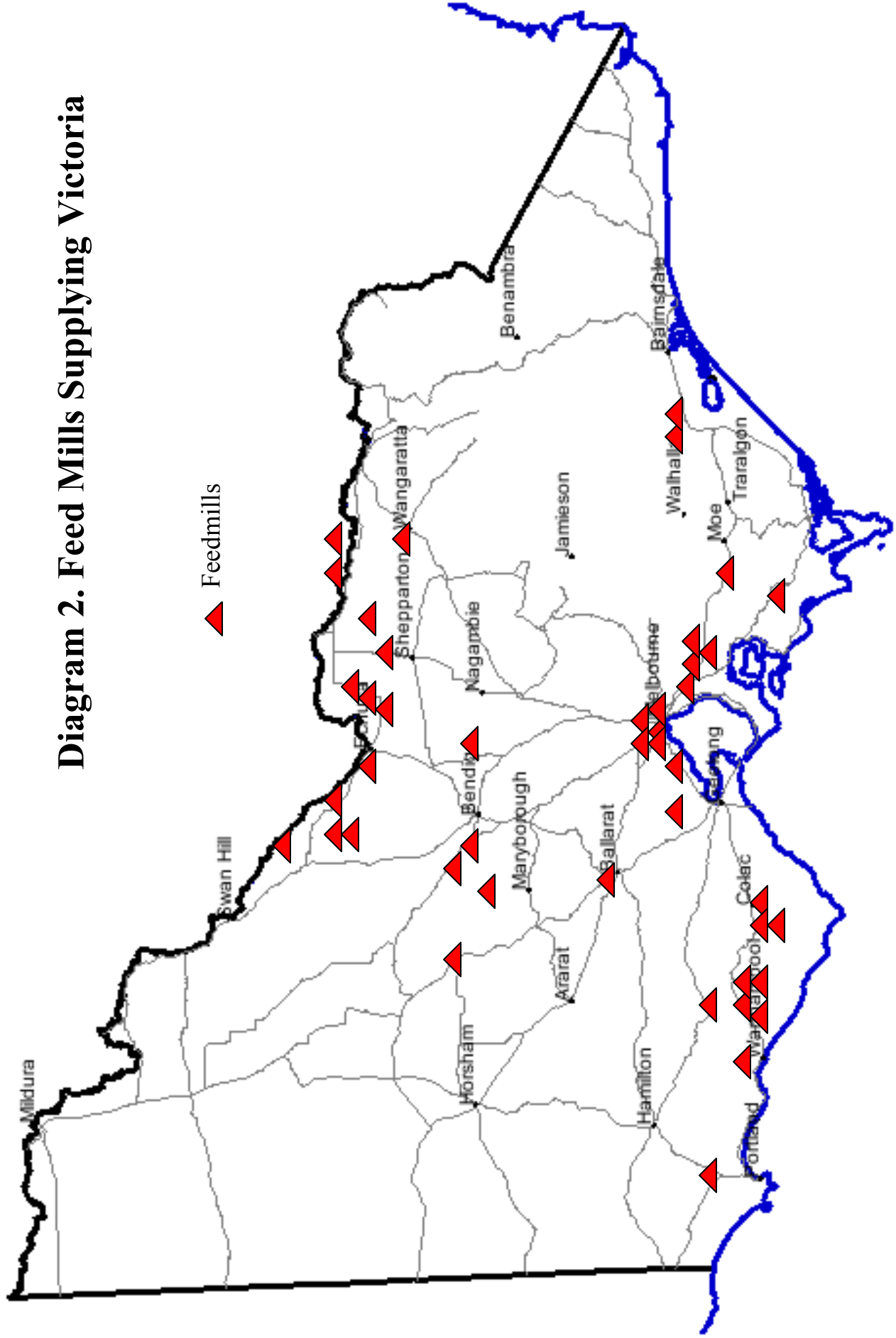
The livestock industries provide a demand for raw materials within Victoria. These industries utilise a range of raw materials to meet the animal's requirements for the nutrients energy, protein, minerals and vitamins.

Cereal grains including wheat, barley, oats and triticale are the major raw materials used to supply energy for animal production. In addition tallow and vegetable oils are used as higher energy raw materials. Protein is supplied from raw materials such as canola meal, soybean meal, lupins, peas and animal proteins such as meat meal and blood meal being used in pig and poultry feeding only.

The Victorian stockfeed and livestock industries are reliant upon access to cereal grains, tallow and vegetable oils for the manufacture of stockfeed.

The supply of animal feeds to Victorian livestock producers is directly tied to the availability of cereal grains for the manufacture of animal feeds. The significance of the need for adequate supplies of feed grains has been identified as a major issue to the industry as the volume of feed demand has grown over the last 10-15 years. There have been a number of reports which have identified the increasing demand for feed grains in Victoria.

Diagram 2. Feed Mills Supplying Victoria

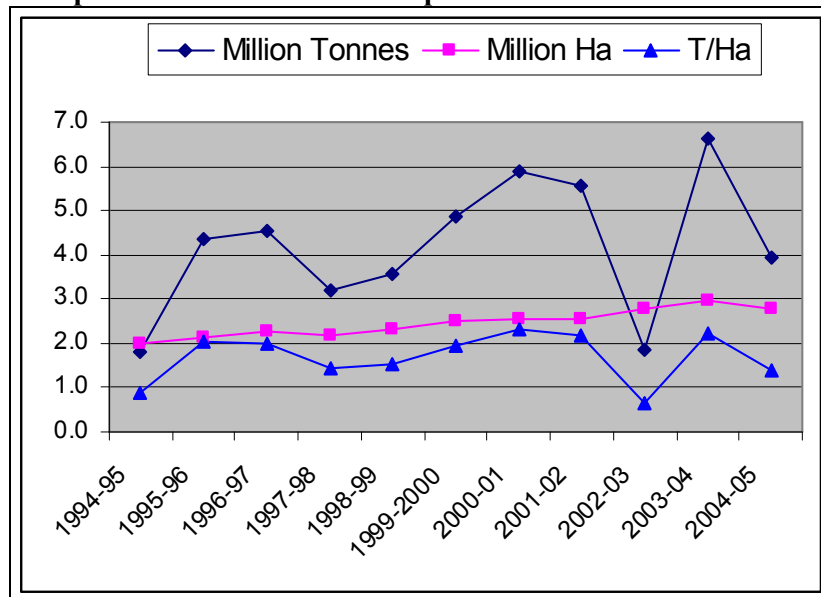


- 1995 Feed Grains Study - Myers Strategy Group
- 1997 Strategic Options for Development of a Strong Feeds Grains Industry in Victoria – Victorian Feed Industry Steering Committee
- 1997 Regional Feed Markets in Australia - ABARE
- 2000 Projection of Regional Feed Demand and Supply in Australia – ABARE
- 2003 Feed Grains: Projection of Regional Supply and Demand in Australia – ABARE
- 2003 Options to Reduce Feedstuff Supply Variability in Australia- Meat and Livestock Australia Project No. FLOT.123
- 2004 Towards a Single Vision for the Australian Grains Industry 2005 – 2025, Grains Council of Australia

As the Victorian demand for cereal grains has increased, there has not been an equivalent increase in the supply of cereal grains within Victoria. Feed grain demand and supply projections completed by ABARE (2000) and (2003) defined that in 1999 under a normal year, (non drought) Victorian feed grain demand was 24,000 tonnes greater than supply. Thus, at this time period and under the premise of non drought, grain production in Victoria was sufficient to meet demand for livestock production. The ABARE 2000 report projected the consequences of drought upon the feed grain demand and supply equation. It was projected that additional feed grains would need to be transported from South Australia and Western Australia as well as grain importation to meet Victoria’s demand.

The drought occurring in 2002/03 proved these projections to be correct, with significant volumes of grain being transported from interstate and overseas to meet Victoria’s livestock feeding needs. The present 2006 seasonal conditions is expected to provide a harvest supply less than that required for Victoria’s animal feeding needs and again grain will need to be transported from interstate and potentially overseas based upon continuing dry weather.

Graph 2. Victorian Winter Crop Production



Source: ABARE Crop Report Sept 2005

The production of winter cereal grains in Victoria has shown a steady increase in hectares planted, increasing by around 3.5% annually from 1994/95 to 2004/05, as shown in Table 31. The yield per hectare has not shown any significant increase over the same period, with average yield remaining at two tonnes/hectare in a typical year. Consequently growth in feed demand at 15% per annum has outstripped growth in grain production of 3.5% per annum.

The demand for feed grains within Victoria has been projected to increase further. Ahmed and Connell (2003), using an ABARE predictive model, projected the demand for feed within Australia would grow from 10.8 Million tonnes in 2003 to 12.4 million tonnes in 2007. This was assuming continuing rates of growth in livestock feeding. The ABARE predictions for each state are shown in Table 1.

Table 1. ABARE Model feed demand 2003 and 2007 (kt)

	QLD	NSW	VIC	SA	WA	TOTAL
Feed Demand (2003)	2,731	3,317	2,982	935	877	10,841
Feed Demand (2007)	3,200	3,848	3,288	1,051	982	12,369
Growth	17%	16%	10%	12%	12%	14%

Source: Ahmed and Connell, 2003

Projections relating to the growth in feed grain demand have been published through the Grains Council of Australia Single Vision (2004) project. Between 2000 and 2005 growth of 15.3% is forecast and between 2006 and 2010, 14.3%. This is Australian demand growth, although not identifying state demand, it is noted that the majority of growth is forecast for the eastern States.

What both the recent history in growth in feed demand in Victoria and the limited cropping area available for grain production indicates is that Victoria is severely limited in its capacity to produce sufficient grain to meet the needs of its livestock industries. The limited tight grain supply position in Victoria requires an increasing number of feed manufacturers to source a portion of their grain supplies from interstate, with this greatly increasing in poor crop production years.

As feed demand increases, there is increasing pressure being placed upon grain prices and the cost of feed for Victoria's livestock industries. Of added note is the restriction placed upon grain importation into Australia. With quarantine controls making grain importation only possible under extreme drought conditions and import limitations restricting movement of grain away from Melbourne based stockfeed manufacturing sites. This results in imported grains only being used in feed mills located in the Melbourne metropolitan area.

3. Competition in Grain Use

It is well recognised that the production of ethanol from cereal grains provides an alternative supply destination for the use of grain by grain producers. Both the stockfeed and ethanol industries have the requirement to source grains which supply energy for productive purposes in conversion to animal products or ethanol.

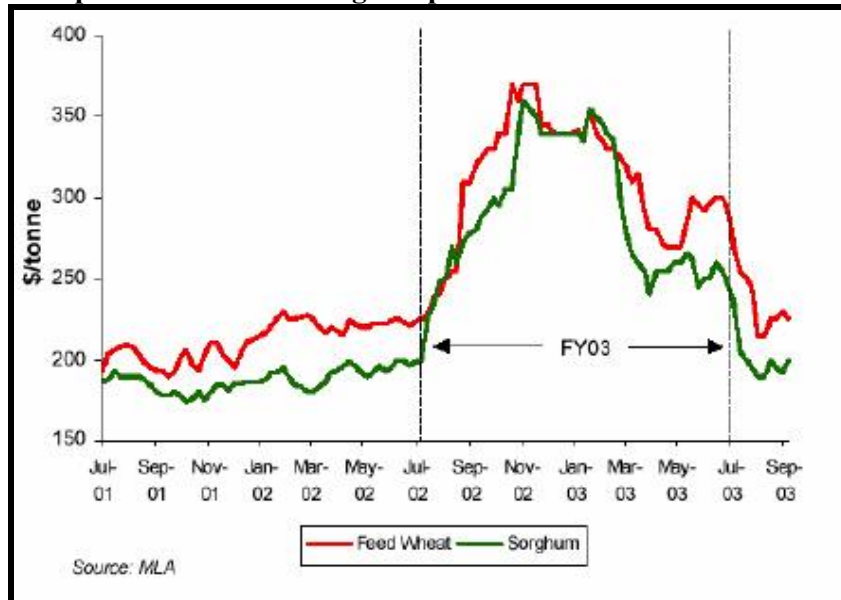
Ethanol production plants will be direct competitors with the stockfeed industry for the supply of lower cost feed grains, Producers of human food products having capacity to secure supplies of higher quality wheat, barley and oats.

Whilst the stockfeed industry recognises and respects the right of grain growers to sell grain to ethanol producers, there are some significant shifts that will occur as Victoria has insufficient cereal grain supplies to meet both the demand for stockfeed production, human consumption and ethanol production.

3.1. Increasing Feed Prices

Increasing demand for cereal grains will result in higher grain prices. Australian livestock industries have historically benefited from the access to grains which are priced at international export parity prices. In effect the commercial domestic trading price is based upon the relative price obtained for the same grain exported to overseas markets. During periods of tighter demand and supply, such as that experienced under drought conditions, domestic grain prices exceed export parity pricing and move to an equivalent import parity price. As illustrated in Graph 3, grain prices are extremely volatile and increasing demand and declining supply results in dramatic increases in cost. This graph defines the significant increase in grain costs resulting from the reduced grain supply during 2002/03.

Graph 3. Australian feed grain prices



Victoria will be more exposed than any other state from the diversion of grain to ethanol production, this being due to Victoria's position as the largest user of feed grains and a smaller producer of grain. As Victoria already draws grain supplies from NSW and SA, any conversion of grain to ethanol production within these states will also impact upon Victoria.

The Biofuels Taskforce to the Prime Minister (2005) concluded that "there is real potential for subsidised grain ethanol plants to have a local impact on feedgrain prices in the short to

medium term". This taskforce identified the potential for ethanol producers to utilise surplus grain supplies, however in areas where grain demand is higher (such as Victoria) there would be greater impact upon grain prices from ethanol production.

Grain comprises 55 – 90% of the cost of stockfeed sold to livestock producers, this being higher for high energy dairy and beef feeds and less for pig and poultry feeds utilizing proportionately more raw materials other than grain. Increasing grain costs will result in higher stockfeed prices for dairy, poultry, pigs, beef, sheep and horse operators.

The significance of the swing in feed grain usage from human food and animal feeding is becoming an ever growing problem for the USA. As the US government has encouraged the construction of ethanol plants it has been on the assumption that these plants will have the capacity to utilise the surplus of corn grown in the USA. The number of US ethanol plants is around 100, with a further 70 plants expected to be in production by the end of 2007. The increased diversion of corn to ethanol is already increasing corn prices with projections that global stocks of corn will this year reach their lowest level since 1983-84. The global grains industry is already questioning where the grain will come from to meet the demand for feeding humans, animals and motor engines!

3.2. Reduced Livestock Industry Viability

The Victorian economy has benefited from the expansion of the dairy, poultry, pig and beef industries, with provision of rural employment in rural and regional Victoria as well as attracting export dollars. This has been the result of livestock industry expansion in both the primary production and further processing sectors.

As cereal grain supply and pricing has become the essential component in the production of livestock, limited cereal grain availability and higher prices will place these livestock industries under greater pressure. In particular the dairy industry recognises the potential decline in milk production which results from lower farm viability. It is envisaged that a significant shift in grain supply to ethanol production will result in a decline in livestock production as enterprise viability declines.

3.3. Reduced Export Revenue

Victoria, whilst it has offered an ideal environment for the expansion in livestock production over the last 10-15 years will see a decline in livestock products which are available for export sales. This decline will be directly tied to the increased cost of grain which is a primary factor governing milk production.

Declining livestock production places pressure upon further processing, with declining through put efficiency in milk processing factories and abattoirs. The significance of the dairy industry to the Victorian economy is seen through dairy products being the largest value in exporter products through the Port of Melbourne.

Victoria's exporters of meat and dairy products must compete in global markets where cost of production and manufacturing efficiency are essential attributes for long term success. Any

decline in volume of product available for export not only impacts upon the loss of export sales but further undermines the industries cost structure.

Declining on farm livestock production and meat, milk and egg processing will result in reduced employment opportunities in Victorian rural areas,

3.4. Stock Feed Manufacture Decline

The manufacture of stockfeed is directly dependent upon livestock numbers and farmers feeding animals. It is expected that the increased competition for cereal grain supplies and resulting higher grain costs will result in a drop in feed demand. This will have a detrimental impact upon stockfeed companies as the industry is highly competitive, with many manufacturers competing for market share.

The stockfeed industry has over supply capacity, with Victoria having many operators competing for market share. Whilst feed demand has been increasing this has allowed companies to grow their market share in a rational manner. A decline in feed volumes will result in reduced operation profitability from higher levels of pricing competition as well as declining site efficiency from declining volumes. The industry will be forced to go through major restructuring with site rationalisation and closures.

This will result in reduced employment within rural and regional Victoria.

4. Competition for Tallow and Vegetable Oils

The stockfeed industry utilises tallow and vegetable oils in the formulation and supply of animal feeds. These raw materials are used due to their high energy content which allows higher energy feeds to be supplied to animals to increase animal performance and feed conversion efficiency.

The stockfeed industry has historically utilised lower grades of tallow and vegetable oils which are below that required for human consumption or industrial market applications, for example soap and cosmetic manufacture.

The advent of conversion of tallow and vegetable oils into biodiesel provides an alternate use for these raw material sources. This provides increased competition in the purchase and use of feed grade tallow and vegetable oils, with increasing costs for the stock feed industry in the purchase of these materials.

It is anticipated that the stockfeed industry will be forced to pay higher prices for the use of tallow and vegetable oils as these materials are used in biodiesel production.

5. Biofuel By-products

The production of biofuels results in by-products which can be utilised in animal feeding.

The by-product of using feed grains to make ethanol is distiller's grain - that has a yield of around 0.9 kg per litre of ethanol output. This by-product can be supplied as either wet distillers grain or dried distillers grains (DDG) to the feed industry.

The fermentation process removes energy by converting starch contained in the grain to ethanol. What is left are the by-products left from the fermentation process. Wet distiller's grains contain a combination of fibre, protein, minerals and yeast biomass. Cereal grains are primarily fed to animal's as an energy source, consequently the conversion of starch to ethanol results in a by-product which contains less energy than the original cereal grain.

Wet distiller's grain has a high moisture content (>75%) and is not in a form suitable for use within the commercial stockfeed industry. This material is unstable due to further fermentation and needs to be fed to animals within 1-2 days after production. Distiller's grains will primarily be utilised as wet product by feedlots and dairies in close proximity to ethanol plants. There is a low capacity to transport this wet material longer distances due to its low nutritional value as a wet product.

Installation of drying equipment provides Dried Distillers Grains (DDG) supplying 27-30% protein which has use in beef and dairy feeds. The product however has only limited application in feed use, this being in the order of 10-15% inclusion within cattle feeds. DDG acts as a replacement for other protein sources such as canola meal, lupins and peas. DDG is not a replacement for cereal grains.

The availability of DDG will be limited by the capacity of ethanol plants to dry wet distillers grains. The energy cost in drying is high and reduces the energy conversion of grain to ethanol. Consequently it is not anticipated that there will be significant quantities of DDG available to the Victorian stockfeed industry.

Although the potential supply of dried distillers grains is spoken of as being beneficial to the livestock and stockfeed industries, it is anticipated that this benefit will only be derived from dairy and feedlots operating close to ethanol plants which will utilise wet rather than dried by-product.

6. Mandated use

Whilst the stockfeed industry accepts the competition presented by the biofuels industry in the use of cereal grains for ethanol production and tallow and vegetable oils for biodiesel, this competition needs to be on an equal basis.

The SFMCA believes that the use of mandating ethanol inclusion within motor fuel provides an artificial demand for ethanol which will drive ethanol production beyond that which would occur under normal commercial arrangements. It is of concern to stockfeed manufacturers that the stockfeed industry operates within a non regulated environment, where customers are maintained and serviced based upon demand for feed. If there is not demand for ethanol then there should not be government intervention to mandate use.

Mandating ethanol inclusion in motor fuel will result in an artificial demand for cereal grains which will negatively impact upon the stockfeed and livestock industries. If government mandates the use of ethanol, the stockfeed industry would question why consideration should

not be given to mandating the consumption of animal products by Australian consumers? This would obviously drive up animal product demand and stockfeed required to feed these animals.

Whilst mandating inclusion of ethanol in motor fuel may be viewed as being necessary to force petrol suppliers to buy ethanol, the SFMCA would question why commercial reality should not be left to drive this change. As world oil prices and motor fuel derived from these sources increase in cost, there will be a natural increase in the demand and value placed upon alternate fuel sources such as ethanol. It should be left to commerce to decide upon the supply of motor fuels containing ethanol rather than the community being regulated to force ethanol use.

It is stated that ethanol plants will not be built unless there is mandated use, the commercial risk being too great. This is no different to a stockfeed manufacturer committing to build a new feed mill for \$15-20M, the risk is taken that there will be sufficient demand to justify the mill construction and provide a return on investment. The stockfeed manufacturer has had no external entity defining that third parties must buy product from the new feed mill. It should be noted that over the last 10 years a number of new stock feed milling sites have been built with plant replacement value being in the order \$15-20M.

7. Export Value and Balance of Trade

In evaluating the cost to Australia of importing oil for production of motor fuel, there needs to be consideration of the relative cost in converting cereal grain to value added products.

The SFMCA questions whether the cost to convert cereal grain for ethanol production and the benefit derived is of lesser value than that derived from utilising the same grain to produce animal products which are being exported? The SFMCA contends that from the Victorian perspective, greater support should be given to the existing use of cereal grains in producing meat, milk and eggs for human consumption, rather than in diverting this grain to the production of ethanol for motor vehicles.

The Biofuels Taskforce to the Prime Minister (2005) in looking at this question only considered the benefits which may be derived from ethanol production without clear consideration of any negative impacts upon trade such as decline in exports of other rural products. The SFMCA contends that the Victorian Biofuels Inquiry must look at both sides of this debate, factoring in loss of export livestock products relative to the value of ethanol in replacing oil imports.

It is entirely feasible that Australia is better served to import ethanol from South America, this leaving Australia to value add cereal grains into higher value human food products which are exported from Australia. Whilst Governments look to artificially stimulate the biofuels industry, it should also be aware of the detrimental impact such actions may have upon other industries which are already delivering benefits to the Australian economy and community.

Based upon a higher moral and ethical dimension, is it appropriate that governments may intervene to mandate ethanol use, thus diverting cereal grain which can be used to feed animals for the production of human food versus producing ethanol for feeding cars and trucks?

Global grain stocks will be used where there is the greatest capacity to pay higher prices. For more affluent countries this will result in cereal grain being used in motor fuel, driving up global cereal grain prices. The losers in this scenario are the less affluent nations with the cost of importing grain supplies being driven up in cost and potentially becoming unavailable. The question for government's looking to foster the conversion of grain to ethanol is whether they are taking account of this moral question.

8. Industry Subsidies

If the conversion of cereal grain to ethanol is efficient, there would be no need for government to provide incentives to ethanol plants. Government assistance provided to the ethanol industry removes nearly all price disciplines – forcing livestock producers, other purchasers of grain and fuel consumers to bear the costs of the lack of viability of local ethanol production.

The stockfeed industry is proud of its history as operating with a free market without the call upon government for assistance in the form of subsidies, capital grants, reduction or elimination of taxes and particularly no mandate on customers being forced to purchase stockfeed. The SFMCA strongly objects to the benefits which may be provided to the biofuels industry, thus providing an unfair level of commercial advantage as this industry then competes in the sourcing of raw materials. As stated, the biofuels industry will result in increasing grain demand, there needs to be equal and fair competition in the market in the sourcing of this grain. The stockfeed industry does not want to see unfair competition which is assisted through government assistance provided to the biofuels industry.

9. Summary

The SFMCA opposes:

a. Any form of government assistance which encourages the construction of biofuel production facilities. Whether in the form of direct financial assistance or indirect benefits from supply of utility services, this provides an advantage to the ethanol industry which is a direct competitor to the livestock industries in the utilisation of cereal grains.

b. Mandating of ethanol inclusion within motor fuels. This provides an artificial demand for ethanol. The SFMCA believes that the use of ethanol within motor fuels should be driven by commercial forces and should not be dictated by government.

10. References

ABARE 2000 Ahmed, H. and Rodriguez, A., Projection of Regional Feed Demand and Supply in Australia ABARE and GRDC publication

ABARE 2003 Ahmed, H. and Connell, P., Feed Grains Future Supply and Demand in Australia ABARE eReport 03.21 prepared for the GRDC.

ABARE September 2005 Crop Report, ABARE Canberra

Commonwealth of Australia. 2005 *Report of the Biofuels Task Force to the Prime Minister*.
www.pmc.gov.au/biofuels

MLA 2004, Review Options to Reduce Feedstuff Supply Variability in Australia, Macarthur Agribusiness

Towards a Single Vision for the Australian Grains Industry 2005 - 2025, Grains Council of Australia. http://www.grdc.com.au/bookshop/docs/strategic_plan.pdf

Victorian Stockfeed Industry Sector Plan 2005 – Victorian Stock Feed Manufacturers Association of Victoria.

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