SUBMISSION BY

STOCK FEED MANUFACTURERS' COUNCIL OF AUSTRALIA & STOCK FEED MANUFACTURERS' ASSOCIATION OF QUEENSLAND

Stock Feed Manufacturers' Council of Australia

Stock Feed Manufacturers' Association QUEENSLAND

TO THE

QUEENSLAND BIOFUEL MANDATE

JULY 2015

SUBMISSION BY THE STOCK FEED MANUFACTURERS' COUNCIL OF AUSTRALIA AND THE STOCK FEED MANUFACTURERS' ASSOCIATION OF QUEENSLAND TO THE QUEENSLAND BIOFUEL MANDATE DISCUSSION PAPER

Submission Summary

- **SFMAQ and SFMCA strongly objects to the Queensland Government introducing a biofuel mandate.**
- **The premise that "Queenslanders will continue to have a choice in what fuels they use" is false and extremely misleading, when the entire concept of introducing a mandate is to make ethanol use compulsory for fuel consumers.**
- **Queensland has a limited grain production capacity which is unable to meet existing grain user demand. Cereal grains have to be brought into Queensland from other states to meet existing demand.**
- **Expansion in ethanol production will have a significant negative impact on the Queensland livestock industries.**
- **The ethanol and biofuels industry must operate in a free market without government incentives such as mandated use.**
- **The ethanol and biofuels industry have had Government support through the exemption of the Fuel excise program. The ethanol and biofuels industry already benefit by 38.14 cents per litre over both regular petroleum fuels and imported ethanol.**
- **Mandated ethanol use will artificially distort grain demand and prices.**
- **Livestock industry costs of production will increase and many producers viability will be threatened. Queensland will see a decline in beef feedlot, poultry, pig and dairy production as access to cereal grains is an essential cost component for these industries.**
- **Government mandates for ethanol inclusion within motor fuel will result in more frequent years when Queensland will run out of grain to meet domestic market requirements.**
- **Neither wet distiller's grains nor DDG will not provide significant volumes of raw materials which can be used by either the stockfeed manufacturing industry or the established livestock producers within Queensland. The volume utilised will be far less than the grain volumes diverted into ethanol production.**
- **Queensland support for mandated ethanol use will have a greater negative impact on Queensland agriculture than other Australian states.**
- **Government intervention in driving ethanol demand is a major barrier to the development of advanced (second generation) biofuel production technologies.**
- **There is an exaggeration of potential employment benefits from mandating biofuels, with new jobs being more than offset by declining livestock employment and intensive animal production being forced interstate.**
- **Ethanol production is dependent on the use of antibiotics to control the fermentation process. This adds to concerns relating to industrial use of antibiotics and microbial resistance and residues supplied with by-products.**

IDENTIFICATION

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

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. Within Queensland the vast majority of feed manufacturers are members of the Stock Feed Manufacturers' Association of Queensland.

In Queensland our member companies manufacture over 1,000,000 tonnes of animal feeds annually, the major ingredients of which are cereal grains, together with protein meals, oils and other raw materials.

The Queensland 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 Queensland, 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 throughout Queensland, there is however a greater volume concentration within the Darling Downs and Brisbane regions. Feed mills supply to livestock producers feeds for poultry, pigs, cattle, sheep, horses, aquaculture and various other animal species.

SUBMISSION

The content of this submission seeks to address the range of issues relating to the Queensland biofuel mandate.

The potential mandated targets for ethanol and biofuels will have both direct and indirect impacts on 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 Queensland.

Implementation and Consultation Process

The SFMCA disagrees with the decision being made to implement a biofuels mandate. There was no prior consultation with industry with respect to this decision and we believe this has been made without adequate considerations of regulatory impacts and financial modelling. It would seem illogical, that a government decision has been made without the completion of a full life cycle assessment being carried out on the production process and carbon impact of grain based biofuels.

The discussion paper identifies that "Government will consult widely with stakeholders on implementation issues associated with the mandate". We question why there has been no stakeholder consultation prior to the decision to implement a biofuels mandate?

Mandated Ethanol

This submission focuses on the use of cereal grains in the production of ethanol and its mandated inclusion within motor fuels.

1. Existing Grain Use in Animal Feeding

The livestock industries provide the greatest demand for raw materials within Queensland. 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, sorghum, maize, 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.

The supply of animal feeds to Queensland 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 15-20 years. There have been a number of reports which have identified the increasing demand for feed grains in Australia and Queensland.

1995 Feed Grains Study - Myers Strategy Group
1997 Strategic Options for Development of a Strong Feeds Grains Industry in Queensland – Queensland 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
2008 Benefit to Australian Grain Growers in the Feed Grain Market - Grains Research and Development Corporation
2009 Feed Grain Update Report – Feed Grain Partnership
2010 Feed Grain 2010 Update Report – Feed Grain Partnership
2012 Feed Grain 2011-12 Update Report – Feed Grain Partnership
2014 Australian Feed Grain Supply and Demand Report 2013/14 – Feed Grain Partnership
2015 Australasian Livestock Feed Report – Mike Darby International

The take home messages from all of these reports is that in Queensland:

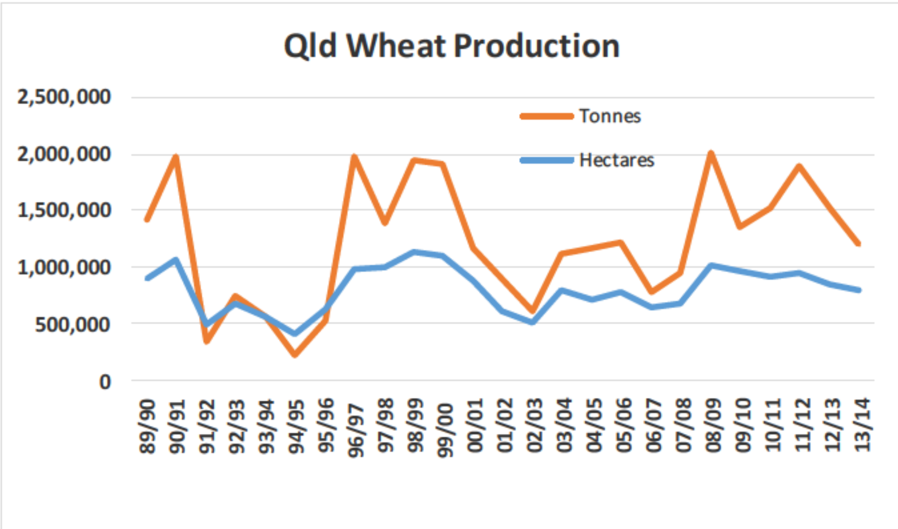
- Grain demand from livestock production has been increasing
- Demand has outpaced grain production
- Grain growers have no demand limitation
- Queensland domestic grain prices paid by end users in most years exceed export parity pricing

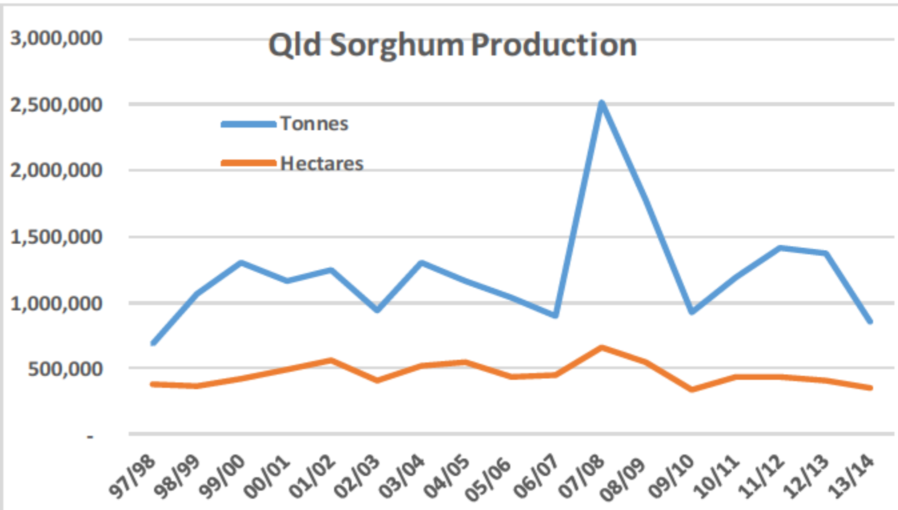
- Queensland grain prices already exceed those paid in other Australian states
- Queensland is reliant on bringing grain into the state from other states to meet demand

Queensland feed use has increased to be 3,354,000 tonnes in 2014 (FGP report). **As the Queensland demand for cereal grains has increased, there has not been an equivalent increase in the supply of cereal grains within Queensland.** Under a normal season, Queensland is now in the position that there is insufficient cereal grain grown to meet the demands of the domestic wheat flour milling, barley malting and animal feeding industries. During poor cropping seasons there are large volumes of cereal grains which are required to be brought into Queensland from NSW and in poorer cropping years from Vic, SA and WA. In the past 20 years grain has been imported into Brisbane in 1994/95 from the USA corn and sorghum and in 2002/03 USA corn and UK wheat.

The unreliable supply of cereal grains within Queensland is illustrated within Figures 1 and 2, with poor seasons reducing grain production in 1994/95, 2002/03 and 2006/07. During these years there is insufficient production to supply Queensland livestock, without any grain being used for human flour milling and barley malting.

Figures 1 & 2. Queensland Wheat and Sorghum Crop Production



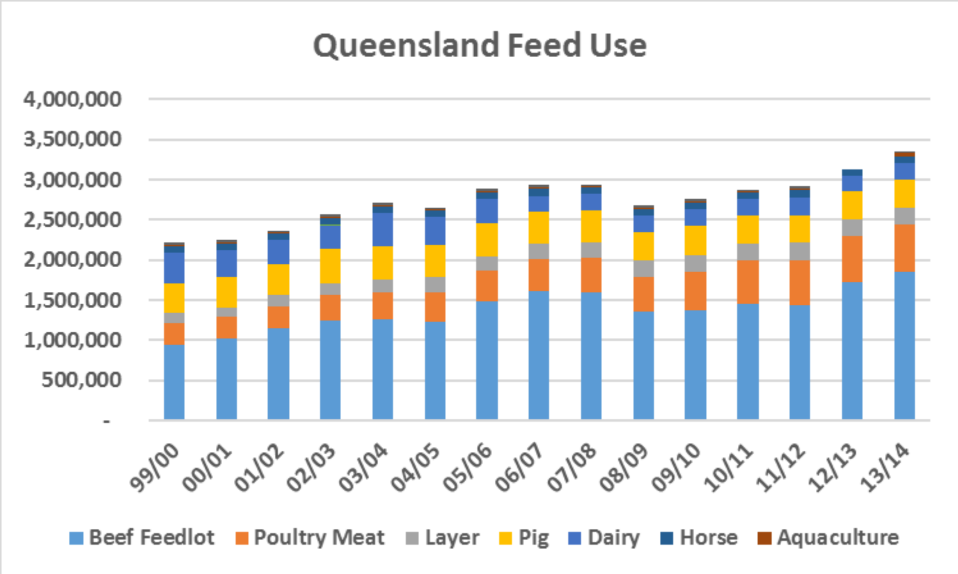


Source: ABS and ABARE Crop Reports

The area sown to wheat and sorghum in Queensland is seen in Figures 1 and 2 to have not increased, this even being with the state experiencing the highest grain prices within Australia. Increasing grain production is not limited by end use demand or price. Queensland wheat and sorghum yield per hectare has not shown any significant increase over the last 20 years.

In contrast to the static grain production volumes, grain demand from the domestic livestock industries has been increasing as shown in Figure 3. Over the fourteen year period 1999/00 to 2013/14 feed use has increased by 52% or an average 3.7% per year.

Figure 3. Livestock feed use in Queensland



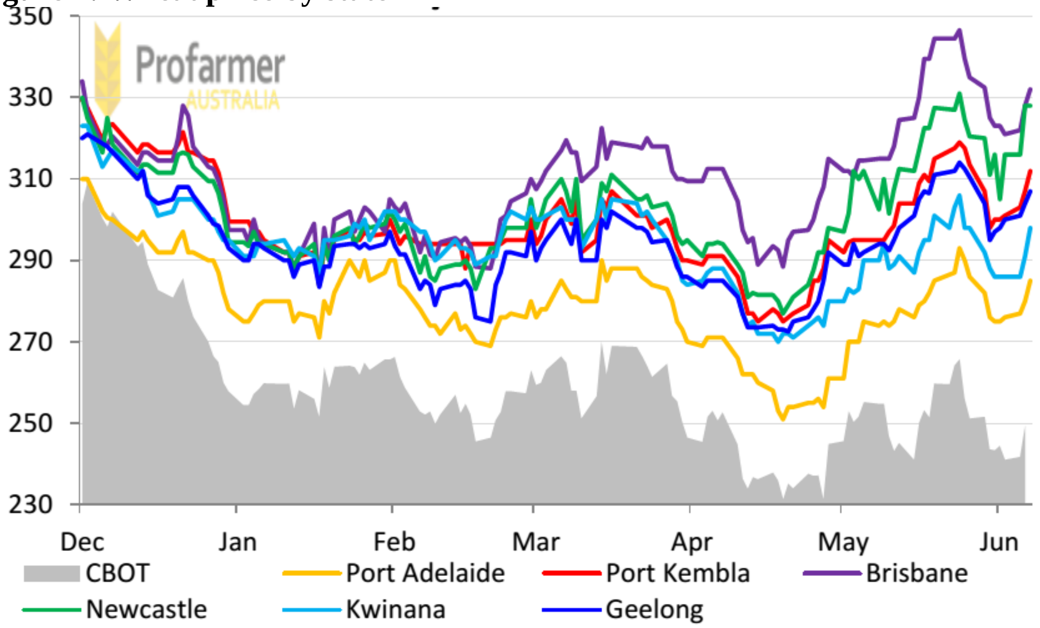
Source: JCS Solutions

The beef feedlot and chicken meat industries are the major grain users, followed by pig, egg and dairy production.

SFMCA Position: Queensland has a limited grain production capacity that is not growing and is unable to meet existing grain user demand. Cereal grains are brought into Queensland from other states.

Queensland livestock industries pay higher grain prices than producers in other states (Figure 4). This trend has been in place for many years and highlights to supply gap being experienced and need to freight grain from southern states to meet feed demand.

Figure 4: Wheat price by state



Source: Profarmer

2. 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 from 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 are direct competitors with the stockfeed industry for the supply of lower cost feed grains. The SFMCA holds the view that government regulations should not favour conversion of grain to fuel in preference to food. Mandating fuel above food production is poor policy!

The US market is the most developed in terms of conversion of cereal grains to ethanol and it is from this market that Australia should be looking to gain valuable information relating to the effects of ethanol production on other agricultural industries. The USDA released in May 2007 a report entitled "An Analysis of the Effects of an Expansion in Biofuel Demand on U.S. Agriculture", the SFMCA draws the following key points from this USDA report:

- Increasing ethanol production increases the demand for corn and raises corn prices.
- Pig, poultry and dairy livestock production are reduced due to higher grain costs. Beef production higher costs are offset by access to ethanol by-products.
- Meat and milk prices need to increase to compensate for increased corn prices, this pushing up the consumer price index.
- Due to tighter grain stocks as demand increases, any adverse weather heightens market adjustment and the negative impact on corn prices and livestock production.

Within the US, the biofuels industry previously argued that there was an ample surplus corn stock to satisfy both their domestic feed markets and an expansion in ethanol production.

This same argument is used in Australia, with biofuel proponents stating that Australia has surplus grain which is exported. The experiences which can be learnt from the US and can be translated to Australia are that an ethanol industry based on use of cereal grains will:

- Increase cereal grain prices
- Increase cost of production for beef feedlot, pig, poultry and dairy producers and result in reduced production from these industries.
- Either increase prices for meat and milk paid by consumers, this pushing up the CPI or alternately further reduce the profitability of the livestock industries.
- Reduce exports of meat and milk products as Australia is less competitive and favours imported foods which can be produced at lower cost.
- Increases Australia and Queensland’s exposure to adverse weather, seen in droughts.

SFMCA Position: Expansion in ethanol production will have a significant negative impact on the Queensland livestock industries.

3. Free Market Pricing

The stockfeed industry operates within a free market, with access to Australian raw materials and sale of stockfeed not being restricted through government enacted industry support mechanisms. Stockfeed manufacturers currently compete with a number of alternate end users in terms of sourcing cereal grains, these being:

- International markets where major grain accumulators and marketers source grain for export to overseas market destinations.
- Domestic flour mills purchasing milling wheat for human flour and industrial uses.
- Domestic Malting companies sourcing malting barley.
- Livestock farmers mixing their own feed on farm.
- Other stockfeed manufacturers.

Due to the large size of the Queensland feed industry, relative to the cereal crop produced, there is intense competition for cereal grains. Queensland grain growers have no shortage of outlets to sell their crop. The market operates within a deregulated environment, with end use market demand and crop supply determining commercial pricing.

SFMCA Position: The SFMCA argues that the ethanol and biofuels industry should operate in a free market without government incentives such as mandated use. Every livestock producer and feed manufacturer would welcome government intervention to mandate the consumption of meat, milk or eggs by Australian consumers. These industries have however had to survive within a free market without the assistance of government. The SFMCA believes that conversion of grain to ethanol will occur if it is economically viable and objects to government intervention which artificially creates a demand.

Australian ethanol manufacturers already receive enormous government assistance through being exempt from the fuel excise payment. This favour locally produced ethanol fuel by 38.14¢ per litre, making it more competitive against both regular petroleum fuels and imported ethanol, both of which attract the full 38.14¢ excise. The SFMCA argues that the biofuels industry is already heavily subsidised and it needs to operate in a open market free of government imposed market distortions.

The SFMCA strongly argues that the mandated inclusion of ethanol in motor fuel will result in a distortion within the Australian and Queensland agricultural industries. The recognition from the USA is that expansion in ethanol production capacity, which has been driven by government financial incentives and mandated use, has resulted in significant increases in corn and soybean prices. This has occurred even though many expert reports had projected that due to the US large corn surplus there would be little impact upon domestic US corn prices.

Implementation of a mandated inclusion of ethanol will create an artificial demand for ethanol, this requiring the conversion of large volumes of cereal grain into ethanol. This artificial demand will result in significant increases in cereal grain demand. Of all the Australian states, Queensland will be most significantly impacted as there is already no surplus of cereal grains grown. Whether ethanol production capacity is commissioned in Queensland or other states, the end result will be an increased draw on cereal grains.

SFMCA Position: Mandated ethanol use will artificially distort grain prices.

4. Grain Supply Security

Australia has seen increasing variability in cereal grain production capacity. While the cause of this variability could be debated, what is apparent is that as a country there is less security in grain supply from year to year. Under extreme drought conditions, Australia currently has the ability to reduce cereal grain exports and preserve grain stocks to meet the domestic market's needs. This capacity is however becoming more difficult as domestic grain demand is increasing and grain production is less reliable.

The dilemma for Australian grain end users is the increasing frequency of drought and crop volume decline. With increasing domestic grain demand, the potential for Australia to physically run out of cereal grains increases.

Decisions made by State Governments to mandate the inclusion of ethanol in motor fuel will place further demand pressure on Australia's limited grain production capacity. Where Australia can currently reduce grain exports to preserve stock for the domestic market, a significant jump is cereal grain use through ethanol production will result in more frequent years when Australia will run out of grain and will require grain importation.

The Queensland government should not assume that ethanol production from grains will be supplied from within Queensland. If the mandate proceeds, it is economically more viable to build ethanol plants in NSW where grain is in greater supply and transport this ethanol to Queensland. The lowest cost ethanol source is South America and if the fuel excise rebate was not in place, Australian production of ethanol from grain is not viable against imported ethanol.

SFMCA Position: Government mandates for ethanol inclusion within motor fuel will result in more frequent years when Australia will run out of grain to meet domestic market requirements.

5. Reduced Livestock Industry Viability

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

Cereal grain supply and pricing has become the essential component in the production of livestock, limited cereal grain availability and higher prices places these livestock industries under greater pressure. In particular the beef industry recognises the potential decline in meat production which results from lower feedlot viability. A significant shift in grain supply to ethanol production will result in a decline in livestock production as enterprise viability declines.

As grain prices are forced higher due to diversion of cereal grains to ethanol, Queensland will not be a state within which livestock producers will seek to expand production. Queensland is already losing new developments in the chicken meat and pig meat industries to South Australia and Western Australia as Queensland is seen as a more expensive location to produce meat due to the shortage of feed grains and higher prices required to purchase feed grains. The introduction of mandated ethanol will place further pressure upon intensive livestock production with a loss to the Queensland economy in export revenue, capital project investment and employment within regional and rural areas.

SFMCA Position: Livestock industry costs of production will increase and many producers viability will be threatened. Queensland will see a decline in poultry, pig and beef production as access to cereal grains is an essential cost component for these industries.

6. Employment Boost Exaggeration

Through participation at the public forums, we note that job creation is one of the Qld Government's major focus and that the biofuels mandate is being promoted as a means of delivering jobs growth. . We argue that any growth in jobs in the biofuels industry will be more than offset by job losses in the livestock and stock feed manufacturing industries. Diverting grain to fuel makes Qld livestock production less viable and there will be job losses as intensive livestock production moves to states providing greater grain availability and lower prices.

SFMCA Position: There is an exaggeration of potential employment benefits from mandating biofuels, with new jobs being more than offset by declining livestock employment and intensive animal production being forced interstate.

7. Ethanol By-product Facts

The proponents of ethanol plants quote benefits that will be delivered to the animal feed industries through the supply of by-products. SFMCA wishes to address a number of these false and sometimes misleading statements:

1. Can the stockfeed industry use wet distiller's grains?

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 its need 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, these being located within grain production areas. There is a low capacity to transport this wet material longer distances due to its low nutritional value as a wet product.

Although the potential supply of wet distiller's 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.

2. Can dried distiller's grains (DDG) be readily used within pig and poultry feeds?
With reference to the USDA, it is identified that "ruminants assimilate the nutritional value of DDG much more easily than monogastrics". This report identifies that US DDG is used 80% for beef cattle, 10% for dairy and only 5% for pig and poultry feeding. Thus even within the US where there is ample availability of DDG, it is not supplying the intensive pig and poultry industries with large volumes of raw material relative to their use of cereal grains.

3. Can DDG replace grain within animal feeds?
DDG is a source of protein, fat, fibre and minerals. Within animal feeds, DDG largely replaces other protein sources such as canola meal, soybean meal and pulses. Cereal grains are still required for their supply of energy in the form of starch.

4. Is DDG a high quality feed source for animal feeding rich in protein and energy?
Based on both the Australian and USA commercial experiences, DDG quality is highly variable and varies between and within production facilities. Over processed heat damaged DDG has a low digestibility. For pig and poultry feeding DDG protein digestibility is lower than other protein sources and so has limited application. For beef feedlot cattle, cereal grains are ideally suited due to their high starch and energy content. The requirement for additional protein, supplied from DDG , is considerably less valuable than grain.

SFMCA Position: Neither wet distiller's grains or DDG will provide significant volumes of raw materials which can be used by the stockfeed manufacturing industry. The volume utilised will be far less than the grain volumes diverted into ethanol production.

8. Antibiotic use in ethanol production

The biofuels industry in fermenting cereal grains to ethanol rely on the use of antibiotics to control the fermentation process. The use of antibiotics in animal and human health is very tightly controlled through the APVMA and prescriptions from doctors and veterinarians. It is our understanding that antibiotic use in fuel production falls outside existing Australian regulatory controls and there remains a significant gap or weakness in their use.

There remains global concerns with issues relating to antibiotic resistance as well as potential residues occurring within by-products sold by the ethanol plants. The FDA identifies on going antibiotic residue presence in DDG in the USA;
http://www.fda.gov/AnimalVeterinary/Products/AnimalFoodFeeds/Contaminants/ucm300126.htm

We believe this remains a major issue that has largely been ignored by government regulators. The Qld government policy to mandate biofuels will result in greater antibiotic use within industrial processing, with residues of these antibiotics being supplied within by-products.

SFMCA Position: Ethanol production is dependent on the use of antibiotics to control the fermentation process. This adds to concerns relating to industrial use of antibiotics and microbial resistance and residues supplied with by-products.

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