

fifth quarter

DECEMBER 2004



Introducing Stewart McGlashan - Manager Environment and Co-Products

Dr McGlashan recently joined MLA from the University of Queensland where he was a senior research fellow in biomaterials. Stewart received his PhD, entitled "Elongation Rheology of Polymers", from the University of Queensland in 1998. He then spent a year as a post-doctoral fellow at the Department of Chemical Engineering, McGill University, Montreal, Canada, before being enticed back to Australia by the Cooperative Research Centre for International Food Manufacture and Packaging Science as a research fellow in starch based biodegradable plastics. A major outcome of Stewart's research was an economically viable starch-based plastic. This invention was developed with a start-up company called Plantic Technologies into a commercial product that was launched in November 2003.

One of my first tasks as manager of the co-products program was to visit research centres in the US. The purpose of the trip was to assess the value of the Australian industry

partnering in projects with the new Animal Co-products Research Center being established at Clemson University. I was impressed by the extent of co-products research being conducted at Clemson, as well as the USDA laboratories in Wyndmoor, Pennsylvania, and MLA will certainly look at collaborating in the research programs if there is an advantage for the Australian industry.



During the trip I also joined Andy Bennett of Talloman and Graeme Banks of the Australian Renderers' Association (ARA) at the annual meetings of the Fats and Protein Research Foundation and the National Renderers' Association (NRA). Andy is the current president of the World Renderers' Association (WRA) and chaired the WRA annual meeting held in conjunction with the NRA meeting.

Rendered product to China

World trade in co-products – including offal, tallow and meat meal – is under pressure over health and hygiene concerns, as can be seen in the exclusion of countries that have had cases of BSE from most markets for co-products.

A key objective of MLA's co-products program is the investigation of alternative uses for co-products, in recognition of the threat of losing traditional uses. However, MLA also recognises that the traditional uses of co-products are likely to provide the best returns to the meat industry and should be protected.

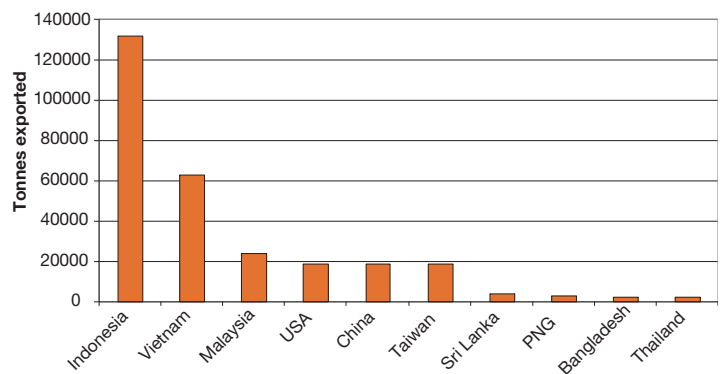
Meat and bone meal

Meat and bone meal (MBM) is under the biggest threat of losing traditional markets and, in collaboration with the ARA, MLA has held technical workshops to protect the uses of MBM in animal feeds in overseas markets. The ARA identified China as the best market to target and workshops were conducted in Qingdao and Shenzhen in June this year.

Currently no MBM is exported from the EU and US and Canada cannot get access to most markets. This means that Australia has taken advantage of increased opportunities to export MBM and in 2003-04 exported 290,000 tonnes of

MBM – about 50% of production. (Figure 1 shows the destinations for Australian MBM in 2003-04.)

Renderers in Europe, Canada and the US all expect to regain access for their product on international markets. This would lead to a potential increase of over one million tonnes of MBM available on the international market, which could make it difficult for Australia to find a home for its typical annual export volume of 200,000 tonnes.



Source: Australian Bureau of Statistics

Figure 1: Major destinations for exports of MBM in 2003-04

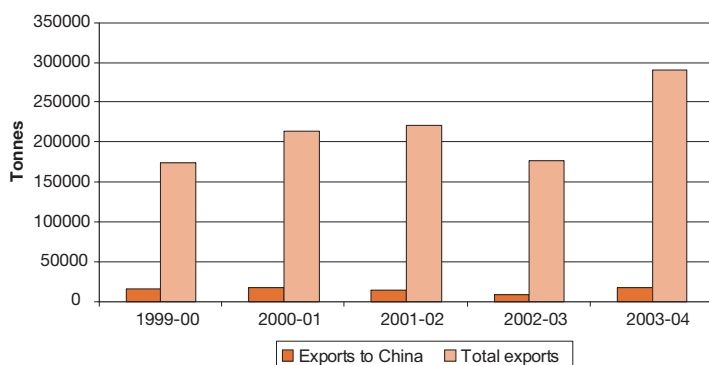
With this in mind, the ARA and MLA agreed that the Chinese market for MBM should be further developed by building relationships between suppliers and buyers. This should result in demand for Australian meat meal being retained if other origin meals come back on the market. The two MLA/ARA workshops conducted in China were the first step in this process.

There is a huge potential market for MBM in China. In 2003, four billion chickens were slaughtered to produce nine million tonnes of carcass meat. It would take about 25 million tonnes of feed to produce this amount of poultry meat and at a modest inclusion rate of 4% of MBM in rations, the Chinese feed industry could use one million tonnes of MBM per year for broiler production alone. In practice, China imports about 180,000 to 280,000 tonnes of MBM.

China is about the fifth biggest market for Australian MBM with annual exports to China of 9–19,000 tonnes. This is about 6 to 10% of total imports of MBM into China.

Figure 2 shows exports to China compared with total exports of Australian MBM for the last five years.

While there is a large potential market for Australian MBM in China, exporters have preferred to supply Indonesia and a rapidly growing market in Vietnam where prices are higher. The Chinese market could become more important to Australian exporters since Indonesia has announced it will only accept porcine-free MBM. China could be a useful alternative market for renderers who produce mixed species MBM.



Source: Australian Bureau of Statistics

Figure 2: Exports of Australian meat and bone meal to China compared with total exports

MBM workshops

One of the objectives of the China workshops was to provide technical information on how to use MBM in poultry, pork and aquaculture feeds. Much of the information came out of a compendium of MLA program outcomes, *The Australian Meat and Bone Meal Nutritional Technical Review*. The workshops concentrated on some specialised uses of MBM including aquaculture and weaner pig feeds.

The technical information was presented by Ken Bruerton of Protea Park Enterprises and Leong Wee of Kemin. Ken is a leading Australian nutritionist who specialises in poultry and pig production and Leong is a highly experienced aquaculture nutritionist.

Other speakers were Paul Stenzel, President of the ARA who gave a presentation about Australian MBM production and Mark Schipp, the Australian agricultural attache in Beijing who spoke about the health status of Australian products. The program was facilitated by Leith Tilley from MLA's Beijing office.

In addition to the speakers, 15 representatives of Australian companies took part in the workshops providing samples of MBM for distribution to the delegates.

The two workshops were attended by 129 delegates from Chinese feed companies. There were 98 people at the Qingdao workshop and 31 at the Shenzhen workshop.

The workshops created added awareness of Australian MBM and Ken Bruerton's presentations illustrated the economic advantages of using MBM in pig and poultry rations. A major issue however for Australian renderers is the ability to supply such a large market. Some of the feed mills use 4,000 to 5,000 tonnes of MBM per month and place orders in 1,000 tonne lots. It is difficult for Australian exporters to supply this quantity of MBM from a single supplier and orders may be made up of containers from several suppliers. This gives the perception that Australian product is inconsistent but, as with many commodities, product from individual producers is consistent while product is not necessarily consistent between producers. Australia's smaller rendering plants put us at a disadvantage to the US and Europe whose larger plants allow renderers to supply larger quantities of MBM from single producers.

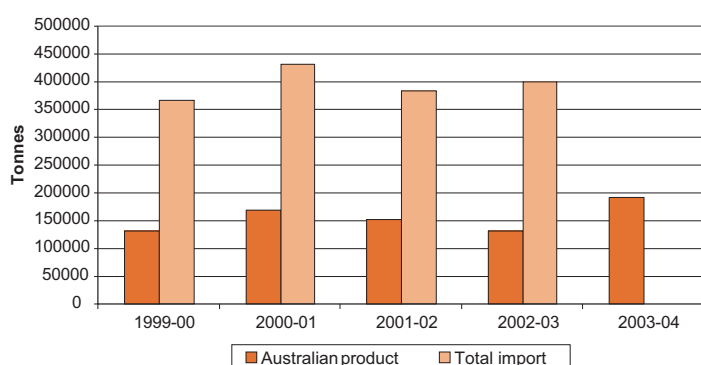
To overcome this problem, Australian exporters are looking at forming relationships with smaller feed mills that may have requirements for specialised MBM, for example to use in aquaculture or weaner pig feeds. If renderers can match their product to the requirements of particular buyers they can look forward to some excellent opportunities in China.

As a first step in following up the China workshops, the ARA is hosting a delegation of representative from Liuhe, one of the largest feed companies. The delegation will visit rendering plants, feed mills and research facilities in Australia. The trip is hoped to create further demand for Australian MBM in China.

Tallow

China is already the major market for Australian tallow and Australia is China's main supplier. Figure 3 shows imports of Australian tallow into China compared with total imports. Most of the Australian tallow exported to China is for soap manufacture. However the workshops identified a possible additional market for tallow in animal feed.

The US has already established a large market for feed grade tallow in China and exported over 50,000 tonnes to China in 2003. US tallow has since been excluded from the Chinese market and there could be an opportunity to develop the Chinese market for feed grade tallow.



Source: Australian Bureau of Statistics and FAOSTAT data 2004

Figure 3: Total imports of tallow into China and imports of Australian product

Pet food workshop

Co-products earn the most valuable returns when used as human food and, of the mainstream uses, the second best return is earned from use in pet food. The total quantity of co-product used in pet food, however, is relatively small. Around 7% of the total production of meat and bone meal and 5% of tallow is used in pet food compared to about 100,000 tonnes of fresh red meats (half the amount of chicken products). The MLA report on the dynamics of the Australian pet food industry (described in the June issue of *Fifth Quarter*) identified research projects that could increase the use of meat products in pet food. Following the release of this report MLA conducted a workshop on meat-based ingredients and the pet food industry.

The workshop was designed to bring together the pet food and meat industries to build awareness of the needs and priorities across the two sectors, encourage discussion of concerns and opportunities relevant to the two sectors and identify specific partnership opportunities for future development.

The keynote speaker was Nancy Cook, Vice President Technical and Regulatory Affairs of the Pet Food Institute of the USA. Nancy spoke about the global issues and trends in pet food.

The statistics of the US pet food industry are staggering. There are 75 million cats and 60 million dogs in the US with 55% of all households having either one or the other. The US accounts for 38% of world pet food sales to the value of \$12 billion. Australia accounts for about \$1 billion or 2% of the world pet food market. The major trend in the industry is the decrease in wet pet food production and an increase in the production of dry pet food. The growth in the pet food market is expected to be 3–4% per year in the next few years. In Australia the growth is occurring in the premium and super-premium products.

While Nancy's presentation painted a comprehensive picture of the pet food industry in the US, the workshop discussion focused on Frank van Doore's report on the dynamics of the industry and the areas of research interest listed in the report. Participants at the workshop confirmed the conclusions of the report that research into the use of meat products in pet food should focus on high palatability meat-based digests for extruded products, high quality meat meals and meat-based flavour systems.

During the discussion sessions it became clear that the use of meat-based ingredients in pet food is inhibited by contamination of wet and dry ingredients, ie offal and meat and bone meal with plastic and metal.

Following further discussions between Dr Lewe Atkinson of MLA and the Pet Food Industry Association of Australia, MLA will conduct a study to assess the extent of contamination of pet food ingredients and consider the feasibility of conducting further research in conjunction with industry into preventing or removing contamination.

Presentations made by Lewe Atkinson and Nancy Cook at the meat-based ingredients and the pet food industry workshop are available on CD from Heidi Philpott on 02 9463 9166 or email hphilpott@mla.com.au.



Dr Lewe Atkinson of MLA introduces Nancy Cook at the Meat-based ingredients and pet food workshop

Co-products prices ease

The last three months have seen co-products prices ease, although excellent returns are still available for Japanese offals including tongues and thick and thin skirts.

Prices of Japanese offal fell in July, August and September as the demand weakened following the end of the summer barbecue season. There is also speculation that US product may be allowed back into Japan and traders are reducing stockpiles in case cheaper US product becomes available.

Liver prices have been increasing due to strong demand from Russia and Egypt and lungs and heart have been steady. Cheekmeat, headmeat and lips have been weaker in the last couple of months but cheekmeat and headmeat in particular have been at relatively high prices following the trend in prices for 90CL boneless beef. Tripe prices have also been weaker since Malaysia and China both announced restrictions on imports of offal and US product resumed access to the tripe market in Mexico.

Rendered co-products have also been weak although tallow prices have recovered well following poor trading conditions in June when a lack of export and domestic demand saw storage facilities in Australia fall. Domestic demand has recovered but export demand for tallow is weak due to low prices for palm stearine. Palm stearine has been below US\$400 per tonne since June and with the increasing value of the A\$, tallow has struggled to get above A\$500 per tonne.

Meat and bone meal prices have been firm at close to \$500 per tonne from March through to August with strong demand on export markets, particularly from Indonesia and Vietnam. The price of soy meal however has fallen dramatically in the last three months. In the US, 44% protein soy meal has fallen from almost US\$350 per tonne in July to US\$135 per tonne in October. With a strong A\$ and weak competitor commodities, tallow and meat and bone meal prices are expected to be weaker in the immediate future.



MLA publishes quarterly reports on prices for a detailed range of Australian co-products and provides market commentaries. An annual subscription is \$60 for MLA members or \$120 for non-members

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