



RENDERING CIRCLES

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AUSTRALIAN RENDERERS ASSOCIATION INC. PO BOX 390 BAULKHAM HILLS 2153

TEL: 612 9686 3119 FX: 612 9686 3303

Asian meltdown hits export sales

THE EXTREME VOLATILITY sparked by the economic nosedive in Asia has taken its toll in the market for rendered products - especially Meat & Bone Meal (MBM). In a season where production has been boosted by high slaughter numbers in both Northern and Southern Australia, reluctant sellers have followed prices down as export sales to our second largest market - Indonesia - collapsed.

Stocks of MBM which accumulated in the later part of last year in the hope of firmer prices added to earlier price volatility. Most of that stock has now been cleared - at a price. Current prices mean the market is now trading at less than 50% of its value just six months ago.

The collapse of the Indonesian market means MBM sellers are now looking for new markets for 60,000 to 70,000 tonnes Australian product. With other major suppliers, the US and New Zealand, this means new destinations are now being sought for a total 200,000 tonnes of MBM.

Japan provides the only significant alternative and Australian suppliers will need to work hard to gain additional market share against US suppliers who rely on export subsidies to tilt the balance in their favour.

One positive has been the fall in the Australian dollar of recent months which has certainly helped Australian suppliers against their US competitors.

Australian slaughter figures continue to run at very high rates because of the dry and hot conditions in

Hong Kong poultry imports resume

Hong Kong resumed poultry imports from China in mid February following the shutdown in December in the wake of the 'bird flu' scare. The first of the resumed shipments, from the Guandong province, were checked carefully by WHO officials and declared disease free. Blame for the outbreak is now being directed at unsanitary conditions in the Hong Kong markets and in the 200 poultry breeding establishments in Hong Kong, none of which has been able to satisfy government hygiene requirements.

Fears that the 'bird flu' would turn into a global pandemic have not been realised and US researchers announced in mid January that they have identified the structure of the virus as a prelude to formulating a vaccine. Six people died from the infection which led to the slaughter and incineration of all poultry in Hong Kong and the temporary close of live poultry imports from China. Other countries including Japan also suspended imports of Chinese origin poultry products.

Southern Australia and one of the best wet seasons for many years in the far North. Slaughter numbers are expected to remain high in the short term but could ease in Southern Australia if an effective Autumn break is seen. However, if the break is later or less effective than hoped for a lot of cattle producers will opt to sell cattle for slaughter rather than feed them through a second, indifferent winter.

In these conditions the short term outlook holds little optimism for MBM producers looking for better returns from an oversupplied market. Any gains in market development will obviously help that imbalance and will stand the industry in good stead in the longer term.

TALLOW sales have been less affected by Asia's economic woes given the wider spread of export markets which include the Indian sub-continent, China, the Middle East and African countries.

Prices have moved over the early weeks of the year but this has been less dramatic than with MBM due to more favourable fundamentals for supply and demand. The US continues to be a challenging competitor in export markets as it looks to place by-product from a season where strong US beef sales in domestic and export markets has boosted slaughter numbers.

Tallow prices have also been helped by the generally strong market for all edible oils.

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The World, Renderers and the Australian Renderers Association

ONE OF THE CHALLENGES FOR THE ARA is to predict international trends in regulations so we can be prepared and if possible use change to our advantage - proactive rather than reactive!

The BSE issue (mad cows and all that) seems distant from us here in Australia because we don't have the disease. In the UK however, this disease has caused huge economic costs for the beef and rendering industries. Meat and bone meal has become worthless and is being stored until authorities decide on its safe use. Tallow is also implicated but at least it can be burned as a fuel or used for industrial purposes.

As a result of the BSE outbreak and its linking to the human form of the disease Cruetzfeldt Jacob Disease (CJD) the European Union (EU) has been developing new standards for rendered products involving severe heat treatment and server restrictions on the use of the products.

What is frustrating for the major rendered product trading nations (Australia is No 2 after the US) is the implication that we may also be expected to comply - even though we don't have these so called animal TSE diseases.

This was a major feature of the NRA convention in Tucson, Arizona, in November. John Aird attended, addressing the convention as Vice President of the Australian Renderers Association.

Our contention has always been that while Australia meets international OIE guidelines for declaring freedom from these TSE diseases, it is unnecessary to comply with conditions which are designed for countries known to have problems.

The NRA convention had over 450 delegates representing a large number of countries (Europe, South America, US and Canada). There were many opportunities for personal interaction with other renderers as well as an international round table discussion.

This was yet another opportunity to make our point - the end result was that the NRA will sponsor an international meeting in early 1998 to develop guidelines for international rendering standards - based on risk assessment. It will also attempt to focus TSE research so that diagnosed tests and methods of treatment can be defined.



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UK Food Safety Agency

As a direct result of the problems associated with BSE the UK government has released a white paper which calls for the establishment of an independent food safety agency to set and monitor controls of BSE, guide standards on animal feeds, set food labelling standards, and guide and regulate other aspects of public food policy.

The agency is expected to take several years to become fully established and will cost around £100 million annually to operate. The white paper proposes passing that cost on to industry, a move which has been strongly criticised by food industry groups but welcomed by others such as consumer groups and the British Medical Association which also sees this agency taking a lead in the battle against the unacceptable high incidence of food poisoning in the UK.

EU considers exemption to SRM ban

The EU Scientific Steering Committee has approved a plan which could exempt a number of countries - including Australia, NZ and the US - from the EU ban on Specified Risk Material (SRM) linked to the disease BSE.

This plan will allow the EU to assess BSE risk on a regional basis and was developed in response to concerns raised by major exporters (the US and Australia) as well as member states of the EU, notably Austria, Denmark, Finland, Germany, Greece and Spain.

Under the Committee's plan the degree of risk, based on geographic location, would be determined for each country claiming to be BSE-free. The starting point would be the EU Scientific Veterinary Committee which classifies the US "low risk", Australia "very low risk" and NZ "negligible risk".

Fats and Proteins Research Foundation (FPRF) news

Contributed by Dr Gary G Pearl, President FPRF

PRODUCT SAFETY AND CONSUMER IMAGE are established priorities for FPRF. Rendering has been a successful, proven and highly beneficial adjunct to the environment, ecology and animal agriculture economy for nearly one hundred years.

When used correctly in feeds, by-products have a proven place as valuable proteins and for sources of other nutrients in all types of livestock, poultry, domestic animal and aquaculture diets.

Even so, animal proteins more than other ingredient classes tend to be blamed for alleged or suspected negative effects.

The industry has strong, active programs in place to provide answers to our critics. This is consistent with the animal industries unified goal of being better and more efficient.

Several previous examples clearly dissociating animal proteins from disease include:

- at Purdue Uni., Dr Sutton failed to infect growing pigs with several serotypes of salmonella fed as either natural contaminants or as 'spiked' organisms;
- at Iowa State Uni., Dr Swantz was unable to establish a feed relationship to salmonella infected swine;
- the Swantz study also demonstrated the effectiveness of rendering in preventing transmission of swine pseudorabies (PRV) when both PRV infected animals and PRV virus were added to raw materials prior to rendering;
- at Wisconsin Uni., Dr Ashley Robinson failed to establish clinical illness or salmonella excretion in lactating dairy cows fed artificially contaminated MBM.
- a 1991 USDA study at Ames, Iowa, fed 24 steer calves with MBM 'spiked' with scrapie infected brain tissue prior to rendering. Half the calves were slaughtered at 12 months and found to be histopathologically and PrP negative. The remaining calves were grown on. Three subsequent deaths have been unrelated to BSE and the remaining steers still reside at Ames.

These are just a few of the citations of product safety available in the scientific literature.

New members welcome

The Australian Renderers Association welcomes new members who share our interests and concerns for this vital industry. Inquiries should be directed to Graeme Banks (contact details on page 1). Our annual membership fee is \$750 for full members and \$650 for Associates.

Biogenic amines:

ANOTHER 'NEGATIVE OF RECENT TIMES' has been the suggestion that biogenic amines in by-product meals could cause intestinal lesions and reduced feed utilisation in broilers.

A research program by Dr Jeffrey Firman at Missouri Uni. explored this issue in depth and concluded that four biogenic amines fed singly or in combination, at the highest levels likely to occur in commercial poultry rations, are unlikely to cause reduced production or internal lesions.

Biogenic amines are a natural function of the breakdown of amino acids. But it was suggested that bacterial and enzymatic breakdown of amino acids (the base components of protein), especially during summer months, might produce high levels of biogenic amines and in turn influence the health and performance of broilers.

MBM used in this research was produced from raw material which was intentionally abused prior to processing through exposure to temperature extremes, aging and putrefaction. Even so this failed to produce biogenic amines at levels projected to cause animal performance loss.

Having failed to produce naturally occurring biogenic amines of the required levels the research program used pure pharmaceutical grade product which was formulated into broiler diets at levels consistent with commercial conditions in which biogenic amine toxicity was suspected. No consistent effect was observed in performance and no statistical difference noted in any of the performance parameters of body weight and feed gain ratios.

Additional research

SEVEN ADDITIONAL PROGRAMS have been approved for support by the FPRF Board and include two studies on MBM in fish diets and one on the effectiveness of the rendering process in sterilising material intentionally contaminated with animal pathogens.

These complement the 17 projects in progress which receive FPRF support.

Research briefs

MBM in crop disease control

Dr George Lazarovits - Agriculture and Agri-Food Canada

This work demonstrates that organic amendments can replace chemical fumigants for control of soilborne plant pathogens.

This work also indicates disease reduction can persist for at least four years following a single application of soil amendments. With fumigants a single season delay in disease is considered acceptable.

Control of *verticillium wilt* was tested through four years of consecutive potato crops in two soil types (Alison and Simcoe) treated with blood meal, feather meal and soymeal.

The disease incidence of 43%, 20% and 10% in Alison soils and 47%, 20% and 17% in Simcoe soils compared with 70% and 73% for untreated soils. Three year plots showed enhanced plant vigour from either fishmeal or meat and bone meal, with *verticillium wilt* incidence down from untreated levels of 72% and 77% to 3% and 0% for the respective treatments.

Work in progress will assess the impact of various treatments on potato scab, plant pathogenic nematodes, fruit trees, replant treatments for orchards, tomato seedlings and mode of action studies in various soils.

Production processes, formulation, cost and yield demonstrations and regulatory constraints must in part be considered for future protocols.

Rendered products can replace fishmeal

Dr Dominique Bureau - University of Guelph

Growth and feed efficiency data suggest that up to 24% of meat and bone meal can be incorporated in the diet of rainbow trout in place of fishmeal without significant effect on the performance of fish.

Three feather meals, three meat and bone meals and a herring fishmeal have been evaluated via two apparent digestibility procedures. Feather meal may likewise contribute to the amino acid profile required in fish nutrition.

Research briefs

Affects of pressure, time and temperature on product quality

Dr Carl Parsons - University of Illinois

Meat and bone meal which had been processed to obtain quality product have been further processed to standards to achieve a high quality product and then further processed by reheating to maximum temperature at a range of time/pressure options in a mini-Dupps experimental commercial unit.

The same quantities of MBM will be subject to small batch treatments to replicate these pressure, time and temperature conditions. Some treatment will also be replicated in a commercial hydrolysing system.

Protein and amino acid content and bioavailability assays will be obtained via several laboratories and procedures.

Requests have been made of the industry to provide MBM products to conduct the project and representative samples are being acquired.

High MBM diets

Dr Park Waldroup - University of Arkansas

The project will evaluate performance influences of much higher concentrations of MBM than traditionally used in commercial broiler diets.

Several screening and preliminary treatments have been completed. Quantities of low ash and high meat and bone meal have been acquired for the study. These are undergoing pretrial analytical work and diets are being formulated using digestible amino values with requirements at a minimum of 100% of NRC total amino acid levels. The animal trials are scheduled to start very soon.

Fish feeding using MBM

Dr Gerard T Schelling - University of Idaho

"Meat and Bone Meal as a Major Dietary Ingredient for Salmonid Under Several Growth Regimes."

Dr Dominique Bureau, University of Guelph

"Combinations of Rendered Animal Protein Ingredients as Protein Sources for Salmonid Diets."

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