



## **Submission to the Agriculture and Food Policy Reference Group by the Co-operative Research Centre for Innovative Dairy Products**

### **Overview of the International and Australian Dairy Industry**

The international dairy industry continues to be one of the most highly protected with all OECD countries other than Australia and New Zealand providing trade barriers. World production of dairy products is set to expand over the next ten years, particularly outside the OECD, with threats coming from South America where scales of economy and access to genetically modified feed are providing efficiency gains.

Bioscience promises to change the landscape of competitiveness in the agricultural industry. The aggressiveness and speed with which Latin American countries have become competitive in soy production is clear testimony to this fact. Soy is a ready replacement for milk in food ingredients.

The dairy industry is also a significant user of scarce water resources. Over time economies of scale will continue to drive out smaller players.

The Australian dairy industry is Australia's third largest agricultural sector (behind wheat and beef) with \$3 billion turnover in 2002-03, generated by 10,654 registered dairy farms. The number of dairy farms has halved over the past two decades, from 22,000 in 1980 to less than 11,000 in 2003. Over the same period, average herd size has increased from 85 cows in 1980 to around 185 in 2003. The output of the industry has improved as a result of the average yield per cow increasing from 2,848 litres in 1980 to 4,800 litres in 2003. Dairy Australia is predicting further consolidation in the local industry over the next five to ten years.

Globally, dairy is becoming more competitive through efficiency gains. The Australian dairy industry accounts for 13% of the world's dairy exports at a value of \$2.2 billion. As dairy products have become commodities, global market share is based on lowest cost production and developing countries will continue to be a threat.

At present, dairy product quality from China and India is very poor, however they are becoming increasingly technological. The Inner Mongolia region of China recently introduced dairy robotics at a model dairy that also hosts satellite tracking and other feeding systems. The farm is a teaching facility for IT students

learning about dairy farm applications. Australia needs to find new ways to compete with these threats.

There is global demand for safe value-added dairy based products such as pharmaceuticals, food supplements, infant food, medicinals etc. There is significant opportunity with many highly protected developed nations reducing local restrictions over time therefore potentially opening these markets to Australia. This is a slow process but the dairy industry must be ready to take advantage of it.

The industry needs to:

1. find ways of improving farm output to maintain current cost competitiveness; and
2. develop new and innovative dairy products to provide premium prices to the industry.

### **Addressing the competitiveness of Australian agriculture and food businesses**

The Reference Group issues paper raises a number of questions. This response deals with the following three:

*How can Australian food manufacturers improve their competitiveness in order to take advantage of growing consumer demand for more value added products and services, especially in export markets? (page 9)*

*How can research and development provisions be made more responsive and relevant to industry? (page 11)*

*What actions need to be taken to address both producer and community concerns about GM products? (page 12)*

The Co-operative Research Centre for Innovative Dairy Products (the Dairy CRC) is developing and will commercialise new genomic technologies for the dairy industry. The technology is based on genetic information associated with lactation in the dairy cow.

Product differentiation is not possible at the individual farmer level and therefore initiatives such as the Dairy CRC provide an ideal avenue to pool capability and address the industry need to identify methods for lower cost production and new value added products.

The Dairy CRC addresses the cost competitiveness issue through its detailed collaborative research program into improved breeding technologies. This research is multi institutional and internationally peer reviewed.

To date the Dairy CRC has established major discovery and development platforms based on the new genomics which will greatly advance progress in animal breeding and new product development. It has also established a basis of bringing forward a number of new functional foods with excellent discovery progress to date.

Dairy Australia and Australian Dairy Farmers Ltd are partners in the Dairy CRC and are key links between the research project and the farmers.

Other partners include Tatura Milk Industries Ltd, an organisation that recognises that it must find new ways to compete in the longer term. As well as investing in the Dairy CRC, Tatura has developed other value added dairy products including Travelan, an over the counter pharmaceutical that reduces the risk of Travellers' Diarrhoea and is made from the colostrum of hyperimmunised cows. Farmers providing this colostrum receive a premium price compared with standard milk. This is a direction the industry could follow. While marketing plays some role in differentiating products in the marketplace, research and development is necessary to identify products that can deliver premium prices in the first place.

There is a role for Government to continue to invest in research and development – most especially in bioscience, which is both relatively high risk and has a long lead time; and in agriculture, where Australia earns significant export income from disparate groups in a fiercely competitive global economy. The environment is changing and Australia is experiencing threats from developing countries in South America and Asia which are becoming increasingly cost competitive. We need to find new ways of competing and this will only be possible if the Government continues to invest in and direct funding towards agricultural research and development.

Private investment is hard to secure as advances in agriculture can be difficult to capture for the individual organisation where intellectual property may not provide absolute exclusivity. For example, another of our investors, Australia's largest artificial breeding company - Genetics Australia, has preferential rights to breeding technology developed by the Dairy CRC. However, any advantage conveyed upon Genetics Australia may be short lived as others move in around this technology. The benefits to the local industry will be significant as the technology will allow lower cost breeding and therefore significantly improved costs of production.

The Co-operative Research Centre Program provides an ideal avenue for Government support to all agricultural industries. The Program's objectives are:

*“to enhance Australia’s industrial, commercial and economic growth through the development of sustained, user-driven, cooperative public-private research centres that achieve high levels of outcomes in adoption and commercialisation”.*

That is, Co-operative Research Centres are focused on industry relevant outcome driven research. In the case of the Dairy CRC, we expect to provide significant advantage to the local dairy industry through the identification and commercialisation of dairy markers and new dairy products from milk bioactives.

There is also a role for the Government to play in developing a public position on GM (genetic modification). The Reference Group's issue paper refers to inadequate advocacy by the science and commercial communities on GM technology (page 12). There *has* been very considerable advocacy by the science community, in particular, and also by commercial players. Yet governments have either stood on the sideline (Federal) or taken blatantly opposing political stances (most States), which have given those opposed to GM technology wide scope to spread messages that are not scientifically based and often irrational. This inactivity stands to cost the rural sector huge losses in technology adoption, growth and competitive advantage. The review is strongly urged to address this issue vigorously. It should actively promote the rigorous, science based regulatory framework that is in place to manage risks associated with the technology and the benefits the technology offers to farmers, consumers and the environment. This will enable Australia to capture the benefits of biotechnology for the community, industry and the environment in line with the National Biotechnology Strategy.

### **Summary of key comments and suggestions**

In response to the three questions cited above, we would direct the Reference Group to pay close attention to the Co-operative Research Centre Program as a model for delivering benefit to the agricultural industry through dedicated collaborative research for the benefit of the industry. This is particularly relevant in the dairy industry, but Co-operative Research Centres also exist in beef, sheep, pork and other plant based industries.

Agriculturally based Co-operative Research Centres have the potential to identify new value added products for Australian industry and identify ways of improving cost competitiveness.

Co-operative Research Centres are also particularly suited to bioscience which is one of the “big” sciences requiring a wide range of heavy duty capability in molecular activity, bioinformatics and high end intellectual resources, many of

which are only available in the biomedical sciences. The Co-operative Research Centre Program facilitates the multidisciplinary, multi-institutional research required to address large scale issues for the agricultural industry.

We would welcome the opportunity to present further detail to the Reference Group.

Yours sincerely

A handwritten signature in black ink that reads "P. Donnelly". The signature is written in a cursive style with a large, sweeping flourish at the end.

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