Submission to the Productivity Commission regarding Rural R&D Corporations

Context of this submission
In parallel to this submission, ACMF has also collaborated with a broad range of rural industry organisations to develop a well argued and economically sound input into the Commission's considerations. We trust that this work will be of value in guiding the Commission's thinking and we do not intend to duplicate or repeat this input in this short statement on behalf of the Australian chicken meat industry.

About us
ACMF represents all elements of the Australian chicken meat industry, including chicken growers and processors at the national level. Members of the Federation are the five State Chicken Meat Councils, the Australian Chicken Growers' Council and the Australian Poultry Industries Association, the latter representing the chicken meat processors.

About the chicken meat industry
The chicken meat industry is Australia's largest meat industry on a domestic per person consumption basis. A highly efficient and vertically integrated industry, it has developed steadily over the past 50 years to an annual turnover now of around $2.7 billion on an asset base of $6 billion and employs 40,000 people directly and 120,000 in total throughout Australia.

Our R&D arrangements
Our levy funded R&D program is part of the Rural Industries Research and Development Corporation and is guided by a strong advisory committee with broad representation, including leading technical and veterinary staff from our industry. Processors are directly involved in the farming operation and make substantial direct investments in their own R, D & E.

Current R&D approach has served us well
The chicken meat industry is satisfied that the current R&D arrangements continue to work well for the industry and provide great returns to it as well as the general public.

Diversity of approaches is a positive attribute
ACMF sees real value in the diversity of approaches taken by different rural sectors in their structuring of the R&D funding and delivery mechanism. Rather than representing inefficiencies, these differences are a reflection of the diversity of situations and structures of the sectors themselves.

Spillover benefits important but extensive collaboration and no single party large enough also provides important justification for public funding support
ACMF believes that substantial spillovers benefits are indeed a major reason for government funding. However, an additional reason for the need of public support is the fact that rural research, unlike industrial research, almost invariably requires collaboration between a large number of potential research users. With laboratory facilities and other infrastructure support for agriculture having been reduced drastically over recent years, in particular at the state level, a financial contribution by the public purse towards collaborative and sector wide research is important and well-justified.
| Broad and undeniable benefits produced by current R&D system | ACMF cautions against losing sight, when trying to identify potential improvements, of the undeniable benefits of Australia’s R&D Corporation and R&D levy arrangements. It is our view that the current arrangements are of great benefit to both the agricultural industries as well as the environment, the economy and the general public. |
| Current funding levels from industry and government must be maintained | Given the substantial rate of return that all past studies of rural R&D activities have found, there is little doubt that overall investment is well justified. In fact, why is the funding not greater? The main reasons are the degree of risk and uncertainty involved as well as competing demands on funds. A further limiting factor is the availability of appropriately trained researchers and research facilities. Any reduction in public funding for rural R&D would impact that latter factor particularly severely. ACMF does not believe that industry would be in a position to adequately address such a shortfall. |
| Reduction of public funding would threaten public as well as private benefits | Thus any reduction in the matching of levy funds would inevitably lead not only to a reduced level of R&D but would most likely result in reduced industry funding due to a consequent reduction in the infrastructure and human resources available. |
| Government support has already diminished and essential infrastructure and expertise is now often missing | The current set of resources applied to rural R&D has already suffered a substantial reduction over the years with governments reducing their commitment to the sector and its basic infrastructure. Scientists will be attracted to areas where there is some stability and longer term prospects. Even at present, the rural R&D sector can hardly be seen as being stable and offering prospects to researchers. Many of the research career options in the public sector have disappeared over recent years. It is therefore more important than ever to ensure that the situation is not further aggravated. Maintaining public financial support for rural R&D is crucial to maintaining an adequate research capacity and capability. |
| The current public private partnership overall has worked very well and has provided substantial benefits to all parties, public and private. | Is 50% public funding the optimal level? Are public benefits matching public funding? These are valid questions but they need to be considered in the broader context of uncertainty that any research program operates in. There is no doubt that the theoretically optimal level of public funding will vary from project to project and that public benefits will be equally disparate. However, there is no way of determining this accurately, even with hindsight and much less so at the time of considering a project for funding. The matching funds approach, while less than precise, has in our view great merit: it has worked in the past, it has provided industry as well as the general public with great benefits, but, most importantly it recognises the equal partnership between the Government and the rural sector. |
| Food security is looming as a major future issue and rural R&D is a key contributor to tackling it | When considering its rural R&D commitment, Australia also has a moral obligation to consider the future world-wide food security which has become a substantial concern over the past two to three years. In this context, Australia should build on the effective structures that we do have to invest in R&D which will assist us as a country to contribute to increased production of food and fibre through increased productivity and adaptation to climate change. Industry also has to play its role but the rationale for government support to achieve the best possible outcome for the country is in our view undeniable. |
The few examples outlined below illustrate how much of the research that has been undertaken to improve the productivity and efficiency of the industry has significant and quantifiable public benefits.

Industry driven feed efficiency improvements also result in substantial public benefits

A Cost Benefit Analysis undertaken by CIE 11 years ago documented the impact of a set of three projects on the use of digestible amino acid values in feed formulation (conducted at the Universities of Sydney and Queensland between 1992 and 1998, and involving a total RIRDC investment of about $311,000) on the efficiency with which feed was used by the industry. It concluded, based on advice from the major industry nutritionists, that the industry’s implementation of this new information provided a 1.5% improvement in feed conversion efficiency for any company that adopted this system (now virtually 100% of mainstream industry has adopted this system). The report went on to quantify the economic benefit of the reduction in feed used, a significant cost saving for the industry.

Importantly, it is now also possible to estimate the environmental benefits of the industry’s implementation of this improved feed formulation system. Using methodology based on a common Life Cycle Assessment methodology which was developed under a collaborative project jointly funded by RIRDC, MLA, Cotton RDC, Sugar RDC, Dairy Australia and APL, a preliminary Life Cycle Assessment of the Australian chicken meat industry has been undertaken under a current RIRDC project. While this research is ongoing, and the LCA chicken meat model requires further optimisation, preliminary analysis suggests that the 1.5% improvement in feed conversion efficiency achieved by industry’s implementation of the results of the RIRDC research described above and funded a decade ago, will have had the result of reducing the industry’s greenhouse gas emissions by approximately 1.4%.

The improvement in feed efficiency achieved through the small set of projects described above represents only part of the feed efficiency improvements that have been achieved by industry as a result of research that has been funded by RIRDC (and its predecessors); the total impact of RIRDC funded research in terms of GHG emissions will be many fold higher.

More benefits for the environment through better management systems and a novel measuring device

For a number of years, one of the major areas of RIRDC Chicken Meat Program funding has been research directed towards monitoring and minimising the industry’s environmental impacts, including its impacts on its neighbours. Through this funding mechanism, the chicken industry became one of the first Australian rural industries to develop an Environmental Management System, and to develop programs to implement good environmental management practices in consultation with the local community, e.g. the Victorian Chicken Care program.

Tools that can be used by the community for monitoring environmental impacts of a range of industries and to resolve disputes around emissions have been developed with RIRDC funding. The prototype Artificial Olfaction System described on National ABC News on 18 May is such a tool which is the outcome of investment by RIRDC.

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1. "Impact evaluation of RIRDC’s established industries program", by Jenny Gordon and Lee Davis published as RIRDC Publication N099/91 in September 1999
2. "Life Cycle Assessment methodology for Australian Rural Industries" by Steve Harris and Venky Narayanaswamy in March 2009; RIRDC Publication No. 09/028
3. "Life cycle assessment of the Australian meat chicken industry" PRJ-4596
Food safety research benefits the community through education programs and new analytical tools. Cross-sectoral collaboration is common and an effective way to address common issues with the egg industry, with other feed grain users, improving animal welfare and climate change.

Food safety is a shared responsibility of the industry that provide the raw food product and the consumer (and all other parties) who transport, store, handle and prepare the food prior to its consumption. Food safety has been a major priority of the RIRDC Chicken Meat Program since its inception, and the research and education programs undertaken within this program has generated identifiable benefits for both the industry and consumers.

Many analytical tools developed with RIRDC Chicken Meat program funding are used today for the identification of strains of pathogens of concern in a human health context, regardless of their source. For example, typing tools for discrimination between Salmonella strains, which were developed with RIRDC funding, are used more generally today for tracing the sources of outbreaks of Salmonella food poisoning in the community.

RIRDC is involved in a range of cross-sectoral projects and activities, many of which are long-standing collaborations.

- joint projects with Australian Egg Corporation Limited in areas where priorities are common (recognising that the two (chicken meat and egg) industries are very different, and have different production systems, industry structures and products, resulting in very different research requirements in terms animal health, food safety, animal welfare and extension requirements in particular).
- feed grains – past involvement in collaborative Premium Grains for Livestock Program, and now with the Feed Grain Partnership
- strengthening of Australia’s animal welfare research capacity through joint investment with the egg and pork industries.
- collaboration with a range of industries in several life cycle analysis and climate change activities.

Sydney, 25 June 2010