Rural R & D Corporations Supplementary submission to Productivity Commission

David Lindsay AO FTSE Formerly professor of Animal Science and Dean of Agriculture, The University of WA

I commend the Productivity Commission on a draft report that has highlighted many of the important issues that need addressing in adjusting for the future of rural research in Australia.

There remain three important issues that I do not believe have been adequately or properly considered and I urge the Commission to do so before making the final report.

- The R & D Corporations do not do research. Research Organisations and individuals do research, ostensibly on behalf of the R & D Corporations. This means, in broad terms, that the long term success of R & D Corporations depends on their being able to manage two things well:

 they must distribute the money from all their stakeholders wisely and in the best interest of the industries that they serve, and 2) they must ensure that they maintain first class research teams to do the research that they commission. In effect, they spend a lot of time and effort on the first and most have done nothing at all about the second.
 - Distributing money for research. The various R & D Corporations use a mixture of means to decide where to invest their money. Sometimes it is intuition, sometimes it is some form of benefit-cost analysis, sometimes whim and often a blend of all three. Since it is impossible to predict the benefits of worthwhile research until it has been done, reliance on benefit-cost analysis is not likely to lead to meaningful decisions as it might do in, say, manufacturing or commerce. So, a mixture of all three may be the most satisfactory. Implicit in this is the necessity to have the most informed and experienced people possible making the decisions. R & D Corporations vary enormously in their capacity to do this.
 - *Maintaining a first class research force.* The wind-down in research capacity, especially the human resources to do research, has reached crisis point in many of the rural industries and is a worry in most others. As with many things, AWI is the prime example with virtually no competent scientists left to serve the industry. For example, CSIRO, once a powerhouse in the field, now does no research at all in wool production or processing. Most Departments of Agriculture and Universities do very little and, within them, very few scientists see themselves as being other than transient players in the industry. This means, among other things, that potential research breakthroughs stemming from basic sciences like chemistry and microbiology or from research in other fields such as medicine or engineering pass unnoticed by an industry that is in desperate need of innovation. There are simply not sufficient competent and dedicated scientists left in most of the industries to interpret and develop possible research advances in other fields let alone create new ones in their own.

The run-down in competent personnel is a direct result of the R & D Corporations failing to husband the talented and willing people that they have had at their disposal. Many see the granting of scholarships for PhD students as the answer but, often, students that take advantage of these scholarships do not receive any encouragement to continue in the same industry. Funding studentships is cheaper than paying technicians and some claim cynically that this is the only reason they are supported in the first place.

Research in an industry is most successful when those doing the research see themselves as being an integral part of that industry. Some R & D Corporations, in particular the Cotton RDC, actively promote interaction between the researchers and the industry. They see themselves as facilitators of research and make it possible for scientists to design their research in the best interests of the farmers they serve and to discuss both success and failure with them. Other Research Corporations actively discourage this interaction by interposing their staff at many levels and treating their scientists like technicians. Scientists treated like technicians respond in one of two ways; they go elsewhere where they feel better appreciated or they work as technicians and not as scientists. Hence the crisis in personnel that confronts most R & D Corporations.

2. Research is only part of the value of R & D Corporations

In the first round of submissions, many farmer groups have drawn attention to the fact that there is often an imbalance between the regionalisation of the research effort in their industries and the input of research levies from the regions. It has been argued that, where the research has a national focus, this is immaterial. But the people who do the research are a valuable knowledgeable human resource that can and should serve the industry more widely. For example, in the case of drought or other natural disasters like plagues of locusts, or where commodity prices swing widely and unpredictably the inevitable adjustments that must be made quickly and effectively are often better made with the help of technical wisdom and assistance. This can only come if this assistance is available in the region and can be accessed. Farmers, therefore see centralization as denying them this access and reducing the potential value of the research program to them.

3. The environment is everybody's business.

Recognition of the need for an overall research effort to sustain and ameliorate the environment through the creation Rural Research Australia is an excellent initiative for two reasons. It rights the inexplicable decision to axe Land and Water and it recognizes the enormous public good that comes to all of Australia from a healthy and ecologically balanced environment. However, a major part of the environment with which RRA is concerned is, in one way or another, under the stewardship of primary producers. Whatever they do as part of

their means of making a living is likely to be linked with the environment. By separating research into the economic use of the environment from research into the wider public responsibility for the environment through creating a different research entity opens enormous avenues for conflict. If one set of funds is seen to be earmarked for the sole benefit of the producer and the other for the public good then the more realistic objective of the two needing to be closely linked will almost certainly be lost.

In other words, the creation of the RRA must be achieved in a way that does not absolve or appear to absolve all other agricultural research from including environmental responsibilities. Equally, government funding for a research corporation earmarked specifically for environmental issues should not be a reason for withdrawal of government funding for agricultural projects, most of which have clear environmental connotations.

I hope that the Commission can address these issues satisfactorily.