

**SUBMISSION IN RESPONSE TO
PRODUCTIVITY COMMISSION DRAFT
REPORT ON RURAL RESEARCH AND
DEVELOPMENT CORPORATIONS**

10 DECEMBER 2010

1. INTRODUCTION

CropLife Australia (CropLife) is the peak body representing the plant science and agricultural biotechnology industries in Australia. CropLife welcomes the opportunity to make this submission in response to the Productivity Commission Draft Report “*Rural Research and Development Corporations*” and to provide the views of CropLife members on the research and development framework for agricultural chemicals in Australia.

CropLife has long argued that continued innovation is vital for the future of Australian agriculture. An increased local investment in research and development would underpin advances in agricultural technology and is essential in ensuring that Australian agriculture keeps pace internationally.

The review by the Productivity Commission has provided welcomed attention on the importance of focussed agricultural research in Australia. CropLife notes that many parts of the Draft Report recognise the unique and important role that is played by Rural Research and Development Corporations in fostering Australian agricultural innovation. CropLife believes Australia’s Rural Research and Development Corporations (RDCs) make a vital contribution to facilitating innovation in the Australian agricultural sector. Of particular note is the funding for research into minor and specialty uses of crop protectants by Horticulture Australia Limited and the Grains Research and Development Corporation.

CropLife believes that that Draft Report does not justify its claims that government investment in agricultural R&D is disproportionately large. CropLife also does not believe the Draft Report successfully argues that private investment will substitute for a reduction in this investment. In fact, CropLife is concerned that a significant reduction in Government support for agricultural research and development could have a number of unintended consequences. These may include a reduction in research funding by groups who work closely with the RDCs, including both private and public funders. This is at a time when agriculture is facing huge challenges that need to be addressed through scientific innovation. Consequently, we do not support the proposed reduction in Government co-funding arrangements.

CropLife is also concerned that the proposed funding principles may direct research away from projects that have high rates of adoption, towards projects that are unlikely to be adopted. This would effectively reduce the productivity and other benefits that accrue from Australia’s investment in agricultural R&D.

CropLife agrees with the Productivity Commission that public investment in agricultural R&D needs to be done as part of a holistic approach to investment across a number of industries. This could be achieved through the establishment of national agricultural R&D research strategy priorities in consultation with all affected stakeholders including CropLife and its members.

2. NATIONAL AGRICULTURAL R&D STRATEGY

The Draft Report notes the opportunities for better coordination of research activities that are conducted in Australian agriculture. CropLife agrees with this observation and believes that the establishment of a national research strategy would provide increased coordination, transparency and certainty for private investors.

CropLife notes that the Productivity Commission has avoided making recommendations on the broader framework of agricultural R&D due to the existence of parallel inquiries into Australia’s agricultural research and development system. Nevertheless, it is very difficult to understand the importance of the RDC model when it is considered in isolation. CropLife believes that in order to make the best decisions about a future RDC model, the Australian Government needs to develop a national agricultural R&D strategy with input from all stakeholders. It is particularly important that growers are effectively represented during this process to ensure research is directed towards applications that are likely to be adopted.

The establishment of a national agricultural R&D strategy would increase the levels of private investment because investors would have a much clearer indication of government priorities and opportunities for co-investment. A national strategy could also include a range of legislative measures that would encourage greater private investment. For example, it is likely that CropLife members would invest greater sums in local R&D if there were increases in regulatory efficiency or better protection of the intellectual property that is associated with our members' products.

A national R&D strategy would also lead to reduced duplication between different research providers and increase the opportunities for collaboration by different companies and public institutions.

The performance reporting benchmarks that the Productivity Commission contemplates in the Draft Report could be informed by a national R&D strategy.

3. DATA GATHERING AND TRANSPARENCY

CropLife supports in principle the proposals to address existing data gaps on R&D funding in Australia and provide increased transparency of the RDC model.

Data gaps in terms of R&D investment in Australian agriculture are significant and relate to growers, technology providers and government. For example, the private investment amount in agricultural R&D appears to be significantly under estimated in the current Draft Report (*Refer section 5 – Funding*) despite attempts to characterise it through tax receipts. Regarding government involvement, the long-term agricultural R&D funding priorities of governments at all levels are often difficult to ascertain and can be subject to rapid change. Finally the needs, opinions and priorities of growers are not completely understood, particularly when their industry is not a member of a current RDC.

Performance monitoring data is welcomed as a way to increase the transparency of the RDC model and provide all stakeholders with confidence that the system is operating effectively. However it is important that any performance monitoring data must be based on a relevant and appropriate performance and evaluation framework. As discussed in the previous section, this framework should be based on a strategic approach so that performance goals represent one component of a much larger framework.

4. PROGRAM AND SYSTEM DESIGN

CropLife is pleased that the Draft Report recognises the unique nature of the RDC model in allowing high levels of grower input into research priorities. Grower input is essential in ensuring that research is relevant and likely to be adopted. However, the Draft Report's focus on the concept of additionality and an increase in government intervention in RDC operations appears to undermine that feature. In particular, it appears to discriminate against research that leads to a commercially viable outcome on the assumption that private companies will meet this funding gap.

CropLife recognises that it is inefficient for government to fund projects that would otherwise be undertaken by private entities, but also notes that it is very difficult to determine when research funding will be available from companies for future projects. This is because competitive pressures and intellectual property laws encourage companies to be guarded when discussing future research priorities.

The operation of the additionality principle in practice could mean a project that was relevant to growers would be less likely to be funded because it would be assumed that private research funding would be available for this use. However, the availability of profit does not guarantee private investment - any one of several market or regulatory failures could make the investment unattractive. A rigid application of this principle could lead to valuable research being delayed or ignored completely simply because it was relevant to an industry.

It is also important to consider whether applications that provide benefits to the environment or the broader society but are not commercially valuable, are worth undertaking. Uptake of the technology will be very low in the absence of a commercial or other incentive (eg. subsidy). CropLife believes that government investment should focus on projects that deliver large public and private benefits, because these projects are likely to be adopted. Focussing on research that is unlikely to deliver a commercial outcome will lead to low adoption rates and consequently, low improvements to productivity in agriculture along with minimal environmental and societal improvement.

5. FUNDING

CropLife does not agree with the Draft Report's recommendation that government co-contribution caps should be halved by 2020. This recommendation appears to be responding to the Draft Report's incomplete assessment of the proportion of research funding provided by public and private sources in Australian agriculture.

The Draft Report attempts to identify levels of public and private investments in agricultural R&D by comparing government investments in a number of institutions to private investment as defined by claims made under the R&D tax rebate. This approach may have inflated the recorded government contribution to agricultural R&D and fails to recognise the important investments made by international companies in countries other than Australia.

The government investment that is included in the analysis incorporates funding for some parts of the CSIRO, some federal and state departmental programs, as well as a proportion of university funding. It is not clear why these funding amounts have been included in the current review when these programs are not being subjected to the same proposed funding cuts as the RDC model. The basis for defining these investments as being related to agricultural R&D is not clear either. A clearer approach would be to examine from where the funding for the RDCs originates. CropLife believes that such an analysis shows that more than 55% of this funding comes from private sources.

On the other hand, the private investment in broader agricultural R&D is seriously under estimated by the Draft Report because it relies solely on R&D tax concession receipts in Australia. While CropLife recognises the difficulty in obtaining more accurate figures, we also believe that there are serious limitations in this approach. In the case of the crop protection and biotechnology industries, millions of dollars are spent in developing products in other countries. This intellectual property may then be brought to Australia and when this happens it represents a substantial investment in agricultural innovation by non-government entities.

According to a survey undertaken in 2010, CropLife member companies spend on average more than \$250 million over ten years to bring each new product to market. The process of obtaining regulatory approvals in different countries represents over half of that cost. As a result, companies must make investment decisions about the markets in which they will seek regulatory approvals.

Australia is a relatively small market – representing between one and three percent of the global agrochemical market, depending on growing conditions. So, companies may decide not to generate the additional local data needed to satisfy regulators. In these situations, the co-funding of relevant data generation by RDCs can encourage a company to sell a product to farmers who would otherwise not have had this tool available to them. In this instance, the company's substantial investment in generating an innovation that it can later develop further with an RDC is not reflected in R&D tax rebate receipts. The importance of this international research is recognised in other parts of the Draft Report where it states that "a considerable portion of the productivity benefit from locally conducted R&D has ultimately been built upon overseas research effort." Therefore, while CropLife recognises the difficulty in obtaining a more accurate figure, it also believes the level of private investment that is recorded in the Draft Report is a seriously under-estimate of the current situation and this figure should not be used as a justification for reducing government investment.

CropLife believes strongly that funding for agriculture R&D should increase to address the substantial challenges that are predicted to impact the sector over the next forty years. Ground water is declining rapidly and current estimates indicate that:

- In 25 years time, we will not have enough water to feed ourselves;
- The amount of arable farmland is declining globally by about 1% each year and 25% is already degraded; and
- Essential fertiliser supplies are dwindling and increasing in cost as oil prices rise and minerals deplete.

Meanwhile, agriculture is particularly affected by environmental pressures with farmers being hit the hardest by climate change, increased storms, flooding, drought and new pests.

While agricultural production will be challenged by these factors, demand for food is increasing rapidly. Populations continue to rise and large economies in China and India are increasing their per capita consumption. As a result of these and other factors, the UN estimates that the world will need to grow 70% more food by 2050 if there is to be sufficient food for everyone.

Due to these well known challenges, CropLife contends that more, rather than less investment is required in Australian agricultural research to ensure that innovations can help farmers to meet this challenge. As an important net food exporter, Australia has an opportunity to provide a significant proportion of the additional food supplies that will be required. Successfully meeting this demand will deliver a range of benefits to Australia, including enhanced rural economies that encourage reduced urbanisation. It will also improve the regional security situation from what would be anticipated in the context of massive food shortages. The Draft Report does not appear to recognise these challenges.

CropLife welcomes the fact that the Draft Report recognises that a large and immediate reduction in funding may lead to unintended consequences and supports the principle of any funding changes being introduced gradually.

6. CONCLUSION

CropLife welcomes Productivity Commission's focus on improving the efficiency and transparency of agricultural R&D in Australia. However, the Draft Report's support for the concept of additionality appears to focus research on projects that have a low probability of adoption.

It is recognised that the terms of reference for the current inquiry and the multiple parallel inquiries into Australia's R&D system prevented the Productivity Commission from taking a more holistic approach to agricultural R&D issues. However, CropLife believes that the narrow focus of the report does not allow for an objective assessment of the merits of how agricultural R&D is currently funded, or how it should be funded in the future. The RDC model is an important component of this investment, but it cannot be judged in isolation.

It is disappointing that the Draft Report recommends a reduction in overall government support for the RDCs at a time when the world requires more efficient and innovative agriculture in order to avoid serious food security issues. This recommendation appears to be based on incomplete information regarding private and public investment in Australian agricultural R&D. CropLife believes that the government should instead be looking at ways to increase its investment in agricultural R&D in a strategic and well planned way, and that this could be facilitated by a national agricultural R&D strategy.