



**Comments on the Discussion Paper (March 2016) on the
Control Tool and Technology Development Grants
Programme**

April 2016

The Cooperative Research Centres Association represents all Australian Cooperative Research Centres (CRCs). In addition, the Association has universities, companies and research groups as Affiliate and Associate Members.

Membership of the Association is optional for CRCs. The Association promotes best practice in research and translation; student supervision and contract management.

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The Cooperative Research Centres (CRC) Association welcomes the invitation to comment on the discussion paper informing the development of the Control Tool and Technology Development Grants Programme.

The CRC Association respectfully submits that the grants programme as described in the discussion paper is unlikely to deliver a significant impact on established pests and weeds in Australia. We submit that a much more strategic approach encouraging a significant research cluster(s) would be far more likely to deliver the significant impact desired by the Government, farmers and Australian tax payers.

We base our conclusion on three areas, which will each be expanded upon later in this paper. These being: -

1. Small grants programmes, even if targeted do not represent best practice research management. Virtually all high impact research programmes take a more strategic, more collaborative approach than that described. Research clustering is accepted best practice research management, whereas the approach described in the discussion paper is much more of a research scattering approach.
2. The nature of the problem of pests and weeds requires highly coordinated research. Innovation in this area is notoriously difficult and a three-year granting programme is very limiting. Any means of ensuring follow-up funding for productive areas and the ability to re-direct unproductive monies should be built into the programme.
3. The history of the area indicates that coordinated, collaborative programmes have a bigger impact than granting programmes. The Weed Management CRC, for example, had a much bigger impact than the granting programme that followed.

The need for highly strategic research

The history of the Australia Rural Research and Development Corporations illustrates the need for highly strategic, coordinated research to result in real impact in rural Australia. Prior to 1989, when the Primary Industries & Energy R&D Act handed real leadership of rural research to those most affected, rural R&D was conducted almost exclusively in a granting fashion. The PIERD Act changes empowered (in fact required) the RRDCs to become far more strategic and to concentrate on the outcomes from research and less on a granting model. Without exception, the RRDCs moved to a much higher proportion of managed calls for research, conducted in a collaborative manner with research providers. The trend of Australian RRDCs to a managed research model is on keeping with a worldwide trend in applied research. It works in producing research impact.

Competitive grants at a project level are much more suited to curiosity-driven research rather than mission-driven research, which is the case here for the Control Tool and Technology Grants Programme.

We believe the proposed approach will stimulate a lot of applications and ideas, but relatively low impact because too many will end up underfunded and end up achieving little.

If it is not possible to revamp the arrangements significantly, the CRC Association would suggest that a high proportion of funds (at least 50%) be held back as follow-on funding to those projects that show the most promise. This is the lesson of the Australian RRDCs, the US Small Business Industrial Research Programme (which is phased) and indeed Edison's "99% perspiration". Much more funding is also required at the "D" end of the R&D spectrum than anticipated in order to create impact.

The best way to create research impact is via collaboration and a suite of projects targeted to a common goal. For example, in a purely competitive grants scheme, no one will propose undertaking the necessary toxicity testing or specific field trials that are needed to deliver on the new ideas. The pest and weed area is one of true market failure that warrants government involvement and the government involvement should be comprehensive enough to address all the gaps in the area. For this reason, we also question the exclusion of commercialisation research proposed in the discussion paper. Commercialisation is not always clear cut and it is best to allow the programme committee the flexibility to fund some commercialisation.

The development of PigOut, MouseOff, FoxOff and other baits currently marketed by Animal Control Technologies Australia all had some degree of government assistance, be it through the (now) Invasive Animals CRC, the GRDC, previous Department of Agriculture programmes or State Governments. The very high regulatory standards expected by the community mean that while it is a “commercial” activity to manufacture and market the products, the very expensive field trialling for registration cannot be borne by a private investor. If this early stage “commercialisation” is excluded from the current programme, the programme may have very little practical impacts.

Pests and weeds are wicked problems

The CRC Association is concerned that a three-year granting programme is out of sync with the difficult nature of pest and weed problems. Myxoma virus was first proposed as a rabbit biocontrol in 1908 but its application took until 1950. The development of PAPP as a dog and fox poison in Australia was contemplated as a three-year programme, but will have taken 11 by the time it is finally launched (and that with the availability of some testing data from the US and Britain). The regulatory system for pests and weeds is necessarily very tough and stringent. It is particularly difficult to develop new products for pest animals due to the scarcity of research facilities and complexity of ethics approvals.

These factors add to our concern that a simple granting programme as described in the discussion paper will not achieve the desired outcomes. A vehicle that drives collaboration throughout the value chain is more attractive.

We should learn from history

When the CRC for Weed Management completed its term, the then Labor opposition promised \$15M for a replacement programme. On coming to Government, the programme was eventually rolled out via RIRDC as a small competitive grants programme.

Virtue et al 2014 warn that while the previous weeds programmes enabled activity in weed RD&E, yet a coherent, collective focused effort to support weed RD&E was not developed. Indeed, ***the funding mechanisms often drove fragmentation between the organisations involved in research and delivery.***

Given the similarities between the proposed *Control Tool and Technology Development Grants* Programme and the programmes analysed, the views of Virtue and colleagues is higher pertinent and requires attention. They are not consultants or academics with a passing interest, but State Government officials charged with pest animal and weed control responsibilities.

Conclusion

The CRC Association recommends that a more coordinated approach be taken than a small grants programme in relation to the pests and weeds problems identified in the Agricultural White Paper.

Pest and weed research is notoriously difficult. Worldwide and in Australian agricultural research, strategic research clustering is a more successful mode of operating than small grants programmes. Specifically, the previous weeds programmes were not as successful as they could have been. It seems a pity to repeat the experience in the current situation. The biggest National interest that could be satisfied by the proposed government investment is a coordinated R&D response to pest animals and weeds.

Reference

Virtue J et al (2014) Nineteenth Australasian Weeds Conference, pp. 92-95