Plant Biosecurity Cooperative Research Centre

Submission to the Senate Inquiry on the Biosecurity Bill 2014

It is essential that Australia maintains a sustainable, well-resourced and integrated national biosecurity system, supported by both government and industry, that successfully protects Australian agriculture and the environment. That system must be supported by world class Research Development and Extension (RD&E) that is nationally coordinated, well-funded and has strong leadership.

Since 2005, the Plant Biosecurity Cooperative Research Centre (PBCRC) has delivered knowledge, tools and resources that enhance Australia's biosecurity shield through excellence in science, while providing a coherent and coordinated national approach to plant biosecurity RD&E. Through its collaborative research programs, which include government and industry end-users, PBCRC protects Australian agricultural competitiveness by:

- identifying pathways for plant pests to enter Australia
- creating smarter tools and technologies to diagnose, discover and destroy or contain plant pests
- creating improved pest management methods which are integrated into production systems
- building technical networks both in Australia and our near neighbours to reduce risks and maximise the regional capacity to deal with plant pests
- increasing knowledge transfer, technology adoption, and community engagement in biosecurity, and
- developing training and education to increase national and international plant biosecurity capacity.

As stated in the explanatory documentation the draft Biosecurity Bill 2014 will provide: "….. flexible and responsive powers that allow biosecurity officials to best target risk based on the circumstances of each case." This is consistent with Australia's international obligations and has the potential to result in better biosecurity outcomes and reduce costs for industry and the community. This approach is supported by PBCRC.

In recent years the Department of Agriculture has placed increasing emphasis on a risk-based approach that identifies and addresses risks associated with specific cases. This contrasts with the rule based approach used in the past that relied on a set of standard operating procedures that were considered to be sufficiently rigorous to manage the greatest risk associated with each type of case.

PBCRC believes an approach that implements risk management measures based on the circumstances of each case will reduce the probability that significant risks are overlooked and ensure that importers and travellers are not subjected to unnecessary and unjustified procedures. However, achieving the required degree of biosecurity protection in the more complex operating environment that will result from "flexibility and responsiveness" will be critically dependent on the capacity to adequately identify and address the biosecurity risks posed by the full range of goods, conveyances and people presenting at Australia's international border.

This submission focuses on the need to have sufficient RD&E capacity to undertake risk assessments and adequately manage biosecurity risks.

Biosecurity RD&E and training

Successful implementation of a more flexible and responsive approach will be critically dependent on the availability of biosecurity officers at all levels with the required skills, training and experience.

Risk assessment is a complex task requiring a high level of skill and experience. Risk assessors need to identify the organisms that could be associated with the circumstances, estimate the probability that these organisms will enter and establish in Australia and cause significant harm, and develop recommendations on risk management. Given that the risks largely result from the introduction of an exotic organism to a new environment (Australia) a risk assessment has a significant component of "professional opinion" based on the knowledge, training and experience of the risk assessor applying the best possible assessment tools.

Over a period of many years there has been a steady decline in the number and experience of risk assessors available in the Department of Agriculture, corresponding with the implementation of a standard operating procedures approach that reduced the need for case by case assessment. Implementation of a more flexible approach will require much more detailed risk assessment work to develop risk management conditions that are focussed on the specific circumstances of each case. Without a substantial investment in new technical staff, the Department of Agriculture is likely to face a critical shortage of capacity to meet industry demands.

Currently, many frontline biosecurity officers have little biological training – their major responsibilities relate to checking that importers, passengers and others are following pre-set standard rules and procedures. Under a more flexible arrangement they will face more complex situations, sometimes with different conditions being required for the same commodity. The move to a risk based approach will require a very significant investment in training of officers involved in frontline biosecurity activities to ensure that they can deal with this increased complexity and can recognise when things go wrong.

An additional consideration is that biosecurity officers will be exercising a regulatory decision-making role under risk based arrangements and, as such, the decisions to treat, destroy, reject, release or require movement of goods can be subject to challenge by importers or their agents. In some instances this may extend to legal challenge, and in such instances it will be critical to ensure that biosecurity officers possess the necessary biological qualifications to substantiate decisions and to validate their personal capacity and credentials to make such decisions.

In order to strengthen the Department's position in this area, Section 545 of the *Biosecurity Bill 2014* could be enhanced by adding words such as: *"In determining the training and qualification requirements for biosecurity officers, the Director of Biosecurity must give due consideration to relevant biological skills and knowledge needed by biosecurity officers for the effective discharge of their responsibilities".*

A risk assessment is only as good as the information and analytical tools available. Information and analytical tools come from a wide range of sources including scientific literature, relevant experts, and knowledge of previous assessments. It is generated by research, and is seldom comprehensive or sufficient.

Ultimately the quality of risk assessments is dependent on RD&E and appropriate training. Unfortunately for biosecurity, this area has been declining for many years in Australia. For example, there are few remaining specialist technical or university courses in entomology and plant pathology, and agricultural RD&E capacity (State and CSIRO) has been cut substantially in recent years. Furthermore, while PBCRC has been investing in biosecurity research since 2005 it is due to close in mid-2018. The bulk of relevant research that still exists outside the CRC is excessively reliant on short term funding and is generally poorly coordinated.

The Plant Biosecurity RD&E Strategy (http://www.planthealthaustralia.com.au/national-programs/national-plant-biosecurity-strategy/) is an attempt to address some of these coordination and priority setting problems; PBCRC and many other agencies are supporting its activity.

A significant increase and sustained investment in high quality biosecurity science and its deployment through strong training mechanisms is essential for Australia's robust biosecurity system. By coupling this investment with this new legislation, Australian primary producers and the environment can continue to benefit from the biosecurity advantages we currently enjoy.

Australia needs a substantial biosecurity education and training capacity to not only ensure that researchers and biosecurity officers can be trained but that industry and the community can be given the knowledge and skills to contribute to protecting Australia. By mid-2018 the CRCNPB and PBCRC will have supported more than 65 PhD students working on plant biosecurity and delivered numerous short training courses to industry. PBCRC was also instrumental in establishing the Plant Biosecurity Curriculum, which facilitated certificate, diploma and master courses in plant biosecurity delivered via distance education by participating universities. Without further investment, most of this education and training activity will cease in mid-2018, leaving Australia severely deficient in the capacity to educate and train industry, researchers and the community in plant biosecurity.