



CRC **PLANT**biosecurity

Cooperative Research Centre for National Plant Biosecurity

Strategic Plan 2009 – 2012

biosecurity built on science





This is the third version of the Cooperative Research Centre for National Plant Biosecurity's *Strategic Plan* and highlights the strategic direction from 2009 – 2012.



Contents

Background	2
A message from the Chairman	3
Foreward	5
Company structure and corporate governance	8
Our participants	9
Core participants	9
Supporting participants	9
Meetings	10
Publications	10
Strategic Plan	10
Operational Plan	10
Annual Report (ASIC)	10
Research priorities	11
Our objectives	12
Research, education and technology adoption	12
Collaboration and coordination	12
Our programs	13
Program 1: Preparedness and Prevention Research	14
Program 2: Diagnostics Research	15
Program 3: Surveillance Research	16
Program 4: Impact Management Research	17
Program 5: Post-Harvest Integrity Research	18
Program 6: Education and Training	19
Program 7: Commercialisation and Utilisation	20
(Delivery and Adoption)	
Our people	22
Board of Directors	22
Chief Executive Officer	22
Executive Management Team	22
CRCNPB Staff	22
Program Leaders	23
Principal Scientist	23
Science Committee	23
Participants Committee	23
Grains Advisory Panel	23
Processes	24
Project selection process	24
Reporting on research activities	24
Project reporting	24
Annual Report (DIISR)	24
Outcomes from the third-year review	25

Our vision is to be a world leader in the generation, development and delivery of plant biosecurity science and education.

Our mission is to foster scientific collaboration and engage stakeholders to deliver plant biosecurity technologies that will reduce risk to, and ensure sustainability of, Australia's plant industries.

Background

The Cooperative Research Centre for National Plant Biosecurity (CRCNPB) was established in recognition of the need to strengthen the scientific capacity underpinning Australia's plant biosecurity system. We commenced operations in late 2005 and were successful in a bid for supplementary resources in 2006. An independent 'Third Year Review' carried out in 2008, commended our progress to date.

Establishment of the CRCNPB was timely. Although international efforts to contain the spread of pests, diseases and weeds have been developed over more than half a century (for example, under the *International Plant Protection Convention*) it is only in recent times that biosecurity has emerged as a major global issue.



A message from the Chairman

Professor John Lovett | Chairman



Since the CRCNPB was established, the Influenza A virus epidemics of 2006 (avian influenza) and 2007 equine influenza, together with the swine flu pandemic of 2009 has focused attention on the vulnerability of people, animals and plants to organisms which can spread around the world in a matter of hours or a few days. In the plant world, the potential impact of the wheat stem rust strain 'Ug99' was articulated by the late Nobel Laureate, Dr Norman Borlaug who stated: *"If we fail to contain Ug99 it could bring calamity to tens of millions of farmers and hundreds of millions of consumers"*.

Harmful pests and diseases (such as Ug99) can impact on food safety and security, trade, market access, market development and, ultimately, the profitability and sustainability of plant industries. As a result, incursions by such organisms directly threaten the economic viability of Australia's plant industries, which have a farm gate value of over \$18 billion and contribute over \$12 billion to export income. Even the perception that Australian produce may be compromised by the presence of such 'contaminants' has the potential to damage our reputation as a producer of safe, quality food products.

Complementing the regulatory role of Commonwealth and state governments, we play a vital role in enhancing the scientific effort to enable Australia's plant industries to deal with pest and disease incidents. The best means of so doing is to pre-empt incursions or, should an incursion occur, to deal with it rapidly and effectively. To this end, our research activities cover the full biosecurity continuum of pre-border, border and post-border activities.


During the first part of our term, we developed a national network of scientists and have developed and released tools which are enhancing the work of the scarce and invaluable human resource engaged in the plant biosecurity effort. A good example is deployment of remote microscopes around the

nation. Linked to a 'triage' hub in Canberra this network enables scientists and technical staff to have suspect organisms identified much more rapidly than has been possible in the past.

Rapid detection means that remedial measures to reduce the potential impact of a pest or disease incursion can then be taken quickly and decisively.

Importantly, the remote microscope network is being extended 'pre-border' with the cooperation of Australia's northern neighbours. Already deployed in Thailand and Indonesia, other countries will join the network in the coming years.

The remote microscope network is a tangible example of our efforts to not only build a national network for biosecurity science, but also to link that national network with relevant international initiatives. Through the quadrilateral scientific collaboration in plant biosecurity (QUADS) alliance, we work with Canada, New Zealand and the United States of America to share resources to address biosecurity topics of common interest. One of QUADS' short-term objectives is to develop a training program which can be extended to other interested countries around the globe.

- 
- Reduce the impact of pests and diseases on the plant industries which sustain trade and food security.

This program will, in turn, play a role in our second major initiative which actively promotes educational opportunities from primary school through to mature age programs in the interest of developing biosecurity awareness in the community.

A specific example of the latter is our project which links Indigenous communities in northern Australia with village communities in Bali.

These communities represent informed 'eyes and ears', who are alert to strange organisms and are able to complement the more conventional surveillance activities of regulatory and scientific bodies. Further efforts to secure community engagement form a key part of our future planning.

By these means, we pursue our objective to build human capacity in biosecurity, to equip it with information and tools, and to link Australia to the best of the world's efforts to reduce the impact of pests and diseases on the plant industries which sustain trade and food security.

Foreward

Dr Simon McKirdy | Chief Executive Officer



Australia is relatively free from many of the harmful plant pests and diseases that seriously impact on agricultural industries in other countries. Australia's plant industries have a valuable competitive advantage in terms of securing market access and maintaining lower production costs through the absence of many harmful plant pests and diseases commonly found overseas. To sustain that advantage into the future, Australia's plant industries need the support of world-class science and biosecurity technology.

Australia's agricultural industries represent about 135,000 farms, of which 62,000 are dependent on crop or horticultural production. Pasture species underpin most livestock activities. Overall, agriculture contributes more than \$38 billion to Australia's Gross Domestic Product. Flow-on effects across the economy increase this value three-fold and plant industries are the foundation of this significant contribution to Australia's economic prosperity. The potential losses caused by the establishment of harmful plant pests and diseases, such as Karnal bunt in wheat, have been estimated at more than \$10 billion in total net present value terms.

The additional impacts of incursions are felt along the entire supply chain. With reduced rural production, the impact flows to local agribusinesses such as transport, fertiliser, seed and machinery companies and retail businesses. These impacts occur at both the regional and national level, on domestic and export marketing, and on commercial activities associated with transporting, processing and value adding. The effects of incursions involve loss of production, which is often substantial where no management strategies are in place, and loss of trade when we do not have the tools to prove that a harmful pest or disease is absent from Australia. Pests and diseases also have the potential to seriously impact on Australia's native flora and fauna.

In addressing plant biosecurity issues, Australia needs to comply with its international obligations.

These derive from the *World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measure*, other World Trade Organisation agreements, and specific international guidelines and standards under the *International Plant Protection Convention*.

Australia has a relatively well-developed plant biosecurity system, but it is still highly vulnerable to serious harmful plant pest and disease incursions. The review of Australian quarantine in 1996 (Nairn *et al.* 1996) noted that a strong scientific capacity is central to the development of sound strategies for preparedness and response to plant pest incursions. The 2008 Beale Report supported this premise and further stated that "*research improves Australia's understanding of the science of pests and diseases and assists with developing management strategies*" (Beale *et al.* 2008).

The Australian Government, state and territory governments, industry and other key stakeholders have created an overarching biosecurity policy framework called AusBIOSEC. The framework has been developed to foster greater national collaboration on biosecurity issues. AusBIOSEC integrates the existing elements of Australia's biosecurity system under a single overarching framework of common principles and guidelines. The AusBIOSEC framework builds on specific industry strategies, such as the *National Plant Health Strategy*, together with legislation and operational procedures already in place for primary industries.

Other countries, such as the United States of America, Canada and New Zealand, are also addressing similar biosecurity issues and we will continue to build on our close linkages with key organisations in these countries.

We will also maintain our collaborative partnerships with the European Union, Thailand, Indonesia and Malaysia.

We will continue to undertake a research portfolio that addresses the priorities of the AusBIOSEC, through both national and international collaborations, and will assist in providing the tools to ensure that both government and industry are aware of the real threats and the most probable pathways for introduction. Our diagnostic and surveillance research activities will provide the capacity to detect and identify any new introductions as early as possible to minimise impacts and maximise eradication potential. Our surveillance research will also improve the capacity to claim area freedom for key pests and diseases which is critical for maintaining and acquiring new markets.

Through our impact management research we will provide government and industry with more effective strategies for eradicating these new introductions. Minimising the social and economic impact of new introductions is a key objective of these activities. Being able to provide industry and our markets with confidence that grain shipments are free of live insects is a key objective of the post-harvest research. This is being achieved through research to ensure Australia maintains the capacity to effectively handle and fumigate grain prior to shipment with confidence that it contains no live insects.

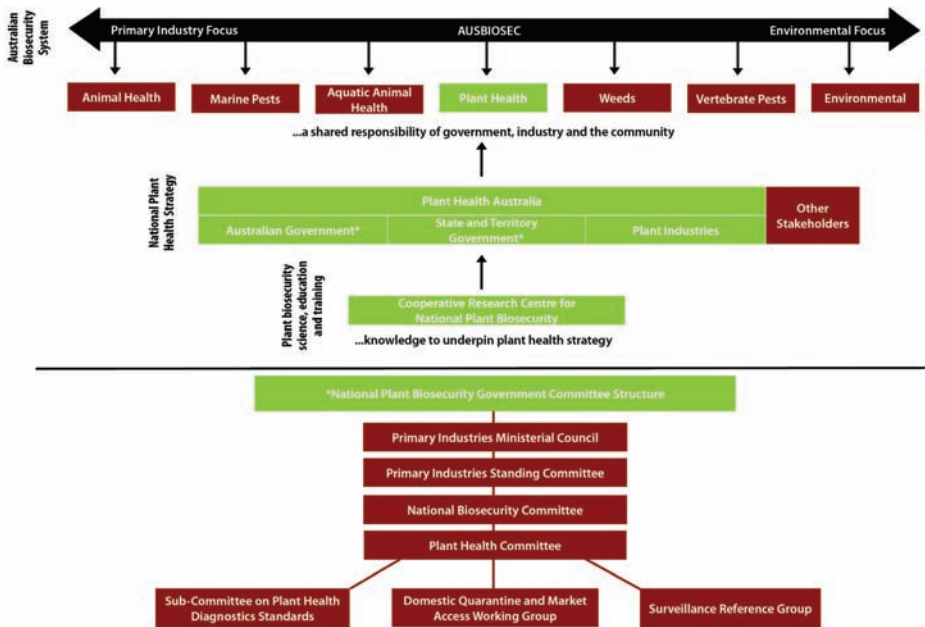
Capacity building for the future is also a continuing objective of our CRC and this will be achieved through the education and training program. We have a large number of high calibre PhD students and will continue to undertake targeted plant biosecurity training for both government and industry. We have also made key discipline appointments to ensure capacity is maintained in the country for these areas.

The cornerstone for all of our activities is ensuring that effective delivery and adoption strategies are in place. These strategies are developed in partnership with end-users to ensure the potential for adoption and use of all our research outputs is maximised.

We will seek to further improve the efficiency of our resources as we strive to achieve our stated goals. This will be achieved through the effective running of our business and administrative functions and the continued development, monitoring and reporting on the use of our human, capital, systems and intellectual resources.

As we fill a critical role in coordinating plant biosecurity research across Australia and demonstrate an ability to deliver outputs that have been adopted by end-users, we will submit a re-bid in 2010 to extend our operations through to 2020.

Figure 1: The Australian Biosecurity System



Our five science and technology programs address four Australian Biosecurity System outcomes, specifically:

- Provide enhanced capacity to reduce the establishment, spread and impact of harmful pests and diseases.
- Achieve more efficient and timely responses to new incursions to reduce the overall impacts of harmful pests and diseases.
- Maintain Australia's favourable health status for our primary production industries and exports.
- Promote cost effective solutions to biosecurity risks.

Our science research is innovative and adheres to the AusBIOSEC requirements of:

- Focusing on agreed national priorities for biosecurity.
- Providing a collaborative approach to national research and development priorities that extends across jurisdictions, sectors and institutions.
- Providing long-term approaches that mitigate the risk from, and impact of, agreed national priority target organisms.
- Identifying critical biosecurity issues for risk management including science, social research and economics.

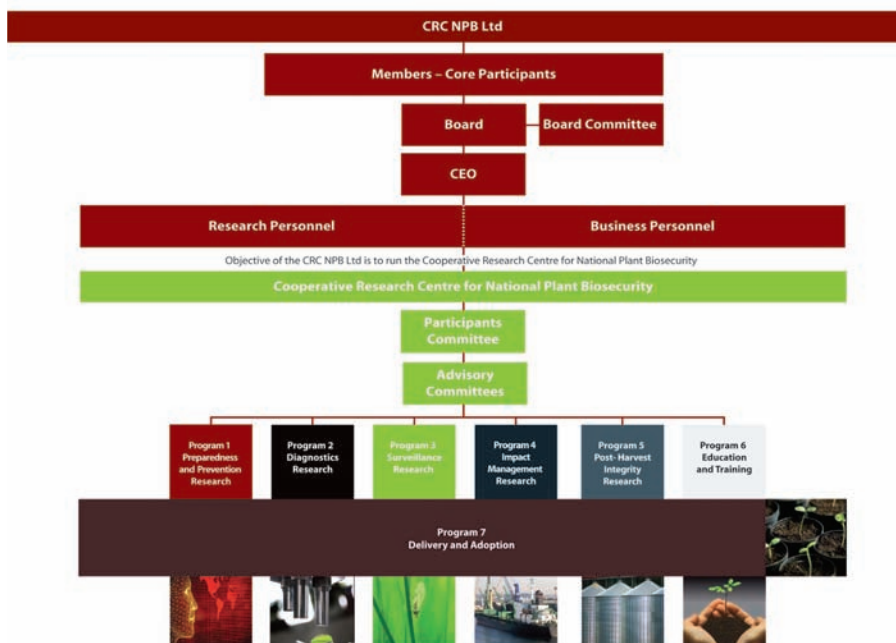
Company structure and corporate governance

The Cooperative Research Centre for National Plant Biosecurity is operated by a company (CRC NPB Ltd) limited by guarantee with a skills-based Board of at least a majority of independent Directors. The operations of CRC NPB Ltd are governed by the Company's *Constitution*, a *Participants Agreement*, and the *CRC Commonwealth Agreement*. A detailed description of the CRC NPB Ltd's corporate governance is given below, with an overview of the company structure in Figure 2, below.

The Board Directors and Chair are appointed by the Members of the Company. The Directors exercise all the power of the Company that the *Constitution* and *Corporations Act* require to be exercised. The Directors, to a reasonable and appropriate extent, consult with relevant Participants in performing their duties. The

Directors are responsible for ensuring the Company keeps written financial records in relation to the operations of the Company and ensure that the financial records of the Company are audited in accordance with the requirements of the *Corporations Act*.

Figure 2: Company structure



Our participants

We have participants from all states and territories on mainland Australia and involve a majority of plant biosecurity specialists in the country. One of our strengths is that all end-user groups (industry, state and federal governments) are involved, ensuring maximum potential for delivery of project outputs. Most of the peak plant industry bodies are already members of Plant Health Australia, one of our core participants. The grains and horticulture industries are represented through their peak research bodies which, together with Australia's major grain companies are also participants.

The Cooperative Research Centre for National Plant Biosecurity is a cooperative venture between the following 23 core and supporting participant organisations, established and supported under the Australian Government's Cooperative Research Centres Program.



Core participants

- ABB Grain Ltd
- Australian Government Department of Agriculture, Fisheries and Forestry
- Charles Darwin University
- Co-operative Bulk Handling Limited
- CSIRO Entomology
- Department of Agriculture and Food, Western Australia
- Department of Primary Industries, Victoria
- GrainCorp Operations Ltd
- Grains Research and Development Corporation
- Industry & Investment, New South Wales
- La Trobe University
- Murdoch University
- Plant Health Australia Ltd
- Queensland Primary Industries and Fisheries
- Queensland University of Technology
- Saturn Biotech Limited
- South Australian Research and Development Institute

Supporting participants

- Charles Sturt University
- Horticulture Australia Limited
- Northern Territory Department of Regional Development, Primary Industry, Fisheries and Resources
- Southern Cross University
- University of Adelaide
- University of Western Australia

Meetings

An Annual General Meeting is held in the second quarter of each financial year. General meetings are convened in the final quarter of each financial year, as required. The Board of Directors meet on a quarterly basis which follows the Board's Finance and Audit Committee meeting.

Publications

Strategic Plan

A *Strategic Plan* is prepared by management in consultation with the Directors and Participants. The *Strategic Plan* is updated when required with any substantial alteration in the strategic directions requiring a Special Majority vote by the members of the Company. The Directors are required to keep the Participants informed about any significant changes to the *Strategic Plan* and matters that arise that may significantly affect the achievement of our objectives.

Operational Plan

An *Operational Plan* is developed by management in consultation with the Directors and is based on our *Strategic Plan* and the milestones set out in our *Commonwealth Agreement*.

Annual Report (ASIC)

We are required to submit a company *Annual Report* to the Australian Securities and Investment Commission by the end of November each year.

Research priorities

Our research is driven by the national research priority of ‘safeguarding Australia from invasive diseases and pests, terrorism and crime’ to ensure trade market access and industry sustainability.

The Australian and State governments and the majority of plant industries have identified critical gaps in the scientific capacity of Australia’s plant health system. These gaps have been further emphasised through AusBIOSEC. An analysis of these critical gaps led to the development of our strategic focus.

Existing plant biosecurity activities overseas were analysed to further develop this focus. The analysis found that there are critical areas of research required across the full continuum of plant biosecurity (preparedness and prevention, diagnostics, surveillance and impact management). In July 2007, additional critical research in the area of post-harvest integrity was added to our portfolio.

To address these priorities, we have five research programs which focus on innovative research activities across the full biosecurity continuum; pre-border, border and post- border.

Recognising the need to be better prepared and prevent problems before they occur – our Preparedness and Prevention Research Program will deliver the knowledge required to underpin decisions on the risk of entry, establishment and spread for harmful pests and diseases.

To rapidly and accurately diagnose these pests and diseases, our Diagnostics Research Program will develop new tools and procedures to provide access to data and expertise that is accurate, sensitive, reliable and cost-effective.

Our Surveillance Research Program will develop sound and cost-effective surveillance procedures and new technologies to assist in accurately defining Australia’s plant health status.

Our Impact Management Research Program will develop management strategies to minimise the social and economic impact of potential incursions from harmful pests and diseases.

To support the health and competitiveness of Australia’s grain industry, the Post-Harvest Integrity Research Program will contribute to managing biosecurity threats in the post-harvest grains sector.

In addition, we will improve Australia’s future capacity to manage risk and response to threats through our Education and Training Program. This program enhances the quality and quantity of plant biosecurity education and training available to industry, undergraduate and postgraduate students as well resources for schools.

Our focus combines the needs identified by the plant industries with the scientific areas where we have the greatest capacity or potential to add value to Australia’s biosecurity system. We will continue to analyse the critical gaps in Australia’s plant biosecurity scientific capacity to ensure that it is focused on the most appropriate priorities.

Our objectives

Research, education and technology adoption

Our research programs are focused on innovative research and development, in key areas that will deliver benefits across commodity groups. These programs also introduce new technologies to meet Australia's plant biosecurity needs to provide long-term benefits.

We will continue to implement strategies to ensure fast and effective delivery of our research outputs.

End-users are identified in the project planning phase and engaged during the course of our research. Our goal is to provide biosecurity solutions that are workable, effective and adopted.

We are strongly committed to the training of high quality Honours and PhD students and postdoctoral scientists to increase Australia's future plant biosecurity capacity. We are supporting at least 32 PhD students over our seven-year lifetime. We also provide training for scientists and other staff already working in the plant biosecurity field to enhance the core capability of Australia.

We are supporting the development of a national curriculum in plant biosecurity and also provide opportunities for Participants to improve their knowledge and skills through scientific exchanges, conferences and other courses.

We aim to raise awareness of biosecurity issues at the industry, community, and primary and secondary school levels, employing innovative means of communication.

Collaboration and coordination

We pursue all opportunities for collaboration and communication between Participants in order to capture the benefits and synergies that can accelerate progress in plant biosecurity science and technology. This collaboration and communication between organisations will ensure the most effective use of the limited resources and existing expertise in the many disciplines that contribute to plant biosecurity. We develop novel technologies, and identify rapid and efficient transfer of tools, knowledge and technology to end-users (agribusiness, producers, and the Australian and state governments) to pre-empt and diminish the economic and environmental impact of harmful plant pests and diseases across Australia.

Participants have agreed to assess whether (and by what means and in what form) the collaboration and communication links developed during our seven-year term should be extended. This assessment will take place no later than the sixth year of our operations.

We aim to involve new Participants, including additional industry organisations, and develop new effective international linkages as required to ensure that Australia has access to the world's most advanced technologies and intellectual property.

Through international collaborations we can facilitate broad acceptance and (where appropriate) adoption of new technologies to enhance Australia's trading position.



Given the wide range of disciplines involved in plant biosecurity, we have developed close linkages with several CRCs, including the Australian Biosecurity CRC for Emerging Infectious Disease and Invasive Animals CRC. In addition, we also have some linkage with all other plant industry related CRCs. To meet our objectives, we source scientific and educational skills and capabilities from non-participant organisations and individual researchers, on a contract basis if required.

Our programs

An overview of our seven programs is provided below. The programs fall into three categories:

1. Science and Technology
2. Education and Training, and
3. Commercialisation and Utilisation (Delivery and Adoption).

Figure 3: Overview of our seven programs





Program 1: Preparedness and Prevention Research

Outcome

Prevention: Reduced incidence of harmful plant pest and disease incursions.

Goal

Decreased incidence and impact of harmful plant pest and disease incursions through contributing to the development of systems, based on risk-weighted, science-based decision making.

Strategic objective

To undertake research that will provide rapid identification of plant biosecurity threats in order to decrease the cost of eradication and impacts through rapid response.

Indicators of success

Economics:

New tools to improve the speed of incursion delimitation and scientific defensibility of area freedom.

Policy:

Improved transparency in policy decisions in the area of import risk assessments.

Science:

New approaches to analysing risk accepted by peers through scientific publication and invitations to present at key meetings, conferences and workshops.

Capacity/collaboration:

New decision tools (e.g. Deliberative Multi-criteria Assessment, Quantitative Impact Assessment) available to end-users through training

Impact/adoption:

New tools (simulation frameworks) used by end-users to either replace or improve existing processes



Program 2: Diagnostics Research

Outcome

Identification: World-class biosecurity capability for early identification of plant biosecurity threats.

Goal

A world-class biosecurity capability for early identification of plant biosecurity incursions in Australia through provision of data, expertise and diagnostic technology that is accurate, sensitive, reliable and cost-effective.

Strategic objective

To undertake research that will provide rapid identification of plant biosecurity threats in order to decrease the cost of eradication and impacts through rapid response.

Indicators of success

Economics:

New diagnostic tools to improve responsiveness to plant biosecurity incursion events.

Science:

World recognised protocols for rapid identification of harmful pests and diseases are developed and published in international journals.

Policy:

Databases and new tools to share diagnostic information are standardised.

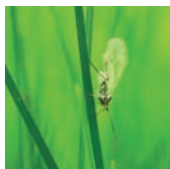
Protocols for plant biosecurity threats are developed and submitted to the Subcommittee on Plant Health Diagnostic Standards.

Capacity/collaboration:

Improved diagnostics transferred to end-users to support monitoring and market access activities.

Impact/adoption:

New diagnostic information (services, protocols and expertise) are accessed by end-users via internet systems.



Program 3: Surveillance Research

Outcome

Detection: More effective national surveillance systems.

Goal

A more effective national surveillance system based on scientifically sound sampling tools and survey methodologies.

Strategic objective

To undertake research that will develop technically sound sample/survey methodologies and systems to enhance the ability to capture a wide range of plant health information in an accurate and cost-effective manner both domestically and internationally.

Indicators of success

Economic:

Deployment of new monitoring applications to enhance scientific defensibility of market access for stored grains.

Science:

Surveillance tools developed and peer reviewed through scientific publication and invitations to present at key meetings, conferences and workshops.

Policy:

New surveillance tools and procedures are used by end-users to support market access outcomes.

Capacity/collaboration:

Tools and standardised procedures are delivered to end-users through training.

Impact/adoption:

New tools (statistical tools, automated traps, Personalised Digital Assistants) are used by end-users to enhance existing surveillance processes.



Program 4: Impact Management Research

Outcome

Response: Reduced losses from incursions by harmful pests and diseases.

Goal

Reduced economic and social impact from incursions of harmful pests and diseases through new control, risk mitigation and recovery strategies.

Strategic objective

To undertake research that will minimise the social and economic impact of a harmful pest or disease incursion through the development of management strategies.

Indicators of success

Economic:

Decreased economic and social cost for future pest and disease eradications and scientific defensibility of market access conditions.

Science:

New tools to optimise incursion responses accepted by peers through scientific publication and invitations to present at key meetings, conferences and workshops.

Policy:

New tools to manage plant biosecurity threats are integrated into response strategies through consultation with end-users.

Impact/adoption:

New procedures for the eradication of plant biosecurity threats are used by end-users.



Program 5: Post-Harvest Integrity Research

Outcome

Post-harvest grain biosecurity.

Goal

Maximise the value, integrity, and competitive advantage of Australia's post-harvest supply chain.

Strategic objective

To undertake innovative research to develop cost-effective solutions and technologies for the post-harvest supply chain.

Indicators of success

Economic:

Strategy for extending the useful life of phosphine to support market access outcomes for Australian grains.

Science:

New knowledge underpinning strategies to manage phosphine resistance is accepted by peers through publication.

Policy:

Standardised detection and measurement of resistance to phosphine is accepted by end-users.

Capacity/collaboration:

Improved phosphine resistance management practice both on-farm and in all sectors of the post-harvest grains supply chain.

Impact/adoption:

New tools to optimise chemical applications in grain storage are adopted by end users.



Program 6: Education and Training

Outcome

Education and training: Increased awareness, knowledge and skills levels of industry personnel, and supply of trained scientists.

Goal

The awareness, knowledge and skill of industry personnel, and supply of trained scientists involved in the supply chain and import/export pathways will be enhanced through education and training.

Strategic objective

To undertake training of Honours and PhD candidates in plant biosecurity, to provide workshops and courses for people working in industry and the government sector, and to provide opportunities for research staff and students to enhance skills, develop industry awareness, and ensure that Australia has the highest quality plant biosecurity research community.

Indicators of success

Capacity:

New postgraduate scientists are supplied to the plant biosecurity community.

Short courses and workshops are delivered to plant biosecurity research staff and students and industry professionals.

Establishment of new university courses in plant biosecurity.



Program 7: Commercialisation and Utilisation (Delivery and Adoption)

Outcome

Commercialisation and utilisation.

Goal

Realisation by stakeholders of the benefits of the CRCNPB, as the result of adoption of improved knowledge-based systems by government, universities and plant industry organisations, and commercialisation of new technologies through the private sector.

Strategic objective

To facilitate the delivery, commercialisation and utilisation of all program outputs to appropriate end-users in a manner that will ensure maximum adoption of new plant biosecurity technologies and skills.

Indicators of success

Collaboration:

Engagement with end-users through advisory groups.

High reputation and recognition of the CRCNPB with scientific and government biosecurity community.

Capacity:

Awareness of capacity of the CRCNPB to deliver benefits to industry and as a preferred supplier of biosecurity research in Australia.

Uptake:

End-user utilisation of CRCNPB outputs captured by measurable and definable indicators including, but not limited to the number of:

- PDAs deployed
- remote microscope nodes established
- hits on the *Plant Biosecurity Toolbox*
- new diagnostic protocols submitted to SPHDS
- on-farm insect management workshops conducted, and
- schools teaching the *Plant Pest Investigators* unit.



Practice change:

Identifiable change in practice as a consequence of CRCNPB outputs including, but not limited to:

- new risk analysis tools utilised by the horticultural industry to prioritise biosecurity threats
- new diagnostic protocols being utilised as diagnostic standards
- new insect and pathogen eradication strategies utilised to reduce the financial and community impact of incursions
- new stored grain fumigation techniques implemented by bulk handlers
- new grain grower change management and knowledge transfer strategies deployed, and
- new fruit fly surveillance techniques implemented by state agencies.



Our people

Board of Directors

The Board is skills-based and made up of a Chair, who is independent of Participants, and six other Directors, a majority of whom are required to be independent of research providers. The Board has skills in:

- plant industry production, operations and marketing
- plant health policy, plant health management and international trends in plant health practices
- strategic planning, business and financial management, and economics
- corporate leadership and governance
- management of research and development
- education and training
- technology adoption, and
- intellectual property management and commercialisation.

Chief Executive Officer

The Chief Executive Officer (CEO) is appointed by the Board to manage and provide strategic leadership for the activities and staff of the CRCNPB. The CEO reports to the Board.

Executive Management Team

An executive management team comprising of the Chief Executive Officer, Research Leader and Business Manager administers the policies and delegation authorities of the Board.

CRCNPB Staff

Members of our staff have qualifications and experience in project management, administration, finance, public policy, education and communication and assist executive management to administer the policies and delegation authorities of the Board.





Program Leaders

Program leaders are appointed as in-kind resources from our Participant organisations and hold substantive positions within their organisations. Each program leader is a recognised national expert in their respective fields and undertakes a series of strategic and operational responsibilities to manage one of our research programs.

Program leaders work in partnership with researchers to develop and deliver research activity that addresses contracted *Commonwealth Agreement* milestones.

Principal Scientist

The Principal Scientist assists with the development of responses to strategic research areas. As detailed in the *Commonwealth Agreement*, the Principal Scientist also contributes strongly to the process of reviewing the quality of science throughout our research portfolio.

Science Committee

A Science Committee, chaired by the Research Leader and comprising the Principal Scientist and Program Leaders manages and delivers the science program. The Science Committee is supported by some of our staff and is also responsible for recommending new projects to the Board (see project selection process section).

Participants Committee

The Participants Committee is made up of representatives from each of our core Participants. This committee monitors our progress, including current and proposed projects, and commercialisation of intellectual property. There is a small number of Special Majority Issues and Unanimous Issues in the *Participants Agreement* that are determined by Members and/or Participants.

Grains Advisory Panel

The Grains Advisory Panel provides oversight of the delivery of the post-harvest integrity research activities and recommends the delivery mechanism for the research outcomes, including communication and extension or commercialisation to the CRC NPB Ltd Board.

The Grains Advisory Panel is chaired by our CEO and is made up of the following people:

- one representative from each of the following grain companies: ABB Grain Limited, GrainCorp Operations Limited and Co-operative Bulk Handling Limited
- the Grain Products Program Manager from Grains Research Development Corporation, and
- two representatives from Grains Research Development Corporation.

Processes

Project selection process

Our project selection process provides an overview of how we manage the development of a project proposal through to the commencement of a contracted project. The process is comprised of five main stages, as represented in Figure 4.

Reporting on research activities

Project reporting

We manage the performance of all our projects through regular communication between program leaders and project leaders to ensure the successful delivery of their contracted milestones within the timeframe and through formal quarterly progress reporting.

All project teams and PhD students are required to submit a quarterly progress report through our electronic information management system. The progress reports provide an update on the project's performance against the contracted milestones and project objectives. All progress

reports are evaluated quarterly, with a formal review of all projects occurring biannually by the Science Committee.

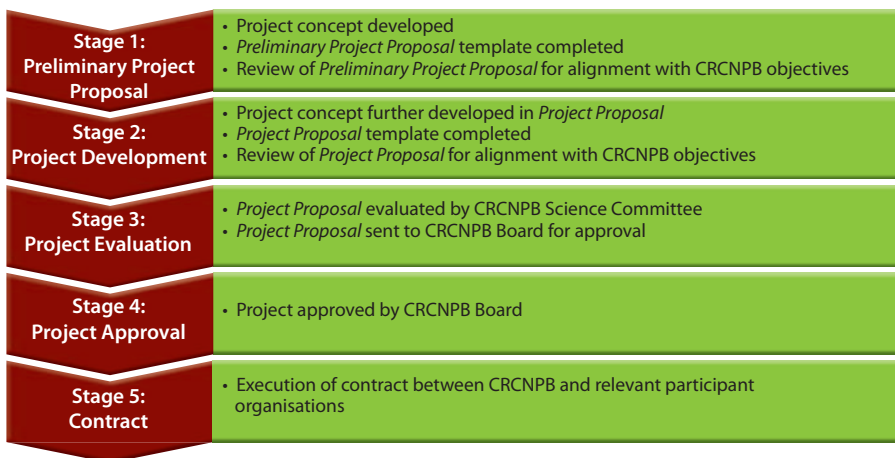
All project progress reports are reviewed by evaluating the projects performance against four key criteria:

1. achievement of research milestones
2. research collaboration
3. end-user engagement, and
4. external evidence of progress (including publications)

Annual Report (DIISR)

We are required to submit an *Annual Report* on our research activities to the Australian Government's Department of Industry, Innovation, Science and Research (DIISR) by the end of October each year. The *Annual Report* is developed by management in consultation with the Directors and is based on guidelines provided through DIISR's CRC Program.

Figure 4: Project selection process



Outcomes from the Third-Year Review

In 2009, we successfully completed our Third Year Review, satisfying a DIISR requirement. The Review Panel provided us with seven commendations. Notably the Panel commended us for effectively pulling together a disparate group of stakeholders and the level of recognition that had been achieved in our first three years. The Chair of the Panel further stated *“the CRC program as a whole looks set to deliver benefits across a wide cross-section of stakeholders in Australia and is contributing significantly to biosecurity capability development.”* In addition, it was stated that the Panel’s recommendations are for improvements and refinements rather than to overcome any identified fundamental flaws in our management or operations’.

The review provided 16 recommendations that seek to improve or refine our management and operation of the CRCNPB.

Over the remaining period of the CRCNPB, we will undertake the following activities to address the recommendations.

- We will seek greater end-user involvement in all phases of the project cycle. This will be facilitated by the Delivery and Adoption Officer. This will also include clear articulation of pathways to adoption of research outcomes.
- We will develop a legacy and succession plan. This plan will include four considerations:
 1. A second term of the CRCNPB will be sought.
 2. A review of intellectual property and project outputs/outcomes will be completed to identify management options.
 3. The legacy of the significant capacity building will be considered.
 4. Options to source required resources to continue plant biosecurity research should a second-term CRCNPB not be realised will be investigated.
- We will develop a stakeholder management plan as well as a comprehensive communications strategy.
- We will undertake annual science forums to bring together researchers and stakeholders.



Cooperative Research Centre for National Plant Biosecurity

The Cooperative Research Centre for National Plant Biosecurity was established and is supported under the Australian Government's Cooperative Research Centres Program.

LPO Box 5012
Bruce ACT 2617

phone: +61 (0)2 6201 2882
fax: +61 (0)2 6201 5067
email: info@crcplantbiosecurity.com.au

ABN 13 115 589 707

www.crcplantbiosecurity.com.au

