



# National Onion Industry Biosecurity Plan

## INTRODUCTION





For more information on Plant Health Australia

**Location:** Suite 5, FECCA House  
4 Phipps Close  
DEAKIN ACT 2600

**Phone:** +61 2 6260 4322

**Fax:** +61 2 6260 4321

**E-mail:** admin@phau.com.au

**Visit our web site:** [www.planthealthaustralia.com.au](http://www.planthealthaustralia.com.au)

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Communications Manager  
Plant Health Australia  
PO Box 363  
CURTIN ACT 2605

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## Acronyms

EPP	Emergency Plant Pest
EPPRD	Emergency Plant Pest Response Deed
GIMP	Generic Incursion Management Plan
IBG	Industry Biosecurity Group
IBMP	Industry Best Management Practice
IBP	Industry Biosecurity Plan
OA	Onions Australia
PHA	Plant Health Australia
QA	Quality Assurance

**Note:** The definition of a pest as adopted by the International Plant Protection Convention (any species, strain or biotype of plant, animal, or pathogenic agent, injurious to plants or plant products) is used throughout this plan.

## Plant Health Australia

Plant Health Australia (PHA) is a public company, with members including the Australian Government, all state and territory governments, and a range of plant industry organisations. The company was formed to address high priority plant health issues, and to work with all its members to develop an internationally outstanding plant health management system that enhances Australia's plant health status and the sustainability and profitability of plant industries.

## Need for biosecurity plans

Australia's geographic isolation and lack of shared land borders have, in the past, provided a degree of natural protection from exotic threats. Australia's national quarantine system also helps to prevent the introduction of harmful exotic threats to plant industry. Rapid increases in overseas tourism, imports and exports, mail and changing transport procedures (e.g. refrigeration and containerisation of produce), as well as the potential for pests to enter via natural routes, mean that relying on quarantine measures is not enough.

Biosecurity planning provides a mechanism for the onion industry, government and other relevant stakeholders to actively determine pests, analyse the risks, and put in place procedures to reduce the chance of pests reaching our borders, and procedures to minimise the threat even if a pest incursion occurs.

Ensuring the onion industry has the capacity to minimise the risk of pests, and to respond effectively to any pest threats, is a vital step for the future sustainability and viability of the industry. Through this pre-emptive planning process, the industry will be better placed to maintain domestic and international trade, negotiate access to new overseas markets, and reduce the social and economic costs of pest incursions to both growers and the wider community.

## Background on the onion industry

Onions are grown commercially in all states of Australia, however the prominent bulb producing areas are in South Australia and Tasmania. The major regions in each state are:

- South Australia – Adelaide Plains, River Murray, South East, and Mallee
- Tasmania – North West Coast
- Western Australia – Perth, Manjimup and Myalup
- Victoria – Western Districts and Gippsland
- New South Wales – Riverina
- Queensland – Lockyer Valley

Several types of onions are grown in Australia including brown, white, red and mild onions. Onions are available all year round, but the main harvest period commences in August in Queensland and extends through to April in the southern states. The National Onion Industry Biosecurity Plan (IBP) is concerned with the commodity *Allium cepa* (onions) and does not cover other bulb species such as garlic or leeks, however they will be mentioned in various sections of the IBP due to their similarities and potential to host many of the pests of onions.

The demand for onions in Europe has historically been strong, although in 1996/97, and again in 1999/00, the quantity exported to the European Union dropped substantially due to competition from stored European product and other exporters. The major competitors to onion exports are other Southern Hemisphere producers; New Zealand, Chile, South Africa, with China emerging as a supplier in Asia.

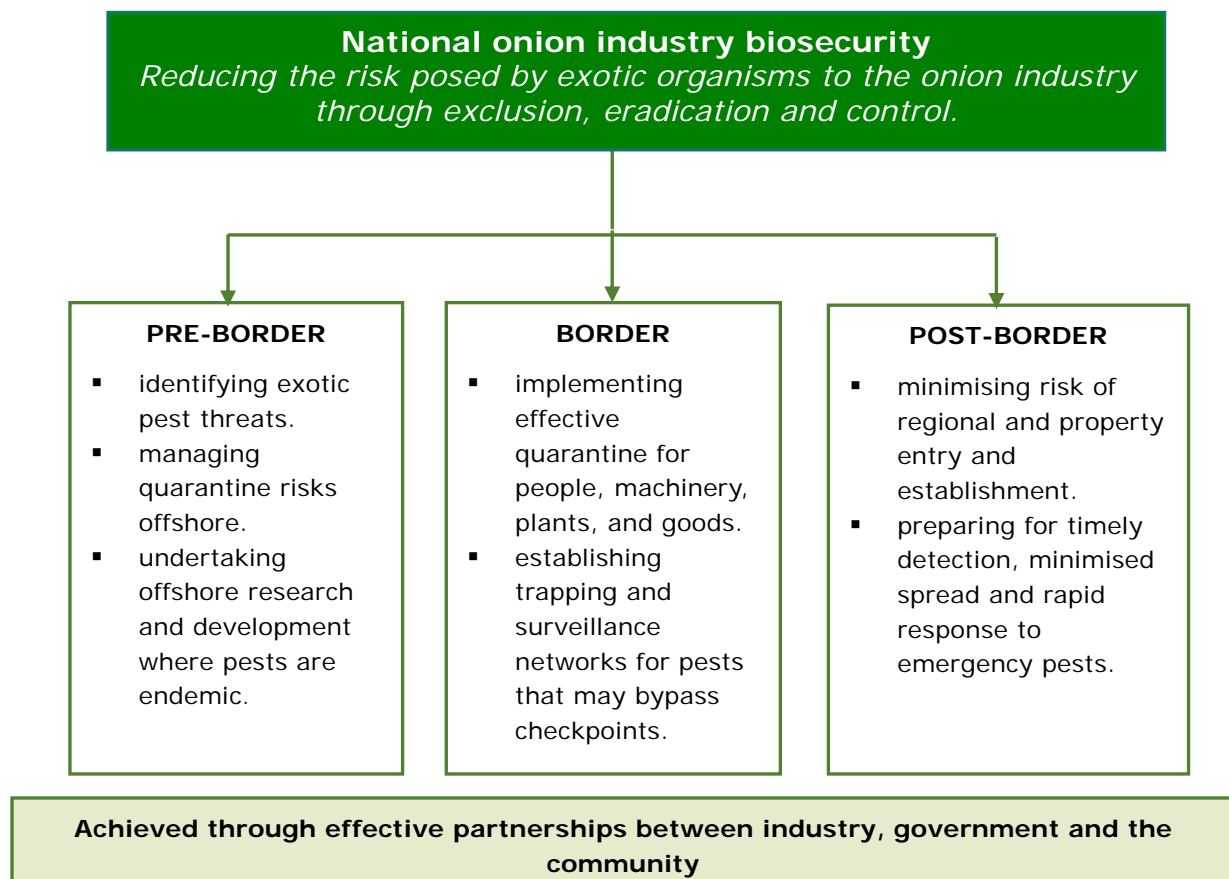
Australia produces in excess of 200,000 tonnes of onions each year. In 2001/02 the Australian onion industry was valued at \$163 million. The price for onions ranges between \$200 and \$750 per tonne, however prices have reached \$1000 per tonne. Australia exports, on average, 36,376 tonnes of onions valued at \$25.4 million each year.

The onion industry faces challenges from a wide range of pests currently established within Australia, such as white rot and downy mildew, as well as a host of potential threats residing outside the national borders. Serious exotic threats include leaf blight of onion (*Botrytis squamosa*), onion smut (*Urocystis cepulae*), and onion fly (*Delia antiqua*)

## What is industry biosecurity planning?

Industry biosecurity is the minimisation of risks posed by exotic organisms through actions such as exclusion, eradication, and control. Effective industry biosecurity relies on all stakeholders, including government agencies, industry, and the public (Figure 1). A number of authors have identified the components of a plant industry biosecurity continuum, and Lloyd (1996) summarised them in the Generic Incursion Management Plan (GIMP) for the plant industries (Figure 2).

**Figure 1:** Industry biosecurity: a shared responsibility

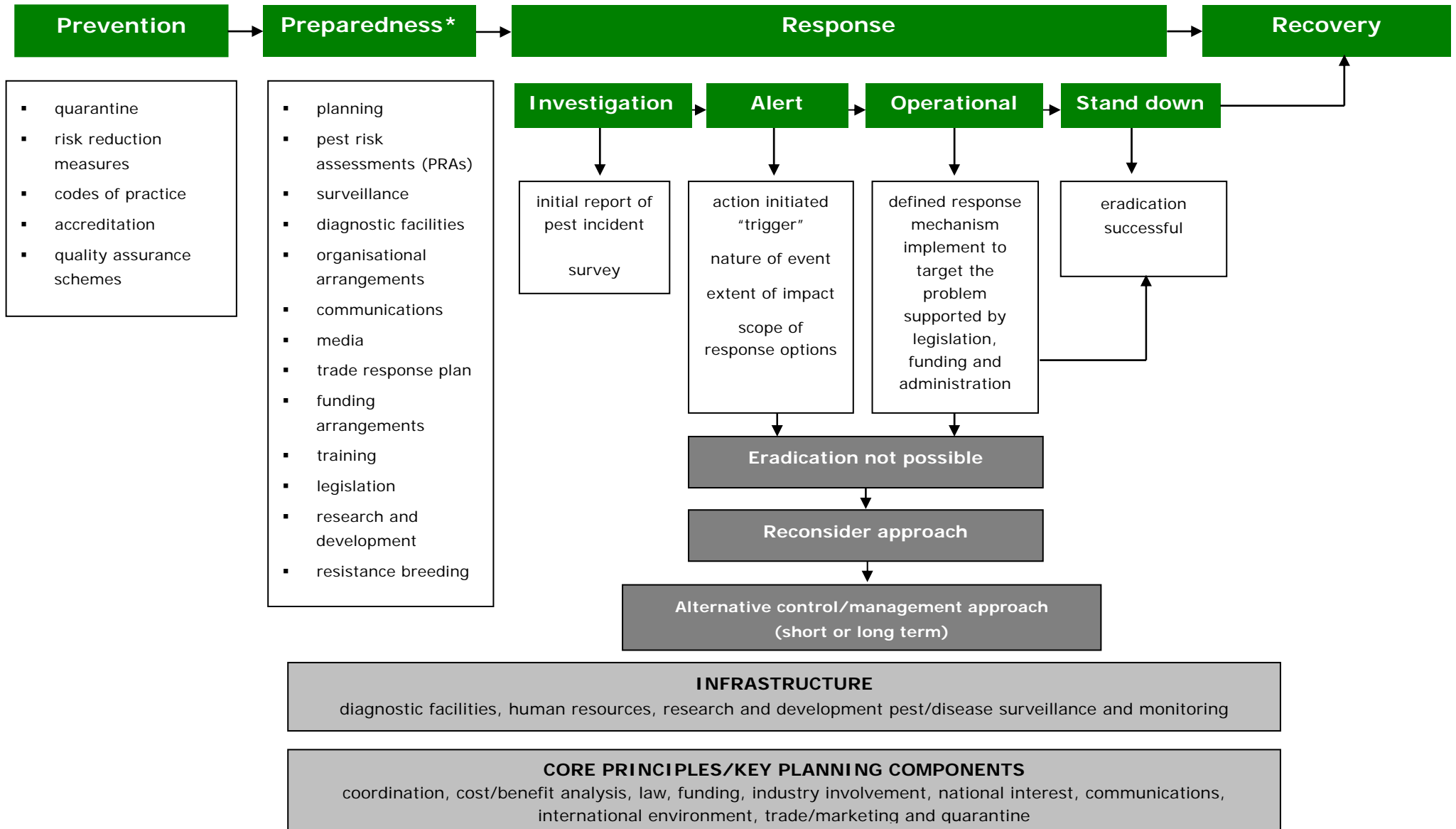


With the assistance of Onions Australia (OA) an Industry Biosecurity Group (IBG), coordinated by PHA, was formed to work on the development of a national biosecurity plan for the onion industry. The IBG includes representatives from onion industry associations in each relevant state, as well as representatives from relevant state/territory agriculture agencies, the Australian Government, and PHA.

**Table 1:** *Members of the Industry Biosecurity Group*

<b>Name</b>	<b>Organisation</b>
Joanne Thomas-Ward	Onions Australia
Steve Rathjen	Onions Australia
Barbara Coddington	Onions Australia
Yvonne Smith	Onions Australia
Steve Harper	Department of Primary Industries and Fisheries, Queensland
Sarah Corcoran	Department of Primary Industries and Fisheries, Queensland
Marcelle O'Brien	Department of Primary Industries and Fisheries, Queensland
Gerry MacManus	Department of Primary Industries and Fisheries, Queensland
Dean Metcalf	Department of Primary Industries and Water, Tasmania
Michael Hart	Department of Primary Industries and Water, Tasmania
Therese Brackenbury	Office of Chief Plant Protection Officer
Vanessa Brake	AQIS
Ian Porter	Victorian Department of Primary Industries
Bill Washington	Victorian Department of Primary Industries
John Cornish	Primary Industries and Resources of South Australia
Trevor Twigden	Landmark
Kim James	Horticulture Australia Ltd
Simon Drum	Horticulture Australia Ltd
Prue McMichael	Scholefield Robinson Horticultural Services
Shashi Sharma	Department of Agriculture and Food, Western Australia
Richard Walker	Department of Primary Industries, New South Wales
Ryan Wilson	Plant Health Australia
Debra Eaton	Plant Health Australia
James Garden	Plant Health Australia

**Figure 2: Generic Incursion Management Plan (GIMP) for the plant industries**

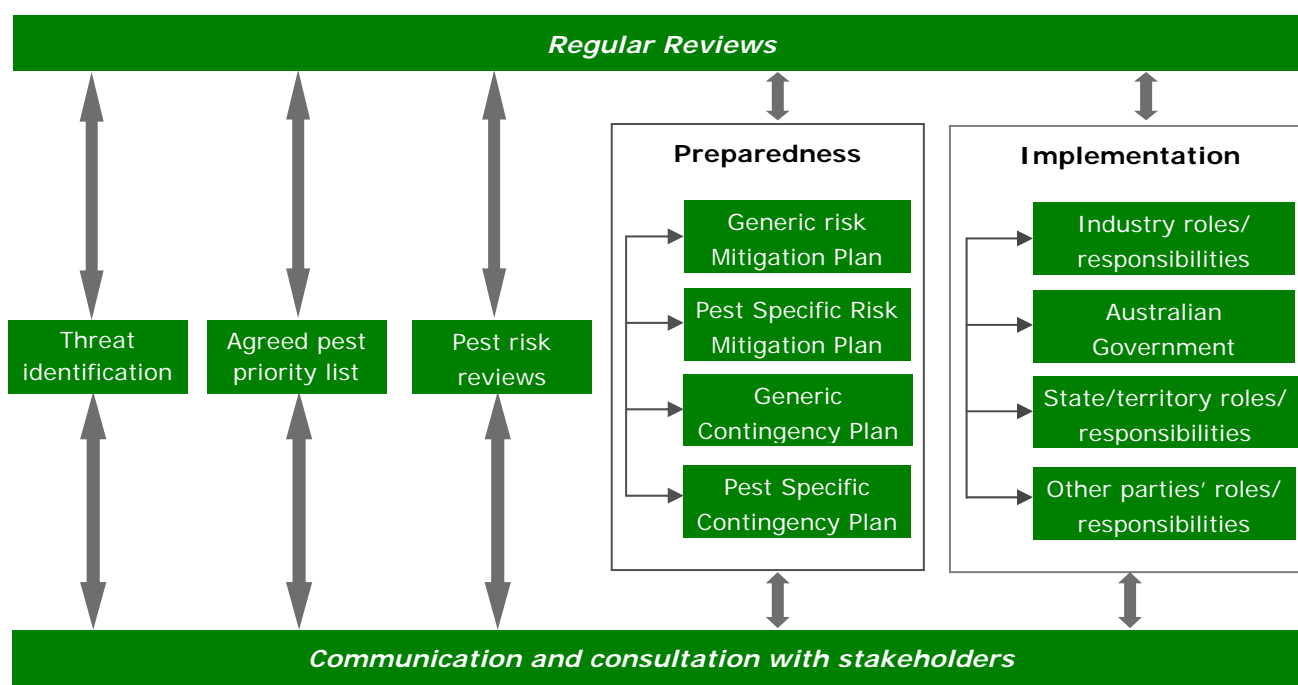


\* stages of 'all hazards' approach adopted by Emergency Management Australia

Key steps in the development of the *National Onion Industry Biosecurity Plan* are shown in Figure 3, and included:

- identifying and documenting key threats to the onion industry
- developing an agreed emergency plant pest priority list
- undertaking and documenting appropriate pest risk reviews
- developing an industry risk mitigation plan
- developing a generic incursion response plan
- developing pest-specific contingency plans for high priority pests
- agreeing on, and documenting the roles and responsibilities of stakeholder groups
- developing appropriate communication and consultation strategies
- developing a review strategy.

**Figure 3:** Steps involved in the development of an Industry Biosecurity Plan



## Document overview

The biosecurity package developed for the Australian onion industry focuses on a number of key areas.

### Threat identification, pest risk reviews and incursion management funding arrangements

Guidelines are provided for the identification and categorisation of biosecurity threats through a process of qualitative risk assessment. The primary goal is to coordinate identification of exotic pest threats that could impact on productivity, sustainability, and marketability and to assess their potential impacts. This plan strengthens risk assessment work already being done both interstate and overseas. Pest Risk Reviews have been included for individual pests where available. Key onion biosecurity threats are detailed in

Threat Summary Tables, along with the emergency plant pest priority list (the top ranked threats to the onion industry).

An Emergency Plant Pest Response Deed (EPPRD) has been negotiated between the government and industry members of PHA. As at January 2007, eighteen plant industries had formally ratified the EPPRD. The Deed provides a formal mechanism for industry and governments to raise funds for the eradication of emergency plant pest incursions in a timely and efficient manner. The following key outcomes have been endorsed by PHA members:

- cost minimisation for all parties
- early detection and response
- ensuring rapid responses to emergency plant pests (EPP) – excluding weeds in the first instance
- ensuring decisions to eradicate are based on appropriate criteria (must be technically feasible and cost beneficial)
- an agreed list of potential emergency plant pests (EPP)
- a commitment by all signatories to biosecurity and risk mitigation;
- cost sharing/payment of eligible costs
- a cap on contributions (based on local value of production)
- an effective industry/government decision-making process
- a limit in scope (to only cover emergency plant pest threats relevant to PHA member industries).

## Risk mitigation plan

This section provides a summary of activities to mitigate the impact of pest threats on the Australian onion industry, along with a set of guidelines for managing risk at all operational levels. Many pre-emptive practices can be adopted by plant industries and government agencies to reduce risks. These include:

- surveillance, awareness and training activities
- exclusion activities (e.g. restricting movement of planting material and machinery)
- selection of appropriate planting materials and cultivars
- destruction of crop residues
- control of vectors
- control of alternative hosts and weeds
- tillage practices
- post-harvest handling and produce transport procedures
- use of warning and information signs
- use of dedicated equipment when working in high risk areas
- restricting the use of high risk vehicles during high risk times
- reporting suspect pests to appropriate authorities
- including farm biosecurity in Industry Best Management Practice (IBMP) and Quality Assurance (QA) schemes.

## Contingency plans and response management arrangements

PHA has developed PLANTPLAN, a generic emergency response plan for the Australian plant industries. This plan details the procedures required and the organisations responsible in the event of an incursion of a high priority plant pest.

## Awareness material

Information on where to find further information on key identified threats to the Australian onion industry is provided. Information on high priority onion pests will help increase industry awareness and promote rapid detection and eradication.

## Review processes

With the support of PHA, the IBG is responsible for reviewing this plan periodically. The review process will be used to determine:

- strategies to maximise the adoption of recommended practices
- where further improvements can be made
- revisions/updates to the plan
- where resources should be allocated to improve the plan.

## References

Lloyd, H. L. (1996). *Incursion management in Australian plant industries: a report by the Plant Industries Sub-Committee of the SCARM Task Force on Incursion Management*. Department of Primary Industries and Energy, Canberra, ACT.

Collins, D, Cirillo, L and Abraham, L 2004, *The Australian Horticulture Statistics Handbook*, HAL.