

# **NRMSC APPROVED PROCEDURE FOR DETERMINING CANDIDATE WEED SPECIES AND/OR CONTROL AGENTS FOR BIOLOGICAL CONTROL**

*This procedure was approved at NRMSC Meeting 6, held on 5<sup>th</sup> September 2003 in  
Adelaide, agenda item 4.12.*

*(updated for organisational name changes 21st June, 2005)*

The objectives of this procedure are to identify and resolve conflicts of interest that may arise from effective biocontrol of a weed species, and to facilitate coordination of national effort where appropriate. An organisation, having identified a species as one requiring attempts at biological control, shall, prior to commencing the search for control agents, seek agreement from AWC to target the species for biocontrol. While not a requirement, under certain circumstances, the weed may be declared as a target under the Biological Control Acts 1985 (BCA).

To meet the requirements of the Quarantine Act and the Environment Protection and Biodiversity Conservation Act, biological control agents must be rigorously assessed before permits can be issued for their introduction and release in Australia. While not a requirement, under certain circumstances, the agent(s) may be declared along with target(s) under the BCAs.

Table 1 summarises the circumstances under which use of the BCAs would be appropriate. Figure 1 shows a BCA compliant process for nominating targets and agents.

## **1. Procedure for determining candidate weed species**

- 1.1. The applicant shall submit a request to the Secretariat, Australian Weeds Committee of intent to pursue biological control, by providing the information listed under Section 3 below.
- 1.2. The Secretariat, AWC shall obtain approval of AWC members that the application meets requirements, including in particular, the completeness of the list of stakeholders who should be consulted to seek resolution of possible conflict.
- 1.3. The Secretariat, AWC shall forward the AWC-endorsed application to the Permanent Head of the Agency representing the proponent State/Territory on AWC, for consultation. The Permanent Head shall conduct consultation on behalf of all Natural Resource Management Standing Committee (NRMSC) and Primary Industry Standing Committee (PISC) agencies in their State/Territory and report results to the Secretariat. A consultation period of 2-3 months should be allowed.
- 1.4. The Secretariat shall seek and compile comments from each State/Territory on the report resulting from the public consultation and the AWC shall implement action as follows:

### ***No foreseen conflict or adverse comment***

AWC shall recommend approval. NRPPC and NRMSC consider and approve the proposal and inform the applicant organisation.

### ***Possible conflict or adverse comment***

#### *Minor or Major Conflict resolved:*

AWC shall recommend approval on the basis that the conflict is resolved (for example by restricting the target to a specific species rather than several related species); NRPPC and NRMSC consider and approve.

**OR**

*Minor conflict not resolved but benefits versus adverse impacts are very favourable:*

AWC shall report that benefits far outweigh adverse effects and recommend to NRMMC, through NRPPC and NRMSC, that the proposal should proceed under protection of the Biological Control Act 1985; NRMMC to consider and approve.

**OR**

*Major Conflict not resolved:*

AWC to advise applicant organisation that if it wishes to continue it should further evaluate the situation and supply further information or withdraw application. If with further information the applicant still wishes to proceed, AWC shall recommend to NRPPC and NRMSC to support or not support proceeding under the Biological Control Act; NRMMC to make determination.

1.5. To expedite consideration of each proposal, the documents will be considered at each stage by Committee members, out-of-session. Whenever consideration of proposals by this means is inappropriate, the documents will be considered in session.

## **2. Procedure for determining biological control agents**

2.1. A detailed process currently in place and administered by DAFF and DEH deals with the assessment of potential biological control agents and includes importation under controlled conditions for testing purposes. The process and details of the technical information are set out on the DAFF website ([www.daff.gov.au](http://www.daff.gov.au)) (excerpt at attachment 1). The process includes extensive consultation with stakeholders

2.2. The final stage of the process is an application for the release of potential agents. Consultation at this stage seeks input from 21 cooperators for or against the release. The comments must be accompanied by a technical justification for the position taken.

2.3. The roles with regard to the proposed release of an agent targeting a weed is as follows:

### ***No foreseen conflict or adverse comment***

DAFF and DEH shall approve the release.

### ***Possible conflict or adverse comment***

*Minor or Major Conflict resolved:*

DAFF and DEH shall approve the release.

**OR**

*Where the target is a weed and an unresolved conflict is identified:*

AWC shall be consulted. AWC can advise on the completeness of the list of stakeholders who should be consulted to seek resolution of possible conflict and facilitate the process of resolving the conflict.

**OR**

*Minor conflict not resolved but benefits versus adverse impacts are very favourable:*

AWC shall report that benefits far outweigh adverse effects and recommend to DAFF and DEH that the proposal should proceed only under protection of the BCA; AWC shall make the same recommendation to NRMMC, through NRPPC and NRMSC; NRMMC to consider and approve. This is subject to agreement from DAFF and DEH that a permit to release will be issued subject to a declaration under the BCA.

**OR**

*Major Conflict not resolved:*

AWC to recommend to DAFF and DEH that the application be either rejected, or further information supplied. If with further information the applicant still wishes to proceed, AWC shall recommend to NRMMC, through NRPPC and NRMSC, to support or not support proceeding under the BCA; NRMMC to make determination.

- 2.4. To expedite consideration of each proposal, the documents will be considered at each stage by Committee members, out-of-session. Whenever consideration of proposals by this means is inappropriate, the documents will be considered in session.

### **3. Required Information on Possible Candidate Species**

The organisation proposing a particular weed for biological control would assemble the following information:

- (i) *Taxonomy*
  - (a) Scientific name (genus, species and author) currently accepted by taxonomists, as well as synonymy.
  - (b) Common name(s).
  - (c) Family to which the weed belongs
  - (d) All close relatives in the Australian region, with comments on their economic, biological and ecological importance and on their distribution.
- (ii) *Habitat*
  - (a) Native geographic range and climatic and edaphic variation between sites within range. Limits to distribution where known.
  - (b) Present distribution, both in Australia and elsewhere.
  - (c) Probable geographic centre of origin.
  - (d) Potential range of species.
- (iii) *Control Methods*
  - (a) Current control methods, noting degree of success, expenditure, undesirable side-effects (eg chemical residues).
- (iv) *Importance of Plant*
  - (a) Detrimental aspects, eg environmental impacts, stock poison, allergens, pasture competitor, grain contaminant, wool contaminant, milk tainter.
  - (b) Beneficial aspects, eg grazing value, human food, erosion control, honey production, tourist value, source of drug, chemical or fuel.

Each point under (iv) should be backed with documentation obtained from appropriate government, semi-government, producer, commercial and other appropriate bodies.
- (v) *Stakeholders*

Provide a list of stakeholders and other groups who may be consulted by jurisdictions and who may be disadvantaged by the release of effective agents on the weed.

#### 4. Required Information on Possible Candidate Agents

The required information is set out in the DAFF website ([www.daff.gov.au](http://www.daff.gov.au), attachment 1).

#### 5. Review of the Status of candidate weed

5.1. The AWC Secretariat is to collate reports from agencies conducting biocontrol research on the progress of research on all weeds accepted as targets for biological control after three years and prepare a report for the NRPPC to pass on to the NRMSC.

Table 1. Circumstances under which use of the Biological Control Act (BCA) should be considered

Declaration	Scenario	Consider use of BCA?
Target	Not considered to have any useful attributes	
	Considered by some to have useful attributes <sup>1</sup>	✓
Agent	No species in Australia other than the target is attacked by the agent	
	Species in Australia other than the target may be attacked and: the species are unimportant (exotic plants with no economic value)	
	the species have economic value (eg in horticulture, agriculture or land management, or as ornamentals) <sup>2</sup>	✓
	the species have environmental/biodiversity value (any native plant) <sup>2</sup>	✓

<sup>1,2</sup> Prior to considering use of the BCA, a technical analysis should clearly show that the harm caused by the target clearly exceeds the potential harm arising from targeting a plant or releasing an agent. Relevant sections of the BCA are:

<sup>1</sup> **Sect 20.e.ii:** any harm caused to persons or the environment by the control throughout Australia of organisms of that kind would be significantly less than the harm caused, or likely to be caused, by failure to control organisms of that kind throughout Australia, the Authority shall, by notice published in the Gazette, declare organisms of that kind to be target organisms for the purposes of this Act.

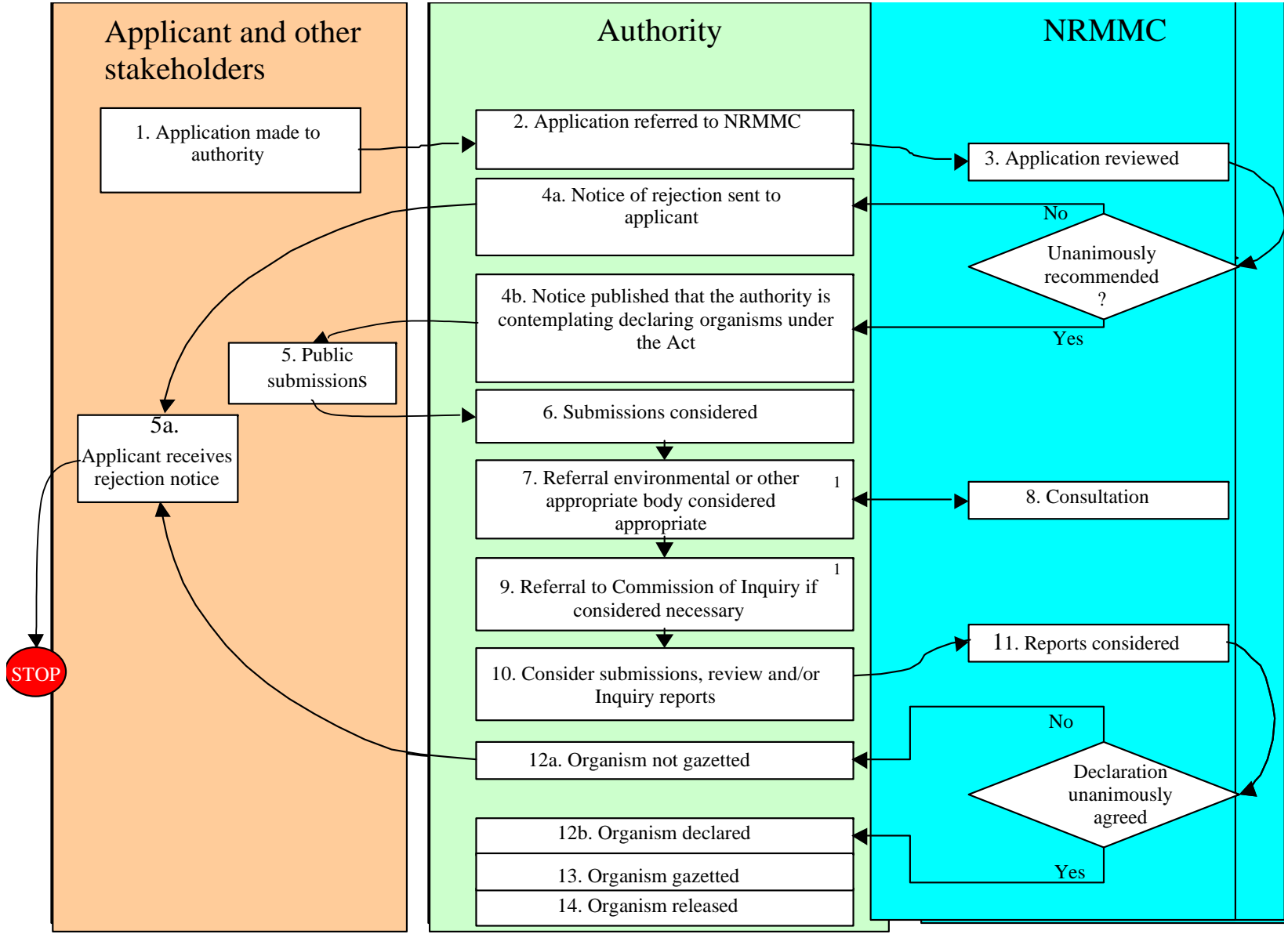
<sup>2</sup> **Sect 29.d.ii:** any harm caused to persons or the environment by the release of the relevant organisms, other than the harm (if any) resulting from the control throughout Australia of target organisms of that kind or those kinds, would be significantly less than -

(A) the harm caused, or likely to be caused, by failure to control target organisms of that kind or those kinds throughout Australia; and

(B) where target organisms of that kind or those kinds can be controlled by the release of other organisms or otherwise than by biological means - the harm (if any) caused, or likely to be caused, by controlling target organisms of that kind or those kinds throughout Australia by the release of those other organisms or by those other means,

the Authority shall, by notice published in the Gazette, declare the relevant organisms to be agent organisms for the purposes of this Act.

Figure 1. Process for declaring target organisms or agents under the Biological Control Act (BCA). Authority refers to the Natural Resource Management Ministerial Council (NRMMC) Minister in the jurisdiction progressing the nomination.



1 Steps 7-9 are options the Authority may or may not decide are necessary

## Attachment 1

### **Biological control agents - import, host-specificity test list and release protocol (from [www.daff.gov.au](http://www.daff.gov.au): following links Market Access and Biosecurity - Biosecurity Australia - Plant Biosecurity)**

#### **Overview**

The Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) is responsible for approval of the importation, host-specificity test list and release of biological control agents for the control of weeds and invertebrates under the *Quarantine Act 1908*.

Biosecurity Australia (BA) assesses the importation of the agent and consults widely with cooperators on the host-specificity test list and release applications. Cooperators include Australian Quarantine and Inspection Service (AQIS), Environment Australia (DEH), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and relevant State/Territory government departments or research organisations.

When BA recommends import, AQIS issues an import permit with conditions. When BA assesses and approves the host specificity test list and release, AQIS issues a letter of approval.

DEH also regulates the import of live biological control agents under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Biological control agents permitted by DEH to be imported are included on the list of specimens suitable for live import, which was established under the *EPBC Act* (the live import list). This list can be viewed on the DEH website at <http://www.deh.gov.au/biodiversity/trade-use/lists/import/index.html>, and has two parts. Agents listed on Part 1 do not require a permit from DEH for import or release. The agents listed on Part 2 of will require a permit from DEH for import, and cannot be released without further approval from DEH. To import and/or release a biological control agent that is not included on either Part 1 or Part 2 of the live import list, it is necessary to apply to DEH to amend the list to include the species in question.

The protocol below is a summary of information requirements and processing of biological control agent applications developed by DAFF in consultation with DEH. DAFF and DEH use the same application form for import of biological control agents and require similar information for release, but the completed forms need to be submitted separately to DAFF and DEH at the addresses given on the form. The information is needed to satisfy the legislative requirements of both DAFF and DEH.

The application process is summarised in a flowchart ([Figure 1](#)).

#### **IMPORT**

##### **Administrative requirements:**

- [Application form](#) should be completed and a hard copy submitted to DAFF and DEH separately. DAFF accepts facsimiles. Please note that, if the species is on Part 1 of the DEH live import list (<http://www.deh.gov.au/biodiversity/trade-use/lists/import/index.html>), there is no need to submit the application to DEH
- Separate import permits from DAFF and DEH
- Application fees: check with AQIS ([www.daff.gov.au/aqis](http://www.daff.gov.au/aqis)) and DEH (<http://www.deh.gov.au>)
- Address of AQIS-approved quarantine premise with appropriate containment level
- Three copies of an information package about the proposed biological control agent and its target (see Information requirements below).

**Information requirements** (the provision of this information will also satisfy any DEH requirements for their terms of reference for the release report):

- Agent name (order or group, family, genus, species, author, date if possible and common name(s) if available)[\[1\]](#)
- Brief biology of the agent
- Native range and, if determinable, probable area of origin
- Related species and a summary of their host range
- Proposed source(s) of agent
- When the target species was approved for biological control and the proposing organisation
- Mode of action against target organism and extent of action
- Potential for control of target
- Non-target organisms at risk from agent (include those closely related biologically and those ecologically similar), including a draft host-specificity list
- Possible interactions with existing biological control programs (of same or related targets and other targets)
- Information on target species is to include a summary of the economic and environmental losses caused by the target and the expected benefits resulting from control of the target species
- Copies of any references referred to in the application
- Summary of proposed activity
- Current status of species in Australia
- Information and results of any other similar assessments undertaken on the species
- Information on all other relevant Commonwealth, State and Territory legislative controls on the species.

**Processing of application:**

- Application will be assessed by BA and DEH independently. Note: to be assessed, the application must contain all required information
- When BA recommends import, an AQIS import permit will be issued with conditions that minimise quarantine risk
- A separate DEH testing permit is required for species not included on Part 1 of the live import list.

**HOST SPECIFICITY TEST LISTS**

**Administrative requirements:**

- Twenty-one copies of an information package are required. The package should be prepared following the Information requirements below
- Copies of references referred to in the information package must be provided
- Application fees: check with DAFF/AQIS ([www.daff.gov.au/aqis](http://www.daff.gov.au/aqis))
- No DEH requirements for the host-specificity test list. However, DEH is involved as one of the cooperators and would provide comments on the list to BA.

**Information requirements:**

- **Information for target species:**
  - Target species name (order or group, family, genus, species, author, date if possible) and common name(s) if available
  - Native range and possible centre of origin if determinable
  - Australian and overseas distribution, including climatic information if possible
  - Native and introduced related species in the same order (family names and number of genera if there are many related species)
  - When approved as a target species, and proposing organisation
  - Details of pest status, including as much economic detail as possible (e.g. costs, benefits, maps showing distribution and intensity of occurrence, etc.).

- **Information for potential biological control agent:**
  - Agent name (order or group, family, genus, species, author, date if possible) and common name(s) if available
  - Brief biology of the agent
  - Native range and, if determinable, probable centre of origin
  - Related species and a summary of their host range
  - Proposed source(s) of agent
  - When the target species was approved for biological control and proposing organisation
  - Mode of action against target organism and extent of action
  - Potential for control of target
  - Non-target organisms at risk from agent (include those closely related biologically and those ecologically similar)
  - Possible interactions with existing biological control programs (of same or related targets and other targets)
  - Information on target species to include a summary of the economic and environmental losses caused by the target and the expected gains by the control of the target species
  - Details of results of host-specificity testing undertaken elsewhere if known
  - Host-specificity test list with justification, particularly why species have been excluded
  - Methodology of testing.

#### **Processing of application:**

- When the application and the information package are received by AQIS/BA, they will be sent for assessment to all 21 cooperators, including Environment Australia
- Cooperators will be asked to respond within 40 working days, and all cooperators are encouraged to respond
- If no response has been received by the due date, then BA will assume there is no objection to a proposed host-specificity test list
- If any cooperator has concerns with the proposed list, the applicant is required to liaise with the concerned cooperator(s) to resolve the issue(s)
- DAFF will normally respond to an application within 50 working days. However, approval for the application may be extended if issues between the cooperators and applicant remain unresolved
- When BA recommends approval of the host specificity test list, AQIS will send a letter of approval to the applicant.

An existing approved host-specificity test list will be accepted for the same target species for an insect with the same mode of feeding as that of an insect for which it was originally approved. If any reduction or variation on existing lists is requested, then a full approval process will be required.

## **RELEASE**

### **Administrative requirements:**

- Separate approvals are required from DAFF and DEH
- A qualified AQIS regional officer such as quarantine entomologist will supervise the physical release of the agent from the quarantine facility
- If new material of the approved agent is to be imported, an application form, available from the internet: <http://www.daff.gov.au/plantbiosecurity>, should be completed and a hard copy submitted to DAFF. An import permit will then be issued by AQIS
- Fees apply for the import of new material, or release of material: check with AQIS ([www.daff.gov.au/aqis](http://www.daff.gov.au/aqis))
- Twenty-one copies of an information package are required, and the package should be prepared according to the **Information requirements** below
- Copies of any references referred to in the report must be included.

### **Information requirements:**

- **Information on the results of host-specificity testing:**
  - Approved host-specificity test list to be included and explanations provided on any variations. If there are any variations to the approved host-specificity test list, cooperators are not obliged to accept the variations
  - Results of the host-specificity testing.
- **Information for target species:**
  - Target species name (order/group, family, genus, species, author, date if possible) and common name(s) if available
  - Native range and possible centre of origin, if determinable
  - Australian and overseas distribution, including climatic information if possible
  - Native and introduced related species in the same order (family names and number of genera if there are many related species)
  - When target species was approved for biological control and proposing organisation
  - Details of pest status, including as much economic detail as possible (e.g. costs, benefits, maps showing distribution and intensity of occurrence, etc.), possible environmental losses caused by the target, and the expected benefits resulting from control of the target species.
- **Information for potential biological control agents:**
  - Agent name (order, family, genus, species, author, date if possible and common name(s) if available. Voucher specimens must be lodged with the Australian National Insect Collection or an Australian State/Territory agricultural collection or herbarium and should contain the following information:
    - *reference numbers for undescribed species*
    - *country of origin*
    - *host*
    - *date collected*
    - *collection location*
    - *target species*
    - *source of identification*
    - *contact officer for biological control program.*
  - Summary of agent biology and ecology, including:
    - *native range (and, if determinable, possible area of origin)*
    - *estimate of likely or potential efficacy*
    - *related species and a summary of their host range*
    - *sources of agent.*
  - Report of host-specificity testing, including:
    - *quantified response of laboratory evaluation of oviposition, larval and adult feeding, development to maturity on each test species, fungal development etc., where appropriate*
    - *testing methods*
    - *overseas host records, including literature and discussions with experts*
    - *risk evaluation to non-target species*
    - *any evidence to reveal laboratory artefacts in behaviour or development.*
  - Possible interactions, including conflict-of-interest with existing biological control programs: (For example, if the target species is in the same genus as an introduced agent in an existing biological control program, the potential agent must be tested against the existing biological control agent.)
    - *information on where, when and how initial releases will be made.*

- Additional information may be provided, but is not mandatory:
  - *Collaborators and nature of collaboration (e.g. research evaluation, assistance in mass-rearing, secondary distribution, releases, monitoring of spread and effectiveness, provision of starter colonies, etc*
  - *The above list is only a guide. It is recognised that, in some cases, more information will be required. For some targets and agents, not all points will need to be covered*
  - *Some additional information may also be required to ensure that all of the DEH terms of reference are adequately addressed.*

#### **Processing of application:**

- When the application and the information package are received by DAFF, they will be sent for assessment to all 21 cooperators including Environment Australia<sup>[2]</sup>
- Cooperators will be requested to respond within 40 working days and all cooperators are encouraged to respond
- If no response has been received by the due date, then BA will assume there are no objections to a proposed release. Note [endnote 2](#) below that DEH has a separate assessment process and an DEH letter of release is also required
- If any cooperators disagree with the proposed release, the applicant is required to liaise with the concerned cooperator(s) to resolve the issue(s)
- DAFF will normally respond to an application within 50 working days. However, approval for the application may be extended if issues between the cooperators and applicant remain unresolved
- When BA recommends approval for release, AQIS will send a letter of release authority to the applicant.

#### **SUBMISSION OF APPLICATION**

Applications with the required supporting information package for import and for release should be sent to both DAFF and DEH at the addresses below. Application for host-specificity test list only needs to be submitted to DAFF. Note: [AQIS fees](#) apply for all of these services.

Live Animal Imports  
 Animal and Plant Program Branch  
 Australian Quarantine and Inspection Service  
 Department of Agriculture, Fisheries and  
 Forestry (DAFF)  
 GPO Box 858  
 Canberra ACT 2601  
 Australia  
 Phone: (02) 6272 4454  
 Fax: (02) 6272 3110  
 Email: [animalimp@aqis.gov.au](mailto:animalimp@aqis.gov.au)

Director  
 Wildlife Science and Management  
 Wildlife Australia  
 Dept of Environment & Heritage (DEH)  
 GPO Box 787  
 CANBERRA ACT 2601  
 Australia  
 Phone: (02) 6274 2880  
 Fax: (02) 6274 1921  
 Email: [wsm@deh.gov.au](mailto:wsm@deh.gov.au)

More information and technical advice can be obtained from

Plant Biosecurity  
Biosecurity Australia  
Department of Agriculture, Fisheries and  
Forestry (DAFF)  
GPO Box 858  
CANBERRA ACT 2601  
Tel: (02) 6272 5094  
Fax: (02) 6272 3307  
Email: [plantbiosec@daff.gov.au](mailto:plantbiosec@daff.gov.au)

Director  
Wildlife Science and Management  
Wildlife Australia  
Dept of Environment & Heritage (DEH)  
GPO Box 787  
CANBERRA ACT 2601  
Tel: (02) 6274 2880  
Fax: (02) 6274 1921  
Email: [wsm@deh.gov.au](mailto:wsm@deh.gov.au)

[1] Note: If the species is undescribed or there is doubt about its taxonomy, a specimen or specimens of the most readily identifiable stage must be lodged in the Australian National Insect Collection or an Australian State/Territory agricultural collection or herbarium. Evidence that the specimens have been lodged must accompany the application or must be sent to DAFF and DEH before permits are issued. Information should include detailed specimen data (such as location, hosts, collector and identifier) and institution where lodged and voucher specimen number.

[2] Although the application will be sent to DEH, it is not necessary for DAFF to wait for DEH's response before approving the application. This is because DEH assesses the application for release of biological control agents under the *Environment Protection and Biodiversity Conservation ACT 1999*, a separate process from DAFF's. However, the AQIS letter of approval will state that AQIS approval is not valid unless accompanied by a DEH letter of approval for release. This means that sometimes the applicant may have to wait for DEH's approval after the AQIS approval has been given.