Fipronil Derogation Application

Annex 1: Application form to apply for a temporary derogation to use a 'highly hazardous' pesticide and for renewal of derogations.

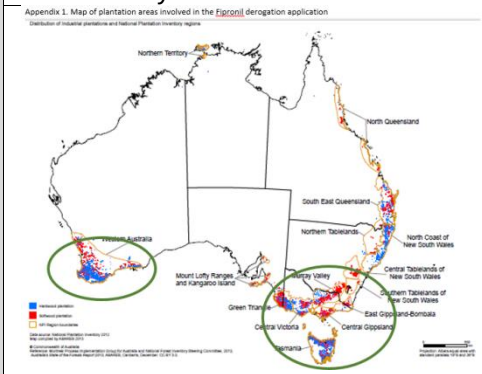
- This form shall be used to submit derogation requests for the use of 'highly hazardous' pesticides to FSC (initial applications and applications for renewal).
- In cases of joint applications, common information can be provided together. Information that is not common shall be presented by applicant.
- All fields have to be filled for Management Units (MUs) of all scale categories, unless otherwise specified.
- All fields have to be filled for both initial applications and renewal applications, unless otherwise specified.
- In this context 'scale' refers to the size or extent of the Management Unit (MU).

Scale category	Number of hectares in the Management Unit
Small Scale	≤ 1,000 ha
Medium scale	Between small scale and large scale
Large scale	> 10,000 ha (plantations) > 50,000 ha (non-plantation forest types)

- Applications shall be submitted in English or Spanish.

Part 1. GENERAL INFORMATION.

Application Submission date	
Name, and contact details of certification body submitting the application	Rainforest Alliance Arie Soetjiadi–Asia Pacific Coordinator Jl Tantular Barat 88 Denpasar Bali Indonesia 80114 +623614723499 asoetjiadi@ra.org Soil Association Soil Association Woodmark South Plaza, Marlborough Street BRISTOL BS1 3NX Tel: + 44 (0)117 9142435 Email: wm@soilassociation.org Forest Management and Controlled wood John Rogers jrogers@soilassociation.org SCS Global Services 2000 Powell St., Suite 600 | Emeryville, CA 94608 USA tel: 510.452.8049 | fax: (510) 452 6882 bgrady@scsglobalservices.com www.SCSglobalservices.com

Active ingredient for which a derogation is being requested	Fipronil CAS 120068–37–3
Trade name and formulation type of the pesticide	• Kaiser 200 SC • Fipronil 800 WG • Fipronil 200 SC • Regent 200 SC • Regent 800 WG
Method of application, application equipment and intended quantities	<u>Method of application and application equipment</u> • Application will only be through target-specific elevated cage traps. <u>Intended quantities</u> As per label or permit instructions Use context will result in very low application use. • Approximately 105 g. • This will be applied at approximately 10 g/ha
Common and scientific name of the pest (or description of the problem /issue, as applicable)	• European Wasps (Vespula germanica)
Name and FSC certification codes of certificate holders[1] requesting a temporary derogation. Please indicate scale category and whether it qualifies as SLIMF.	**Large scale certificate holders** • PF Olsen (Aus) Pty Ltd Certificate Code: SCS-FM/COC-004290 License Code: FSC-C111011 **Certification pending** • Forestry Tasmania
Scope for which a temporary derogation is being requested (Please, attach map if possible)	 The scope of the derogation is for area

[1] In the case of forest management enterprises applying for FSC certification, the FSC certificate holder code can be provided at a later stage, if and when the company achieves certification.

	managed by Forestry Tasmania in Tasmania and for area managed by PF Olsen. See also appendix 1.
Type of forest, species and expected forest area where use of the HHP is intended	**European Wasps** All of FMU, but to be used especially in areas adjacent to stakeholders, tourism sites or where staff or contractors are at risk.

Part 2. SPECIFIC INFORMATION

1. Demonstrated need

a. *Please describe briefly the silvicultural system (methods for site preparation, practices for harvesting, regeneration, time between rotations) in the MU(s) included in the scope of the requested derogation.*

The use of fipronil is not related to silvicultural requirements. It is specifically related to managing the safety of forest workers, visitors and tourists.

b. *Please describe the Integrated Pest Management (IPM) system in place, including the plan to monitor the distribution and density of the targeted pest organisms in the MU(s).*

All forest managers follow an Integrated Pest Management system similar to the FSC Guide to integrated pest management in FSC certified forests and plantations (Willoughby et al. 2009). The essential components of these systems are:

1. Identification of the problem
2. Assessment of the impact of the problem
3. Assessment of consequences of no actions
4. Where action is warranted, assess means of avoiding the problem
5. If the problem can't be avoided, assess non-chemical means of remediation
6. If non-chemical remediation is not possible, assess chemical means of remediation

For each assessment, consideration should be given to the short and long term impacts of both the problem and any action on:

1. Operators
2. Aquatic environments
3. Terrestrial environments
4. Stakeholders
5. Future operations

In the case of fipronil this process has been followed and is demonstrated below for each of the targeted pest organism that are the subject of this application.

European Wasps	
Problem identification	European wasps are capable of causing significant economic, environmental and human health impacts. They cause significant damage to fruit crops, the native insect fauna[2] and can inflict a painful sting that on occasions may require hospital admission[3]. The risk of European wasp stings is heightened in autumn, when their numbers are higher, foraging is increased and they exhibit more aggressive behaviour. The main reason for controlling European wasp on the Permanent Timber Production Zone managed by Forestry Tasmania and the estate managed by PF Olsen Australia is for human safety. This mainly applies to visitor areas, such as the Tahune Airwalk tourist attraction, or areas where forestry workers are conducting operations. Generally control will only be required in specific locations during the peak autumn period. Given the environment with scattered nests of wasps over large areas of plantations, the only safe and effective way to control the wasps is with baits containing fipronil. While fipronil products are already registered for the control of European wasps, the registered use requires that nests are found and treated. In the Forestry environment this is difficult due to the scale of the land base and the hazard for operators. Without control of European wasps, Forest managers would not be fulfilling their responsibility to neighbours, tourists, staff and contractors would inevitably be fined or prosecuted by local Government for failing to provide a safe workplace. While several biocontrols for European wasps have been introduced, none have been successful (Austin and Hopkins, 2002). Due to the very aggressive nature of wasps and their fanatical protection of nests, finding a biocontrol is a difficult task (Younger, 2015). All commercially available wasp control products contain chemicals that are on the revised FSC highly hazardous list. A derogation application for a chemical to give Forest managers the option of controlling wasps will therefore be required. Warren and Statham (2002) found that the most efficacious bait for killing wasps, compared with commercially available bait and several other options, was wallaby meat with 0.1% fipronil. For wasp baiting using fipronil, baiting is carried out using bait stations that prevent access from animals that are attracted to meat by elevating stations and making them impenetrable to larger carnivorous animals such as mammals. Almost all insects

[2] Richard Bashford (2001) The spread and impact of the introduced Vespine wasps *Vespula germanica* (F.) and *V. vulgaris* (L.) (HYMENOPTERA: Vespidae: Vespinae) in Tasmania. *Australian Entomologist*, **28(1)**: 1-12.
[3] http://monash.edu/miri/research/research-areas/home-sport-and-leisure-safety/visu/hazard/haz35.pdf

<table>
<tr><td></td><td colspan="3">for which fipronil is toxic, such as bees are not attracted to a meat bait. Baits are fixed in bait stations and protected from the elements so they are not able to be blown, dissolved or washed into non-target areas. When wasps do collect baits, they carry them into their subterranean nests, which are strongly defended, so the likelihood of secondary toxicity of animals consuming poisoned wasps is highly unlikely.

Fipronil is known to be, and it is stated clearly on the product label, particularly toxic to bees and certain aquatic species, the reasoning behind its listing as an FSC highly hazardous pesticide.</td></tr>
<tr><td rowspan="6">Assessment of impact</td><td>Party / Aspect</td><td>Problem</td><td>Action</td></tr>
<tr><td>Operators</td><td>• Significant injuries arising from wasp stings</td><td>• Nil</td></tr>
<tr><td>Aquatic environment</td><td>• nil</td><td>• Fipronil toxic to certain aquatic species</td></tr>
<tr><td>Terrestrial environment</td><td>• Negative impacts associated with an introduced, aggressive, territorial insect.</td><td>• Cruel to target animals.
• Risk of death to off-target species.
• Risk of harm to domestic animals.
• Improved chance of success of landscape wide population reduction programs.</td></tr>
<tr><td>Stakeholders</td><td>• Significant injuries arising from wasp stings
• Economic harm to tourism ventures and farms</td><td>• Fipronil toxic to bees (concerned apiarists)
• Sharing the economic burden of managing pest animals in the landscape</td></tr>
<tr><td>Future operations</td><td>• Inability to send workers into forest</td><td>• Improved/ reduced relations with neighbours and local community</td></tr>
<tr><td>Consequence of no action</td><td colspan="3">• Significant sting injuries to staff, contractors and forest visitors.
• Potential for legal action against employers for not providing safe work place.
• Environmental damage caused by wasp behavior and presence.</td></tr>
<tr><td>How can problem be avoided?</td><td colspan="3">• Seasonal and annual variations in wasp populations may result in no requirement for control. The need for application will be monitored.</td></tr>
<tr><td>Are there non-chemical control options?</td><td colspan="3">• While several biocontrols for European wasps have been introduced, none have been successful (Austin and Hopkins, 2002). Due to the very aggressive nature of wasps and their fanatical protection of nests, finding a bio control is a difficult</td></tr>
</table>

	task (Younger, 2015).
What are the impacts of chemical control options?	• Little to no impact due to very small amounts used and application using elevated meat bait based cage baits (see photo below) • 
References	[1]http://dpipwe.tas.gov.au/biosecurity/plant-biosecurity/pests-and-diseases/european-and-english-wasps [1]http://www.abc.net.au/news/2015-04-02/world-biggest-wasp-nest-found-on-a-property-in-northern-tas/6367536 Richard Bashford (2001) The spread and impact of the introduced Vespine wasps *Vespula germanica* (F.) and *V. vulgaris* (L.) (HYMENOPTERA: Vespidae: Vespinae) in Tasmania. *Australian Entomologist*, **28(1)**: 1-12. http://monash.edu/miri/research/research-areas/home-sport-and-leisure-safety/visu/hazard/haz35.pdf http://dpipwe.tas.gov.au/biosecurity/plant-biosecurity/pests-and-diseases/european-and-english-wasps Warren, I. and Statham, M. (2002). Control of European wasps (*Vespula germanica*) by baiting. Tasmanian Institute of Agricultural Research. Austin, A. D. and Hopkins, D. C. (2002). Collaborative research program on the control of the European wasp in South Australia. Adelaide Research & Innovation Pty Ltd. Brown, S. L. (2015). Worst wasp season in 20 years prompts warning from Museum Victoria entomologist. http://www.abc.net.au/news/2015-03-16/worst-wasp-season-in-years-prompts-warning/6322386 Younger, E. (2015). Liberal MP calls for $1.5m CSIRO funding to fight Victoria's wasp problem. http://www.abc.net.au/news/2015-03-24/liberal-mp-calls-for-csiro-funding-to-fight-wasp-problem/6343668.

c. *Please indicate the thresholds above which, the damages caused by the targeted pest organisms are classified as severe and how they have been established.*

Pest	Threshold for damage	Basis of threshold
European Wasp	Note: wasps cause no direct damage to forest crop.	Staff/contractor /neighbour tourism operator request or recognition of significant

	Control only undertaken where requested by stakeholders or where they present a risk to employees, visitors or stakeholders	threat in job risk assessments.

d. *Please indicate the population size of the targeted pest organism in the MU(s).*

Pest	**Population Size**
European Wasps	Widespread in the landscape. Can increase in activity numbers significantly in Autumn period, causing significant localised threats.

e. **(Fill in only if you represent a large-scale MU)**

Please indicate the conclusions of the comparative Cost/Benefit Analysis of using the requested pesticide versus other non-highly hazardous control alternatives,

The cost – benefit analysis shall include, at minimum, the following scenarios:

- *no action vs. remedial control (short-term)*
- *no action vs. preventive practices (long-term)*

- Refer to Appendix 2 – Cost Benefit Analysis.

f. **(Fill in only if you represent a large-scale MU)**

Please provide a review carried out by independent experts of the Cost/Benefit Analysis in e).

- The experts nominated by the FSC Australia board will review the costs benefit analysis at their meeting on 29th January prior to submission of the final applications.

g. **(Fill in only if you represent a medium or small-scale MU)**

Please describe possible non HHP alternatives to the use of the requested HHP and explain why they are not considered feasible to control the targeted pest organisms.

- Please refer to information above for small and medium scale MU's.

h. *Please include an estimate of the amount of area over which the pesticide is to be applied and how much of the pesticide is expected to be used annually.*

PF Olsen (Aus) Pty Ltd	
Estimated Annual Area of application (ha)	5 ha
Estimated Annual Use Active Ingredient (kg)	5 grams
Forestry Tasmania	
Estimated Annual Area of application (ha)	100 ha
Estimated Annual Use Active Ingredient (kg)	100 grams

i. **(Fill in only if you are applying for the renewal of a derogation)**

Please attach a report on the implementation of the IPM system during the previous derogation period, covering at minimum:

- *Brief description of the silvicultural system in the MU(s) included in the scope of the requested derogation.*
- *A list of the monitored pest organisms.*
- *The results of the annual monitoring of the target species in relation to the defined thresholds.*
- *Quantitative data of the use of 'highly hazardous' pesticides per year for the full period of the existing derogation, areas of application and application method.*
- *A description of the programs that have been implemented to investigate, research, identify and test alternatives to the 'highly hazardous' pesticide, and the results.*

- Note that this section does not apply to Forestry Tasmania as it is seeking a new derogation.
- Much of this material is described in detail elsewhere in this application:
  - Details of the silvicultural systems in the MU(s) are included in response to Question 1.a.
  - Details of the monitored pest organisms are included in response to Question 1.c. and 1.d.
  - Details of the results of monitoring programs are summarized in response to Question 1.d.
  - Details of the amount of amitrole used during the period of the previous derogation is included below.
  - Details of the programmes that have been implemented to investigate, research, identify and test alternatives to the use of amitrole in response to Question 3.a. and 3.d.

PF Olsen (Aus) Pty Ltd

	2011	**2012**	**2013**	**2014**	**2015**
Total are treated (ha)			0	0	0
Total active ingredient used (kg)			0	0	0
Total Defined Forest Area (ha)			20,090	52,530	159,459

Forestry Tasmania* (new derogation application)

(Note: In the last few years, FT and its contractors have been using a range of commercially available chemicals for wasp control. However, these chemicals have recently been placed onto the FSC highly hazardous list. This is the reason for FT having not used any fipronil in the last five years.

	2011	**2012**	**2013**	**2014**	**2015**

Total are treated (ha)	0	0	0	0	0
Total active ingredient used (kg)	0	0	0	0	0
Total Defined Forest Area (ha)			750,000	750,000	750,000

2. Specified measures to prevent, minimize and mitigate impacts

a. Please describe the best management practices (BMP) that will be implemented in the MU(s) to prevent, minimize and mitigate negative social and environmental impacts of the application of HHPs during the requested derogation period, covering at minimum: application method, water courses, land use or terrain and weather conditions.

Measures required by Australian stakeholders

In addition to compliance with regulatory controls, forest managers seeking to use fipronil will undertake the following controls to reduce risks:

When applied for wasp control:

- wasp control meat bait stations will be used to ensure target specificity.

Measures required by Australian law and other requirements

Each forest manager operates under a BMP or equivalent (eg, a BOP or Best Operating Practice) which stipulates compliance with a number of processes which ensures the risk of pesticide use is managed to a level that mitigates any potential impacts. The processes which BMP's consider include:

Compliance With National Regulation

In Australia the Australian Pesticides & Veterinary Medicines Authority (APVMA) is responsible for the registration and control of herbicides up to the point of retail sale. The registration process is governed by Commonwealth legislation and undertaken according to accepted scientific principles and through rigorous independent analysis by several government agencies and the APVMA. Before being registered for sale, products must go through a risk assessment process and specifically meet the requirements of the Agvet Code 5a with regard to safety of the environment and humans:

(1) An active constituent or chemical product meets the safety criteria if use of the constituent or product, in accordance with any instructions approved, or to be approved, by the APVMA for the constituent or product or contained in an established standard:
(a) is not, or would not be, an undue hazard to the safety of people exposed to it during its handling or people using anything containing its residues; and
(b) is not, or would not be, likely to have an effect that is harmful to human beings; and
(c) is not, or would not be, likely to have an unintended effect that is harmful to animals, plants or things or to the environment.
(2) For the purposes of being satisfied as to whether an active constituent meets the safety criteria, the APVMA:
(a) must have regard to the following:
(i) the toxicity of the constituent and its residues, including metabolites and degradation products, in relation to relevant organisms and ecosystems, including human beings;
(ii) the method by which the constituent is, or is proposed to be, manufactured;
(iii) the extent to which the constituent will contain impurities;
(iv) whether an analysis of the chemical composition of the constituent has been carried out

and, if so, the results of the analysis;
(v) any conditions to which its approval is, or would be, subject;
(vi) any relevant particulars that are, or would be, entered in the Record for the constituent;
(via) whether the constituent conforms, or would conform, to any standard made for the constituent under section 6E to the extent that the standard relates to matters covered by subsection (1);
(vii) any matters prescribed by the regulations; and
(b) may have regard to such other matters as it thinks relevant.
(3) For the purposes of being satisfied as to whether a chemical product meets the safety criteria, the APVMA:
(a) must have regard to the following:
(i) the toxicity of the product and its residues, including metabolites and degradation products, in relation to relevant organisms and ecosystems, including human beings;
(ii) the relevant poison classification of the product under the law in force in this jurisdiction;
(iii) how the product is formulated;
(iv) the composition and form of the constituents of the product;
(v) any conditions to which its registration is, or would be, subject;
(vi) any relevant particulars that are, or would be, entered in the Register for the product;
(via) whether the product conforms, or would conform, to any standard made for the product under section 6E to the extent that the standard relates to matters covered by subsection (1);
(vii) any matters prescribed by the regulations; and
(b) may have regard to one or more of the following:
(i) the acceptable daily intake of each constituent contained in the product;
(ii) any dietary exposure assessment prepared under subsection 82(4) of the Food Standards Australia New Zealand Act 1991 as a result of any proposed variation notified under subsection 82(3) of that Act in relation to the product, and any comments on the assessment given to the APVMA under subsection 82(4) of that Act;
(iii) whether any trials or laboratory experiments have been carried out to determine the residues of the product and, if so, the results of those trials or experiments and whether those results show that the residues of the product will not be greater than limits that the APVMA has approved or approves;
(iv) the stability of the product;
(v) the specifications for containers for the product;
(vi) such other matters as it thinks relevant.

(Agricultural and Veterinary Chemicals Code ACT 1994 – Schedule Agricultural, Commonwealth Consolidated Acts, http://www.austlii.edu.au/au/legis/cth/consol_act/aavcca1994382/sch1.html)

APVMA take a risk management approach to product registration which includes the imposition of conditions on product approvals or registrations. These conditions of use are legally enforceable strategies to reduce risk. Further, the Agvet Code regulations allow APVMA to restrict the use of certain chemicals that have a high risk profile so that only persons with additional training, licensing and compliance steps may purchase or use a pesticide. These conditions include detailed label instructions for safe use and associated Material Safety Data Sheets (MSDS) for the safe handling and application of pesticides. Label/MSDS instructions include details for mixing, treatment rates, protection of wildlife, protection of non-target plants, storage, disposal, operator safety and first-aid.

Registrants must provide the APVMA with information about the product to allow independent evaluators to decide whether it is effective and safe for people, animals and the environment, and not a trade risk. The APVMA notifies the public of the results of the evaluation and invites public comment on the registration proposal before making its decision. It also invites members of the public to participate in its programs such as reporting adverse chemical experiences through the Adverse Experience Reporting

Program (AERP) and contributing to chemical reviews.

Compliance With State Regulation

State and Territory Governments are responsible for controlling the use of pesticides beyond the point of retail sale. Each state or Territory has a regulatory body or bodies responsible for pesticide use, for example in Victoria it is the Department of Environment, Land, Water and Planning, and in Western Australia, the Department of Agriculture and Food and, WA Health. All have similar legislation and codes of practice to ensure safe and effective application of registered chemicals.

For the states concerning the National Derogation applications, the relevant regulations are:

South Australia - Agricultural and Veterinary Products (Control of Use) Act 2002 and Regulations 2004 (http://www.legislation.sa.gov.au/LZ/C/A/AGRICULTURAL20AND%20VETERINARY%20PRODUCTS %20%28CONTROL%20OF%20USE%29%20ACT%202002.aspx)

Tasmania-Agricultural and Veterinary Chemicals (Control of Use) Act 1995 (ndex.w3p;cond=phrase;doc_id=106%2B%2B1995%2BAT@EN%2B20040310000000;histon =;prompt=;rec=;term=Agricultural%20and%20Veterinary%20Chemicals %20%28Control%20of%20Use%29%20Act%201995)

Note: The baiting of wasps with meat-based fipronil baits is only allowed under permit from the Australian Pesticides and Veterinary Medicines Authority (APVMA). In Tasmania, Wine Tasmania has a permit for the manufacture and distribution of European wasp baits made from wallaby mince mixed with fipronil for use by the wine industry as well as the broader community[4]. A permit for the use of meat based fipronil baits for wasp control in bluegum plantations in Victoria and South Australia expired in 2014. It is expected that the permit could be renewed.

Victoria - Version No. 004 Agricultural and Veterinary Chemicals (Control of Use) Regulations 1996 S.R. No. 71/1996 Version incorporating amendments as at 6 May 2003 (http://www.vic.gov.au/search-results.html?q=pesticide+regulation)

Western Australia – Health (Pesticides) Regulation 2011 (http://www5.austlii.edu.au/au/legis/wa/consol_reg/hr2011277/)

Each of these acts or regulations interacts with other acts, for example, in South Australia:

-Controlled Substances Act 1984

-Controlled Substances (Poisons) Regulations 1996

-Controlled Substances (Pesticides) Regulations 2003

-Dangerous Substances Act 1979 and Regulations 2002

-Work Health and Safety Act 2012 and Regulations 2012

-Environment Protection Act 1993

While these differ from state to state, since 2008, each state and Territory has agreed to a common framework for the control of use of agricultural and veterinary chemicals. As a result, the control of use is now becoming increasingly consistent across States and Territory's (COAG, 2008).

[4] http://winetasmania.com.au/products/european_wasp_baits

The end result for each state is that pesticides are:

-transported and stored safely
-used only by persons that are appropriately trained and where deemed necessary, licensed
-used in a way that ensures the safety of applicators and the public
-used in a way that ensures the safety of the environment
-used in an accountable manner through detailed recording of all areas of application, pesticide application methodology and environmental conditions at the time of application

Like the APVMA, states and territories take a risk management approach to pesticides and frequently there are limitations on which states or territories pesticides may be used and how they may be used in those states. For example, Fox Off fox bait (one of the most common products containing 1080) refers to specific conditions of use for different states.

Forestry Application

All certified companies have well documented policies and operational procedures, best practice manuals or similar for the use and handling of chemicals that are in alignment with State and Federal Government requirements. These include Integrated Pest Management Strategies, detailed Site operation plans and Site Specific Silviculture plans.

Staff are trained to a high level and only qualified staff or contractors, are used to carry out pest control operations.. All label and SDS instructions are adhered to. Follow-up monitoring of the impacts of the operation on the pest population and the crop is carried out.

Endangered Species

Each forest manager maps the presence of endangered species. Where the use of a highly hazardous pesticide presents a risk, either the pesticide is not used in the area or appropriate buffers or exclusions are used.

Special Management Zones

Forest managers consider special management zones whether they be environmental, scientific or cultural. Where the use of a highly hazardous pesticide presents a risk, either the pesticide is not used in the area or appropriate buffers or exclusions are used.

Site Risk Assessment

There are multiple levels of risk assessment carried out for each and every site as part of operational planning. Site-specific application plans are developed that address any known stakeholder and environmental concerns. For high risk or impact activities, adjacent stakeholders are notified and given the opportunity to both provide feedback and influence the operation.

b. **(Fill in only if you represent a large or medium-scale MU)**

Please describe the training program on the use of the PPE and the application of the HHP that will be implemented in the requested derogation period.

- All business involved in the direct application of fipronil will be required to hold relevant pest applicator licences.
- All persons involved in use of fipronil will be required to hold statements of attainment demonstrating their competence in the following nationally recognised units of competency.
  - AHCCHM101A Follow Basic Chemical Safety Rules
  - AHCCHM201A Apply Chemicals Under Supervision
  - AHCCHM303A Prepare and Apply Chemicals
  - AHCCHM304A Transport, Handle and Store Chemicals

- Through the completion of the units, applicators must demonstrate:
  - Understanding current chemical application issues
  - Determining suitable weather conditions
  - Knowledge to limit spray drift including latest innovations in application and nozzle selection criteria
  - Safe storage requirements
  - Record keeping requirements

c. (Fill in only if you represent a large-scale MUs and you are applying for the renewal of a derogation)

Please indicate the conclusions of the environmental and social impact assessment related to the use of HHP occurred during the previous derogation period.

- Please refer to Appendix II- Stakeholder report.

d. *Additional information (Eg: insurance providing coverages for pesticides related damage to environmental values and human health, etc.)*

- Public Liability and Work Cover insurance is held to ensure that the cost of any impact on the health of the public, employees, contractors, visitors or recreational users of the forest management units or their property is covered.

3. Program to identify, investigate, and test alternatives to the 'highly hazardous' pesticide (including preventive silvicultural measures)

a. **(Fill in only if you represent a large-scale MU)**

Please describe the research program (individually or in collaboration with other research agencies/institutions or commercial enterprises) and/or field trials of alternative non-chemical or less hazardous methods of pest management that have been planned for the requested derogation period, including devoted resources and expected timelines.

For European Wasps:

Despite considerable research, no non-chemical method has yet to been shown to be effective in controlling European wasp. Alternative (but less effective) insecticides that were used in previous baiting trials are also on the FSC highly hazardous list.

It is not really within the means of forest managers to develop a research program in isolation to other existing research programs, especially considering the substantial effort that has already going into finding control methods. There have been calls and wide support from Federal Ministers of Parliament to provide CSIRO with $1.5 million in order to research new bio-controls for wasps given the recent season which was the most severe seen (Younger, 2015). The most productive way for forest managers to contribute to the effort of finding new means of control for wasps is to support the existing bid for funding and provide sites, technical assistance and other support as required by researchers.

b. **(Fill in only if you represent a medium-scale MU)**

Please describe how you will support and/or be involved in a research program from research agencies/institutions (e.g. universities) or commercial enterprises in the requested derogation period, including devoted resources and expected timelines.

- There are no medium scale MU's who are party to this application.

c. **(Fill in only if you represent a small-scale MU)**

Please describe the program to exchange information related to pesticides use with other forest

managers, to contact research institutions and/or search in alternative databases, that will be implemented in the requested derogation period.
• All small scale MU's have participated in the national process and their group managers are members of relevant industry research programs.
d. **(Fill in only if you are applying for the renewal of a derogation)** *Please describe the programs that have been implemented to investigate, research, identify and test alternatives to the requested 'highly hazardous' pesticide, and the results.*
• Neither of the applicants hold a current derogation.

4. Stakeholder consultation

a. *Please indicate the dates when the stakeholder consultation was conducted.*

- Stakeholder consultation was commenced on the 25th of September 2015, with the distribution of letters, information and a survey to stakeholders. All draft derogations were published on the FSC Australia website.
- From the 28th of September to the 16th of November stakeholders were encouraged to meet with forest manager's representatives.
- The initial opportunity for stakeholders to provide feedback to forest managers ceased on the 16th of November.
- A webinar public forum was held on the 23rd of November.
- As recommended by the FSC Australia Board an advisory group was formed including an environmental expert and a social expert to provide advice and suggestions around the derogation applications and the stakeholder feedback received. The advisory group first met on the 24th of November.
- After consultations with the advisory group, revised derogation applications were made available for comment again on the FSC Australia website from 22nd of December until the 24th of January.
- The advisory group will meet again on the 29th of January to discuss any further stakeholder comment.

b. *Please indicate which affected stakeholders (eg. neighbouring, local communities, forest workers) have been consulted. Neighbours, local communities, other forestry companies, silviculture contractors and customers.*

- Please refer to the stakeholder engagement report Appendix 3.

c. *Please indicate other stakeholders consulted (e.g. government agencies for environmental protection or public health, scientific experts, regional/local authorities and associations, representatives of hunters, farmers or non-governmental organizations).*

- Please refer to the stakeholder engagement report Appendix 3 .

d. *Please describe the information on hazards, intended use of the HHP and commitment to prevent, mitigate and/or repair damage to environmental values and human health that has been provided to stakeholders.*

- Summary information on each relevant pesticide was provided to all stakeholders, including:
  - The hazardous attributes of the pesticide which led to it appearing on the FSC Highly Hazardous list.
  - Why forest managers use the pesticide as part of their forest management practices
  - Controls which forest managers put in place to mitigate the risk the pesticide presents
  - Efforts forest managers are making to avoid or reduce the need to use the pesticide
  - Research underway to seek alternatives to the pesticide
  - Copies of draft applications for derogations.
- A copy of the pesticide summary provided to stakeholders is included in the attached stakeholder engagement report.

e. *Please describe the consultation mechanism (i.e. public notices in local newspapers or on local radio stations, letters sent to potentially affected persons, meetings, field observations etc.) used to inform, consult and receive significant feedback.*

- A range of stakeholder consultation mechanisms have been utilised, commencing with emails or letters to known stakeholders to participate in the derogation consultation process. Information was also posted on forest manager websites and on the website of FSC Australia. This information included:
  - Downloadable information (technical and jargon free) regarding the derogation application detailing the pesticides, their hazards, rationale of continues use, intended use and management strategies to mitigate potential impacts, including weblinks to other information sources (e.g. FSC).
  - Information regarding stakeholder consultation opportunities, including a summary of the engagement plan.
  - A link to the online survey and contact information to request hardcopy or telephone survey options.
  - Information regarding public comment submissions, including a link to the public comment template and return options (email and postal address).
  - Contact information to talk with a company representative to provide feedback in person or over the telephone.
  - Online forums and recordings of these for download (if requested).
  - Contact information for the National Coordinator.
- Upon request hardcopy information packs were provided with relevant information.

f. *Please summarize the comments received and how stakeholder concerns were addressed. (Where necessary, the original stakeholder comments may be requested).*

- Please refer to Appendix 3 – Stakeholder Report.

5.Certification Body Evaluation of the compliance with the requirements of the previous derogation approval

(To be filled in by the certification body only in renewal applications)

a. *Note that this section <u>does not apply</u> to Forestry Tasmania as it is seeking a new derogation.*

b. *Please confirm if during the previous derogation period the applicant has identified and located on maps the streams, rivers, lakes and other water zones, as well as buffer zones and other sensitive areas (e.g. groundwater zone providing water for public consumption, natural reserves, conservation zones and protection areas for rare and threatened species, or habitat with biodiversity refuge.*

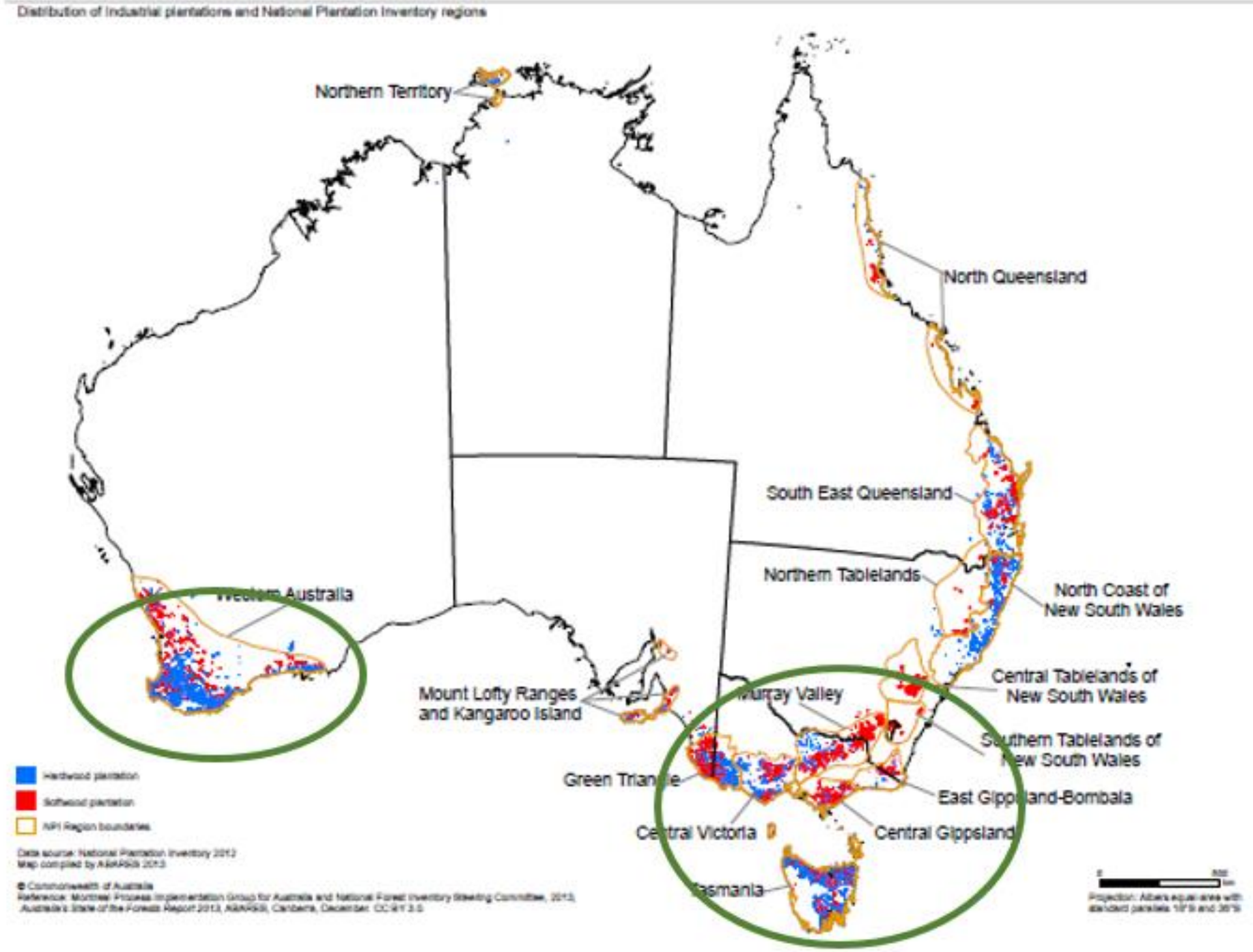
c. *Please confirm if during the previous derogation period the applicant has effectively implemented control measures to prevent, minimize and mitigate negative social and environmental impacts associated with the use of the 'highly hazardous' pesticides.*

d. *Please confirm if during the previous derogation period workers dealing with HHP were provided with appropriate training on the use of the PPE and the application of the HHP.*

e. *Please confirm if during the previous derogation period workers dealing with HHP were provided with appropriate personal protective equipment (PPE) and the use of them was enforced.*

f. *Please confirm if the applicant has implemented all the conditions set by the Pesticides Committee as part of the derogation approval.*

Appendix 1. Map of plantation areas involved in the Fipronil derogation application



Appendix 2. Cost Benefit Analysis. Fipronil for controlling European wasps

Stakeholder Feedback:

Stakeholders were highly concerned about the off-site impacts of Fipronil on non-target native species. Stakeholders would like ot see the use of Fipronil minimised, risks reduced through the implementation of additional buffers to protect water courses and other sensitive environmental assets, and application procedures to not include aerial spraying. These concerns are mostly addressed by withdrawing the application for grasshoppers/locusts and restricting derogation application to european wasp control using fipronil baited insect stations for personal safety.

		Economic Impacts		Environmental Impacts		Social Impacts			Overall Outcome
		Criteria 1	Criteria 2	Criteria 1	Criteria 2	Criteria 1	Criteria 2	Criteria 3...	
	Control Regime Description	**Basic NPV type analysis (item 1.5)**	**Other economic impacts**	**Onsite impacts**	**Off-site impacts**	**Worker health and safety**	**Impacts on neighbours**	**Legal compliance**	
No use of Fipronil	*Fipronil will not be used. Alternatives will be used where applicable*	Irrelevant: No financial loss to crops. This is a worker safety issue only	MODERATE:costs of medical treatements, lost time and lost operational time.	**MODERATE**: Risk to non-target species from Fipronil poisoning is eliminated. Use of alternative HHP pesticides also present a risk to on-site non-target species which needs to be considered.	**MODERATE**: Risk to non-target species from Fipronil poisoning is eliminated. Use of alternative HHP pesticides also present a risk to off-site non-target species which needs to be considered.	**HIGH**: Workers will be exposed to the risk of wasp stings, and will need to either not go into an area or wear impractical protective clothing.	**HIGH:** Risk of Fipronil contamination elimintated, however, risks of stings to neighbours is likely	**HIGH:** Failure to provide a safeworkplace is prosecutable under Australian law.	The lack of alternatives , and the ongoing risk to human safety remains affected by the viability of this option.
Use of Fipronil in compliance with existing regulations *and* additional preventative controls	*Compliance with off label permit from APVMA, applied in elevated target specific meat bait based traps*	Irrelevant: No financial loss to crops. This is a worker safety issue only	LOW:no costs of medical treatment, lost time or operational costs	LOW: Risk to non-target species from Fipronil exists but is be reduced through best-practice wasp baiting approaches,.	**LOW**: Risk to non-target species from Fipronil exists but is be reduced through best-practice wasp baiting approaches.	**LOW**: Worker risk minimised due to reduced wasp populations.	**LOW:** Low risk of off-site Fipronil contamination affecting neighbours and other stakeholders due to baiting application procedures.Reduced risk of being stung by wasps.	**LOW:** off-label permission needed to use Fipronil for wasp control, but compliance with permit conditions is straight forward.	Low cost, good control of wasp populations, resulting in reduced risk to human safety from wasps make this option viable.

Appendix 3. INTERIM Stakeholder Feedback Report - Fipronil

Report Overview

The following report provides a summary of the outcomes of the FSC Highly Hazardous Pesticide Derogation stakeholder feedback, including survey responses and additional feedback received from public comments and communication with forest company representatives.

This feedback was used by the independent advisory group in making recommendations to forest managers regarding pesticide acceptance and preferred conditions of use. These recommendations were then consideration in the further development of the various derogation applications.

Overall stakeholder response

In total 125 stakeholders have provided feedback on the derogations applications as December 21, 2015. This includes 75 survey respondents and 50 stakeholders who participated through providing public comment and communication with the National Coordinator or forest company representatives. Many survey respondents also provided feedback through other approaches such as email and/or communication with forest company representatives.

The majority of survey respondents were individuals living on or owning properties adjacent to forested areas (63%) as shown in table 1. These high numbers of stakeholders who live on or adjacent to forest areas was expected given that forest companies primarily approached those stakeholders registered on company databases for stakeholder feedback. The number of survey respondents identifying as being members of environmental groups was lower than anticipated given the typically high level of interest of such groups in forestry issues.

Table 1: Types of stakeholders who participated in feedback opportunities

Stakeholder Type (n=75)	No. Survey Responses	% of Survey Responses	No. Comment Responses	Total % of Responses
I am a member of an environmental group with an interest in forestry activities	5	7%	4	7.2%
I am a member of the general public with an interest in forestry activities	10	13%	4	12.8%
I live on a property adjacent to or near a forested area (native forest and/or plantation forest)	22	29%	1	18.4%
I own or manage land adjacent to near a forested area (native forest and/or plantation forest)	18	24%		14.4%
I work, or used to work, within the forest industry	11	15%		8.8%
My business, or place of employment, is impacted by forestry activities	4	5%	4	6.4%
Government	3	4%	2	4.0%
Other, or unknown	2	3%	35	29.6%

State of origin (survey respondents only)

Survey respondents were predominantly from Tasmania (49%), followed by Victoria (35%) and Western Australia (9%) (Figure 1), with very little response from other jurisdictions. The majority of survey respondents were potentially affected stakeholders from rural and regional areas, with 51% living on a rural property and a further 29% in regional and rural towns (Figure 2).

Figure 1: State of origin of survey respondents (n=75)

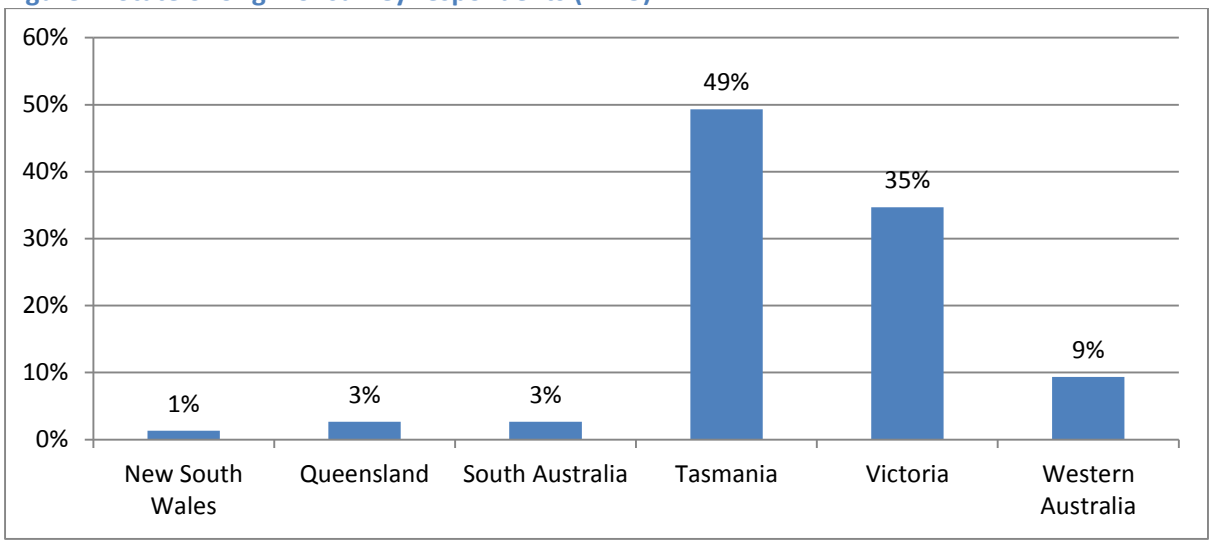
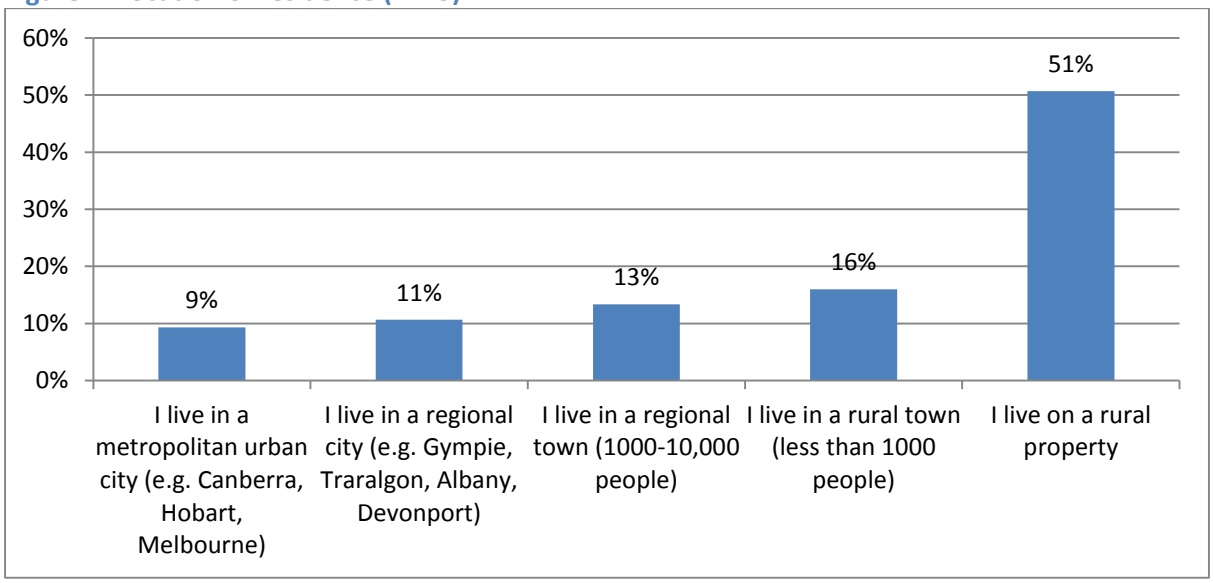


Figure 2: Location of residence (n=75)

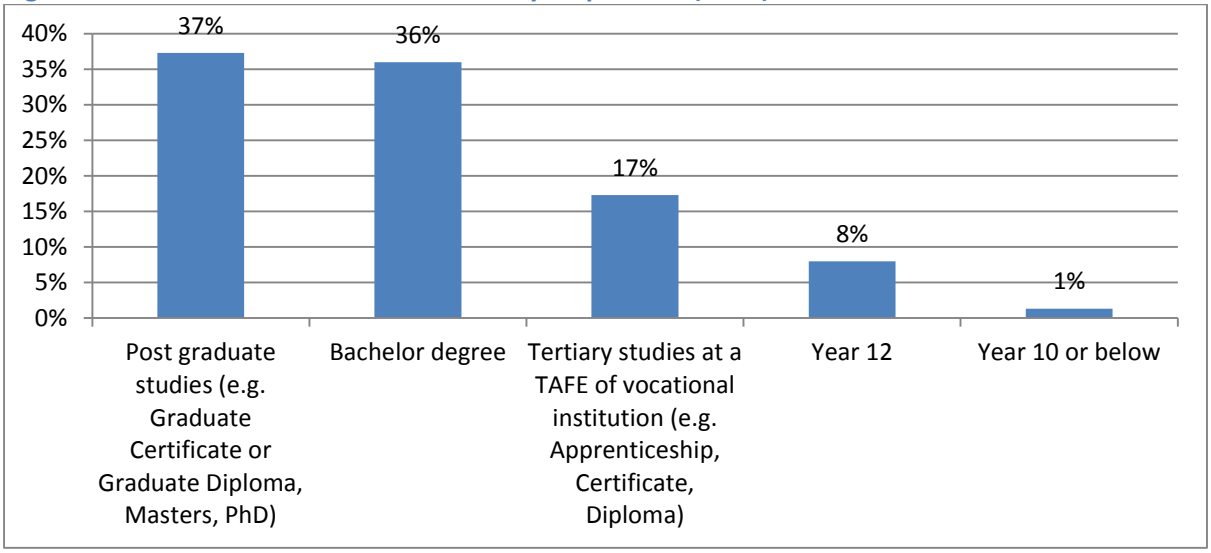


Survey responder demographics

Of the 75 survey respondents 41% were female, 55% male and 4% preferred not to state their gender. This represents a higher sample of men to women; however this is a good sample of women, with rural and regional women not often completing surveys pertaining to rural matters.

Survey respondents were highly educated as shown in Figure 3, with 74% of stakeholders have a bachelor degree or higher. While this is not representative of the general Australian public with a substantially higher level of education reported, it is indicative of the education levels of those individuals interested in forest management with forest managers reporting that this level of education is typical of their stakeholder registers.

Figure 3: Educational achievement of survey responders (n=75)



Stakeholder interest in derogation applications

As indicated in Table 2 the majority of survey comments were in regards to Tasmanian derogation applications. Some stakeholder comments were received for pesticides not under application for that jurisdiction (e.g. 1080 received 5 comments from Tasmania despite Tasmanian companies not seeking a derogation for this pesticide). This widespread interest highlights the level of concern of stakeholders regarding the use of pesticides.

Table 2: Stakeholder interest in derogation applications by state (n=75)

Pesticide commenting on*	NSW	QLD	SA	TAS	VIC	WA	Total
1080	0	0	1	5	15	4	25
Amitrole	0	0	1	5	5	2	13
Alpha-cypermethrin	0	1	1	28	5	2	37
Fipronyl	0	0	0	24	7	1	32
Cuprous Oxide	0	0	0	2	8	1	11
Copper Sulphate	0	0	0	2	1	0	3
Picloram	0	0	0	3	2	1	6
Glufosinate ammonium	0	0	0	4	3	1	8
Pindone	0	0	0	4	2	5	11
All Derogation Applications	1	1	1	9	11	3	26
Total	1	2	4	86	59	20	172
	1%	*1%*	*2%*	*50%*	*34%*	*12%*	

Note – due to a change by FSC International derogations are now only being sought for 1080, Amitrole, Alpha-Cypermethrin and Fipronil pesticides

Table 3 provides a breakdown of the company derogations survey respondents provided comment on, highlighting the high focus of stakeholders on Tasmanian and to a lesser extent Victorian forest companies derogations.

Table 3: Company derogations commented on (n=75)

Derogations Commenting On	Number of respondents
Albany Plantations Fibre Limited (WA)	14
Hancock Queensland Plantations – HQP (QLD)	8
PF Olsen (Aus) Pty Ltd (VIC, SA, QLD, WA)	20
Australian Bluegums Ltd (VIC, SA, WA)	25
Forestry Tasmania	41
Hancock Victoria Plantations - HVP (VIC, SA)	20
WAPRES(WA)	14
Bunbury Fibre (WA)	13
Forico (TAS)	30
SFM (TAS, VIC, SA)	26
National Coordinator (Pinnacle Quality)	9

Initiation of stakeholder participation

The majority of survey respondents were attracted to the stakeholder feedback process through invitations received from local forest company(s) or friends (see Table 4). Participation through environmental group dissemination of invitations was very low. Public comment feedback provided some insights into this potential low rate of interest from environmental groups, with a poor perception of FSC engagement processes and hence a lack of interest in participating due to perceived no influence on the process.

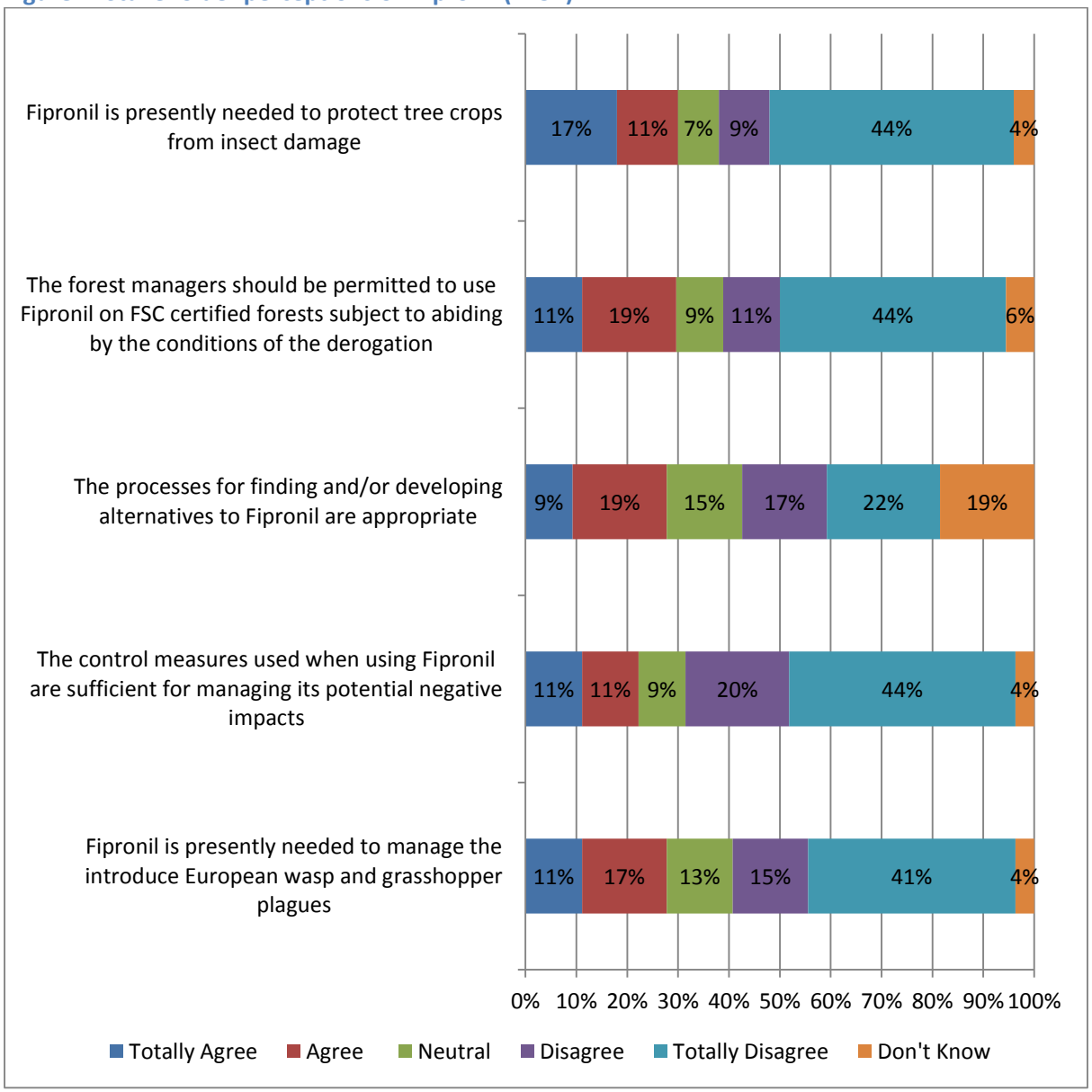
Table 4: Participant involvement initiation (n=75)

Participation Initiation	Response	% Responses
Direct email invitation from my local forest company	39	52%
Direct email invitation from the National Coordinator (Kevin O'Grady)	2	3%
Forest company website	4	5%
FSC Australia website	4	5%
Information was provided to me from a friend	23	31%
Information was provided to me from an environmental group	2	3%
Information was provided to me from through my place of work	8	11%

Feedback on Derogation Applications - Fipronil

Survey respondents predominantly disagreed (56%) with the use of Fipronil as provided in the draft derogation applications, with 30% agreeing with its use (Figure 4). Additionally stakeholders did not accept that there was a real need to use Fipronil to protect trees (53% disagreed), or to control European wasps and grasshoppers (56% disagreed). Stakeholders were highly concerned about the sufficiency of control measures given the potential impacts of the pesticide on non-target species, with 64% disagreeing that control measures detailed in the draft derogations were sufficient.

Figure 4: Stakeholder perceptions on Fipronil (n=54)



Like Amitrole and Alpha-Cypermethrin, many stakeholders are highly concerned about the use of Fipronil on FSC certified lands due to its toxicity and hence potential impact on environmental and human health:

> *"The potential hazards of Fipronyl make it inappropriate to use in plantations close to human habitation."*
>
> *"Fipronil was found to be highly toxic to some birds and to honey bees. Honey bees are already under immense pressure. No honey bees equates to long term no sustainable life."*

> *"Fipronyl is highly toxic to freshwater fish and invertebrates and it should not be used near or about water ways as minute quantities in waterways can kill fish and crustaceans"*

There are also concerns over the use of aerial spraying to apply Fipronil given its toxicity:

> *"We are also concerned about the aerial application of all pesticides and the adverse impact this has on communities living adjacent to and in near proximity to these operations. Despite the latest technology spray drift, mobilisation through water tables and water courses poses threats to sensitive people."*

> *"Fipronyl has been banned in other countries. We should not be using this chemical particularly NO AERIAL SPRAYING [emphasis original] should take place."*

Some stakeholders questioned the need for Fipronil at all given the potential impacts:

> *"Being a resident, I do not believe either of these pests are a significant problem - I have a real issue for the impacts on birds, mammals and bees in our area, of which there are many! Perhaps for employee safety, proper safety clothing should be issued for wasps?"*

> *"… In WA we rarely have grass hopper plagues and I haven't heard of grass hopper damage to blue gum plantations when they did occur. I am unsure of the European wasp situation however the death of beneficial insects and bees vastly outweighs any reason to use this highly hazardous chemical."*

> *"European wasps can be controlled by other means. Use of dangerous chemicals should be discouraged according to FSC principles."*

> *"Is it clear that the benefits of very occasional use in extreme circumstances only, outweigh the negatives? Again something with such acute toxicity should be a last resort not become part of standard practice."*

There is concern from some stakeholders regarding the effectiveness of control measures and the enforcement of breaches with such controls:

> *"The checks in place for its application, monitoring, frequency of use are not stringent enough. It is not enough that notices will be put up to notify communities....communities should have the right to say no to spraying in their area if the forestry industry cannot convince them otherwise."*

> *"Fipronil spray would require very careful management of off-target spray drift onto grazing land, high conservation land including that found within plantations, and water bodies within 1.5km of the spray zone."*

The acceptance of using Fipronil on FSC certified lands for each of the relevant states is provided in

Table 5 and Figure 5. Again New South Wales, Queensland, South Australia and Western Australia have been combined due to the low number of respondents within each state.

Table 5: A comparison of acceptance of Fipronil for use on FSC certified forests across the states

	Agree	Neutral	Disagree	Don't Know
Fipronil is presently needed to manage the introduce European wasp and grasshopper plagues - TAS (n=31)	26%	16%	55%	3%
Fipronil is presently needed to manage the introduce European wasp and grasshopper plagues - NSW, QLD, SA, WA (n=6)	33%	17%	50%	0%
The control measures used when using Fipronil are sufficient for managing its potential negative impacts - TAS (n=31)	45%	10%	32%	13%
The control measures used when using Fipronil are sufficient for managing its potential negative impacts - NSW, QLD, SA, WA (n=6)	50%	0%	50%	0%
The processes for finding and/or developing alternatives to Fipronil are appropriate - TAS (n=31)	29%	19%	39%	13%
The processes for finding and/or developing alternatives to Fipronil are appropriate - NSW, QLD, SA, WA (n=6)	33%	0%	33%	33%
The forest managers should be permitted to use Fipronil on FSC certified forests subject to abiding by the conditions of the derogation - TAS (n=31)	26%	16%	55%	3%
The forest managers should be permitted to use Fipronil on FSC certified forests subject to abiding by the conditions of the derogation - NSW, QLD, SA, WA (n=6)	50%	0%	50%	0%
Fipronil is presently needed to protect tree crops from insect damage - TAS (n=31)	26%	6%	55%	3%
Fipronil is presently needed to protect tree crops from insect damage - NSW, QLD, SA, WA (n=6)	50%	0%	50%	0%

Survey respondents in NSW/QLD/SA and WA were much more accepting of Fipronil than Tasmanian respondents, with 50% agreeing to use Fipronil on FSC certified lands compared to 26% in Tasmania. However, the sufficiency of control measures was relatively similar with 45% of Tasmanian respondents agreeing they were adequate and 50% of NSW/QLD/SA and WA respondents.

The need for Fipronil to control European wasps and grasshoppers was less accepted for QLD/NSW/SA and WA respondents (33%) than the need to protect tree crops from damage in general (50%), Tasmanian respondents did not agree with either of these needs with 55% of respondents disagreeing with both statements.

Figure 5: Acceptance of Fipronil for use on FSC certified forests across the states