# Application Form for a Temporary Derogation to Use an FSC ‘Highly Hazardous’ Pesticide

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<th><strong>A. General Requirements</strong></th>
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| **Application Submission date:** | 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 |
| **Name, and contact details of certification body requesting a temporary derogation:** | Dominex Duo Insecticide  
Active Constituent: 100 g/L Alpha-Cypermethrin  
Solvent: 741.9 g/L Liquid Hydrocarbon  
(Group 3A Insecticide)  
Fastac Duo Insecticide  
Active Constituent: 100 g/L Alpha-Cypermethrin  
Solvent: 741.9 g/L Liquid Hydrocarbon  
(Group 3A Insecticide)  
Astound Duo Insecticide  
Active Constituent: 100 g/L Alpha-Cypermethrin  
Solvent: 742 g/L Liquid Hydrocarbons  
(Group 3A Insecticide)  
NB: MSDS are available from http://www.msds.com.au for which WAPRES has a subscription. |
| **Active ingredient for which a derogation is being requested:** | Ground based application with various vehicles using boom sprayers when targeting pests at the establishment phase.  
Ground based application with various vehicles using boom sprayers or misters when targeting pests post establishment.  
Aerial application by fixed wing or helicopter.  
The WAPRES nursery also uses ground based vehicles with boom sprayers or misters in the seed orchards.  
Grasshoppers and Locusts (Orthoptera), Beetles (Coleoptera), Bugs (Hemiptera), Moths and Butterflies (Lepidoptera) and Sawflies (Hymenoptera)  
For the control of nominated insects within Eucalypt plantation areas in the south-west of Western Australia |
| **Trade name and formulation type of the pesticide:** | Name and FSC certification codes of certificate holders requesting a temporary derogation: |
The derogation is being requested: which plantations either exist on freehold land or are under lease agreements.

The WAPRES Nursery which is located on Appadene Road near Manjimup Western Australia.

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The WAPRES Nursery which is located on Appadene Road near Manjimup Western Australia.

1. **Demonstrated need:** Explain how the proposed use complies with the criteria for need, including consideration of non highly hazardous alternatives and preventative silvicultural measures.

The use of alpha-cypermethrin in Eucalypt plantations is integral in managing insect pests both at establishment and in older trees. Monitoring particularly after establishment is conducted to gauge insect populations and extent of damage. Alpha-cypermethrin is only applied when an acceptable level of damage is exceeded and other options cannot control populations and therefore prevent significant damage.

At the WAPRES Nursery, alpha-cypermethrin is used to control insects including Leaf Tie Grub and Cutworm that attack seedlings.

Insect pests typically eat or cause damage to the roots, leaves and stems of trees within Eucalypt plantations. Some insects cause damage at the establishment phase (e.g. wingless grasshoppers) while other insects can cause damage over numerous years (e.g. Eucalyptus weevil). Seedling survival, plantation stocking and yield can be greatly affected by lack of insect pest control. The cost of damage, depending on the severity, can greatly impact upon the establishment value per hectare of the plantation and further compound lease payment values and lease costs for an additional lease period. There are also flow-on effects which include cash flow interruptions, long term contractual obligations, wood flows, harvest scheduling, shipping and downstream processing. Where damage requires replanting following insect damage it would cost approximately $1000 per hectare, lease payment for an additional year would be approximately $400 per hectare as well as the loss of yield.

Currently available alternative products to control insect pests are more expensive, limited to an individual insect species or effective only on larval stages. For example

- Success Neo is only effective against larvae of *Eucalyptus* chrysmoligid leaf beetle
- DiPel (*Bacillus* sp. based product) has only been proven to be effective in the control of Lepidopteran caterpillars.
- Shield systemic insecticide can be used in some situations. However, it is 8-10 times more expensive than alpha-cypermethrin, cannot be applied in summer (as it requires rainfall for efficient root uptake), and cannot provide immediate control of insect in situations where pest populations build up suddenly.

In the last 5 years a species of weevil (*Gonipterus* sp. nov. 2), previously not recorded in WA, has increased dramatically in numbers. From a single record in 2005, it is now found in most plantations west of Lake Muir. In many plantations populations in spring-summer of this weevil are:

1. 2-6 times (4-12 eggs/branch) greater than the previously established thresholds considered to be damaging to plantations (i.e. 2 eggs/branch)
2. Cause average defoliation damage of 30-60% of tree crowns
3. Are impacting on growth

2. **Stakeholder consultation**

In Australia all chemical products must be registered for use by the Australian Pesticides and Veterinary Medicines Authority. The registration process is explained in this document.
Use of alpha-cypermethrin in certified plantations in Australia has FSC Pesticide Derogation Approval until 1 February 2016. This has involved previous stakeholder consideration and input for the same operational area.

A request will be made to FSC Australia to place on their website for further stakeholder comment. WAPRES will also place a copy of the derogation request on its website.

WAPRES is committed to stakeholder engagement and maintaining good relationships with all our neighbours in all our business operations.

Any aerial spraying will be managed in accordance with the Code of Practice for Timber Plantations in Western Australia. This involves a process of communication with neighbours to ensure they are:

- Aware of the planned activities
- Have the opportunity to comment on the spray plan
- Can take any necessary precautions

All spraying operations will be managed according to a specific Plantation Management Plan for the plantation and a Spraying Prescription for each operation. Spray records will be completed for each operation and a copy kept by WAPRES.

### B. Forest Management Enterprise Specific Requirements

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<th>Forest Management Enterprise:</th>
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<td>FSC Certificate Registration Code:</td>
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<td>Location/region:</td>
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#### 1. Specified controls to prevent, minimize and mitigate hazards:

Australia has a national registration system for the registration of all agricultural and veterinary chemical products into the Australian marketplace. The Australian Pesticides & Veterinary Medicines Authority (APVMA) is the body responsible for registration of these products (www.apvma.gov.au).

Only licensed contractors apply alpha-cypermethrin. Contractors ensure that safety measures detailed in the MSDS sheet are adhered to. Sensitive areas are avoided when spraying, including any areas of remnant vegetation on the property or any watercourses with consideration given regarding neighbouring land use. Prescriptions are matched to individual sites. Contractors apply chemicals according to the manufacturer’s specifications and timing, and by practices that minimize their movement off site. Spraying is only conducted under appropriate weather conditions, taking into consideration wind direction and speed, relative humidity and temperature.

Water sampling/testing is conducted annually on a number of plantations for which insecticide spraying is undertaken and a water body is present.

WAPRES policies, procedures and management strategies ensure hazards of associated operations are minimized and include:

- Detailed Plantation Management Plans
- Detailed individual spray prescriptions.
- Detailed Operational Maps detailing water bodies, HCVs, residences.
- Internal procedures for all spray applications.
WAPRES employs a dedicated OHS and Environmental officer to assist operations staff.

In the case of aerial operations, a planning tool is used to consult with neighbour’s and stakeholders on operations.

Daily spray records documented and recorded

Chemical usage is documented and recorded

2. Program to identify alternatives to a ‘highly hazardous’ pesticide including preventative silvicultural measures. Describe the programs that are in place to identify alternatives, include a timetable and indicate research partners and targets.

Over the last couple of years trials have been conducted (and are still being carried out) for the use of more targeted systemic insecticides including Initiator (Imidacloprid) and Shield (Clothianidin) for use operationally. Initiator tablets are placed at the bottom of the planting hole and the seedling is planted directly on top of the pill. Shield is applied via a drench gun at the base of the newly planted seedlings. Only insects directly feeding on the seedlings are killed.

WAPRES is an active member of the Industry Pest Management Group (IPMG). As such it is involved in a number of trials designed to:

- improve the understanding of the ecology of key pests,
- test rates and different application methods for currently available pesticides
- Test alternative products for efficacy

Specifically some current or past trials WAPRES is involved in include:

(2008-ongoing) Testing the effectiveness of systemic insecticides for the protection of seedlings. Positive results were obtained from Shield and Initiator use with Shield outperforming Initiator (economically as well).

(2009& 2011 - ongoing) Testing effective rates and application methods for Shield in older trees (3-5 years)

(2011/12-ongoing) Testing the effectiveness of applying Shield at the nursery and transplanting treated seedlings planted to the field.

(2013) Testing the effectiveness of Maldison, Dipel & Delfin (Bacillus based insecticides) and Broadband (Beauveria-based insecticide) for the control of Gonipterus spp.

Due to the positive results obtained with Shield from seedling trials conducted so far, 2011 was the first year that new plantings in high pest risk areas were treated with Shield. This has reduced the amount of knockdown spray (alpha-cypermethrin) required at establishment by 75% over the last two years.

However, while Shield offers some protection, very large pest populations of spring beetles (Liparetrus spp.) and wingless grasshoppers can still totally defoliate and kill treated trees. Therefore there is still the need to have a knockdown for the use of controlling insect populations in these situations. At this point in time alpha-cypermethrin is still the only knockdown available to control a range of insect pests.

The treatment of mature stands with systemic insecticides is expensive and can only be justified for relatively small high risk areas. Additionally, in any given year, it is currently not possible to predict with accuracy which plantations will have large populations of Gonipterus weevils. As populations can build up quickly over the spring-summer period,
there is still a need for a knockdown pesticide to allow foresters to manage pests when populations or damage levels have reached critical thresholds. That is, over 2-3 eggs per branch or >40% crown defoliation.