



Australian Government
**Australian Pesticides and
Veterinary Medicines Authority**

**PERMIT TO ALLOW MINOR USE OF A REGISTERED AGVET CHEMICAL
PRODUCT FOR CONTROL OF THYSANOPTERA IN (NON-FOOD)
NURSERY STOCK, INCLUDING SEEDLINGS, TUBES, PLUGS, POTTED COLOUR,
TREES, SHRUBS, FOLIAGE PLANTS, PALMS, GRASSES, FRUIT PLANTS, CUT
FLOWERS* AND ORNAMENTALS**

PERMIT NUMBER – PER91941

This permit is issued to the Permit Holder in response to an application granted by the APVMA under section 112 of the Agvet Codes of the jurisdictions set out below. This permit allows a person, as stipulated below, to use the product in the manner specified in this permit in the designated jurisdictions. This permit also allows the Permit Holder and any person stipulated below to claim that the product can be used in the manner specified in this permit.

THIS PERMIT IS IN FORCE FROM 19 MAY 2022 TO 31 MAY 2025

Permit Holder:

GREENLIFE INDUSTRY AUSTRALIA LIMITED
c/- AGAWARE CONSULTING PTY LTD
21 Rosella Avenue
STRATHFIELDSAYE VIC 3551

Persons who can use the product under this permit:

Persons generally.

CONDITIONS OF USE

Products to be used:

Abamectin + chlorantraniliprole

VOLIAM TARGO INSECTICIDE (APVMA No. 81921)

PLUS OTHER REGISTERED PRODUCTS

Containing: 18 g/L ABAMECTIN and 45 g/L CHLORANTRANILIPROLE as the only active constituents.

Acephate

LANCER 750 DF INSECTICIDE (APVMA No. 50892)

PLUS OTHER REGISTERED PRODUCTS

Containing: 750 g/kg ACEPHATE as the only active constituent.

ORTHENE XTRA INSECTICIDE (APVMA No. 50469)

PLUS OTHER REGISTERED PRODUCTS

Containing: 970 g/kg ACEPHATE as the only active constituent.

Alpha-cypermethrin

DOMINEX DUO INSECTICIDE (APVMA No. 53487)

PLUS OTHER REGISTERED PRODUCTS

Containing: 100 g/L ALPHA-CYPERMETHRIN as the only active constituent.

CONQUEST ALPHA FORTE 250 SC INSECTICIDE (APVMA No. 65245)

PLUS OTHER REGISTERED PRODUCTS

Containing: 250 g/L ALPHA-CYPERMETHRIN as the only active constituent.

Azadirachtin

AZAMAX INSECTICIDE (APVMA No. 61980)

PLUS OTHER REGISTERED PRODUCTS

Containing: 11.82 g/L AZADIRACHTIN as the only active constituent.

Chlorpyrifos

NUFARM CHLORPYRIFOS 500 EC INSECTICIDE (APVMA No. 32902)

PLUS OTHER REGISTERED PRODUCTS

Containing: 500 g/L CHLORPYRIFOS as the only active constituent.

Methomyl

LANNATE-L INSECTICIDE (APVMA No. 47336)

PLUS OTHER REGISTERED PRODUCTS

Containing: 225 g/L METHOMYL as the only active constituent.

Directions for Use:

Refer to the *Application Rates*, *Critical Use Comments* and *Additional Conditions* listed in **Table 1** below.

Withholding Period:

DO NOT use on plants grown for human or animal consumption.

Jurisdiction:

All States and Territories.

Additional Conditions:

This permit allows for the use of a product in a manner specified on the permit. Persons who wish to prepare for use and/or use products for the purposes specified in this permit must read, or have read to them, the details and conditions of this permit. Unless otherwise stated, the use of the product must be in accordance with the product label.

To Avoid Crop Damage

Nursery stock is not known to be sensitive to the chemical insecticide products listed in this permit when used in strict accordance with the rate, conditions of use and other warnings.

However, the large number of disparate crop lines produced in commercial production nurseries means that not all these products have been fully evaluated for crop safety on all species, or in all situations where treatment may be undertaken. Some of these insecticides may demonstrate toxicity under certain situations, application methods, application rates and weather conditions to susceptible nursery stock. Some insecticides may also leave undesirable spray residue on foliage and flowers.

If unsure of crop tolerance, users must treat a sample number of plants or a small area prior to whole crop treatment and monitor any phytotoxic effects that will compromise production goals. This action cannot guarantee crop safety as application, environmental and crop conditions may vary from test treatment to whole of crop treatment. Any instances of phytotoxic damage should be reported immediately to the permit holder.

Resistance Management

Use insecticide products in accordance with existing *Insecticide Resistance Management Strategies* and in accordance with best practice. Insecticide products should be used as part of an integrated pest management program, which incorporates as many control options as possible to minimise pest pressure. It is important that approved insecticide products are rotated between different chemical mode of action (MoA) groups at regular intervals within a structured disease management plan.

Insecticide Resistance Management Strategies have been developed by CropLife Australia. An updated version of these strategies is available from CropLife Australia's website at: <http://www.croplife.org.au/industry-stewardship/resistance-management> or search on-line for Resistance Management CropLife Australia.

Western Flower Thrips Resistance Management Strategy:

Chemicals alone will not control Western flower thrips (WFT). Effective control can only be achieved with an integrated approach using additional cultural control methods. The most important cultural control method is the removal of all flowering weeds (especially white clover) from within and around the crop. Uncontrolled flowering weeds harbour abundant thrips that reinfest the crop and overwhelm chemical control. Crop debris may harbour western flower thrips and so should be ploughed in or burned. If the crop is at all sensitive to viruses, such as Tomato Spotted Wilt Virus (TSWV), it is essential to remove the virus infected plants (burn or bury).

Effective chemical management of WFT is made difficult by resistance to a wide range of insecticides and limited accessibility to life stages during spraying. Only the larval and adult stages of WFT are contacted by insecticide sprays. Eggs are protected in plant tissue, while pupal stages shelter in soil and debris. In order to effectively manage WFT in crop, chemicals should be sprayed at intervals. The intervals are governed by the length of the life-cycle, which is controlled by temperature.

Monitoring allows insecticides to be used only when necessary and so vigilant crop monitoring will reduce insecticide costs, reduce insecticide impact on beneficial insects and lessen the likelihood of resistance development. Sticky traps should be used to monitor thrips numbers (about 3–10 traps per hectare, or one trap per 200 m² in greenhouses). A new series of three sprays should not be commenced without appropriate monitoring.

Chemical applications should be applied in a series of sprays until population levels have fallen to acceptable levels. To keep resistance levels down, change chemical groups between series of sprays. A series of chemical sprays will be three applications of the one chemical. Apply three consecutive sprays of the same chemical and alternate to a chemical in a different group for the following series of sprays. Importantly, after the first application, if control is less than adequate and resistance is suspected the additional applications of the same chemical should not be applied. There must be at least a 3 week break (<20°C) or 2 week break (>20°C) before another series of sprays is applied. If monitoring indicates the need to spray earlier, then insecticide resistance, inappropriate spray application or inadequate cultural control methods should be suspected and expert advice sought.

Other Matters

Continued issuance of this permit is subject to the outcomes of the current APVMA review of chlorpyrifos. This permit may be impacted by the outcomes of this review.

Issued by the Australian Pesticides and Veterinary Medicines Authority

* Includes wildflower crops. Refer to Wildflower crops list in Appendix 1.

DIRECTIONS FOR USE:

Table 1: Thysanoptera control in nursery stock (non-food) and ornamentals

Including (non-food) – seedlings, tubes, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit plants (non-bearing), cut flowers* and ornamentals.

Pest	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Thrips (Thysanoptera)	18 g/L abamectin (6) + 45 g/L chlorantraniliprole (28)	55-75 mL/100 L	<ul style="list-style-type: none"> •Monitor crops and commence application when pest thresholds are reached. •Apply spray mixture to near the point of run-off to ensure thorough coverage of all plant surfaces. •Apply by foliar application by ground based sprayers. •DO NOT apply more than 2 applications per crop. •DO NOT re-apply less than 10 days after the previous treatment. •DO NOT apply to crops if 3 applications of a Group 28 insecticide have been applied in the current season. DO NOT apply to crops if a Group 6 insecticide has been applied in the current season. •DO NOT use on vegetable or herb seedlings. 	<p>DO NOT apply if heavy rains or storms are forecast within 3 days.</p> <p>DO NOT irrigate to the point of runoff for at least 3 days after application.</p> <p>See <i>Further Conditions for use of abamectin + chlorantraniliprole products</i> below.</p>

Further Conditions for use of abamectin + chlorantraniliprole products

Safety Directions:

Harmful if swallowed. Do not inhale spray mist. When opening the container, preparing spray and using the product wear: cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical resistant gloves, half face piece respirator with organic vapour/gas cartridge or canister. Wash hands after use. After each day's use wash gloves, respirator (if rubber, wash with detergent and warm water) and contaminated clothing. In addition, if applying by spraying equipment carried on the back of the user wear cotton overalls, over normal clothing, buttoned to the neck and wrist.

First Aid Instructions:

If poisoning occurs contact a doctor or Poisons Information Centre. Phone 13 11 26. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

Re-entry Directions:

Under field conditions the spray should be allowed to dry on the foliage before re-entry into treated areas. DO NOT allow re-entry into treated areas in glasshouse for 24 hours after treatment. When prior entry is necessary, wear cotton overalls buttons to the neck and wrist and elbow-length gloves. Clothing must be laundered after each day's use.

Spray Drift Restraints

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift.

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between three and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

Mandatory No-Spray Zones

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 50 metres downwind from the application area.

Protection of Wildlife, Fish, Crustaceans and Environment

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

Protection of Honey Bees and Other Insect Pollinators

Highly toxic to bees. DO NOT apply to crops from the onset of flowering until flowering is complete unless the application is made in the time period between 2 hours prior to sunset and 8 hours prior to sunrise. DO NOT allow spray drift to flowering weeds or flowering crops in the vicinity of the treatment area. Before spraying, notify beekeepers to move hives to a safe location with an untreated source of nectar and pollen, if there is potential for managed hives to be affected by the spray or spray drift.

Table 1 (continued): Thysanoptera control in nursery stock (non-food) and ornamentals

Including (non-food) – seedlings, tubes, potted colour, trees, shrubs, foliage plants, palms, grasses, fruit plants (non-bearing), cut flowers* and ornamentals.

Pest	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Western flower thrips (<i>Frankliniella occidentalis</i>).	750 g/kg acephate (1B) 970 g/kg acephate (1B)	<u>750 g/kg product</u> 130 g/100L OR 1.3 kg/ha <u>970 g/kg product</u> 100 g/100 L OR 1 kg/ha	<ul style="list-style-type: none"> •DO NOT apply more than 3 applications per crop. •Apply by a ground-based sprayer (hydraulic spray equipment or equivalent). •Apply in sufficient water to ensure thorough coverage of all plant surfaces. Use the appropriate water rate depending on plant size, canopy stage and density, time of year and pest pressure. •For high volume spraying, apply in 500 – 1,000 L water per hectare. •DO NOT use on crops destined for export. •DO NOT apply to carnations later than 6 days before picking. •May cause foliage damage to certain shrubs and trees, i.e. crab apple, cotton wood, Lombardy poplar and American elm. •DO NOT spray more than once every 28 days on carnations and chrysanthemums. Certain chrysanthemum varieties, i.e. Showoff, Iceberg, Albatross, Bonnie Jean and Statesman have, on occasions, been damaged by products containing acephate. •Use in accordance with <i>Western flower thrips resistance management strategy</i> 	<p>DO NOT apply using equipment carried on the back of the user.</p> <p>DO NOT spray if rainfall/overhead irrigation is expected before the spray is dry.</p> <p>When using the product in an enclosed/protected situation (e.g. glasshouse/greenhouse) where natural ventilation is restricted, also wear protective goggles and disposable face-mask (mist) that covers mouth and nose.</p> <p>DO NOT allow entry into, or perform agronomic practices in, treated areas until the spray deposits have dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and elbow-length PVC gloves. Clothing must be laundered after each day's use. For glass houses and other confined area, do not re-enter until spray droplets have dried and area has been thoroughly ventilated.</p>

Pest	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Thrips (Thysanoptera)	100 g/L alpha-cypermethrin (3A)	<u>100 g/L product</u> 125 mL/ha	<ul style="list-style-type: none"> •DO NOT apply using backpack spraying equipment. •Alpha-cypermethrin will not control Western flower thrips. •Apply at the first sign of the pests using ground boom spray application equipment only. •Use a non-ionic wetting agent at the rate specified by the manufacturer for use in horticultural crops. •DO NOT apply more than 4 applications per crop per year at a minimum re-treatment interval of 7 days. 	<p>DO NOT apply if rainfall is expected within 6 hours of application.</p> <p>Do not enter treated areas until the spray has dried after applying the product to control thrips, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.</p>
	250 g/L alpha-cypermethrin (3A)	<u>250 g/L product</u> 50 mL/ha	<ul style="list-style-type: none"> •Apply when pest require control for crop management purposes. •Regularly scout crops to monitor for eggs and larvae. Treat when pests appear, targeting eggs at hatch or small larvae (prior to third instar stage) before the pest becomes entrenched. •DO NOT apply more than 5 applications per crop per year at a minimum re-treatment interval of 7-10 days. •Ensure spray application provides thorough coverage of all plant foliage. Adjust water spray volume to crop density and growth stage. •Apply by a ground-based sprayer (hydraulic spray equipment or equivalent). •Use the higher rate when longer residual control is required, or during periods of high pest pressure or rapid crop growth, or when crops are well advanced, or when insect infestation is high, or when conditions favour high pest pressure. •Continue to monitor crops and make a subsequent application as necessary. 	<p>DO NOT use on vegetable or herb seedlings.</p> <p>Trials on sensitive plants such as ferns, poinsettias and African violets have resulted in crop damage. Minor phytotoxic effects have occurred in other species.</p>

Pest	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Thrips (Thysanoptera)	500 g/L chlorpyrifos (1B)	125-200 mL/100 L	<ul style="list-style-type: none"> •Apply when pest require control for crop management purposes. •Regularly scout crops to monitor for eggs and larvae. Treat when pests appear, targeting eggs at hatch or small larvae (prior to third instar stage) before the pest becomes entrenched. •Apply by a ground-based sprayer (hydraulic spray equipment or equivalent). •Apply no more than 2 applications per crop or season. •Apply at a minimum re-treatment interval of 7 to 14 days. •Apply in sufficient water to ensure thorough coverage of all plant surfaces. •Use the higher rate when longer residual control is required, or during periods of high pest pressure or rapid crop growth, or when crops are well advanced, or when insect infestation is high, or when conditions favour high pest pressure. 	<p>DO NOT apply using equipment carried on the back of the user.</p> <p>Not for use in the home garden.</p> <p>DO NOT use on vegetable or herb seedlings.</p>

Pest	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Thrips (Thysanoptera)	400 g/L methomyl (1B)	100-200 mL/100 L	<ul style="list-style-type: none"> •Apply when pest require control for crop management purposes. •Regularly scout crops to monitor for eggs and larvae. Treat when pests appear, targeting eggs at hatch or small larvae (prior to third instar stage) before the pest becomes entrenched. •Apply by a ground-based sprayer (hydraulic spray equipment or equivalent). •Apply no more than 2 applications per crop or season. •Apply at a minimum re-treatment interval of 7 to 14 days. •Apply in sufficient water to ensure thorough coverage of all plant surfaces. •Use the higher rate when longer residual control is required, or during periods of high pest pressure or rapid crop growth, or when crops are well advanced, or when insect infestation is high, or when conditions favour high pest pressure. 	<p>DO NOT apply using equipment carried on the back of the user.</p> <p>Not for use in the home garden.</p> <p>DO NOT use on vegetable or herb seedlings.</p> <p>DO NOT use in covered or protected situations such as glasshouses, greenhouses or plastic tunnels.</p>

Appendix 1

Wildflower crops

Banksia species (*Banksia* spp.) - cultivars and hybrids

Berzelia or button brush (*Berzelia* spp.)

Black kangaroo paw species (*Macropidia* spp.) - cultivars and hybrids

Christmas bells (*Blandfordia grandiflora*)

Christmas bush (*Ceratopetalum gummiferum*)

Geraldton wax, Waxflower species (*Chamelaucium* spp.) - cultivars and hybrids

Kangaroo paw species (*Anigozanthos* spp.) - cultivars and hybrids

Leucadendron species - cultivars and hybrids

Leucospermum species (*Leucospermum* spp.) - cultivars and hybrids (pincushions)

Protea species (*Protea* spp.) - cultivars and hybrids

Riceflower (*Ozothamnus diosmifolius*)

Waratah species (*Telopea speciosissima*) - cultivars and hybrids