



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

**PERMIT TO ALLOW MINOR USE OF A REGISTERED AGVET CHEMICAL
PRODUCT FOR CONTROL OF OOMYCETES DISEASES 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 – PER91754

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 21 FEBRUARY 2022 TO 28 FEBRUARY 2027

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:

Ametoctradin + dimethomorph:

ZAMPRO FUNGICIDE (APVMA No. 63651)

PLUS OTHER REGISTERED PRODUCTS

Containing: 300 g/L AMETOCTRADIN + 225 g/L DIMETHOMORPH as the only active constituents.

Bacillus amyloliquefaciens:

SERIFEL BIOFUNGICIDE (APVMA No. 82600)

PLUS OTHER REGISTERED PRODUCTS

Containing: 110 g/kg ($>5.5 \times 10^{10}$ CFU/g) *BACILLUS AMYLOLIQUEFACIENS* strain MBI600 as the only active constituent.

Copper:

NUFARM CHAMP FLOWABLE 350 FUNGICIDE (APVMA No. 69154)

PLUS OTHER REGISTERED PRODUCTS

Containing: 350 g/L COPPER PRESENT AS CUPRIC HYDROXIDE as the only active constituent.

NUFARM CHAMP DRY PRILL WG FUNGICIDE (APVMA No. 53935)

PLUS OTHER REGISTERED PRODUCTS

Containing: 375 g/kg COPPER PRESENT AS CUPRIC HYDROXIDE as the only active constituent.

BLUE SHIELD DF COPPER FUNGICIDE (APVMA No. 46869)

PLUS OTHER REGISTERED PRODUCTS

Containing: 500 g/kg COPPER PRESENT AS COPPER HYDROXIDE as the only active constituent.

OXYDUL DF FUNGICIDE (APVMA No. 51820)

PLUS OTHER REGISTERED PRODUCTS

Containing: 500 g/kg COPPER PRESENT AS COPPER OXYCHLORIDE as the only active constituent.

Mandipropamid:

REVUS FUNGICIDE (APVMA No. 63052).

PLUS OTHER REGISTERED PRODUCTS

Containing: 250 g/L MANDIPROPAMID as the only active constituent.

Streptomyces lydicus:

ACTINOVATE BIOFUNGICIDE (APVMA No. 64384)

PLUS OTHER REGISTERED PRODUCTS

Containing: 1×10^7 cfu/g *STREPTOMYCES LYDICUS* strain WYEC108 as the only active constituent.

Thiophanate-methyl + etridiazole:

BANROT 80G BROAD SPECTRUM FUNGICIDE FOR ORNAMENTALS (APVMA No. 53163)

PLUS OTHER REGISTERED PRODUCTS

Containing: 50 g/kg THIOPHANATE-METHYL + 30 g/kg ETRIDIAZOLE as the only active constituents.

BANROT 400WP BROAD SPECTRUM FUNGICIDE FOR ORNAMENTALS (APVMA No. 52741)

PLUS OTHER REGISTERED PRODUCTS

Containing: 250 g/kg THIOPHANATE-METHYL + 150 g/kg ETRIDIAZOLE as the only active constituents.

Directions for Use:

Refer to the *Application Rates*, *Critical Use Comments* and *Additional Conditions* listed in the following tables:

Diseases

- Table 1: Downy mildew (*Bremia* spp., *Peronospora* spp., *Plasmopra* spp., *Pseudoperonospora* spp.)
- Table 2: Root and seedling rots (*Phytophthora* spp., *Pythium* spp., *Theilaviopsis* spp.)

Withholding Period:

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

Jurisdiction:

All States and Territories, except VIC.

Note: Victoria is not included in this permit, as their Control-of-Use legislation means a permit is not required to legalise this off-label use in that State.

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 fungicide 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 fungicide may demonstrate toxicity under certain situations, application methods, application rates and weather conditions to susceptible nursery stock. Some fungicides 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 fungicide products in accordance with existing *Fungicide Resistance Management Strategies* and in accordance with best practice. Fungicide products should be used as part of an integrated disease management program which incorporates as many control options as possible to minimise disease pressure. It is important that approved fungicide products are rotated between different chemical mode of action (MoA) groups at regular intervals within a structured disease management plan.

Fungicide 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 online for Resistance Management CropLife Australia.

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

DIRECTIONS FOR USE:

Table 1: Downy mildew 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.

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Downy mildew <i>(Bremia spp., Peronospora spp., Plasmopra spp., Pseudoperonospora spp.)</i>	300 g/L ametoctradin (45) + 225 g/L dimethomorph (40)	80 mL/100 L or 800 mL/ha	<ul style="list-style-type: none"> •Apply when conditions favour disease development but before the disease is evident. •Apply as a foliar spray by ground-based hydraulic spray equipment, backpack sprayer or equivalent. •Use sufficient spray volume to ensure thorough coverage of all foliage and stems. •DO NOT apply more than 2 applications per crop. •DO NOT apply less than 7-14 days after the initial treatment. Use the shorter interval when conditions favour high risk infection or when rapid growth of target plant requires protection of new growth. •DO NOT apply foliar treatment if rainfall is expected before the spray is dry. 	DO NOT apply by aircraft. Comply with all Spray Drift restraints on the product label. DO NOT allow bystanders to come into contact with the spray cloud. <i>Safety Directions</i> Harmful if swallowed. When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). Wash hands after use. After each day's use, wash contaminated clothing. <i>Re-entry</i> Public: DO NOT allow entry into treated areas until the spray has dried.

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Downy mildew <i>(Peronospora spp.)</i>	110 g/kg (>5.5 x 10 ¹⁰ CFU/g) <i>Bacillus amyloliquifaciens</i> strain MBI600	50-75 g/100 L SUPPRESSION ONLY	<ul style="list-style-type: none"> •Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected. •Apply using ground based spray equipment in an adequate spray volume to ensure thorough coverage of all plant surfaces. •Continue applications on a 3-14 day interval as required. •DO NOT apply more than 10 applications per crop. •This product is best applied as part of an integrated disease management program 	DO NOT apply during rain or if rain is expected. DO NOT apply more than 10 applications per growing season. DO NOT apply more than 5kg/ha per growing season.
Downy mildew	Copper hydroxide (M1) 350 g/L products	150 mL/100 L	<ul style="list-style-type: none"> •Commence foliar spray application at the first sign of disease. •Ensure complete and thorough coverage of foliage and/or crop. Use a minimum spray volume of 250 L/ha using air-blast spray or boomspray. •DO NOT apply more than 6 applications per crop with a re-treatment interval of 7-14 days between consecutive sprays. 	DO NOT apply if it is likely to rain before the spray is dry. DO NOT apply to wet crops. DO NOT apply when either hot or frost prone conditions prevail. DO NOT apply during the hottest part of the day when temperatures exceed 35°C. DO NOT apply when slow drying conditions prevail. DO NOT apply to copper-shy crops or cultivars. DO NOT apply in spray solutions with a pH of less than 6.5.
	Copper hydroxide (M1) 375 g/kg products	140 g/100 L		
	Copper hydroxide (M1) 500 g/kg products	100 g/100 L		
	Copper oxychloride (M1) 500 g/kg products	300 g/100 L		

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
<p>Downy mildew (<i>Bremia</i> spp., <i>Peronospora</i> spp., <i>Plasmopra</i> spp.)</p>	<p>250 g/L mandipropamid (40)</p>	<p>40-60 mL/100 L</p>	<ul style="list-style-type: none"> •Apply prior to or at the first sign of infection, when conditions favour disease development. •Apply no more than 3 applications per crop by calibrated boomspray or equivalent equipment, at a minimum of 10 day interval. •DO NOT apply more than 2 sequential sprays of mandipropamid. •Follow applications of mandipropamid with an approved fungicide product from a different mode of action (MoA) group. Apply at least the same number of sprays from a different MoA group before returning to mandipropamid. •DO NOT make mandipropamid the final spray of the season. •Addition of Agral Spray Adjuvant at 10 mL product/100 L may assist disease control on leafy species with waxy leaves. •Ensure sufficient spray volume to thoroughly cover canopy and foliage. •Use the higher rate and shorter spray interval where disease pressure is higher, or where conditions are conducive to disease development. •DO NOT spray if rainfall or irrigation is expected before the spray has dried. 	<p>Safety Directions – use within protected cropping situations: <i>There is a potential risk of increased exposure to fine mist spray during use/application of the diluent within some protected cropping situations (e.g. greenhouses, glasshouses and plastic tunnels). It is recommended that the following additional PPE be observed in addition to label directions when applying the foliar spray treatment within such enclosed situations:</i></p> <p>When using the dilute product, wear cotton overalls buttoned to the neck and wrist, a washable hat, chemical resistant gloves, protective goggles and disposable (mist) mask. Wash hands after use. After each day’s use, wash gloves, goggles, and contaminated clothing.</p> <p>Re-entry period (protected cropping situations): DO NOT enter treated area without protective clothing for 12 hours after application. Protective clothing includes: cotton overalls buttoned to the neck and wrist, chemical resistant gloves and disposable (mist) mask.</p>

Table 2: Root and seedling rots 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.

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
<p>Phytophthora Root rot (<i>Phytophthora</i> spp.)</p> <p>Pythium damping off (<i>Pythium</i> spp.)</p>	<p>110 g/kg (>5.5 x 10¹⁰ CFU/g) <i>Bacillus amyloliquefaciens</i> strain MBI600</p>	<p>50-75 g/100 L (Soil Drench)</p> <p>SUPPRESSION ONLY</p>	<ul style="list-style-type: none"> •Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected. •Apply soil drench using calibrated drenching equipment to thoroughly soak soil through the root zone. •Continue applications on a 3-14 day interval as required. •DO NOT apply more than 10 applications per crop. •This product is best applied as part of an integrated disease management program 	<p>DO NOT apply during rain or if rain is expected.</p> <p>DO NOT apply more than 10 applications per growing season.</p> <p>DO NOT apply more than 5kg/ha per growing season.</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Phytophthora <i>(Phytophthora spp.)</i>	250 g/L mandipropamid (40)	40-60 mL/100 L	<ul style="list-style-type: none"> •Apply prior to or at the first sign of infection, when conditions favour disease development. •Apply no more than 3 applications per crop by calibrated boomspray or equivalent equipment, at a minimum of 10 day interval. •DO NOT apply more than 2 sequential sprays of mandipropamid. •Follow applications of mandipropamid with an approved fungicide product from a different mode of action (MoA) group. Apply at least the same number of sprays from a different MoA group before returning to mandipropamid. •DO NOT make mandipropamid the final spray of the season. •Addition of Agral Spray Adjuvant at 10 mL product/100 L may assist disease control on leafy species with waxy leaves. •Ensure sufficient spray volume to thoroughly cover canopy and foliage. •Use the higher rate and shorter spray interval where disease pressure is higher, or where conditions are conducive to disease development. •DO NOT spray if rainfall or irrigation is expected before the spray has dried. 	<p>Safety Directions – use within protected cropping situations:</p> <p><i>There is a potential risk of increased exposure to fine mist spray during use/application of the diluent within some protected cropping situations (e.g. greenhouses, glasshouses and plastic tunnels). It is recommended that the following additional PPE be observed in addition to label directions when applying the foliar spray treatment within such enclosed situations:</i></p> <p>When using the dilute product, wear cotton overalls buttoned to the neck and wrist, a washable hat, chemical resistant gloves, protective goggles and disposable (mist) mask. Wash hands after use. After each day’s use, wash gloves, goggles, and contaminated clothing.</p> <p>Re-entry period (protected cropping situations):</p> <p>DO NOT enter treated area without protective clothing for 12 hours after application. Protective clothing includes: cotton overalls buttoned to the neck and wrist, chemical resistant gloves and disposable (mist) mask.</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
<p>Phytophthora (<i>Phytophthora</i> spp.)</p> <p>Pythium (<i>Pythium</i> spp.)</p>	<p>1x10⁷ cfu/g <i>Streptomyces lyricism</i> strain WYEC108</p>	<p>20-85 g/100 L or 200-850 g/ha (Foliar Application)</p> <p>45 g/100 L (Soil Drench)</p> <p>10 g/1 kg seed (Seed Treatment)</p> <p>SUPPRESSION ONLY</p>	<ul style="list-style-type: none"> •FOLIAR APPLICATION: Apply initial application prior to the onset of disease, and then as required. Apply in a spray volume of 1000L/ha. Apply via a ground based sprayer. Follow label instructions on the use of an adjuvant. •SOIL DRENCH: Apply initial application prior to planting, then as required. Apply to the area immediately surrounding the roots or seeds until the soil around the seed/root ball is saturated (without creating runoff). Minimum of 14 days between consecutive applications. •SEED TREATMENT: Apply through mist-type commercial seed treatment equipment, slurry or other compatible methods that provide complete coverage of treated seed •Follow the fungicide resistance warning and restraints on the approved label. •This product is best applied as part of an integrated disease management program. •DO NOT use this product if the disease is already present, as it will not be controlled. 	<p>DO NOT apply if a disease known to be cause by <i>Streptomyces</i> is present.</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
Damping-off and root and stem rot diseases <i>(Pythium spp., Phytophthora spp., Theliaviopsis spp.)</i>	50 g/kg thiophanate-methyl (1) + 30 g/kg etrudiazole (14) 250 g/kg thiophanate-methyl (1) + 150 g/kg etrudiazole (14)	<u>Pre-plant soil mix additive</u> 300 g/m ³ 60 g/m ³	<ul style="list-style-type: none"> ●Apply in accordance with approved product label directions. ●Preventative treatment only and needs to be applied as close to infections events as possible. ●Apply using a commercial soil/potting mixer. ●DO NOT apply more than 4 applications per crop, with a minimum treatment interval of 4-8 weeks. ●Follow the fungicide resistance warning on the product label. 	DO NOT use in the home garden Over-dosage may result in toxicity to sensitive plants. Do not continue treatment if the crop adversely reacts to the fungicide.
	50 g/kg thiophanate-methyl (1) + 30 g/kg etrudiazole (14) 250 g/kg thiophanate-methyl (1) + 150 g/kg etrudiazole (14)	<u>Post-plant broadcast or pre-plant treatment</u> 2-4 kg/100 m ² 400-800 g/100 m ²	<ul style="list-style-type: none"> ●Apply in accordance with approved product label directions. ●Apply using calibrated soil drench equipment. ●DO NOT apply more than 4 applications per crop, with a minimum treatment interval of 4-8 weeks. ●Use the lower rate when lower disease pressure is expected and the higher rate for higher disease pressure. ●Follow the fungicide resistance warning on the product label. 	

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