



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

**PERMIT TO ALLOW MINOR USE OF A REGISTERED AGVET CHEMICAL  
PRODUCT FOR CONTROL OF VARIOUS ASCOMYCETES 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 – PER91751**

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 27 OCTOBER 2022 TO 31 OCTOBER 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:

#### **Azoxystrobin + Tebuconazole:**

QUALI-PRO EVOLUTION FUNGICIDE (APVMA No. 82231)

PLUS OTHER REGISTERED PRODUCTS

Containing: 120 g/L AZOXYSTROBIN + 200 g/L TEBUCONAZOLE as the only active constituents.

#### ***Aureobasidium pullulans:***

NUFARM BOTECTOR FUNGICIDE (APVMA No. 82495)

PLUS OTHER REGISTERED PRODUCTS

Containing:  $5 \times 10^9$  cfu/g *AUREOBASIDIUM PULLULANS* (strains DSM 14940 and DSM14941) as the only active constituent.

#### ***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.

#### **Boscalid**

FILAN FUNGICIDE (APVMA No. 56362)

PLUS OTHER REGISTERED PRODUCTS

Containing: 500 g/kg BOSCALID as the only active constituent.

#### **Boscalid + Pyraclostrobin:**

PRISTINE FUNGICIDE (APVMA No. 61377)

PLUS OTHER REGISTERED PRODUCTS

Containing: 252 g/kg BOSCALID + 128 g/kg PYRACLOSTROBIN as the only active constituents.

#### **Copper:**

NUFARM CHAMP FLOWABLE 350 FUNGICIDE (APVMA No. 69154)

PLUS OTHER REGISTERED PRODUCTS

Containing: 350 g/L COPPER (CU) 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 (CU) 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.

#### **Potassium bicarbonate:**

ECOCARB FUNGICIDE (APVMA No. 58103)

PLUS OTHER REGISTERED PRODUCTS

Containing: 940 g/kg POTASSIUM BICARBONATE as the only active constituent.

**Prochloraz:**

OCTAVE WP FUNGICIDE (APVMA No. 30485)

PLUS OTHER REGISTERED PRODUCTS

Containing: 462 g/kg PROCHLORAZ as the manganese chloride complex as the only active constituent.

SPORTAK FUNGICIDE (APVMA No. 30484)

PLUS OTHER REGISTERED PRODUCTS

Containing: 450 g/L PROCHLORAZ as the only active constituent.

***Streptomyces lydicus:***

ACTINOVATE BIOFUNGICIDE (APVMA No. 64384)

PLUS OTHER REGISTERED PRODUCTS

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

**Directions for Use:**

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

**Ascomycetes**

- Table 1: Anthracnose (*Colletotrichum* spp.)
- Table 2: Leaf spot and blotch (*Cercospora* spp., *Cladosporium* spp., *Mycosphaerella* spp., *Septoria* spp.)
- Table 3: Leaf spots (*Alternaria* spp., *Colletotrichum* spp.)
- Table 4: Moulds and rots (*Botrytis* spp., *Sclerotinia* spp.)
- Table 5: Powdery mildews (*Erysiphe* spp., *Leveillula* spp., *Microsphaera* spp., *Oidium* spp., *Podosphaera* spp., *Sphaerotheca* spp.)
- Table 6: Wilts (*Fusarium* spp., *Verticillium* spp.)

**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 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 fungicides 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: Anthracnose 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
Anthracnose ( <i>Colletotrichum</i> spp.)	120 g/L <b>azoxystrobin (11)</b> + 200 g/L <b>tebuconazole (3)</b>	2-3 L/ha  or  200-300 mL/100L	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Repeat application 21-28 days later, if necessary.</li> <li>•Use the higher rate and shorter intervals when conditions are favourable for disease development</li> <li>•Apply as a foliar spray using air-blast sprayer, air-shear sprayer, mister, hand lance sprayer, spray boom or equivalent.</li> <li>•Use sufficient water to ensure coverage of all plant surfaces.</li> <li>•DO NOT apply more than 2 applications per crop per year.</li> </ul>	<p>DO NOT apply using spraying equipment carried on the back of the user.</p> <p>Phytotoxic to certain apple varieties: DO NOT spray any apple varieties as crop damage may occur.</p> <p>If a registered or permitted Group 11 or 3 fungicide has been previously used for disease control in nursery stock, this product should not be used unless alternative fungicides from a different chemical group are used at least twice in between.</p>
	252 g/ kg <b>boscalid (7)</b> + 128 g/kg <b>pyraclostrobin (11)</b>	60-135 g/100 L	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Apply a maximum of 3 foliar spray applications within an annual production cycle.</li> <li>•Thorough coverage of foliage is</li> </ul>	<p>DO NOT apply if heavy rains or storms are forecast within 3 days.</p> <p>DO NOT irrigate to the point of field runoff for at least 3 days after application.</p> <p>Refer to Page 23 – <i>Environmental Protection Statements for use of Boscalid + Pyraclostrobin</i></p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
			<p>essential: apply diluent to the point of run-off. Apply by ground-based sprayer (hydraulic, backpack or equivalent).</p> <ul style="list-style-type: none"> <li>•Consecutive treatments should be applied 7 to 14 days apart. Use shorter intervals when conditions favour disease development.</li> <li>•DO NOT apply more than 2 consecutive applications.</li> <li>•Use in accordance with existing resistance management strategies and in accordance with best practice.</li> <li>•Use a higher rate when disease pressure is severe.</li> </ul>	<p><b>Additional Safety Directions:</b></p> <p>Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear elbow-length chemical resistant gloves and a disposable dust face mask covering mouth and nose. If applying by spraying equipment carried on the back of the user (backpack application), wear cotton overalls over normal clothing, buttoned to the neck and wrist, and elbow-length, chemical-resistant gloves and a disposable dust face mask covering mouth and nose. Wash hands after use. After each day's use, wash gloves and contaminated clothing.</p> <p>Refer to product label for First-aid Instructions and Safety Directions in regard to re-entry into treated areas.</p>
	<p><b>Copper hydroxide (M1)</b> 350 g/L products</p>	150 mL/100 L	<ul style="list-style-type: none"> <li>•Commence foliar spray application at the first sign of disease.</li> <li>•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.</li> </ul>	<p>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.</p>
	<p><b>Copper hydroxide (M1)</b> 375 g/kg products</p>	140 g/100 L	<ul style="list-style-type: none"> <li>•DO NOT apply more than 6 applications per crop with a re-treatment interval of 7-14 days between consecutive sprays.</li> </ul>	
	<p><b>Copper hydroxide (M1)</b> 500 g/kg products</p>	100 g/100 L		
	<p>462 g/kg <b>prochloraz (3)</b></p> <p>OR</p> <p>450 g/L <b>prochloraz (3)</b></p>	<p>100 g /100 L</p> <p>OR</p> <p>100 mL /100 L</p>	<ul style="list-style-type: none"> <li>•Prochloraz based products should be applied as a protectant treatment prior to the onset of disease development.</li> <li>•Apply initial application at the first signs of disease infection. If conditions remain favourable, repeat application at 7–14 day interval.</li> <li>•Apply maximum of 3 foliar spray</li> </ul>	<p>DO NOT use on vegetable and herb seedlings. DO NOT feed treated crops to livestock, or allow livestock to graze treated areas. DO NOT use on crops destined for export. DO NOT allow bystanders to come into contact with the spray cloud. DO NOT apply by ground boomspray unless the following mandatory buffer zones are observed:</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions							
			<p>applications per crop.</p> <ul style="list-style-type: none"> <li>•Apply using calibrated air-blast sprayer, air-shear sprayer, back-pack mister, hand-lance sprayer, boom sprayer or similar equipment.</li> <li>•Apply in sufficient water volume to ensure thorough coverage of all plant surfaces. Avoid excessive runoff of diluent onto the ground.</li> <li>•DO NOT allow spray mix to stand overnight.</li> <li>•DO NOT apply foliar treatment if rainfall is expected or irrigation is scheduled before the spray is dry.</li> </ul>	<table border="1" data-bbox="1361 236 1848 379"> <tr> <td data-bbox="1361 236 1608 304">Droplet size</td> <td data-bbox="1608 236 1848 304">Bystander buffer zone (m)</td> </tr> <tr> <td data-bbox="1361 304 1608 341">FINE</td> <td data-bbox="1608 304 1848 341">10</td> </tr> <tr> <td data-bbox="1361 341 1608 379">MEDIUM</td> <td data-bbox="1608 341 1848 379">0</td> </tr> </table> <p><b>Re-entry:</b>  General Public -  DO NOT allow entry into treated areas until the spray has dried.  Occupational users - DO NOT enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each days use.  For glasshouses and other confined areas, do not re-enter until spray deposits have dried and area has been thoroughly ventilated.  If performing <u>hand-set irrigation</u> activities, DO NOT enter treated areas for <u>three days</u> 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> <p><b>Safety Directions:</b>  Product is poisonous if swallowed. Will irritate the eyes and skin. Avoid contact with the eyes and skin.  When using together with other products, consult their label safety directions.  When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical resistant gloves and face shield. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). In addition, when using the prepared spray by hand held equipment wear elbow-length chemical resistant gloves.  If product in eyes, wash it out immediately with water. If</p>		Droplet size	Bystander buffer zone (m)	FINE	10	MEDIUM	0
Droplet size	Bystander buffer zone (m)										
FINE	10										
MEDIUM	0										

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
	110 g/kg (>5.5 x 10 <sup>10</sup> CFU/g) <b><i>Bacillus amyloliquefaciens</i></b> strain MBI600	50-75 g/100 L SUPPRESSION ONLY	<ul style="list-style-type: none"> <li>•Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected.</li> <li>•Apply using ground based spray equipment in an adequate spray volume to ensure thorough coverage of all plant surfaces.</li> <li>•Continue applications on a 3-14 day interval as required.</li> <li>•DO NOT apply more than 10 applications per crop.</li> <li>•This product is best applied as part of an integrated disease management program</li> </ul>	<p>product on skin, immediately wash area with soap and water. Wash hands after use. After each day's use, wash gloves, face shield and contaminated clothing.</p> <p>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 5 kg/ha per growing season.</p>



**Table 2: Leaf spot and blotch control in nursery stock 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><b>Cercospora leaf spot</b> (<i>Cercospora</i> spp.)</p>	<p>110 g/kg (&gt;5.5 x 10<sup>10</sup> CFU/g) <i>Bacillus amyloliquefaciens</i> strain MBI600</p>	<p>50-75 g/100 L SUPPRESSION ONLY</p>	<ul style="list-style-type: none"> <li>•Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected.</li> <li>•Apply using ground based spray equipment in an adequate spray volume to ensure thorough coverage of all plant surfaces.</li> <li>•Continue applications on a 3-14 day interval as required.</li> <li>•DO NOT apply more than 10 applications per crop.</li> <li>•This product is best applied as part of an integrated disease management program</li> </ul>	<p>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 5 kg/ha per growing season.</p>
<p><b>Leaf spot and leafblotch</b> (<i>Cercospora</i> spp., <i>Mycosphaerella</i> spp.and <i>Septoria</i> spp.)</p>	<p><b>252 g/ kg boscalid (7) + 128 g/kg pyraclostrobin (11)</b></p>	<p>60-90 g/100 L</p>	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Apply a maximum of 3 foliar spray applications within an annual production cycle.</li> <li>•Thorough coverage of foliage is essential: apply diluent to the point of run-off. Apply by ground-based sprayer (hydraulic, backpack or equivalent).</li> <li>•Consecutive treatments should be applied 7 to 14 days apart. Use shorter intervals when conditions favour disease development.</li> <li>•DO NOT apply more than 2 consecutive applications.</li> <li>•Use in accordance with existing resistance management strategies and in accordance with</li> </ul>	<p>DO NOT apply if heavy rains or storms are forecast within 3 days. DO NOT irrigate to the point of field runoff for at least 3 days after application.</p> <p>Refer to Page 23 – <i>Environmental Protection Statements for use of Boscalid + Pyraclostrobin</i></p> <p><b>Additional Safety Directions:</b> Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear elbow-length chemical resistant gloves</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
			<p>best practice.</p> <p>Use a higher rate when disease pressure is severe.</p>	<p>and a disposable dust face mask covering mouth and nose. If applying by spraying equipment carried on the back of the user (backpack application), wear cotton overalls over normal clothing, buttoned to the neck and wrist, and elbow-length, chemical-resistant gloves and a disposable dust face mask covering mouth and nose. Wash hands after use. After each day's use, wash gloves and contaminated clothing.</p> <p>Refer to product label for First-aid Instructions and Safety Directions in regard to re-entry into treated areas.</p>
<p><b>Leaf mould</b> (<i>Cladosporium</i> spp.)</p>	<p>120 g/L <b>azoxystrobin (11)</b> + 200 g/L <b>tebuconazole (3)</b></p>	<p>2-3 L/ha  or  200-300 mL/100 L</p>	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Repeat application 21-28 days later, if necessary.</li> <li>•Use the higher rate and shorter intervals when conditions are favourable for disease development</li> <li>•Apply as a foliar spray using air-blast sprayer, air-shear sprayer, mister, hand lance sprayer, spray boom or equivalent.</li> <li>•Use sufficient water to ensure coverage of all plant surfaces.</li> <li>•DO NOT apply more than 2 applications per crop per year.</li> </ul>	<p>DO NOT apply using spraying equipment carried on the back of the user.</p> <p>Phytotoxic to certain apple varieties: DO NOT spray any apple varieties as crop damage may occur.</p> <p>If a registered or permitted Group 11 or 3 fungicide has been previously used for disease control in nursery stock, this product should not be used unless alternative fungicides from a different chemical group are used at least twice in between.</p>

**Table 3: Leaf spot control in nursery stock and ornamentals**

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

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

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
<b>Ink Disease</b> <i>(Alternaria alternate)</i>	940 g/L <b>potassium bicarbonate (M2)</b>	0.4-1.2 kg/100 L + 200-500 mL/100 L suitable spray oil  SUPPRESSION ONLY	<ul style="list-style-type: none"> <li>•Apply at the first sign of disease or when conditions favour the development of disease. Applied as close to infection events as possible. Repeat spray application at intervals of 10 to 14 days as new infection occurs.</li> <li>•Complete and thorough coverage of all foliage and other parts of the crop is essential to achieve good control. Apply spray diluent to foliage to the point of run-off.</li> <li>•Apply using spray volume between 400 to 1,000 L/ha, depending on crop type, canopy size, and maturity and density of crop.</li> <li>•Use suitable and correctly calibrated ground application equipment.</li> <li>•Ensure plants are not suffering from any environmental stress (e.g. moisture or heat) when applying product.</li> </ul>	Potassium Bicarbonate products have registered label use for control of Powdery Mildew diseases on grapevines and roses. Potassium bicarbonate has shown broad-spectrum activity against a range of fungal pathogens. The chemical acts exclusively through direct contact to spores and fungal hyphae on the plant surface, and the mode of action is rapid against sensitive fungi. The chemical is expected to show a high level of activity against the causal fungi of the plant/crop diseases listed in this permit. However, suppression of the severity of the disease may only be achieved, as the effectiveness of disease control has not been fully ascertained for all crop types listed and/or in all situations where treatment will be undertaken.

**Table 4: Mould and rot control in nursery stock 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
<b>Botrytis or Grey Mould</b> <i>(Botrytis cinerea)</i>	5 x 10 <sup>9</sup> cfu/g <i>Aureobasidium pullulans</i>	100 g/100 L or 1 kg/ha <b>SUPPRESSION ONLY</b>	<ul style="list-style-type: none"> <li>•Monitor the crop and apply preventatively when conditions favour disease development.</li> <li>•Apply by air-blast sprayer, air-shear sprayer, back-pack mister, hand lance sprayer, sprayboom or equivalent.</li> <li>•Apply as a high volume spray ensuring thorough coverage of all foliage, up to the point of run-off.</li> <li>•DO NOT apply more than 4 applications per crop.</li> <li>•DO NOT apply less than 7 days after the initial treatment.</li> </ul>	<p><i>Re-entry Period:</i></p> <p>Do not enter treated areas until spray has dried. If prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and disposable gloves. After each day's use, wash contaminated clothing.</p> <p><i>Aureobasidium pullulans</i> will suppress Botrytis under low to moderate disease pressure; however, it may only partially suppress Botrytis under high disease pressure. For treatment of high disease pressure, apply <i>Aureobasidium pullulans</i> in alternation with other registered /permitted fungicides.</p>
	500 g/kg <b>boscalid (7)</b>	100-120 g/100 L	<ul style="list-style-type: none"> <li>•Thorough coverage of foliage is essential: apply dilute spray to the point of runoff.</li> <li>•Adjust water spray volume to crop density and growth stage.</li> <li>•Use suitable and correctly calibrated ground application equipment.</li> <li>•Use higher rate when insect infestation is high, or conditions favour high disease pressure.</li> </ul>	DO NOT apply more than 4 applications of boscalid to the same stock per year.

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
	252 g/ kg <b>boscalid (7)</b> + 128 g/kg <b>pyraclostrobin (11)</b>	60-135 g/100 L	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Apply a maximum of 3 foliar spray applications within an annual production cycle.</li> <li>•Thorough coverage of foliage is essential: apply diluent to the point of run-off. Apply by ground-based sprayer (hydraulic, backpack or equivalent).</li> <li>•Consecutive treatments should be applied 7 to 14 days apart. Use shorter intervals when conditions favour disease development.</li> <li>•DO NOT apply more than 2 consecutive applications.</li> <li>•Use in accordance with existing resistance management strategies and in accordance with best practice.</li> <li>•Use a higher rate when disease pressure is severe.</li> </ul>	<p>DO NOT apply if heavy rains or storms are forecast within 3 days.</p> <p>DO NOT irrigate to the point of field runoff for at least 3 days after application.</p> <p>Refer to Page 23 – <i>Environmental Protection Statements for use of Boscalid + Pyraclostrobin</i></p> <p><b>Additional Safety Directions:</b></p> <p>Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear elbow-length chemical resistant gloves and a disposable dust face mask covering mouth and nose. If applying by spraying equipment carried on the back of the user (backpack application), wear cotton overalls over normal clothing, buttoned to the neck and wrist, and elbow-length, chemical-resistant gloves and a disposable dust face mask covering mouth and nose. Wash hands after use. After each day’s use, wash gloves and contaminated clothing.</p> <p>Refer to product label for First-aid Instructions and Safety Directions in regard to re-entry into treated areas.</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
<p><b>Botrytis or Grey Mould</b> (<i>Botrytis cinerea</i>)</p> <p><b>White mould or Watery soft rot</b> (<i>Sclerotinia</i> spp.) – foliar</p> <p><b>Leaf Drop</b> (<i>Sclerotinia</i> spp.) - soil</p>	<p>110 g/kg (&gt;5.5 x 10<sup>10</sup> CFU/g) <i>Bacillus amyloliquefaciens</i> strain MBI600</p>	<p>50-75 g/100 L SUPPRESSION ONLY</p>	<ul style="list-style-type: none"> <li>•Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected.</li> <li>•FOLIAR APPLICATION: Apply using ground based spray equipment in an adequate spray volume to ensure thorough coverage of all plant surfaces.</li> <li>•SOIL DRENCH: Apply soil drench using calibrated drenching equipment to thoroughly soak soil through the root zone.</li> <li>•Continue applications on a 3-14 day interval as required.</li> <li>•DO NOT apply more than 10 applications per crop.</li> <li>•This product is best applied as part of an integrated disease management program</li> </ul>	<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 5 kg/ha per growing season.</p>
<p><b>Sclerotinia rot</b> (<i>Sclerotinia</i> spp.)</p>	<p>120 g/L azoxystrobin (11) + 200 g/L tebuconazole (3)</p>	<p>2-3 L/ha or 200-301mL/100L</p>	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Repeat application 21-28 days later, if necessary.</li> <li>•Use the higher rate and shorter intervals when conditions are favourable for disease development</li> <li>•Apply as a foliar spray using air-blast sprayer, air-shear sprayer, mister, hand lance sprayer, spray boom or equivalent.</li> <li>•Use sufficient water to ensure coverage of all plant surfaces.</li> <li>•DO NOT apply more than 2 applications per crop per year.</li> </ul>	<p>DO NOT apply using spraying equipment carried on the back of the user.</p> <p>Phytotoxic to certain apple varieties: DO NOT spray any apple varieties as crop damage may occur.</p> <p>If a registered or permitted Group 11 or 3 fungicide has been previously used for disease control in nursery stock, this product should not be used unless alternative fungicides from a different chemical group are used at least twice in between.</p>

**Table 5: Powdery mildew control in nursery stock 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><b>Powdery mildew</b> (<i>Erysiphe</i> spp., <i>Leveillula</i> spp., <i>Microsphaera</i> spp., <i>Oidium</i> spp., <i>Podosphaera</i> spp. &amp; <i>Sphaerotheca</i> spp.).</p>	<p>120 g/L <b>azoxystrobin (11)</b> + 200 g/L <b>tebuconazole (3)</b></p>	<p>2-3L/ha or 200-300 mL/100L</p>	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Repeat application 21-28 days later, if necessary.</li> <li>•Use the higher rate and shorter intervals when conditions are favourable for disease development</li> <li>•Apply as a foliar spray using air-blast sprayer, air-shear sprayer, mister, hand lance sprayer, spray boom or equivalent.</li> <li>•Use sufficient water to ensure coverage of all plant surfaces.</li> <li>•DO NOT apply more than 2 applications per crop per year.</li> </ul>	<p>DO NOT apply using spraying equipment carried on the back of the user.</p> <p>Phytotoxic to certain apple varieties: DO NOT spray any apple varieties as crop damage may occur.</p> <p>If a registered or permitted Group 11 or 3 fungicide has been previously used for disease control in nursery stock, this product should not be used unless alternative fungicides from a different chemical group are used at least twice in between.</p>
	<p>110 g/kg (&gt;5.5 x 10<sup>10</sup> CFU/g) <b><i>Bacillus amyloliquefaciens</i></b> strain MBI600</p>	<p>50-75 g/100 L SUPPRESSION ONLY</p>	<ul style="list-style-type: none"> <li>•Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected.</li> <li>•Apply using ground based spray equipment in an adequate spray volume to ensure thorough coverage of all plant surfaces.</li> <li>•Continue applications on a 3-14 day interval as required.</li> <li>•DO NOT apply more than 10 applications per crop.</li> <li>•This product is best applied as part of an integrated disease management program</li> </ul>	<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 5 kg/ha per growing season.</p>



<b>Disease</b>	<b>Product (MoA)</b>	<b>Rate</b>	<b>Critical Use Comments</b>	<b>Additional Conditions</b>
<b>Powdery mildew</b>	500 g/kg boscalid (7)	100-120 g/100 L	<ul style="list-style-type: none"> <li>•Thorough coverage of foliage is essential: apply dilute spray to the point of runoff.</li> <li>•Adjust water spray volume to crop density and growth stage.</li> <li>•Use suitable and correctly calibrated ground application equipment.</li> <li>•Use higher rate when insect infestation is high, or conditions favour high disease pressure.</li> </ul>	DO NOT apply more than 4 applications of boscalid to the same stock per year.

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
	252 g/ kg <b>boscalid (7)</b> + 128 g/kg <b>pyraclostrobin (11)</b>	60-90 g/100 L	<ul style="list-style-type: none"> <li>•Use preventatively. Commence applications when conditions favour disease development, prior to, or at the first symptoms of disease development.</li> <li>•Apply a maximum of 3 foliar spray applications within an annual production cycle.</li> <li>•Thorough coverage of foliage is essential: apply diluent to the point of run-off. Apply by ground-based sprayer (hydraulic, backpack or equivalent).</li> <li>•Consecutive treatments should be applied 7 to 14 days apart. Use shorter intervals when conditions favour disease development.</li> <li>•DO NOT apply more than 2 consecutive applications.</li> <li>•Use in accordance with existing resistance management strategies and in accordance with best practice.</li> <li>•Use a higher rate when disease pressure is severe.</li> </ul>	<p>DO NOT apply if heavy rains or storms are forecast within 3 days.</p> <p>DO NOT irrigate to the point of field runoff for at least 3 days after application.</p> <p>Refer to Page 23 – <i>Environmental Protection Statements for use of Boscalid + Pyraclostrobin</i></p> <p><b>Additional Safety Directions:</b></p> <p>Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear elbow-length chemical resistant gloves and a disposable dust face mask covering mouth and nose. If applying by spraying equipment carried on the back of the user (backpack application), wear cotton overalls over normal clothing, buttoned to the neck and wrist, and elbow-length, chemical-resistant gloves and a disposable dust face mask covering mouth and nose. Wash hands after use. After each day’s use, wash gloves and contaminated clothing.</p> <p>Refer to product label for First-aid Instructions and Safety Directions in regard to re-entry into treated areas.</p>

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
	940 g/L <b>potassium bicarbonate</b>	400 g/100 L + 200 mL/100 L vegetable oil adjuvant	<ul style="list-style-type: none"> <li>●Nursery stock should be monitored for the first sign of powdery mildew.</li> <li>●Apply a maximum of 6 sprays with a 10 day retreatment interval.</li> <li>●Apply as a foliar spray using ground-based sprayer (hydraulic, backpack or equivalent).</li> <li>●Apply in sufficient water to ensure complete and thorough coverage of foliage and/or crop.</li> <li>●Alternation with fungicides of other modes of action is critical for sustained efficacy.</li> <li>●DO NOT apply to plants that are suffering any environmental stress such as moisture stress or heat stress.</li> <li>●DO NOT use on ferns and other highly sensitive plant species. Treat a small number of plants initially to ascertain their reaction before treating the whole crop.</li> </ul>	Potassium Bicarbonate products have registered label use for control of Powdery Mildew diseases on grapevines and roses. Potassium bicarbonate has shown broad-spectrum activity against a range of fungal pathogens. The chemical acts exclusively through direct contact to spores and fungal hyphae on the plant surface, and the mode of action is rapid against sensitive fungi. The chemical is expected to show a high level of activity against the causal fungi of the plant/crop diseases listed in this permit. However, suppression of the severity of the disease may only be achieved, as the effectiveness of disease control has not been fully ascertained for all crop types listed and/or in all situations where treatment will be undertaken.

Disease	Product (MoA)	Rate	Critical Use Comments	Additional Conditions
<b>Powdery mildew</b>	1x10 <sup>7</sup> cfu/g <b>Streptomyces lyricism</b> strain WYEC108	20-85 g/100 L or 200-850 g/ha <b>SUPPRESSION ONLY</b>	<ul style="list-style-type: none"> <li>•Apply initial application prior to the onset of disease, and then as required.</li> <li>•Apply in a spray volume of 1000L/ha.</li> <li>•Apply via a ground based sprayer.</li> <li>•Follow label instructions on the use of an adjuvant.</li> <li>•Follow the fungicide resistance warning and restraints on the approved label.</li> <li>•This product is best applied as part of an integrated disease management program.</li> <li>•DO NOT use this product if the disease is already present, as it will not be controlled.</li> </ul>	DO NOT apply if a disease known to be cause by <i>Streptomyces</i> is present.

**Table 6: Wilt control in nursery stock 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><b>Fusarium Wilt</b> (<i>Fusarium spp.</i>)</p>	<p>1x10<sup>7</sup> cfu/g <b>Streptomyces lyricism</b> 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"> <li>●<b>FOLIAR APPLICATION:</b> 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.</li> <li>●<b>SOIL DRENCH:</b> 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.</li> <li>●<b>SEED TREATMENT:</b> Apply through mist-type commercial seed treatment equipment, slurry or other compatible methods that provide complete coverage of treated seed</li> <li>●Follow the fungicide resistance warning and restraints on the approved label.</li> <li>●This product is best applied as part of an integrated disease management program.</li> <li>●<b>DO NOT</b> use this product if the disease is already present, as it will not be controlled.</li> </ul>	<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
<p><b>Fusarium Wilt</b> (<i>Fusarium</i> spp.)</p> <p><b>Verticillium Wilt</b> (<i>Verticillium</i> spp.)</p>	<p>110 g/kg (&gt;5.5 x 10<sup>10</sup> CFU/g) <i>Bacillus amyloliquefaciens</i> strain MBI600</p>	<p>50-75 g/100 L SUPPRESSION ONLY</p>	<ul style="list-style-type: none"> <li>•Apply preventatively, prior to an infection period and development of disease only. Use a higher rate when high disease pressure is expected.</li> <li>•SOIL DRENCH: Apply soil drench using calibrated drenching equipment to thoroughly soak soil through the root zone.</li> <li>•Continue applications on a 3-14 day interval as required.</li> <li>•DO NOT apply more than 10 applications per crop.</li> <li>•This product is best applied as part of an integrated disease management program</li> </ul>	<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 5 kg/ha per growing season.</p>

## Environmental Protection Statements for use of Boscalid + Pyraclostrobin

### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Products containing Boscalid + Pyraclostrobin are very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

**INTEGRATED PEST MANAGEMENT** Products containing Boscalid + Pyraclostrobin are not compatible with integrated pest management (IPM) programs utilising beneficial arthropods. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.

### SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at [apvma.gov.au/spraydrift](http://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 buffer zone tables below provide guidance but many 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 3 and 20 kilometres per hour at the application site during the time of application.

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

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets are not smaller than a MEDIUM spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas are observed (see the following table titled 'Buffer zones for boom sprayers')

Buffer zones for boom sprayers:

Application rate	Boom height above the target canopy	Mandatory downwind buffer zones Natural aquatic areas
Up to 135 g/100 L (or 2.7 kg/ha)	0.5 m or lower	200 metres
Up to 90 g/100 L (or 1.8 kg/ha)	0.5 m or lower	120 metres
	1.0 m or lower	400 metres

DO NOT apply by a vertical sprayer unless the following requirements are met:

- Spray is not directed above the target canopy.
- The outside of the sprayer is turned off when turning at the end of rows and when spraying the outer row on each side of the application site.
- For dilute water rates up to the maximum listed for each type of canopy specified, minimum distances between the application site and downwind sensitive areas are observed (see the following table titled 'Buffer zones for vertical sprayers').

Buffer zones for vertical sprayers:

Application rate	Maximum dilute water rate	Type of target canopy	Mandatory downwind buffer zones Natural aquatic areas
Up to 135 g/100 L	1000 L/ha	2 metres tall and shorter	30 metres
		2 metres tall and shorter	45 metres
	2000 L/ha	Taller than 2 metres (not fully-foliated)	70 metres
		Taller than 2 metres (fully-foliated)	65 metres

## 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