

Product Name: Spiral Aquaflo Fungicide

APVMA approval No: 54455/RV22

Signal Heading:	DANGEROUS POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Product Name:	Spiral Aquaflo Fungicide
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Constituent Statement:	ACTIVE CONSTITUENT: 500 g/L PROCYMIDONE
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Mode of Action:	GROUP 2 FUNGICIDE
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Statement of Claims:	For the control certain fungal diseases on various crops as specified in the Directions for Use table.
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Net Contents:	5L, 10L, 20L
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Restrains:	Restrains DO NOT use this product in the home garden. DO NOT sow treated seed in poorly drained soil under wet conditions. See attached 'SPRAY DRIFT RESTRAINTS' section.
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Directions For Use:	See attached 'DIRECTIONS FOR USE' section.
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Other Limitations:	
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Withholding Period:	WITHHOLDING PERIODS GARLIC: NOT REQUIRED WHEN USED AS DIRECTED ONIONS: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION. STONEFRUIT (BLOSSOM BLIGHT CONTROL), WINEGRAPES: DO NOT HARVEST FOR 9 DAYS AFTER APPLICATION. POTATOES: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION. CANOLA: HARVEST – NOT REQUIRED WHEN USED AS DIRECTED. GRAZING – DO NOT GRAZE OR CUT FOR STOCK FEED FOR 9 WEEKS AFTER APPLICATION. LENTILS: HARVEST – DO NOT HARVEST FOR 21 DAYS AFTER LAST APPLICATION. GRAZING – DO NOT GRAZE OR CUT FOR STOCK FEED FOR 21 DAYS AFTER LAST APPLICATION. LUPINS: HARVEST – NOT REQUIRED WHEN USED AS DIRECTED.
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GRAZING – DO NOT GRAZE OR CUT FOR STOCK FEED FOR 13 WEEKS AFTER APPLICATION.

Trade Advice:

EXPORT OF TREATED LENTILS

Growers should note that suitable MRLs or import tolerances may not be established in all markets for Lentils treated with Procymidone. If you are growing produce for export, please check with your exporter or ADAMA Australia Pty Limited for the latest information on MRLs and import tolerances before using this product.

General Instructions:

General Instructions

FOLIAR APPLICATION

Mixing This product is suitable for application through conventional spray equipment calibrated to ensure thorough crop coverage. Add the required amount of product to the partly filled tank with the agitator running and complete filling the tank with water. DO NOT mix with alkaline water. A suitable registered buffering agent (eg. Primabuff Bio-Degradable Adjuvant) may have to be added to bring the pH down below 7. Continue thorough agitation during spraying and after a stoppage. DO NOT let prepared spray solution sit in spray tank overnight.

APPLICATION – STONE FRUIT AND GRAPE VINES

Dilute Spraying

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

(a) Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.

(b) Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.

(c) Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.

(d) The mixing rate for concentrate spraying can then be calculated in the following way:

EXAMPLE ONLY:

(i) Dilute spray volume as determined above: For example 1500 L/ha.

(ii) Your chosen concentrate spray volume: For example 500 L/ha.

(iii) The concentration factor in this example is: 3 x (ie. $1500 \text{ L} \div 500 \text{ L} = 3$)

(iv) If the dilute label rate is 10 mL/100 L, then the concentrate rate becomes 3 x 10, that is 30 mL/100 L of concentrate spray.

(e) The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.

(f) For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

	<p>TANK MIXTURES: Read and follow all label directions including application rates and safety directions for the tank mix products.</p> <p>WETTING AGENT: Add a non-ionic surfactant at the rate directed on the product label.</p> <p>SEED DRESSING APPLICATION Mixing Add Spiral Aquaflo to the required amount of water as detailed in 'Critical Comments' and mix thoroughly. Do not mix with alkaline water. Maintain agitation to prevent settling during treatment of seed. Slowly add 400 mL of the mixture to 100 kg of seed and mix thoroughly to ensure even coverage. Settling of this product may occur after storage for several weeks. Stir, shake, roll or invert container to improve uniformity before opening. Note: Treated seed may not be held over for sowing the following season. (Any seed not intended to be used for sowing should be destroyed.)</p> <p>Application WARNING: Soil persistence of SPIRAL AQUAFLO can be reduced under alkaline soil conditions. Where an inoculum is to be used, apply inoculum in the paddock using spray inoculation methods. Refer to Department of Agriculture (NSW) 'AGFACT' P4. 1.2: SPRAY INOCULATING GRAIN LEGUMES, or contact local State Department of Agriculture offices for further information. NOTE: Spray inoculation has proved unsatisfactory in WA and is not recommended.</p>
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<p>Resistance Warning:</p>	<p>FUNGICIDE RESISTANCE WARNING GROUP 2 FUNGICIDE SPIRAL® AQUAFLO Fungicide is a member of the dicarboximide group of fungicides. For fungicide resistance management, AQUAFLO Fungicide is a Group 2 fungicide. Some naturally occurring individual fungi resistant to SPIRAL AQUAFLO Fungicide and other Group 2 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungi population if these fungicides are used repeatedly. These resistant fungi will not be controlled by SPIRAL AQUAFLO Fungicide and other Group 2 fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since the occurrence of resistant fungi is difficult to detect prior to use, Adama Australia Pty. Ltd. accepts no liability for any losses that may result from the failure of this product to control resistant fungi. Specific resistance management strategies for dicarboximide fungicides can be found on the Croplife Australia website</p>
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<p>Precautions:</p>	<p>PRECAUTION DO NOT use treated seed for human consumption. Do not allow treated seed to contaminate grain or other seed intended for animal or human consumption. When treated seed is stored it should be kept apart from other grain and the bags or other containers should be clearly marked to indicate that the contents have been treated with this product. Bags or containers which have held treated seed are not to be used for any other purpose.</p> <p>RE-ENTRY Do not enter treated areas until spray has dried. If prior entry is necessary, wear cotton overalls buttoned to the neck and wrist, elbow-length chemical resistant gloves and goggles.</p>
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<p>Protection Statements:</p>	<p>PROTECTION OF LIVESTOCK</p>
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	<p>DO NOT feed treated seed to animals, including poultry. DO NOT allow seed treated with this product to contaminate seed intended for animal consumption.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p> <p>Toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product, used containers or bags which have held treated seed. DO NOT feed treated seed or otherwise expose to wild or domestic birds. Any spillages of treated seed must be cleaned up immediately, preferably by recovery and re-use. If disposal is required, ensure treated seed are thoroughly buried in compliance with relevant local, state or territory government regulations and not accessible to birds or other wildlife.</p>
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<p>Storage and Disposal:</p>	<p>STORAGE AND DISPOSAL</p> <p>Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers.</p> <p>Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulation. Do not burn empty containers or product.</p> <p>Treated Seed and Containers of Treated Seed: When treated seed is stored it should be kept apart from other grain and the bags or containers should be clearly marked to indicate the contents have been treated with this product. Bags which have held treated seed are not to be used for any other purpose.</p> <p>Dispose of spent dip in an authorised dip disposal facility. If an authorised dip disposal facility is not available, the spent dip should be evenly spread over flat land not exceeding 20,000 L/ha. The disposal site must be dedicated, limed and adequately banded (soil at least 15 cm high). DO NOT dispose unwanted spent dip in the same place for at least 420 days, as repeated depositions in one location may, over time, create a contaminated site. Unused or spent dips should be disposed of carefully to avoid contamination of wetlands or watercourses.</p>
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<p>Safety Directions:</p>	<p>SAFETY DIRECTIONS</p> <p>May irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing the product for use, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length chemical resistant gloves. When using the product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). Wash hands after use. After each day's use, wash gloves and contaminated clothing.</p>
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<p>First Aid Instructions:</p>	<p>FIRST AID</p> <p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126, New Zealand 0800 764 766</p>
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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 3 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.

Boom sprayers

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

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

Buffer zones for boom sprayers						
Application rate	Boom height above the target canopy	Mandatory buffer zones				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 2L/ha	0.5 m or lower	0 m	0 m	0 m	0 m	30 m
	1.0 m or lower	0 m	10 m	0 m	0 m	140 m
Up to 1 L/ha	0.5 m or lower	0 m	0 m	0 m	0 m	10 m
	1.0 m or lower	0 m	0 m	0 m	0 m	65 m
Up to 500 mL/ha	0.5 m or lower	0 m	0 m	0 m	0 m	0 m
	1.0 m or lower	0 m	0 m	0 m	0 m	30 m

Vertical sprayers

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 (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for vertical sprayers') are observed.

Buffer zones for vertical sprayers					
Type of target canopy and dilute water rate	Mandatory buffer zones				
	Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
2 m tall and shorter, maximum dilute water rate of 1000 L/ha	0 m	0 m	0 m	0 m	0 m
Taller than 2 m (not fully-foliated), maximum dilute water rate of 1500 L/ha	0 m	0 m	0 m	0 m	20 m
Taller than 2 m (fully-foliated), maximum dilute water rate of 1500 L/ha	0 m	0 m	0 m	0 m	10 m

Aircraft

DO NOT apply by aircraft unless the following requirements are met:

spray droplets not smaller than a MEDIUM spray droplet size category for lentil application

spray droplets not smaller than a COARSE spray droplet size category for canola application

for maximum release height above the target canopy of 3 m or 25 per cent of wingspan or 25 per cent of rotor diameter, whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for aircraft') are observed.

Buffer zones for aircraft (MEDIUM spray droplet size)						
Application rate	Type of aircraft	Mandatory buffer zones				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 500 mL/ha	Fixed wing	0 m	0 m	0 m	0 m	230 m
	Helicopter	0 m	10 m	0 m	0 m	140 m

Buffer zones for aircraft (COARSE spray droplet size)						
Application rate	Type of aircraft	Mandatory buffer zones				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 1000 L/ha	Fixed wing	0 m	5 m	0 m	0 m	180 m
	Helicopter	0 m	15 m	0 m	0 m	110 m

DIRECTIONS FOR USE:

Crop	Disease Controlled	Application Rate	WHP	Critical Comments
Canola	Sclerotinia rot (<i>Sclerotinia sclerotiorum</i>)	1 L/ha Ground Application: plus non-ionic surfactant at label rate Aerial Application: in minimum 40L/ha water plus non-ionic surfactant at label rate	Nil (H) 9 weeks (G)	Spraying should occur before petals begin to drop and preferably prior to a rainfall event during the early – mid flowering stage of crop growth. Infection of canola stems and branches occurs when infected petals fall and lodge in the lower canopy of the plant, particularly during wet or humid conditions. The objective of the SPIRAL AQUAFLO application is to treat as many petals as possible prior to petal drop and before pods set. Application should, therefore, take place by 30% bloom (i.e. 30% of flowers open on the main stem), at which stage the maximum number of flowers are open at one time and little petal fall has occurred. Application should not be made after mid-flowering.
Lentils	Grey mould (<i>Botrytis cinerea</i> and <i>Botrytis fabae</i>)	500 mL/ha Apply in a minimum of 100 L/ha water for ground application or 45 L/ha for aerial application	21 days (H) 21 days (G)	Monitoring of crops for disease should commence at 6-8 weeks after crop emergence. Early application of fungicide is critical in restricting the development and spread of grey mould. The first application of SPIRAL AQUAFLO is recommended immediately prior to canopy closure to ensure good spray penetration into the crop. Subsequent monitoring of crop and environmental conditions will help determine timing of later applications. Other critical growth stages for disease control are: - mid-flowering/early pod fill - end of flowering/late pod fill. Later fungicide applications may be required if conditions are conducive to disease development. Apply no more than two consecutive sprays of SPIRAL AQUAFLO. Alternate with fungicides with different modes of action SPIRAL AQUAFLO will not provide effective control of ascochyta blight (<i>Ascochyta lentis</i>).
Lupins	Brown leaf spot (<i>Pleiochaeta setosa</i>)	100 or 200 mL per 100 kg of seed	Nil (H) 13 weeks (G)	Use the high rate of application where severe disease is expected, e.g. a high spore load from previous infected crops, and where other disease control measures such as stubble retention are not practised. 100ml Rate: Dilute one part of product with three parts water. 200ml Rate: Dilute with an equal volume of water. Agitate diluted mixture thoroughly and apply at a rate of 400 mL of the mixture per 100 kg of seed. Agitate the mixture during applications to prevent settling. Mix seed thoroughly during and immediately after application to ensure thorough coverage. This product will reduce the effectiveness of Rhizobium inoculum on seed. It will not reduce nodulation where

				adequate soil populations of Rhizobium persist from previous lupin crops nor where spray inoculation is practised.
		50, 100 or 200 mL per 100 kg of seed	Nil (H) 13 weeks (G)	Use the high rate of application where severe disease is expected, e.g. a high spore load from previous infected crops, and where other disease control measures such as stubble retention are not practised. Where low disease levels are expected and stubble retention is practised, the low rate may be used if seed is to be sown immediately after treatment. If seed is to be treated after harvest and then stored until sowing in the next season, apply a minimum of 100 mL of SPIRAL AQUAFLO per 100 kg seed. 50ml Rate: Dilute one part of product with seven and a half parts of water. 100ml Rate: Dilute one part of product with three parts water. 200ml Rate: Dilute with an equal volume of water. Agitate diluted mixture thoroughly and apply at a rate of 400 mL of the mixture per 100 kg of seed. Agitate the mixture during application to prevent settling. Mix seed thoroughly during and immediately after application to ensure thorough coverage. At the high rate of application this product will reduce the effectiveness of Rhizobium inoculum on seed. It will not reduce nodulation where adequate soil populations of Rhizobium persist from previous lupin crops.
Grapes (Wine grapes only)	Grey mould (<i>Botrytis cinerea</i>)	Dilute Spraying 75 mL/100 L Concentrate Spraying Refer to the Mixing/Application section	9 days	DO NOT use on table grapes or grapes used for the production of dried fruit. Use on wine grapes only. Apply at the following growth stages: <ul style="list-style-type: none"> - 80% cap fall - just prior to bunch closure - at veraison (when sugar content rises) - and 2-3 weeks pre-harvest. To ensure complete bunch wetting add non-ionic surfactant at label rate. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying product by dilute or concentrate spraying methods. DO NOT use at concentrations greater than 150 mL/100 L of water.
Stone Fruit	Blossom blight (<i>Monilinia laxa</i>)	Dilute Spraying 50 to 75 mL/100 L Concentrate Spraying Refer to the Mixing/Application section	9 days	Apply at 10% blossom, full bloom, late petal and shuck fall. If weather conditions particularly favour blossom blight use higher rate. <u>NSW, SA, Qld and Tas only.</u> Where <i>Monilinia laxa</i> is known to occur apply an additional early spray at pink bud. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Do not use at concentrations greater than 150 mL/100 L of water.
Onions	White rot (<i>Sclerotium cepivorum</i>)	20 mL/kg of seed	4 weeks	SEED TREATMENT: (a) Apply 100 mL of 1.5% methyl cellulose or wallpaper paste (as sticker) to 1 kg of seed and mix thoroughly until all seeds are wet. (b) Add 20 mL of SPIRAL AQUAFLO to the seed and mix thoroughly. (c) Spread the seed and allow to dry. (d) Sow within 14 days of treatment. NOTE: 1. Seed treatment should be used in conjunction with soil applications SPIRAL AQUAFLO to achieve satisfactory control of white rot in onions. 2. CAUTION: Treated seed germinates poorly in cold, wet soil. Where these conditions occur, use a soil spray without seed treatment. 3. WARNING: Soil persistence of SPIRAL AQUAFLO can be reduced under alkaline soil conditions.
		4 L/ha	4 weeks	IN-FURROW APPLICATION:

				<p>(a) Thoroughly mix 4 L SPIRAL AQUAFLO with required quantity of fertiliser for 1 hectare.</p> <p>(b) Apply fertiliser in a band no more than 2 cm directly below seed.</p> <p>NOTE:</p> <ol style="list-style-type: none"> Coarse sand or fine gravel can be substituted where fertiliser is not required. In-furrow application must be combined with seed treatment to achieve satisfactory results. WARNING: Soil persistence SPIRAL AQUAFLO can be reduced under alkaline soil conditions.
		2 L/ha in a minimum 250 L of water	4 weeks	<p>SOIL SPRAY:</p> <p>(a) Apply to soil surface immediately after sowing and repeat application at 10 weeks after sowing.</p> <p>(b) Disease control will be improved if seed is treated with SPIRAL AQUAFLO prior to sowing.</p> <p>(c) A further soil spray of 2 L/ha may be necessary if frequent or extended periods of cool moist conditions occur later in the season.</p> <p>NOTE:</p> <ol style="list-style-type: none"> DO NOT spray directly over exposed seed in furrows before covering with soil. WARNING: Soil persistence of SPIRAL AQUAFLO can be reduced under alkaline soil conditions.
		1 L/100 L of water	4 weeks	<p>TRANSPLANT DIP:</p> <p>(a) Dip seedlings for up to 4 hours in fungicide suspension before transplanting.</p> <p>(b) A supplementary soil spray of 2 L/ha may be necessary if frequent or extended periods of cool moist conditions occur later in the season.</p>
Garlic	White rot (<i>Sclerotium cepivorum</i>)	10 mL/kg	Nil	<p>PRE-PLANT CLOVE TREATMENT:</p> <p>Separate cloves, then add required amount of SPIRAL AQUAFLO and mix thoroughly.</p> <p>WARNING: Soil persistence of SPIRAL AQUAFLO can be reduced under alkaline soil conditions.</p>
Potato	Sclerotinia (<i>Sclerotinia minor</i>)	500 mL to 1 L/ha	21 days	<p>DO NOT apply more than four applications per crop. Apply by boom sprayer. Apply the first spray just before hilling up. Apply a second spray just after hilling. Direct these sprays towards the stem bases and soil surface. Apply in sufficient water to ensure thorough coverage. Use higher rate in situations where high disease levels are expected. Supplementary applications of 1 L/ha to foliage at 14-21 day intervals may be necessary if conditions favour further development of diseases.</p>
	Target spot (<i>Alternaria solani</i>)	500 mL/ha	21 days	<p>DO NOT apply more than four applications per crop. Apply by boom sprayer in a program of sprays at 10 day intervals, beginning when warm weather conditions favour the disease and plants are 150 to 190 mm high. Apply in sufficient water to ensure thorough coverage.</p>
Ornam entals	Sclerotinia rot (<i>Sclerotinia sclerotiorum</i>)	75 to 100 mL/100 L water	-	<p>Apply to run-off. Use the higher rate when disease is severe. Do not apply to open African violet flowers.</p>

(H): Harvest (G): Grazing or cutting for stock feed

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.