

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Rovral[®] Aquaflo

FUNGICIDE

Active Constituent: 500 g/L IPRADIONE

GROUP	B	FUNGICIDE
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For control of certain diseases in various crops and situations as specified in the DIRECTIONS FOR USE table

GENERAL INSTRUCTIONS

Fungicide Resistance Warning

Rovral Aquaflo Fungicide is a member of the dicarboximide group of fungicides. For fungicide resistance management the product is a Group B fungicide. Some naturally occurring individual fungi resistant to the product and other Group B fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by this product or other Group B 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, Bayer CropScience Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant fungi.

Resistance Management

Do rotate to use products with as many different modes of action as possible to reduce the possibility of resistance development where alternatives are available. Where specific resistance management strategies are established these are detailed at the CropLife Australia website (http://www.croplifeaustralia.org.au/default.asp?V_DOC_ID=1792) or from your local agronomist.

Export of treated produce

Growers should note that MRLs or import tolerances may not exist in all markets for produce treated with Rovral Aquaflo. If you are growing produce for export, please check with Bayer CropScience Pty. Ltd. for the latest information on MRLs and import tolerances BEFORE using Rovral Aquaflo.

Mixing

Note: Rovral Aquaflo may be unstable in conditions where the pH is 7 or higher. It is therefore essential to check the pH of the spray solution before adding Rovral Aquaflo. A suitable registered buffering agent may have to be added to bring the pH down below 7.

Add the required amount of Rovral Aquaflo to the spray tank containing half the required volume of water. Mix thoroughly and make up to the required volume with water.

Application

Good disease control requires even, thorough coverage of the target area. Application should be made using appropriate spray equipment and sufficient water to provide adequate penetration and coverage. Equipment settings and water volume may need to vary, depending on the growth stage of the crop.

Special Instructions for Tree Crops/Vines

Dilute Spraying

- ◆ Use a sprayer designed to apply high spray volumes, 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 spray solution to cover the crop to the point of run-off. Avoid excessive run-off.
- ◆ The required spray volume to achieve point of run-off may be determined by applying different test volumes, using different settings on the sprayer, or from industry guidelines or other 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 to achieve point of run-off will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

- ◆ Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies spray volumes less than those required to reach 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 using your chosen spray volume.
- ◆ Determine an appropriate dilute spray volume (See **Dilute Spraying** above) for the crop canopy. This is needed to calculate the concentrate mixing rate.

- ◆ The mixing rate for concentrate spraying can then be calculated in the following way:
EXAMPLE ONLY
 1. Dilute spray volume as determined above: For example 1500 L/ha
 2. Your chosen concentrate spray volume: For example 500 L/ha
 3. The concentration factor in this example is: 3 X (i.e. $1500 \text{ L} \div 500 \text{ L} = 3$)
 4. If the dilute label rate is 10 mL/100 L, then the concentrate rate becomes 3 x 10, that is 30 mL of product per 100 L water for concentrate spraying.
- ◆ 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.
- ◆ For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Compatibility

This product may be combined with:

*Aliette[®] WG (see NOTE below), Bugmaster[®] Flowable, calcium chloride, chlorpyrifos 500 g/L EC, copper oxychloride, dimethoate, Dithane[®] DF, Dithane M-45[®], DPA, endosulfan (e.g. Thiodan[®] EC), fenitrothion, Kelthane[®] EC, maldison, metalaxyl, methomyl (e.g. Marlin[®]) or parathion-methyl.

When tank mixing products the order of mixing is determined by formulation type. As a guide the following mixing sequence is recommended:

1. Wettable powders
2. Suspension concentrates (e.g. Rovral Aquaflo)
3. Water Dispersible Granules
4. Suspo-emulsions
5. Soluble powders
6. Solutions
7. Emulsifiable concentrates
8. Soluble concentrates
9. Wetting agents and oils

With any mixture, thoroughly agitate immediately before applying. It is not recommended to mix this product with more than one of the above chemicals in the tank. DO NOT tank mix this product with fertilisers.

NOTE: *Mixing Rovral Aquaflo with Aliette[®] WG may result in some settling out.

As formulations of other manufacturers' products are beyond the control of Bayer CropScience Pty Ltd, all mixtures should be tested prior to mixing commercial quantities.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby plants/crops, cropping lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Toxic to aquatic organisms. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL

Keep out of reach of children. Store in the closed, original container in a cool, secure, well-ventilated area. Do not store for prolonged periods in direct sunlight. Protect from frost.

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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Do not re-use empty containers for any other purpose.

SAFETY DIRECTIONS

May irritate the eyes. Avoid contact with eyes and skin. When opening the container and using the product wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length PVC gloves and face shield. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (telephone 13 11 26).

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which can be obtained from www.bayercropscience.com.au.

EXCLUSION OF LIABILITY

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

Aliette®, Bugmaster®, Rovral® and Thiodan® are Registered Trademarks of Bayer.

APVMA Approval No.: 45725/0708

FOR 24 HOUR SPECIALIST ADVICE
IN EMERGENCY ONLY
PHONE 1800 033 111

DIRECTIONS FOR USE

Tree Crops/Vines:

RATE					CRITICAL COMMENTS
In the following table, all rates are given for dilute spraying. For concentrate spraying, refer to the Special Instructions for Tree Crops/Vines section.					
CROP	DISEASE	STATE	RATE	WHP	
Almonds	Blossom blight, brown rot (<i>Monilinia</i> spp., <i>Sclerotinia</i> spp.)	All States	50 mL/ 100 L water	Nil	For all uses in this table: 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. Refer to the Special Instructions for Tree Crops/Vines section. Apply first at full bloom and, if conditions are favourable for disease development, up to two subsequent applications can be made; at petal fall and up to four weeks after petal fall.
Boysenberries	Grey mould (<i>Botrytis cinerea</i>)	All States	100 mL/ 100 L water	1 day	Spray at 10% blossom and full bloom. For fruit protection, apply at 2 to 3 weeks pre-harvest.
Grapes				7 days	Good crop hygiene will aid in the control of disease. This use is subject to a CropLife Australia fungicide resistance management strategy. The number of consecutive applications and the total number of applications of Group B fungicides permitted is limited. Refer to the CropLife Australia Resistance Management Guidelines. See the "General Instructions – Resistance Management" for details on where these guidelines can be obtained.
Kiwifruit	Botrytis blight (<i>Botrytis</i> spp.)	NSW, Vic, WA only			Apply the spray to vines every 10 to 14 days ensuring that all fruit is thoroughly wet. Apply 3 applications at 10 to 14 day intervals from 10% bloom to petal fall for protection of flowers and young fruit. Apply a further 2 applications of Rovral Aquaflo to control late season Botrytis.
Macadamias	Botrytis blight (<i>Botrytis</i> spp.)	All States	50 mL/ 100 L water	Nil	Apply as a thorough cover spray to flower racemes when they open. A follow up spray may be needed one week later if wet conditions persist during flowering. Remove nuts under trees prior to spraying.
Mandarins (non-bearing)	Alternaria leaf spot (brown spot) (<i>Alternaria alternata</i>)	Qld, WA, NT only	100 mL/ 100 L water		Apply to non-bearing trees of Murcott variety monthly from first flush in spring until flushing ceases in the autumn. Reduce intervals to fortnightly during periods of wet weather.
Passionfruit	Alternata spot (brown spot) (<i>Alternaria</i> spp., <i>Alternaria passiflorae</i>)	Qld, NSW, WA, NT only	100 mL/ 100 L water	1 day	This use is subject to a CropLife Australia fungicide resistance management strategy: 1. Maintain a protective cover with protectant fungicide such as mancozeb. 2. Limit the use of Rovral Aquaflo to strategic periods, i.e. before, during and after extended wet periods. 3. Always tank mix Rovral Aquaflo with a protectant such as mancozeb. 4. DO NOT apply more than four Rovral Aquaflo (or other Group B fungicide) sprays in a season.
Raspberries	Grey mould (<i>Botrytis cinerea</i>)	All States		1 day	Spray at 10% blossom and full bloom. For fruit protection, apply at 2 to 3 weeks pre-harvest.

Tree Crops/Vines (continued):

RATE					CRITICAL COMMENTS
CROP	DISEASE	STATE	RATE	WHP	
In the following table, all rates are given for dilute spraying. For concentrate spraying, refer to the Special Instructions for Tree Crops/Vines section.					For all uses in this table: 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. Refer to the Special Instructions for Tree Crops/Vines section.
Stone Fruit: Apricots, cherries, nectarines, peaches, plums	Orchard Spraying Blossom blight (<i>Monilinia fructicola</i> , <i>Monilinia laxa</i>) Brown rot (<i>Monilinia fructicola</i> , <i>Monilinia laxa</i>)	Qld, NSW, Vic, Tas, SA, WA only	50 to 75 mL/ 100 L water	Nil	
Youngberries	Grey mould (<i>Botrytis cinerea</i>)	All States	100 mL/ 100 L water	1 day	Critical timings for control of blossom blight, are 10% blossom, full bloom and petal/shuck fall and for control of subsequent brown rot in fruit, 3 weeks and 1 week pre-harvest. Use the higher rate under severe conditions of challenge, or for single applications of Rovral Aquaflo in the spray program. This use is subject to a CropLife Australia fungicide resistance management strategy. The number of consecutive applications of Group B fungicides permitted is limited. Refer to the CropLife Australia Resistance Management Guidelines. See the "General Instructions – Resistance Management" for details on where these guidelines can be obtained. Spray at 10% blossom and full bloom. For fruit protection, apply at 2 to 3 weeks pre-harvest.

Fruit – Post-harvest dipping:

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Pome fruit: Apples, pears	Post-harvest dipping Storage rots (<i>Penicillium</i> spp.) (<i>Botrytis</i> spp.) (<i>Gloeosporium</i> spp.)	All States	100 mL/ 100 L water	Nil	To minimise the development of post-harvest rots handle fruit carefully to avoid fruit injury and dip promptly after harvest. Remove any infected fruit from the packing house immediately and destroy. When dipping, allow sufficient time to thoroughly wet the fruit. Top up dip with 100 mL Rovral Aquaflo in 100 L of water. When using Rovral as a post-harvest dip, DO NOT use a Group B fungicide as the final pre-harvest spray. Rotation between different modes of action in post-harvest dips is advised. This use is subject to a CropLife Australia fungicide resistance management strategy. See the "General Instructions – Resistance Management" for details on where these guidelines can be obtained.
Stone Fruit: Apricots, cherries, nectarines, peaches, plums	Post-harvest dipping Brown rot (<i>Monilinia fructicola</i> , <i>Monilinia laxa</i>) *Transit rot (<i>Rhizopus</i> spp.)	Qld, NSW, Vic, Tas, SA, WA only			To minimise the development of post-harvest rots handle fruit carefully to avoid fruit injury and dip promptly after harvest. Remove any infected fruit from the packing house immediately and destroy. When dipping, allow sufficient time to thoroughly wet the fruit. Top up dip with 200 mL Rovral Aquaflo in 100 L of water. A non-ionic wetting agent should be added. *Transit rot is suppressed at this rate. When using Rovral as a post-harvest dip, DO NOT use a Group B fungicide as the final pre-harvest field spray. Rotation between different modes of action in post-harvest dips is advised. This use is subject to a CropLife Australia fungicide resistance management strategy. See the "General Instructions – Resistance Management" for details on where these guidelines can be obtained.

Berries:

(See Tree Crops/Vines for boysenberries, raspberries and youngberries)

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Strawberries	Grey mould (<i>Botrytis cinerea</i>)	All States	1.0 L/ha where spray volume is less than 1000 L/ha OR 100 mL/ 100 L water where spray volume equals or exceeds 1000 L/ha	1 day	This use is subject to a CropLife Australia fungicide resistance management strategy: 1. Apply a program of protectant fungicides during flowering. If conditions favour disease development during this period use Rovral Aquaflo. 2. DO NOT apply more than two successive sprays of Rovral Aquaflo (or other Group B Fungicide).

Vegetables:

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Celery	Sclerotinia rot (pink rot) (<i>Sclerotinia sclerotiorum</i>)	All States	1.0 L/ha where spray volume is less than 1000 L/ha	1 day	Commence spraying 1 to 2 weeks post-transplanting and then every 2 to 3 weeks. Use only five sprays.
Lettuces	Sclerotinia rot (drop) (<i>Sclerotinia sclerotiorum</i> , <i>Sclerotinia minor</i>)	Tas, WA only	OR 100 mL/100 L water where spray volume equals or exceeds 1000 L/ha	7 days	<p>Spray should be directed to the stems at ground level and to the underside of lower leaves.</p> <p>This use is subject to a CropLife Australia fungicide resistance management strategy:</p> <ol style="list-style-type: none"> 1. Apply Rovral Aquaflo as a seedling drench soon after emergence. 2. Apply a protectant fungicide as a high volume foliar spray before planting out, then Rovral Aquaflo immediately after planting. 3. Maintain cover with protectant fungicide sprays at 7-10 day intervals. 4. If weather conditions favour Botrytis infection, tank mix the protectant with Rovral Aquaflo. 5. Do not apply Rovral Aquaflo (or other Group B Fungicides) more than four times per season, irrespective of the target disease.
	Grey mould (<i>Botrytis</i> spp.)				
Potatoes	Sclerotinia rot (<i>Sclerotinia sclerotiorum</i>)	All States	500 mL to 1.0 L/ha where spray volume is less than 1000 L/ha	Nil	<p>Apply 2 sprays, once immediately before and once immediately after hilling-up. For most effective treatment, concentrate the spray at the base of the stems and surrounding soil surface, where the fungus is active. Use the higher rate where disease is severe.</p> <p>Ensure thorough coverage to the whole plant. Treatment is generally not required until after flowering. Use the higher rate where disease is severe. Limit the use of Rovral Aquaflo to periods when conditions favour disease development.</p> <p>This use is subject to a CropLife Australia fungicide resistance management strategy.</p> <p>The number of consecutive applications of Group B fungicides permitted is limited. Refer to the CropLife Australia Resistance Management Guidelines. See the "General Instructions – Resistance Management" for details on where these guidelines can be obtained.</p>
	Target spot, (early blight) (<i>Alternaria solani</i>)		OR 50 to 100 mL/100 L water where spray volume equals or exceeds 1000 L/ha		
	Hypocotyl rot (black scurf) (<i>Rhizoctonia solani</i>)		400 mL/tonne seed material		

Vegetables (continued):

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Tomatoes	Sclerotinia rot (<i>Sclerotinia sclerotiorum</i>)	Qld, NSW, Tas, SA, WA only	1.0 L/ha where spray volume is less than 1000 L/ha OR 100 mL/100 L water where spray volume equals or exceeds 1000 L/ha	7 days	Spray at 14-day intervals from transplanting and throughout the period of disease pressure.
	Grey mould (<i>Botrytis cinerea</i>)	All States			Commence spraying 3 to 4 weeks after transplanting or at the onset of disease. Repeat treatment at 14-day intervals or when conditions favour spread of the disease, i.e. at trimming or deleafing. This use is subject to a CropLife Australia fungicide resistance management strategy: 1. Alternate or tank mix Rovral Aquaflo with a protectant such as chlorothalonil. Avoid applying two Rovral Aquaflo (or other Group B fungicide) sprays in succession, unless tank mixed with a protectant. 2. Do not apply more than four Rovral Aquaflo (or other Group B fungicide) sprays in a season.
	Target spot (early blight) (<i>Alternaria solani</i>)	Qld, Tas, WA, NT only			Commence spraying 1 week post-transplanting. Use adequate water to give thorough coverage of the plants. Use high volume spray equipment. This use is subject to a CropLife Australia fungicide resistance management strategy: 1. Limit the use of Rovral Aquaflo to periods when conditions favour disease development. 2. DO NOT apply more than four Rovral Aquaflo (or other Group B fungicide) sprays in one season. Apply no more than two consecutive sprays of a Group B fungicide.

Field Crops:

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Lucerne	Lucerne leaf spot (<i>Stemphylium botryosum</i>)	Qld, WA only	250 mL to 500 mL/ha where spray volume is less than 1000 L/ha OR 25 to 50 mL / 100 L water where spray volume equals or exceeds 1000 L/ha	7 days	Spray every 10 to 14 days when cool, damp weather favours the disease. Use the higher rate under conditions of high disease pressure.
	Leptosphaerulina leaf spot (<i>Leptosphaerulina trifolii</i>)				Apply in at least 300 L water/ha every 10 to 14 days when cool, damp weather favours the disease. Use the higher rate under conditions of high disease pressure.
Peanuts	Sclerotinia rot, (<i>Sclerotinia sclerotiorum</i> , <i>Sclerotinia minor</i>)		1.0 L/ha OR 220 mL/100 L water (spot application)	12 days	Apply when disease first appears. Repeat if necessary. Use a high water volume to ensure good coverage of foliage and stem at ground level. Do not mix Rovral Aquaflo with a foliar fungicide due to the different target positions on the plant.
Soybeans	Black leaf blight (<i>Arkoola nigra</i>)	NSW, WA only	1.0 L/ 200 to 400 L water / ha	7 weeks	If disease is present on leaves apply an initial spray at early pod set (pods approximately 5 mm long). An additional spray 14 days later may be required if wet seasonal conditions prevail.

Ornamentals:

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Ornamentals	Botrytis blight (<i>Botrytis cinerea</i>)	All States	100 mL / 100 L water	Nil	Spray at 14 day intervals commencing when the disease first becomes apparent and continuing until conditions no longer favour the disease. Spraying saintpaulia and poinsettia flowers may result in some petal scorch. Tepid water should be used and wet plants protected from direct sunlight. This use is subject to a CropLife Australia fungicide resistance management strategy: DO NOT apply more than two consecutive sprays of a Group B fungicide.

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

WITHHOLDING PERIODS (WHP):

Almonds, macadamias, mandarins, pome fruit, potatoes and stone fruit: NOT REQUIRED WHEN USED AS DIRECTED

Boysenberries, celery, passionfruit, raspberries, strawberries and youngberries: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION

Grapes, kiwifruit, lettuce and tomatoes: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

Peanuts: DO NOT HARVEST FOR 12 DAYS AFTER APPLICATION

Soybeans: DO NOT HARVEST FOR 7 WEEKS AFTER APPLICATION

Lucerne: DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 7 DAYS OF TREATMENT