



The miracles of science™

DuPont™ Rubigan® SC

fungicide

Technical Information

Active Constituent:

120 g/L FENARIMOL

Pack Sizes:

1 L

5 L

GROUP	C	FUNGICIDE
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CAUTION

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

For the control of Black Spot in apples, pears and nashi pears and Powdery Mildew in apples, grapevines, cucurbits and tolerant ornamentals as specified in the Directions for Use table.

SAFETY DIRECTIONS

May irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container, preparing spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), and elbow-length PVC gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

GENERAL INSTRUCTIONS

DuPont™ Rubigan® SC fungicide is a foliar applied locally systemic fungicide that has both preventative and curative properties. The systemic activity demonstrated by DuPont™ Rubigan® when applied to plant foliage is primarily limited to the leaf to which it is applied. DuPont™ Rubigan® is not easily washed off the foliage by rain if allowed to dry after application.

APPLICATION

Special Instructions for Tree Crops/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

1. 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.
2. Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.

3. Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
4. 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: $3 \times X$ (i.e. $1500 \text{ L} \div 500 \text{ L} = 3$)
4. As the dilute label rate is 30 mL/100 L, then the concentrate rate becomes 3×30 , that is 90 mL/100 L of concentrate spray.
 - 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.
 - **DO NOT** use a concentrate rate higher than that specified in the Critical Comments.
 - For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

MIXING

The required amount of DuPont™ Rubigan® should be added to a half-full spray tank and agitated well during completion of filling. Addition of a wetting agent as a tank-mix will improve coverage on fruit and foliage. **DO NOT** leave spray solutions to stand overnight.

COMPATIBILITY

No compatibility problems have been encountered when DuPont™ Rubigan® has been used with a number of the most common insecticides, fungicides and acaricides. It is suggested that compatibility of each specific tank-mix combination be verified by preparation of a small quantity of the mixture prior to the use of the combination.

FUNGICIDE RESISTANCE WARNING

GROUP **C** FUNGICIDE

DuPont™ Rubigan® fungicide is a member of the DMI group of fungicides. For fungicide resistance management the product is a Group C Fungicide.

Some naturally occurring individual fungi resistant to the product and other Group C 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 C 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, DuPont Australia Limited accepts no liability for any losses that may result from the failure of this product to control resistant fungi.

PRECAUTIONS

Grapevine leaves treated with DuPont™ Rubigan® must not be used for human consumption.

PROTECTION OF CROPS, NATIVES AND OTHER NON-TARGET PLANTS

Under some circumstances DuPont™ Rubigan® treatment may result in slight reduction in leaf size and an increase in the greenness of the leaves. Rates higher than those recommended may cause calyx-end flattening in Delicious apples when used from pink bud to full bloom.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. **DO NOT** re-use container. 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 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.

**IN A MEDICAL EMERGENCY CALL
1800 674 415 All hours**

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet.

NOTICE TO BUYER

To the extent permitted by law all conditions and warranties and statutory or other rights of action which buyer or any other user may have against DuPont or Seller are hereby excluded. DuPont hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information or advice provided by DuPont or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. DuPont's liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price paid therefor.

APVMA Approval number: 60291/0905

GENERAL INSTRUCTIONS

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.				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.	
CROP	DISEASE	RATE (mL/100 L)	STATE		
Apples	Powdery Mildew (<i>Podosphaera leucotricha</i>)	30	NSW, Qld, SA, Tas and WA only	Apply at green tip or after a green tip copper spray (eg Kocide [®] Blue Xtra). Repeat at intervals of 14 days.	This use is subject to an Avcare resistance management strategy. Follow a complete disease management program for scab and powdery mildew by rotating with fungicides from unrelated chemical groups according to the Avcare fungicide resistance management guidelines. DO NOT apply more than four DuPont [™] Rubigan [*] (or other Group C fungicides) sprays alone per season. If more sprays are required, tank mix DuPont [™] Rubigan [*] (or other Group C fungicides) with a protectant product at registered label rates. Apply by dilute or concentrate spraying equipment. Apply the same amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. DO NOT use in equipment that requires rates greater than 3 times the dilute rate eg Apples Vic (3 x 24) 72 mL/100 L of water. DO NOT apply in volumes less than 250 L/ha.
		24	Vic only		
	Black Spot (<i>Venturia inaequalis</i>)	30	NSW, Qld, SA, Tas and WA only	Apply at green tip or after a green tip copper (eg Kocide Blue Xtra) spray. Repeat at intervals of 14 days.	
		24	Vic only	Under high disease pressure use shorter spray intervals. DuPont [™] Rubigan has a curative effect of 4 to 5 days. For improved control of black spot DuPont [™] Rubigan should be applied in NSW, SA, Tas, Vic and WA only, in a tank mix with standard protective fungicide e.g. mancozeb (eg Manzate [®]), ziram.	
Pears	Black Spot (<i>Venturia pirina</i>)	30	Qld, SA, and WA only	Apply at 14 day intervals when conditions favour disease.	
		24	Vic only		
Nashi	Black Spot (<i>Venturia pirina</i>)	30	Qld only	Include a protective fungicide (at registered rates) with each spray to obtain protection for 14 days.	
	Powdery Mildew (<i>Podosphaera leucotricha</i>)	20		Apply at 14 day intervals when conditions favour disease.	
Grapevines	Powdery Mildew (<i>Uncinular necator</i>)	10 to 20	All States	Apply in protective program when conditions favour disease development and re-apply at intervals of 14 to 21 days. Use the 20 mL rate when infection pressure is high. NOTE: When used during early season cool conditions, DuPont [™] Rubigan [*] may increase the incidence of grey mould through growth effects resulting in tight bunching of berries. This use is subject to an Avcare Fungicide Resistance Management Strategy: <ul style="list-style-type: none"> DO NOT apply more than two consecutive sprays of DuPont[™] Rubigan[*] (or other Group C fungicides). DO NOT apply more than three sprays of DuPont[™] Rubigan[*] (or other Group C fungicides) per season. DO NOT use DuPont[™] Rubigan[*] (or other Group C fungicides) curatively. 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 in equipment that requires concentrate rates greater than 60 mL/100 L of water (3x). DO NOT apply in volumes less than 250 L/ha.	

Other Crops:

CROP	DISEASE	RATE		STATE	CRITICAL COMMENTS
		mL/ha	mL/100 L water		
Cucurbits	Powdery Mildew (<i>Sphaerotheca fuliginea</i>)	200	20	All States	<p>Apply from the onset of disease or when environmental conditions are favourable for disease development at intervals of 14 to 21 days.</p> <p>This use is subject to an Avcare Fungicide Resistance Management Strategy:</p> <ol style="list-style-type: none"> 1. Start disease control early. DO NOT wait for powdery mildew to appear before spraying, but start as soon as practicable after crop emergence. 2. Use protectant sprays in early crop growth. Apply protectant sprays up to the fruit set stage of the crop if the disease normally occurs during this period. If this schedule is interrupted (e.g. by rain) use a tank mix of protectant plus systemic before recommencing the protectant program. 3. After fruit set, use systemic fungicides in one or more of the following ways: <ol style="list-style-type: none"> a. Tank mix systemic fungicides with a protectant fungicide AND use fungicides from at least two different systemic activity groups per crop. b. Alternate systemic fungicides with a protectant fungicide AND use fungicides from at least two different systemic activity groups per crop. c. Alternate systemic fungicides from at least three different activity groups per crop.
Ornamentals Ajuga Begonia Calendula Chrysanthemum Dahlia Delphinium Hydrangea Phlox Roses Sweet Pea Verbena Zinnia (Other tolerant species)	Powdery Mildew (<i>Oidium</i> spp.)	300 to 450	20 to 30	All States	<p>Apply on a 7 to 14 day schedule when conditions favour disease development or as required. Use low rate and maximum spray interval only when using as a preventative or when leaf infection is less than 10 percent. Use higher rate and shorter spray interval when greater than 10 percent leaf infection occurs and environmental conditions encourage disease spread.</p> <p>Warning: Some plants may show signs of leaf distortion or other foliar effects when grown under cool or overcast conditions. Plants grown under these conditions develop more slowly and can be more sensitive to these growth effects.</p> <p>Other ornamental species may be tolerant. Prior to applying chemical to entire crop, test on a small number of plants to ascertain crop safety. To prevent/delay the onset of resistance, tank mix or alternate with a protectant fungicide in accordance with current resistance strategy.</p>

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

WITHHOLDING PERIODS

CUCURBITS - DO NOT APPLY LATER THAN 3 DAYS BEFORE HARVEST.

APPLES, PEARS, NASHI PEARS AND GRAPES - DO NOT APPLY LATER THAN 14 DAYS BEFORE HARVEST.

EXPORT TRADE ADVICE

Treated crop commodities destined for export may require extra time being allowed between application and harvest, as some export markets have either no Maximum Residue Limits (MRLs) or different MRLs to those of Australia. Details of overseas standards and any export interval can be obtained by contacting DuPont before using this product.

For treated wine grapes, The Australian Wine Research Institute (AWRI) has established a 35 day export harvest interval (the minimum number of days before the last application and harvest) for DuPont™ Rubigan. As export harvest intervals can change, always consult the latest AWRI publication before using this product.

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