Product Name: CROP DOC 600 FUNGICIDE
APVMA Approval No: 81930/136055

RLP
APPROVED

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| Label Name: | CROP DOC 600 FUNGICIDE |

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| Signal Headings: | CAUTION<br>KEEP OUT OF REACH OF CHILDREN<br>READ SAFETY DIRECTIONS BEFORE OPENING OR USING |

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| Constituent Statements: | ACTIVE CONSTITUENT<br>600 g/L PHOSPHOROUS (PHOSPHONIC) ACID AS MONO-DI K PHOSPHONATE |

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| Mode of Action: | GROUP 33 FUNGICIDE |

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| Statement of Claims: | For the control of Phytophthora diseases and Downy Mildew in various situation as per the Directions For Use table |

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| Net Contents: | 5 L - 1000 L |

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| Restraints: | This section contains file attachment. |

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| Directions for Use: | This section contains file attachment. |

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| Other Limitations: | |

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| Withholding Periods: | WITHHOLDING PERIODS:<br>Almonds, Chestnuts, Walnuts: DO NOT HARVEST FOR 28 DAYS AFTER APPLICATION<br>Macadamias: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION |

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| | Subterranean Clover: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION<br>Avocados, Citrus, Cucurbits, Grapes & Pineapples: NOT REQUIRED WHEN USED AS DIRECTED.<br>Poppies: DO NOT HARVEST FOR 6 WEEKS AFTER APPLICATION. |

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| Trade Advice: | |

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| General Instructions: | GENERAL INSTRUCTIONS<br><br>For effective disease control good leaf cover must be achieved before a widespread disease outbreak occurs.<br>Conditions Conducive To Downy Mildew Infection<br>Primary infection – overnight conditions of: Temperature 10°C; Rainfall 10 mm; Soil Wetness 24 hrs; Leaf Wetness 3- 4hrs at end of 24hr period.<br>Secondary infection – overnight conditions of: Temperature 11°C (min); Humidity 98% for at least 4 hrs from midnight to dawn; Leaf Wetness 24 hrs.<br>To avoid resistant strains of downy mildew developing, Crop Doc 600 should be applied as close as possible to the day of infection and alternated with systemic fungicides.<br>To avoid resistant strains of Downy Mildew developing, Crop Doc 600 should be applied as close as possible to the day of infection and alternated with Systemic fungicides.<br><br>MIXING/APPLICATION: FOLIAR APPLICATION:<br>For foliar spraying, Crop Doc 600 is diluted with water. Crop Doc 600 is already formulated as a solution in a water base and mixes easily with water. When mixing, use only a clean uncontaminated tank. If the tank has been used for herbicide application, ensure it has been thoroughly decontaminated. Recycle material through the spray pump to ensure good mixing.<br><br>Compatibility<br>Compatible with mancozeb, copper oxychloride, propiconazole and most common powdery mildew fungicides. Most foliage nutrients are also compatible. When using in conjunction with emulsifiable concentrates (EC's) always form an emulsion with water prior to adding Crop Doc 600. |

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| Resistance Warning: | FUNGICIDE RESISTANCE WARNING<br><br>GROUP 33 FUNGICIDE<br><br>Crop Doc is a member of the Phosphonates group of fungicides. For fungicide resistance management, the product is Group 33 Fungicide. Some naturally occurring individual fungi resistant to the product and other Group 33 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 33 fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since occurrence of resistant fungi is difficult to detect prior to use, Grochem Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant fungi. |

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| Precautions: | |

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| Protections: | PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS:<br>When applying as a foliar spray, ensure the mixture is directed only onto the target plant.<br>Protection of wildlife, fish, crustaceans and environment: |

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| | DO NOT spray Crop Doc over waterways or onto native plant growth.<br>DO NOT contaminate streams, rivers or watercourses with the chemical or used containers. This product is harmful to fish. |

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| Storage and Disposal: | Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Triple 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 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of water ways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.<br>For refillable containers: Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. |

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| Safety Directions: | May irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use. |

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| First Aid Instructions: | If poisoning occurs contact a doctor or Poisons Information Centre<br>(Phone Australia 131126; New Zealand 0800 764 766). |

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| First Aid Warnings: | |

## RESTRAINTS:

DO NOT apply Crop Doc 600 at volumes which cause excessive run off.

DO NOT apply by aircraft.

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of run-off for at least 3 days after application.

**SPRAY DRIFT RESTRAINTS**

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause 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 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 sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometers per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperate inversion conditions present at the time of application. Surface temperate inversion conditions exist most evenings one or two hours before sunset and persist until one or two hours after sunrise.

DO NOT direct the spray above trees or vines during airblast applications. TURN OFF outward pointing nozzles at end rows and outer rows during airblast applications.

DO NOT apply by boom sprayer unless the minimum distances between the application site and downwind sensitive areas (see the table titled 'Buffer zones for

vertical sprayers and boom sprayers') are observed.

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
- Minimum distances between the application site and downwind sensitive areas (see the table titled 'Buffer zones for vertical sprayers and boom sprayers') are observed.

**MANDATORY NO-SPRAY ZONES**

**Buffer Zones for Vertical Sprayers and Boom Sprayers**

| **Application rate** | **Mandatory downwind buffer zones (metres)** | |
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| | **Natural aquatic areas** | **Vegetation areas** |
| Up to maximum label rate | 15 m | 0 |

DIRECTIONS FOR USE

| CROP & SITUATION | DISEASE | STATE | Treatment method | RATE | CRITICAL COMMENTS |
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| ALMONDS | Suppression of *Phytophthora* spp | All States | Foliar spray | **333 mL/100L** | Ensure thorough coverage of foliage and branches. Spray to point of run-off using air blast sprayer or equivalent equipment.<br>DO NOT apply more than two (2) application per season.<br>DO NOT apply after hull split.<br>DO NOT apply under high temperatures, particularly if humidity is low. |
| | | | Irrigation | **5.2 L/ha** | Ensure even mixing with irrigation water.<br>DO NOT apply more than two (2) application per season.<br>DO NOT apply after hull split.<br>DO NOT apply under high temperatures, particularly if humidity is low. |
| AVOCADO | Phytophthora Root Rot (*Phytophthora cinnamomi*) (curative treatment) | QLD, NSW, VIC, SA, WA, ACT ONLY | Trunk Injection | **Skeletal trees:** 1st year 5mL undiluted product per metre of canopy diameter<br>**Other situations:** 2.5mL product diluted with 7.5mL water per metre of canopy diameter | Injection: Inject trees at spring flush maturity – repeat treatment in February and March. Drill holes 5mm diameter and 25-50mm deep with slight downhill angle in the trunk.<br>Syringes should be placed in the main trunk of the tree and spaced evenly around the circumference of the trunk. Suitable for use with injectors, Agmuri gun or hydraulic tree injection. Do not prune back trees before injection process as burning of new growth may occur. Do not inject trees in winter months. Do not cut back the canopy of injected trees. Do not add any other material other than water to Crop Doc 600 for tree injection. Do not inject more liquid in a lesser number of syringes than directed. |
| | | | Foliar Spray | 3.3-4.0L/ha | Solution concentrate: 165-200ml/100L<br>Amount per unit: Spray to run off – 7.5 to 10L per adult tree. 1. For curative apply every<br>3 weeks until disease is under control. 2. For prevention apply every 5 to 6 weeks. |
| CHESTNUT | Suppression of Phytophthora Trunk and Root Canker<br><br>(*Phytophthora cinnamomi)* | NSW, Vic, SA, WA & Tas | Stem Injection | Dilute 1 to 3 parts with water; then inject 20 mL per meter of canopy. | DO NOT apply to tress under severe water stress or during very hot weather. Apply trunk injection up to three (3) times per year, two (2) during the production (growing) season and one (1) post-harvest. |

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| YOUNG OR SMALL CITRUS | Phytophthora Root Rot (*P. nicotianae var parasitica*) & Collar Rot (*P. citrophthora*) | ALL STATES | Foliar Spray | 170-330mL/100L to leaf wetness (by boom or similar high volume sprayer) | Two applications: 1. Late winter prior to flowering. 2. Autumn applied to mature fruit Repeat applications annually to maintain protection of the plant. Depending on conditions at time of application, use a non-ionic wetting agent in conjunction with Crop Doc 600. |
| MATURE CITRUS | Phytophthora Root Rot (*P. nicotianae var parasitica)* & Collar Rot (*P. citrophthora*) | ALL STATES | Foliar Spray | 13.3L/ha in 3000 to 4000L of water.<br>53mL/12L per tree<br>8.3L/ha in 2000 to 5000L of water.<br>33mL/12L per tree | Where disease incidence is high or well established: For effective control apply as a protectant before above ground symptoms of decline and collar rot become evident,<br>spray trees for even coverage. Do not apply under high temperature (above 35° C) particularly if humidity is low or to moisture stressed trees.<br>Low phytophthora pressure, well drained soil: Removal of fruit from affected plants will enhance recovery.<br>Warning: Young container grown mandarin trees may develop leaf burn and growth retardation following foliar application or soil drench of Potassium Phosphate at a rate recommended for established trees. |
| CUCURBITS | Downy Mildew (*Pseudoperonospora cubensis*) | ALL STATES | Foliar Spray | 3L/ha in min 800L to 1000L of water | Use weekly spray intervals when conditions favour disease development. To avoid phytotoxicity with some plant species, it is recommended that the product be tested on a few plants of each species prior to the main application. |
| GRAPES | Downy Mildew (*Plasmopara viticola*) | ALL STATES | Foliar Spray | 2L/ha early season/ small canopies.<br>2.7- 4L/ha mid-late season /large canopies | It is essential that the rate of Crop Doc 600 is adjusted to the vine-row volume (i.e. the volume of vine foliage per hectare). An application of 500 L/ha is suggested at the start of the season, increasing to 2000 L/ha in a vigorous crop at full canopy. Spray timing is critical. For best results apply Crop Doc 600 as a tank mix with protectant fungicides such as mancozeb/dithane, Copper Oxychloride etc, to ensure both pre and post-infection activity. Crop Doc 600 should be applied at times of high disease risk, especially between the time that conditions are conducive to downy mildew infection and the appearance of oil spots. Ensure spray coverage is adequate and that the appropriate rate of Crop Doc 600 is applied to match vine growth, particularly from mid-season onwards, and especially where grapes are grown on root stock.<br>DO NOT apply after E-L 33. |
| MACADAMIAS | Phytophthora Root Rot (*Phytophthora* spp.)<br><br>Trunk (Stem) canker *(P. cinnamomi*) | NSW, Qld, WA only | Foliar application | 170 – 200 mL/100L | Apply to affected macadamia trees at mature leaf flush during Spray and Autumn. Apply to each leaf flush if disease persists during the production season. DO NOT apply to young leaf flus, as phosphorous acid may burn the foliage. Apply spray to the point of run-off, ensuring all leaves and branches are covered. Apply as maximum of two (2) application per crop. Apply using a spray volume of 2,000 to 3,000 L/ha for mature tress (depending on tree size) OR 7.5 – 10L of solution per tree. Apply using airblast sprayer or equivalent equipment. DO NOT apply to trees under severe water stress or during hot weather. |
| | | | Trunk application | 334 mL/L | Apply to affect macadamia trees at root flush and 28 days after root flush. Apply a maximum of two (2) applications per crop. Apply by dilute spray to the point of run-off around the trunk to approximately 1 m above the soil level, ensuring thorough coverage around the entire trunk. Trunk is to be wet at time of application. Apply using a knapsack sprayer or equivalent equipment. A bark penetrant such as Pulse or similar is to be applied at the rate of 2% v/v. |
| ORNAMENTALS | Phytophthora Root & Crown Rot | VIC, NSW, QLD, TAS, WA, ACT, NT ONLY | Foliar Spray | Knapsack/Boom:<br>170ml/100L<br>Air Blast: 330ml/100L | Do NOT apply to ornamental plants under extremes of temperature. Do NOT apply when ornamental plants are dormant or stressed.<br>Apply at 4 to 6 week intervals when conditions favour disease development. To avoid phytotoxicity with some plant species, it is recommended that the product be tested on a few plants of each species prior to main application. |
| PINEAPPLE | Phytophthora Root & Heart Rot (*P. cinnamomi*) | QLD, WA ONLY | Foliar Spray | 4L/ha in 800 to 2000L/ha boom spray | Apply to tops 2 weeks prior to harvest of planting material. |

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| POPPIES | Downy Mildew (*Peronospora cristata*) | TAS ONLY | Foliar Spray | 2L/ha | Commence application from 10-12 leaf stage up to row cover. Use in combination with mancozeb products at registered rate. Repeat 7-10 days later. Apply no more than 2 sprays per crop per season.<br>Note: Crop toxicity problems may occur when application is made with low water volumes. Users should determine an appropriate water volume on a small area prior to large scale field use. Consult your field officer for assistance. |
| SUB-TERRANEAN CLOVER | Phytophthora Root Rot | NSW, SA, Vic, Tas, WA, ACT only | Foliar spray | 500mL/ha approx. 200L water/ha | Apply 8 to 9 days after first irrigation but before second irrigation. Apply in Autumn when subterranean clover is at the cotyledon to unifoliate growth stage. |
| WALNUTS | Phytophthora Root Rot (Preventative treatment ONLY) | NSW, Vic, SA, WA, & Tas only | Trunk Injection | 5 mL diluted with 7.5 mL water per metre of canopy diameter | DO NOT apply more than two (2) applications per season. The sensitivity of some species and varieties has not been fully evaluated. It is advisable to treat a small number of trees to ascertain their reaction before treating the whole crop. |
| | | | Microjet to root zone | 5L/ha or 9.5 mL per tree | |
| | | | Foliar spray | For a tree height of 8 to 10 metres, dilute 3.3 mL in 1L water.<br>Apply 384 L dilute spray per hectare or 12 L diluted product per tree | |

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