



Product Name: DAVID GRAYS PHOS-INJECT 200 FUNGICIDE
APVMA Approval No: 56633/136250



Label Name:	DAVID GRAYS PHOS-INJECT 200 FUNGICIDE
Signal Headings:	READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	200 g/L PHOSPHOROUS (PHOSPHONIC) ACID PRESENT AS THE MONO-DI POTASSIUM PHOSPHITE
Statement of Claims:	A systemic fungicide for the control of Root Rot in Avocado. Root and Collar Rot in Ornamentals, Root and Collar Rot in Citrus, Root Rot in subterranean clover caused by Phytophthora Fungi and for the control of Downy Mildew in Grapes as per the Direction For Use table.
Net Contents:	500mL - 200L

Restrains:	<p>AVOCADOS: DO NOT prune back Avocado trees immediately before or after treatment as burning of new growth shoots may occur. DO NOT inject trees where the trunk is damaged eg. Sunburnt DO NOT inject Avocado trees in cold weather or winter months DO NOT inject immediately above or below previous injection sites.</p> <p>CITRUS: DO NOT apply to citrus under high temperature (above 35°), particularly if humidity is low or to moisture stressed trees.</p> <p>ORNAMENTALS: DO NOT apply to ornamental plants under extremes of temperature. DO NOT apply when ornamental plants are dormant or stressed,</p> <p>SUBTERRANEAN CLOVER: DO NOT apply to subterranean clover at volumes which cause excessive run-off.</p> <p>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</p>
------------	---

	<p>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.</p> <p>DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.</p> <p>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.</p>
--	---

How to Use:	This section contains file attachment.
-------------	--

Withholding Periods:	<p>Avocados, Citrus, Grapes: NOT REQUIRED WHEN USED AS DIRECTED</p> <p>Subterranean clover : DO NOT GRAZE OR FEED LIVESTOCK FOR 14 DAYS AFTER APPLICATION</p>
----------------------	---

How to Prepare:	This section contains file attachment.
-----------------	--

Precautions:	
--------------	--

Protections:	<p>DO NOT apply under weather conditions, or from spraying equipment that may cause spray to drift onto nearby plants / crops, cropping lands or pastures.</p> <p>DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
--------------	---

Storage and Disposal:	<p>Keep out of reach of children. Store in the closed, original container in a well ventilated area, as cool as possible. 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 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 regulations. Do not burn empty containers or product</p>
-----------------------	---

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

First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre.</p> <p>Phone Australia 13 11 26</p>
-------------------------	---

First Aid Warnings:	
---------------------	--

DIRECTIONS FOR USE - AVOCADOS

CROP/ SITUATION	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Avocado	<i>Phytophthora</i> Root rot (Curative treatment)	N.S.W., Vic, Qld, S.A. & W.A. only	Trunk Injection Skeletal Trees 1 st year : 15ml /metre of canopy diameter. Preventative Treatment: 7.5ml of product diluted with 7.5ml water.	Nil	Inject tree at spring shoot maturity and repeat application during summer. Ideally inject trees between 6AM and 11AM when the transpiration rate is highest and hence uptake is faster. Drill holes 5mm in diameter and 2.5-5cm deep with a slight downward angle in the trunk. Use one syringe for each 15 ml dose. Syringes should be evenly spaced around the circumference of the trunk. After absorption remove the syringe and it is not necessary to seal the hole as callusing will occur naturally. Thoroughly clean drill-bits and syringes between tree injections with sodium hypochlorite (1.5%) to prevent the spread of sunblotch viroid.

DIRECTIONS FOR USE — CITRUS

CROP / SITUATION	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
<p>Young or small citrus. Nursery stock and recently transplanted trees.</p>	<p>Phytophthora Root and collar rot <i>P.nicotinae</i> <i>var parasitica</i> <i>P.citrophthora</i></p>	<p>Qld. N.S.W S.A. N.T. Vic. W.A. only</p>	<p>5-10mL/L sprayed to point of run off or leaf wetness (by boom or any high volume sprayer). Use higher rate under high disease risk conditions.</p>	<p>Nil</p>	<p>1st Application: Late winter (late August) prior to flowering 2nd Application: Autumn (late March-April) applied to mature fruit</p> <p>Add a sticker such as menthene (Nu-Film 17) or a non-ionic wetting agent to the spray according to the label directions Repeat applications annually to maintain protection within the tree. Removal of fruit from affected trees will assist recovery of trees. Warning- Young container grown mandarin trees may develop leaf burn and growth retardation following foliar application of Phos Inject 200 at the rate recommended for established trees. 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.</p>
<p>Mature Citrus. Where disease incidence is higher or well established for marginal soils where high Phytophthora pressure occurs, poorly drained soils</p> <p>Mature Citrus Low Phytophthora pressure only. Well drained soils.</p>			<p>40L/ha in 3000- 8000L of water. OR 160mL in 12L to 32L water per tree.</p> <p>25L/ha in 3000 to 8000L of water OR 100mL in 12L to 32L water per tree.</p>		

DIRECTIONS FOR USE — ORNAMENTALS

CROP/SITUATION	DISEASE	STATE	RATE	CRITICAL COMMENTS
Ornamentals	Phytophthora root and collar rot	Qld, NSW, Vic, Tas., WA, NT only	Knapsack/boom 5 mL/L Air blast 10 mL/L	Apply as a foliar spray at 4-6 weekly intervals when conditions favour disease development.

DIRECTIONS FOR USE — GRAPES

CROP/SITUATION	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Grapes	Downy mildew <i>Plasmopara viticola</i>	Qld, N.S.W. Vic, S.A. & Tas. only	Dilute Spraying 600mL/100L Concentrate Spraying — Refer to the Application Section for Vines	Nil	Apply as soon as possible after infection and before spots appear and preferably before sporulation ie. Usually within 3-5 days post infection. 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. Ensure a minimum of 6 mL product is applied per vine. DO NOT apply after E-L 33.

DIRECTIONS FOR USE - SUBTERRANEAN CLOVER

CROP/SITUATION	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Subterranean clover	Root rot (<i>Phytophthora clandestina</i>)	NSW, Vic Tas, SA, WA only	1.5L/ha	14 days (grazing)	Apply as a foliar spray 8-9 days after first irrigation. Apply in Autumn when subterranean clover is at the cotyledon to unifoliate leaf growth stage.

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

GENERAL INSTRUCTIONS

Citrus : Phos Inject 200 is best applied as a protestant before foliar symptoms and collar rot become evident, Spray trees for even coverage.

Clover: Apply Phos Inject 200 at 1.5 L/ ha in 200 L/ha of water. Apply to the subterranean clover seedlings while at the cotyledon to unfoliate leaf stage. Apply between the first and second irrigation stage in autumn.

Grapes: Phos Inject 200 is a fungicide with a strong systemic activity against downy mildew (*Plasmopara viticola*) infections.

CONDITIONS CONDUCIVE TO DOWNY MILDEW INFECTION

(1) PRIMARY INFECTION—Overnight conditions of:

Temperature - 10°C

Rainfall - 10mm

Soil wetness - 24 hours.

Leaf wetness - 3-4 hours at end of 24 hour period

(2) SECONDARY INFECTION — Overnight conditions of:

Temperature - 11°C (minimum)

Humidity - 98% for at least 4 hours from midnight to dawn

Leaf wetness - 24 hours

1. Apply Phos Inject 200 within 3-6 days of conditions conducive to downy mildew infection.
2. A tank mix of Phos Inject 200 and Copper Oxychloride should be considered for use in post-infection control programs because this mix should provide at least 13 days post-infection control and an additional 20 days protection to spray foliage.

(NOTE: Unsprayed new growth is not protected)

Ornamentals: Phos Inject 200 is a systemic fungicide which is highly active against Phytophthora species. The product is best applied as a protectant against Phytophthora root and collar rot. The product has curative action against Phytophthora in some plant species, ie. Plants that can regenerate roots.

Do not rely on Phos Inject 200 for long term protection of nursery plants. Good nursery hygiene to exclude Phytophthora is advocated. In the field other factors, including the selection of well drained sites, are essential for growing Phytophthora susceptible species.

To avoid phytotoxicity with some plant species it is recommended that the products be tested on a few plants of each species prior to the main application.

Compatibility

Phos-Inject 200 at use dilution can be mixed with mancozeb, sulphur, and the foliar nutrients zinc, manganese and urea.

Mixing

Foliar application: For foliar spraying Phos-Inject 200 is diluted with water. Phos-Inject 200 is already formulated as a solution in a water base and mixes easily with water. When mixing use only clean uncontaminated tanks. If they have been used for herbicide application ensure they have been thoroughly decontaminated. Recycle material through the spray pump to ensure good mixing.

For citrus only add the recommended amount of product to the tank volume. Add a sticker/ film forming agent such as menthene (Nu- Film 17) or a non-ionic wetting agent to the spray according to the label directions.

Trunk injection of Avocados: The product is used undiluted for very sick trees and diluted 1 : 1 with water for preventative treatments.

Application

Special instructions for 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 1 00L 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

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volume 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 water 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 1500L/ha
2. Your chosen concentrate spray volume: For example 500L/ha
3. The concentration factor in this example is: $3 \times$ (i.e. $1500L / 500L = 3$)
4. If the dilute label rate is 10mL /100L, then the concentrate rate becomes 3×10 , that is 30mL /100L of concentrate spray.
 - The chosen spray volume, amount of product per 100L 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 guidelines, undertake appropriate competency training and follow industry Best Practices.