

WARNING

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE
OPENING OR USING



VITAE™

FUNGICIDE

FOR USE AS A PROTECTANT AGAINST POWDERY MILDEW
IN GRAPEVINES, SILVERBEET & STRAWBERRIES AS
SPECIFIED IN THE DIRECTIONS FOR USE.

australia
grochem

ACTIVE CONSTITUENT: 250 g/L Quinoxifen

Batch No:

DoM:

APVMA APPROVAL NO. : 88196/133812

NET CONTENTS

5L

GCAUVIT/0222

REGISTERED TO & DISTRIBUTED BY: Grochem Australia
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VITAE™

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

HARVESTING WITHHOLDING PERIOD: Grapes DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION

GRAZING/STOCK FOOD WITHHOLDING PERIOD: Grapes NOT REQUIRED WHEN USED AS DIRECTED

TRADE ADVICE:

LIVESTOCK DESTINED FOR EXPORT MARKETS: The grazing withholding period only applies to stock slaughtered for the domestic market. Some export markets apply different standards. To meet these standards, ensure that in addition to complying with the grazing withholding period the Export Slaughter Interval is observed before stock are sold or slaughtered.

EXPORT SLAUGHTER INTERVAL (ESI) – 14 DAYS: After observing the withholding period for grazing or cutting for stock food, livestock that have been grazed on or fed treated crops should be placed on clean feed for 14 days prior to slaughter.

GRAPES FOR EXPORT WINE: Refer to AWRI WINEGRID.

EXPORT OF TREATED GRAPES: Table grape growers should note that suitable MRLs or import tolerances may not be established in all markets for table grapes treated with Vitae Fungicide. If you are growing table grapes for export, please check with Agrinova NZ Ltd for the latest information on MRLs and export tolerances before using Vitae Fungicide.

GENERAL INSTRUCTIONS: Vitae Fungicide is a foliar applied protectant fungicide that only has preventative properties. The protective activity demonstrated by Vitae Fungicide when applied to plant foliage is primarily by volatilisation and reabsorption onto new and untreated plant material. Protection is not limited to the leaf to which it is applied. Vitae Fungicide is strongly bound to leaf waxes and therefore not easily washed off the foliage by rain if allowed to dry after application.

SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT: Except when applying with orchard/vineyard airblast equipment, DO NOT apply with spray droplets smaller than a MEDIUM spray droplet size category.

MIXING: Prior to adding to the tank, agitate or shake the container vigorously then follow the mixing instructions below.

1. Tank-mixing: If tank mixing with other products, the following order is recommended:
2. Quarter fill the spray tank maintaining agitation.
3. Add any wettable powders or dry flowable formulations with continuous agitation, ensure product is completely dissolved.
4. Add Vitae Fungicide
5. Add water to half fill the spray tank.
6. Add emulsifiable concentrates or soluble liquids, with continuous agitation.
7. If Uptake™ Spraying Oil is to be used, add when spray tank is three quarters full.
8. Add water to bring to the final spray volume.

Only mix sufficient spray solution for immediate use and avoid storing.

STORAGE OF DILUTED SPRAY MIX: Whenever possible, use the spray immediately after it is prepared. However if undesirable weather conditions or mechanical breakdown occur, the stored spray mix may be used up to 6 hours after initial mixing. Ensure regular agitation action to thoroughly remix every 3 hours.

APPLICATION: For volumes of, or greater than, 1000 L/ha use the dilute spray rate. If volume to be applied is less than 1000 L/ha then use the concentrate spraying application method. Application volume will vary with vine growth stage, canopy density, pruning regime and crop vigour. For best results follow the recommendations below.

DILUTE SPRAYING APPLICATION: 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 first 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. Thorough coverage of the grapevines and bunches is essential.

CONCENTRATE SPRAYING APPLICATION: 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 the sprayer to achieve even coverage throughout the crop canopy using your chosen

water volume. Determine an appropriate dilute spray volume (see Dilute Spraying Application 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 (ie, 1500 L ÷ 500 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/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.

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

UNIT CANOPY ROW (UCR) APPLICATION: Another method for determining the amount of product to spray is called the unit canopy row method. This method is not based on planted area (rate/ha) or row spacing but considers the width and height of the foliage to determine the appropriate volume to apply either as a dilute spray or a concentrate spray. The applied volume per hectare increases as row spacing becomes smaller and canopy sizes increase. This method of application is described in a fact sheet (Agdex 210/744, June 2000 by Geoff Furness and Peter Magarey) obtainable from SARDI Loxton Centre. For further information on how to apply this method, contact your local advisor, department of agriculture staff, the fact sheet above or the authors.

RAINFASTNESS: Vitae Fungicide is rainfast one hour after application.

CLEANING SPRAY EQUIPMENT: After using Vitae Fungicide, empty the spray tank and completely drain the system. Rinse the tank, pump, lines, hoses, filters and nozzles by circulating clean water through the system. Drain and repeat the rinsing procedure twice. Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto unused land away from desirable plants and water courses.

FUNGICIDE RESISTANCE WARNING: **GROUP 13 FUNGICIDE**

Vitae Fungicide is a member of the phenoxymethylol group of fungicides. For fungicide resistance management the product is a Group 13 Fungicide, which interferes with spore germination and appressoria formation. Some naturally occurring individual fungi resistant to the product and other Group 13 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 the product or other Group 13 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, Agrinova NZ Ltd accepts no liability for any losses that may result from the failure of the product to control resistant fungi. Since Vitae Fungicide has a unique mode of action, it will control powdery mildew that may be resistant to fungicides with other modes of action. To help prevent the onset of resistance DO NOT apply more than three applications to grapevines in any one season.

Strategies to minimise the risk of fungicide resistance are available. Refer to Croplife Australia fungicide resistance management strategy or contact your farm chemical supplier, consultant, local Department of Agriculture or local Agrinova NZ Ltd representative.

DIRECTIONS FOR USE:

RESTRAINTS: DO NOT spray if rain is likely within 1 hour

SPRAY DRIFT RESTRAINTS: Specific definitions for terms used in this section of the label can be found at www.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. 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. DO NOT apply by a boom sprayer unless the following requirements are met: [Spray droplets not smaller than a MEDIUM spray droplet size category.] 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. DO NOT apply by aircraft.

CROP	DISEASE	RATE	CRITICAL COMMENTS
Grapevines	Powdery mildew (Erysiphe necator)	Dilute Spraying: 10–20mL/100L water	DO NOT use more than 3 applications to any vine crop in one season. Use as protectant treatment only. Vitae Fungicide has no curative activity and does not control existing infection (Powdery mildew between infection and visible stage).
		Concentrate Spraying: Refer to the Mixing / Application Section	Use 10ml rate as part of a protectant spray programme. Retreat every 7–10 days as necessary. Use 20ml rate during periods when high or sustained infection pressure is expected. Retreat every 10–14 days as necessary. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the vines whether applied by either method.
Silverbeet (including Swiss Chard and Spinach Beet)	Powdery Mildew (Erysiphe betae)	200ml product/ha	Use as a protective treatment only. Apply strategically as part of a disease management programme at the first signs of conditions that favour disease development. Vitae Fungicide cannot control existing or latent infections of powdery mildew (i.e.between infection and visible stages) and must be applied on a preventative schedule. Apply dilute spray to foliage to obtain uniform and thorough coverage. Allow a minimum re-treatment interval of 10 days between consecutive applications.
Strawberry nursery plants (including runners and plug plants (non-bearing) Field and protected cropping	Powdery mildew (Podosphaera aphanis)	10–20 ml /100L	Apply as a foliar spray after transplanting when green leaves are present when conditions favour powdery mildew. Apply in sufficient water to achieve thorough coverage to the point of run-off. Retreat at 7 to 10 days after the first application. DO NOT apply to fruit-producing strawberry plants.

COMPATIBILITY: Vitae™ fungicide is NOT compatible with fungicides containing fosetyl as the aluminium salt. However Vitae Fungicide may be mixed with a range of products including – Lorsban™ 750WG*, Pyridaben, Tebufenpyrad, Chlorothalonil, Hydrocop WG, Copper hydroxide, Coppox WG, copper oxychloride, Dinon, dithianon, Dithane™*, Fortuna Globe 750WG, mancozeb, iprodione, procymidone, spiroxamine, pyrimethanil, Nimbus, sulphur and thiram.

* Trademarks of The Dow Chemical Company or affiliated company.

PRECAUTION:

RE-ENTRY PERIOD: DO NOT allow entry into treated area until spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each days use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT: DO NOT contaminate streams, rivers or waterways with the product or used containers.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS: DO NOT apply under weather conditions, or from spraying equipment that may cause spray drift onto nearby susceptible plants/crops, cropping lands or pastures.

STORAGE AND DISPOSAL: KEEP OUT OF REACH OF CHILDREN

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 waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

SMALL SPILL MANAGEMENT: Do not touch or walk through spilled material. Wear a face shield or goggles, overalls buttoned to neck and wrist, chemical resistant gloves and footwear. Stop leak when safe to do so. Dam the area to prevent entry into waterways, and drains.

Small spills/leaks: Absorb with material such as sand, soil or sawdust. Collect spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal.

SAFETY DIRECTIONS: May irritate the eyes. Avoid contact with eyes. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When opening the container and preparing spray wear elbow-length chemical resistant gloves.

Wash hands after use.

After each day's use, wash gloves and contaminated clothing.

FIRST AID: First aid is not generally required. If in doubt, contact a doctor or Poisons Information Centre (phone Australia 13 1126) or a doctor.

SAFETY DATA SHEET: If additional hazard information is required refer to the Safety Data Sheet. For a copy phone 1800 777 068 or visit our website www.grochem.com

CONDITIONS OF SALE: As no control can be exercised over the manner in which or the conditions under which this product is used, all conditions and warranties expressed or implied, other than those required by statute are excluded. No responsibility will be accepted for any damage or injury whatsoever arising from the storage, handling, application or use of this product.

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ADDITIONAL STATEMENTS AS REQUIRED BY SAFE WORK AUSTRALIA IN ACCORDANCE WITH THE GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELLING (GHS): May cause a allergic skin reaction. Wear protective gloves. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/ attention. Very toxic to aquatic life with long lasting effects. Avoid release to the environment.	
IN A TRANSPORT EMERGENCY DIAL 000 POLICE OR FIRE BRIGADE.	Specialist advice in emergency only 1800 033 111 ALL HOURS – AUSTRALIA WIDE