

WARNING
KEEP OUT OF REACH OF CHILDREN
READ LABEL BEFORE USE

Nufarm

Tri-Base Blue[®]

Active Ingredient: 190g/litre copper as tribasic copper sulphate
in the form of a suspension concentrate

**A protectant copper fungicide for the control of
many diseases on fruit, vegetable and ornamental crops**



22920/NZ/VS

Net: 10 Litres

 **Nufarm**
Grow a better tomorrow



01-19/PS/03091-10L1.2

HAZARD CLASSIFICATION: 6.1D, 6.3A, 6.4A, 6.5B, 6.9B, 9.1A, 9.3B



This product must not be used for any purpose, or in any manner contrary to this label unless authorised under appropriate legislation.

TOXICITY

- Warning – harmful if swallowed. Causes skin and eye irritation and may cause an allergic skin reaction. May cause damage to kidneys through prolonged repeated exposure.

ECOTOXIC

- Very toxic to aquatic life. Avoid contamination of any water supply with product or empty container. Tri-Base Blue must not be applied onto or into water. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.
- Toxic to terrestrial vertebrates.

HANDLING PRECAUTIONS

The person mixing or applying this product must be a "Qualified Contractor" or a "Qualified Person". The spray mixture may also be prepared by a "Qualified Loader".

STORAGE

- Store in original container, tightly closed and in a locked, dry, cool area away from foodstuffs.
- Store in accordance with NZS8409 Management of Agrichemicals.
- Stores containing 100 litres of Tri-Base Blue are subject to secondary containment and signage and more than 100 litres requires emergency response plans.

PERSONAL PROTECTION

- Do not get in eyes. Avoid skin contact and inhalation of spray mist. Wear protective clothing such as impervious gloves, eye protection, boots and overalls when mixing or applying. Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly after handling.

EQUIPMENT

- Apply using well maintained and accurately calibrated equipment. Flush equipment thoroughly with clean water after use.

DISPOSAL

- Triple rinse empty container and add rinsate to the spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.
- Dispose of product only by using according to the label, or at an approved landfill.

First Aid: If medical advice is needed, have the product container or label at hand.

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Call the National Poisons Centre 0800 POISON (0800 764 766) or a doctor if you feel unwell. **IF ON SKIN:** Wash with plenty of water. If skin irritation or rash occurs get medical advice. Take off contaminated clothing and wash before reuse. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. If exposed or if you feel unwell, contact a doctor.

Spillage: Wear appropriate protective clothing and prevent material from entering waterways. Contain liquid spills and absorb with inert material. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.

Transport: Do not carry Tri-Base Blue on a passenger service vehicle.

Record Keeping: Records of use as described in NZS8409 Management of Agrichemicals must be kept if 3 litres or more of Tri-Base Blue is applied within 24 hours.

Compatibility and Mixing: Shake or stir well before use. Add two thirds of the required quantity of water to the spray tank and with the agitation system going, slowly add the Tri-Base Blue. Continue agitating while filling with water. Agitate thoroughly before and during spraying and before recontaminating spraying after a stoppage. Tri-Base Blue is physically compatible with most commonly used fungicides, insecticides and spreader-stickers including Success® Naturalyte™, Paramite®, Pyfanon, Proclaim®,

Avid®, Prodigy™ and D-C Tron®. The addition of insecticides, spreader-stickers etc, should be made last after Tri-Base Blue has been thoroughly mixed. Spray adjuvants such as Contact Xcel™ may be added to the tank mixture to enhance wetting and spreading on hard-to-wet crops such as brassicas, peas and onions. Note the warning in the Directions for Use table relating specifically to crop safety issues if Tri-Base Blue is applied in tank mixture with other products on kiwifruit.

Resistance Management: Tri-Base Blue is a member of the inorganic copper group of fungicides with multi-site activity. Tri-Base Blue is a [GROUP M] [FUNGICIDE] Some naturally occurring fungi resistant to Tri-Base Blue and other Group M1 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the population if these fungicides are used repeatedly. The resistant fungi will not be controlled by Tri-Base Blue or other Group M1 fungicides. Since the occurrence of resistant fungi is difficult to detect prior to use, Nufarm Limited accepts no liability for any losses that may result from the failure of Tri-Base Blue to control resistant fungi. To prevent or delay the development of resistance to fungal and bacterial diseases, ensure label directions are followed and use Tri-Base blue in tank mixtures, and/or in rotation with fungicides having a different mode of action. Ensure tank mixing and tank mix partners are appropriate for the crop and timing proposed. Refer to www.resistance.nzps.org/ for further information.

Registered pursuant to the ACVM Act, No. P8732

See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to the HSN0 Act 1996, Approval Code HSR100808

See www.epa.govt.nz for approval controls.

®Tri-Base Blue is a registered trademark of Nufarm Australia Ltd.

™Contact Xcel is a trademark of Nufarm Limited.

™Success Naturalyte and Prodigy are trademarks of Dow AgroScience.

®Paramite is a registered trademark of Sumitomo Chemical Co., Japan.

®Proclaim and Avid are registered trademarks of a Syngenta Group Company.

®D-C Tron is a registered trademark of Caltech Australia Petroleum Pty Ltd.

CONDITIONS OF SALE:

CAUTION: READ THIS NOTICE BEFORE OPENING THE CONTAINER

If you open this container you will be deemed to have accepted the conditions below.

The results from use of this product may be affected by factors beyond Nufarm's control, including mixing, use, climatic conditions, time of application, crop or stage state and the possible development of resistance to the active ingredient, even though the product is reasonably fit for the purposes stated in this label, and even though label directions are followed. Nufarm will replace, free of charge, any product which is found to have a manufacturing defect. To the extent permitted by law, all other warranties, guarantees, representations and conditions, whether expressed or implied by law, trade, custom or otherwise are expressly excluded.

When you use this product, you agree that neither Nufarm Limited nor any manufacturer of any component of the product will be liable for any damage, injury or loss including consequential loss which arises in any way from the storage, handling, or use of the product. This exclusion of liability includes loss caused by negligent acts or omissions of Nufarm Limited or any supplier or manufacturer of the product or any of their employees and agents.

Marketed by:
Nufarm Limited
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Batch No:

D.O.M.

Nufarm Emergency Phone/line: 0800 651 911 toll free 24 hours

PROPER SHIPPING NAME	HAZARD CLASS	UN No.	HAZCHEM	PACKING GROUP
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (copper 19%)	9	3082	2X	III

Directions for Use:

It is an offence to use this product on animals.

Tri-Base Blue may be applied through standard ground and aerial spray equipment using nozzles and pressures which produce a medium to fine spray. The recommended dilution rates are for high volume spraying to runoff. The volume of water applied per hectare will depend on the crop being sprayed and should be increased during the season to ensure complete coverage of the growing crop. For concentrate spraying apply the same volume of Tri-Base Blue per hectare as for dilute sprays.

In conditions of severe disease pressure use the higher recommended rates and reduce the spray interval.

Warning: Soft growth of some plant species may be hardened or injured by copper sprays. Do not use on copper-shy crops or cultivars. Discontinue use on any crop if signs of injury occur. Do not apply if temperatures exceed 35°C. Do not apply to wet crops or if it is likely to rain before the spray is dry. Do not use in spray solutions less than pH 6.5.

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
FRUIT CROPS				
Avocados	Anthraxnose	280ml	2.8-5.6L (mature trees)	Apply at monthly intervals from flowering until harvest. During prolonged wet weather reduce the application interval to 14 days.
Berryfruit	Cane wilt Leaf spot Cane spot Spur blight	280ml	2.2L (min)	Apply at bud burst and green tip and continue at 10-14 day intervals.
Citrus	Melanose	280ml	5.6L (mature trees)	Apply as a dilute spray during pre and post bloom periods. Apply in autumn.
	Brown rot	420ml	5.6L (min)	
Feijoas	Leaf spot (<i>Glomerella sphaceloma</i>)	280ml	2.8L (min)	Apply and repeat as necessary.
Grapes	Downy mildew	250-350ml	2.5-3.5L (min)	Apply when shoots are 10cm long and repeat at 10-14 day intervals. Use the higher rate when conditions are favourable for infection.

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
FRUIT CROPS				
Kiwifruit	Leaf spot (<i>Phomopsis spp</i> and others, eg <i>Botryosphaeria</i>)	280ml	2.8-5.6L	Apply after harvest and during the dormant period For use after harvest and during the dormant period. Apply after harvest but before leaf fall, after pruning, and as 2 sprays one month apart before budbreak. Do not apply within 7 days of Hi-Cane® Pre- and Post- flowering Do not apply to open flowers Apply as a protectant treatment prior to a significant rain (infection) event or immediately after when the crop is dry. Use a full dilute water rate, appropriate to the size of canopy, to give complete coverage. WARNING: Higher rates, multiple applications, poor drying conditions and/or tank mixtures may result in leaf drop, leaf marking and marginal leaf burn. Fruit marking may occur from any application post flowering. Apply alone post-flowering to minimize the risk of crop injury.
	PSA (<i>Pseudomonas syringae</i> pv <i>actinidiae</i>)	150ml		
		150ml		
Passionfruit	Septoria spot Brown spot Grease spot	150ml	1.5L (min)	Apply at 2-4 week intervals, alternating with mancozeb, from November to March. Apply at 2 week intervals where grease spot is a problem.

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
FRUIT CROPS				
Pipfruit (Apples, nashi pears)	Black spot	280ml	5.6L (min)	Apply as a dilute cover spray between silver tip and green tip. CAUTION: Late application may cause phytotoxicity – Discontinue use when greentip is 1 cm. Bearing Trees: Apply as for black spot.
	Fireblight	150ml	2.8L	Non-Bearing Trees: Ascertain cultivar tolerance to copper before using. Maintain a protective cover at 14-21 day intervals until active growth ceases. Post Harvest: Apply at 21 day intervals from harvest until leaf fall.
Stonefruit	Leaf curl Shot hole Bladder plum	280-350ml	5.6-7.0L	Apply in autumn at leaf fall. Apply in spring when buds are swelling but <u>before and within one week of any buds opening</u> . A repeat application can be made 10-14 days later.
	Bacterial Blast	350-500ml	7.0L (min)	Apply at leaf fall and repeat at monthly intervals throughout the winter, then treat as for leaf curl.
Strawberries	Leaf spot	280ml	2.8L	Apply when plants are established and continue on a weekly schedule throughout the season.
Tamarillos	Leaf spot	280ml	2.8L	Apply as necessary

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
VEGETABLES				
Asparagus	Stemphylium Leaf spot	400ml	4.0L	Commence spraying after closing up and repeat at 14 day intervals. Ensure good fern and stem coverage. Under high disease pressure a programme of up to 6 applications may be necessary.
Beans	Common blight Bacterial brown spot	280ml	3L	Apply at first sign of infection and repeat at 7-14 day intervals while conditions favour infection.
	Halo blight	280-420ml	3.0 – 3.5L	Apply at 7-14 day intervals from the time the crop is 15-30cm high when conditions allow infection. Use the high rate when conditions are highly favourable for infection.
Brassicas (Cabbage, Cauliflower, Broccoli, Brussels sprouts)	Downy mildew	280ml	3L	Apply at first sign of disease and repeat at 10-14 day intervals while conditions allow infection. CAUTION: Tribasic copper sulphate may predispose cabbages to frost damage. Do not treat cabbages when frosts are likely.
Capsicums	Bacterial spot Bacterial canker	280ml	3L	Seed beds: Apply every 7 days during wet weather. Field crops: Apply at first sign of disease and repeat every 7-14 days. Use the shortest interval when conditions are favourable for disease. These treatments will reduce the spread of bacterial canker but will not control seed or soil borne infection.

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
VEGETABLES				
Carrots	Leaf spot	280ml	3L	Apply at first sign of disease and repeat at 10-14 day intervals when conditions allow infection.
Celery	Septoria leaf spot	280-390ml	3L	Apply every 7-14 days while conditions allow infection. Use the shortest interval when conditions are highly favourable for infection (ie cool and wet).
Cucurbits	Angular leaf spot Downy mildew Bacterial leaf spot	280ml	3L	Apply at 7-14 day intervals while conditions allow infection
Lettuce	Downy mildew	280ml	3L	Apply at first sign of disease and repeat every 7-10 days while conditions favour infection. Alternation with Penncozeb 750DF is desirable. CAUTION: Tribasic copper sulphate may predispose lettuce to frost damage. Do not treat lettuces when frosts are likely.
Onions	Downy mildew Bacterial blight	280ml	3L	Apply when disease first appears and repeat every 10-14 days while conditions allow infection.
Parsnips	Septoria leaf spot	280ml	3L	Apply when disease first appears and repeat every 10-14 days while conditions allow infection.
Peas	Downy mildew Ascochyta blight Bacterial blight	280ml	3L	Apply from emergence at 10-14 day intervals while conditions allow infection.
Potatoes	Early blight Late blight	280-450ml	3- 4.5L	Apply every 7-10 days from when plants are 15cm high until just before harvest.

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
VEGETABLES				
Red beet	Downy mildew Rust	280ml	3L	Apply every 10-14 days from the seedling stage until maturing, while conditions favour disease.
Rhubarb	Crown rot	280ml	-	Dip crowns before planting.
	Downy mildew	280ml	3L	Apply at 14 day intervals when conditions allow infection.
Silver beet, spinach	Downy mildew	280ml	3L	Apply at 10-14 day intervals from seedling stage until maturity, when conditions allow infection.
Tomatoes	Early blight Late blight Bacterial speck Bacterial spot	220-450ml	2.4-6L	Apply at first sign of disease and repeat at 7-14 days while conditions allow infection. The shorter interval should be used when conditions are favourable for infection (ie during wet weather and when inoculum levels are high). Increase spray volume to 1500 litres/hectare when the crop grows and ensure full coverage of upper and lower leaf surfaces. Repeat application after more than 13cm of rain or irrigation.

Crop	Disease	Rate		Critical Comments
		Per 100L	Per Hectare	
ORNAMENTALS & FORESTRY				
Ornamentals	Bacterial leaf spot	280	3L	Apply at first sign of disease and repeat every 10-14 days as necessary. Tri-Base Blue is ineffective against bacterial wilt of carnations caused by <i>Pseudomonas andropogonis</i> . CAUTION: Phytotoxicity may occur on some ornamentals. A small scale evaluation consisting of 2 sprays, 14 days apart, should be applied to evaluate crop safety before treating large numbers of plants.
Pine Trees	Pine needle blight	-	4-7L 2-5L	Aerial application to plantations: Apply in 60-100 litres water per hectare in November or early December. Repeat yearly as necessary. Ground operated equipment in nurseries: Apply with 1% summer oil in 600-1100 litres water per hectare. Commence spraying in October or November and repeat at monthly intervals until planting out.

Withholding Period: Nil all crops.