

Veriphy®



www.imtrade.com.au
Agriculture Reimagined



IMTRADE
CropScience

WHO ARE WE?

Optimising profitability for farmers through R&D and innovation

Imtrade CropScience is a 100% Australian operation providing optimised crop protection solutions to Australian growers via a substantial home-grown R&D program.

Since 1981, Imtrade CropScience has built an enviable position nationally delivering high-loading formulations, novel combinations and synergised options for Australian primary producers. We are independent, reacting nimbly and flexibly in meeting Australian needs.

While many others lay claim to technical proficiency, our R&D ethic is real and is evidenced by an extensive registration and patent portfolio, the employment of 16 scientists, a nationally-accredited laboratory, our own spray-booth, greenhouse and an unquenchable thirst for innovation in agriculture.



RANGE CONCEPTION

Veriphy[®]

Veriphy[®] Concept

Veriphy[®] forewarns when there may be a problem caused by water pH or active chemical degradation and equally provides surety when there is not. If a purple colouring is exhibited, this signals that the spray solution is alkaline (pH > 7). To counter the threat of alkaline hydrolysis, the pH of the spray tank contents must be lowered. This can be achieved through the addition of Imtrade Pro 700 or other acidifying agents.

Veriphy[®] Technology

For the initial grouping of Veriphy[®] products, the solution (water + product) becomes yellow under favourable acidic conditions.

 'safe' to apply (below pH 7.0)

 'at risk' (above pH 7.0) → pH adjustment required

**Please note that indicator colouring may be different for other products.*

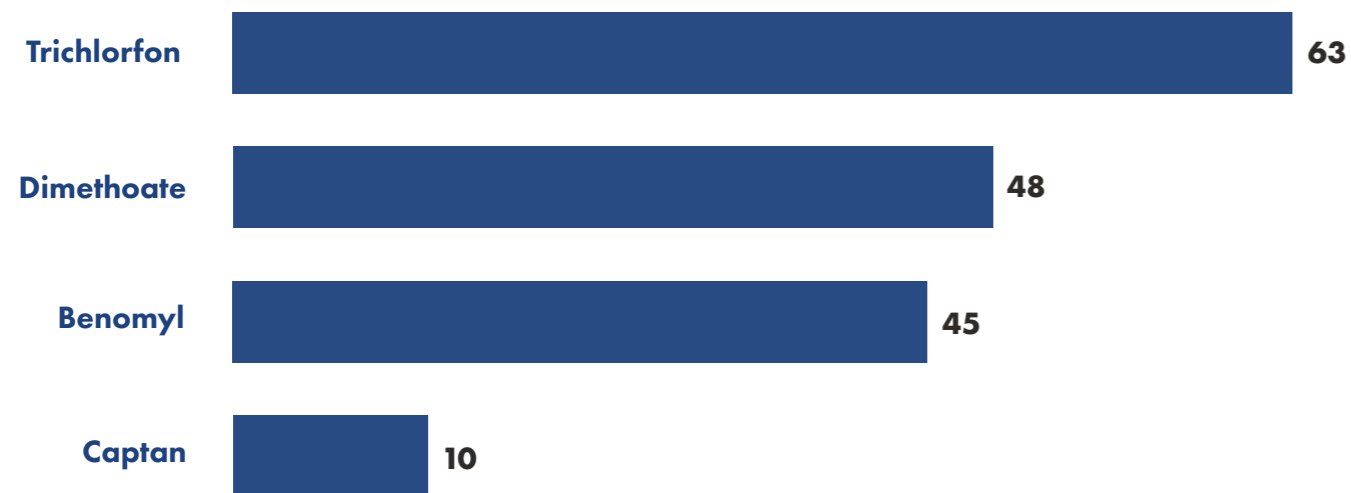
What is important?

- To manage the threat of reduced efficacy under unfavourable acid-alkaline balance or excessively acid conditions
- Alkaline hydrolysis: water pH > 8
- Purple colour, requires acidification
- After adding the product to the water solution in the tank mixing, check the solution colour. If purple, acidification is required to bring the pH to ~5
- Be aware that safe/unsafe colour combination is product specific, see the label for more details



Degradation via Alkaline Hydrolysis

Degradation via alkaline hydrolysis is a relevant issue for many insecticides. It is a threat to the efficacy of crop protection products and varies with the chemistry of the active ingredient. Having the correct pH of the tank-mix prior to application is crucial for the insecticide to reach its potential control. Alkaline hydrolysis is measured in time (minutes), to degrade to 50 percent concentrate, also known as half-life. The chart below shows how quickly an active ingredient, in water above pH 8.0, can degrade under field conditions:



Source: Deer, H.M and R Beard. 2001. Effect of water pH on the Chemical Stability of Pesticides, Utah State University Extension.

Magnitude of Degradation

Trichlorfon is subject to alkaline hydrolysis once diluted as a spray solution, being the degradation of active ingredient content on reaction with water, at pH > 7, is intensified. The magnitude of degradation of trichlorfon varies with temperature, time held in the spray tank, the presence of other chemicals and contaminants and the extent to which the pH level is greater than 7.

The VeripHy® Range

TyraneX® 500 VeripHy® SL Insecticide

OutPerform® 630 VeripHy® EC Insecticide/Miticide

Activist® 225 VeripHy® SL Insecticide

OutPlay® 700 VeripHy® EC Insecticide

Mogul® 570 VeripHy® EW Miticide

TyraneX® 900 VeripHy® SP Insecticide *(coming 2023)*

Activist® 900 VeripHy® SP Insecticide *(coming 2023)*

Surplus® 850 VeripHy® WG Plant Growth Regulator *(coming 2023)*

Construct® 850 VeripHy® WG Herbicide *(coming 2023)*

Benefits of VeripHy®

- Smart pH monitoring solution
- Optimise activity and effect of the applied active ingredient
- Convenience to applicators and growers

TYRANEX[®]

500 VeripHy[®] SL INSECTICIDE

TyraneX[®] VeripHy[®] Benefits

Broad spectrum - Trichlorfon provides effective insecticidal knockdown control of a broad range of pests. This includes hard-to-kill soil-borne, Lepidopteran and Hemipteran pests.

pH indicator (VeripHy[®]) - VeripHy[®] forewarns when there may be a problem caused by water pH or active chemical degradation and equally provides surety when there is not. If a purple colouring is exhibited, this signals that the spray solution is alkaline (pH > 7). To counter the threat of alkaline hydrolysis, the pH of the spray tank contents must be lowered. This can be achieved through the addition of Imtrade Pro 700 or other acidifying agents.

Reliable and robust - Trichlorfon is one of a dwindling group of proven organophosphate options, considered one of the only alternatives reliable and robust enough to replace restricted dimethoate and banned fenthion actives.

Low residual - Trichlorfon exhibits rapid environmental breakdown post application and invertebrate knockdown. This translates to short withholding periods, which allows for increased flexibility and confidence around application and harvest timings.



Resistance Management

Where possible, always consider rotating through multiple modes of action when routinely spraying crops for target pests. A well considered plan will aid in the management of insect resistance into the future and ensure insecticidal chemistries are efficacious for years to come.



Crops and insects controlled

Field Crops and Pastures*

Fruit Spotting Bug, Monolepta Beetle, Grapevine Moth, Banana Spotting Bug, Macadamia Flower Caterpillar, Passion Vine Bug, Fruit Fly, Rutherglen Bug and Queensland Fruit Fly

Fruit Crops - Tree and Vine*

Fruit Spotting Bug, Monolepta Beetle, Fruit Fly, Grapevine Moth, Queensland Fruit Fly, Banana Spotting Bug, Macadamia Flower Caterpillar, Passion Vine Bug, Green Vegetable Bug and Rutherglen Bug

Fruit Crops - Berries*

Queensland Fruit Fly, Cluster Caterpillar and Cutworm

Dried Fruit

Vinegar Fly

Vegetables

Cutworm, Fruit Fly, Rutherglen Bug, Cabbage White Butterfly, Cabbage Moth and Green Vegetable Bug.

* Refer to label for full list of crops, pests and rates

OUTPERFORM[®]

630 VeripHy[®] EC INSECTICIDE/MITICIDE

OutPerform[®] VeripHy[®] Benefits

Powerful combination - 600g/L chlorpyrifos + 30g/L bifenthrin offers two modes of action working synergistically, delivering superior performance even against populations resistant to synthetic pyrethroids.

pH indicator (VeripHy[®]) - VeripHy[®] forewarns when there may be a problem caused by water pH or active chemical degradation and equally provides surety when there is not. If a purple colouring is exhibited, this signals that the spray solution is alkaline (pH > 7). To counter the threat of alkaline hydrolysis, the pH of the spray tank contents must be lowered. This can be achieved through the addition of Imtrade Pro 700 or other acidifying agents.

High-loading formulation - OutPerform[®] VeripHy[®] is comprised of 630g/L active ingredient, the highest loading on the market. This translates to increased environmental savings, less storage space required and reduced carbon emissions due to less waste, resources, packaging use and transportation.

Broadly registered use - Treats an extensive range of key pests, including Red Legged Earth Mite (RLEM), Byrobia Mite, Vege Weevil, Lucerne Flea, Cutworm, Wireworm and synthetic pyrethroid resistant RLEM. It is also the only combination of actives registered for control of Balaustium mite. This translates to short withholding periods, which allows for increased flexibility and confidence around application and harvest timings.

OutPerform[®] VeripHy[®] is compatible with a wide range of common tank mix partners, providing a single pass solution and increasing on-farm efficiency for Australian farmers.



Crops and insects controlled

Broadacre Crops and Pastures*

Wireworm, Various Mites*, Brown Pasture Looper, Lucerne Flea, Pasture Webworm, Vegetable Weevil, Lucerne Leafroller, Webspinner Caterpillar, Various Aphids* and Cutworm

Other Crops*

Sugarcane Wireworm, Green Peach Aphid, Green Vegetable Bug, Native Budworm, Tomato Grub, Wingless Grasshopper and Whitefly

* Refer to label for full list of crops, pests and rates

ACTIVIST[®]

225 VERIPHY[®] SL INSECTICIDE

Activist[®] VeripHy[®] Benefits

Well-known active - Containing 225g/L of methomyl, Activist[®] VeripHy[®] delivers outstanding performance against a wide range of insect pests in various cropping situations.

pH indicator (VeripHy[®]) - VeripHy[®] forewarns when there may be a problem caused by water pH or active chemical degradation and equally provides surety when there is not. If a purple colouring is exhibited, this signals that the spray solution is alkaline (pH > 7). To counter the threat of alkaline hydrolysis, the pH of the spray tank contents must be lowered. This can be achieved through the addition of Imtrade Pro 700 or other acidifying agents.

Broadly registered use - Treats an extensive range of key pests, including worms/caterpillars; moths; bugs/beetles; thrips; borer; flies; aphid, midge, loopers, leafhopper and ants.

Note: Activist[®] VeripHy[®] 225 SL is a water miscible liquid to be dissolved in water for spray application. ALWAYS add a non-ionic agricultural wetting agent at a rate of 0.025% of active material. This is 25 mL/100L for most wetting agents. It is most effective when spray schedules are initiated on young insects.

The lower rates are used on small larvae and light infestations, the higher rates on larger larvae and heavy infestations. *Please refer to the full label for more details.



Crops and insects controlled

Beans*, Apples, Blueberries, Brassicas, Chickpeas, Citrus, Cotton, Cowpeas, Duboisia, Ginger, Grapevines/Grapes

Heliothis, Various Bugs*, Various Moths*, Thrips, Beanfly, Bean Thrips, Bean Pod Borer, Monolepta Beetle, Plague Thrip, Cabbage White Butterfly, Cabbage Centre Grub, Cluster Caterpillar, Large & Small Butterfly and Loopers

Guar, Hops, Lentils, Linseed, Lucerne, Lupins, Mint, Mung Beans, Pasture, Peaches, Nectarines, Peanuts, Pears, Peas, Poppies, Potatoes, Canola and Sesame Seed

Various Bugs*, Heliothis, Various Armyworms*, Buffel Grass Seed Caterpillar, Lucerne Blue Butterfly, Green Peach Aphid, Various Moths*, Pea Thrips and Corn Earworm

Sorghum, Soybeans, Stonefruit*, Strawberries, Sunflowers, Sweetcorn, Maize, Sweet Peppers, Tea Tree, Tobacco, Tomatoes, Barley, Oats and Wheat

Queensland Fruit Fly, Cluster Caterpillar and Cutworm

*Refer to label for full list of crops, pests and rates



MCGUL[®]

570 VeripHy[®] EW MITICIDE

Mogul[®] VeripHy[®] Benefits

IPM-Friendly - Containing 570g/L of propargite, Mogul[®] VeripHy[®] controls Two-Spotted Mite and European Red Mite in Apples and Stone Fruit crops, whilst being safe to bees, beneficials and predatory mites.

pH indicator (VeripHy[®]) - VeripHy[®] forewarns when there may be a problem caused by water pH or active chemical degradation and equally provides surety when there is not. If a purple colouring is exhibited, this signals that the spray solution is alkaline (pH > 7). To counter the threat of alkaline hydrolysis, the pH of the spray tank contents must be lowered. This can be achieved through the addition of Imtrade Pro 700 or other acidifying agents.

Note: Propargite is not an ovicide. Long-term fruit tree outcomes call for two treatments spaced 10–14 days apart. The activity of this substance is not systemic. For effective control, spray coverage must be complete. Use of high concentration or low volume, high concentration spray applications is **NOT** recommended. The 2-spray programme is advised if the lower rate is used. Application as soon as possible is advised. These ought to be done before there are enough mites to seriously harm property. Do not combine with foliar fertilisers or other insecticides. When the temperature surpasses 27 degrees, **DO NOT** spray.



Crops and insects controlled

Stonefruit

Two Spotted Mite and European Red Mite

Apples

Two Spotted Mite and European Red Mite

Apples and Stonefruit

Biological control of Mites



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For more information on the VeripHy® range, visit imtrade.com.au
or contact your local Imtrade representative on **1800 171 799**

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