

DIGGER^{EW}

For the control of powdery mildew in grapes



Pack Sizes Available

5L

Active ingredient

125g/L difenoconazole

About Digger^{EW}

- Brings difenoconazole to the grape market to control powdery mildew
- Proprietary EW (oil-in-water) formulation
- Provides a highly active, systemic DMI fungicide with protectant and curative action

Benefits

- Highly effective against powdery mildew
- Extensively tested in New Zealand
- No cross resistance to other DMIs approved for powdery mildew control in grapes
- Non-detectable residue in wine when used according to label directions (56-day PHI)
- No effect on wine fermentation or sensory characteristics
- Compatible in tank mixture with wettable sulphur

Powdery mildew (*Erysiphe necator*) in grapes

- Powdery mildew reduces yield and affects the quality of the grapes. Diseased bunches have off-flavours and may be rejected by wineries.
- The disease overwinters in dormant buds or as spores, and infects the expanding leaves, which are called flag shoots. Spores from flag shoots are then spread by wind.
- Damage to berries occurs primarily from flowering until 5-6 weeks afterwards, when the fruit develops a level of tolerance. Affected berries show scarring and often split, becoming a site for botrytis infection.
- Powdery mildew prefers mild, cloudy weather, with temperatures in the range of 22 - 28°C, and high humidity. It is particularly bad in shady areas of heavy canopies.
- To control powdery mildew, growers normally apply 5-6 applications of fungicide per season, rotating products from different mode-of-action groups.

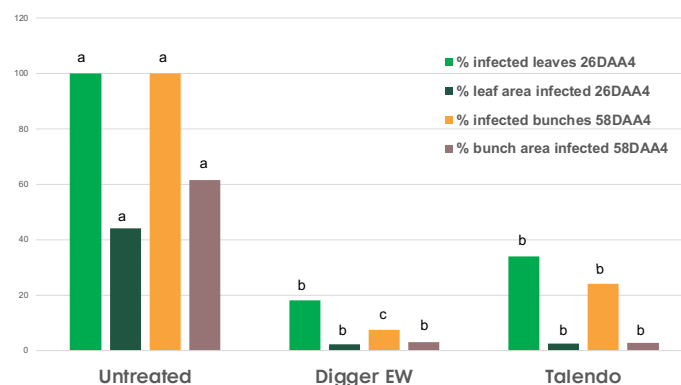


Untreated



Treated

CONTROL OF POWDERY MILDEW ON GRAPE LEAVES AND BUNCHES



Trial No. NUNZ1563 Peracto Research, Hawkes Bay

Treatments applied four times at 12-16-day intervals, starting early Dec (capfall) and finishing mid Jan (pre-bunch closure)

Treatments with different letters are significantly different from each other.

Vine growth chart

Segment	Dormant	Woolly bud	Bud burst	3-4 Leaves Separated	6 Leaves Separated	Flowering Begins	10% Canfall	30% Canfall	Fruit Set	Pre-bunch closure	Veraison	Pre-harvest	Post-harvest
Powdery mildew – targeting 1 application out of 5-6							Digger EW						
<i>Positioning: based on nil detectable residues</i>							<i>One application between flowering and 56 days pre-harvest</i>						

Resistance management of powdery mildew in grapes

Digger EW is an excellent resistance management option for use as part of a powdery mildew control programme

- NZ Winegrowers have updated their Resistance Management Strategy for the use of DMI (Group 3) fungicides.
- Two spray applications of a DMI are allowed per season – one during dormancy and another during the growing season
- Only one application of Digger EW may be applied, during the growing season.
- Studies have shown that Digger EW is highly effective against strains of powdery mildew that are tolerant to other approved DMIs
- It is an industry requirement that Digger EW is applied in tank mixture with a multisite fungicide such as sulphur.
- The spray programme should rotate between different chemical groups having different modes-of-action.

Label use directions

Crop	Disease	Rates	Comments
Grapes	Powdery mildew <i>(Erysiphe necator)</i>	Apply 50ml/100L as a dilute spray to run-off. For a standard canopy* use a constant rate of 22L dilute spray/100m of row. Adjust rate of dilute product to your canopy density, growth stage and canopy height.	Apply as part of a powdery mildew control programme. Apply a single application per season as part of a preventative programme with fungicides with different modes of action. Ensure that sufficient water is used and that the spray is directed to get good penetration of the canopy. Water rate should be adjusted to row spacing, growth stage and size of foliage to ensure good coverage. Generally, between 700 and 1000 L/ha. For resistance management Digger EW should always be applied in a tank mix with a multisite fungicide e.g. sulphur

* Where a standard canopy is – Three to four cane, vertical shoot position trained, with canopy up to 1.5m at final trim and 3 leaf layers in the mid canopy. Represented by a typical Marlborough Sauvignon Blanc.

Grazing restriction

- Sheep used for grazing inter-rows or leaf plucking must not be sent for slaughter until 2 months after removal from the vineyard.

The information contained is a quick reference only. Always consult the product label before use.

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