

Unistar®

A SDHI fungicide for the control of Botrytis and Powdery mildew in grapes.



Active Ingredient: 500g/litre boscalid

Chemical Group:

Pyridine carboxamide – GROUP 7 FUNGICIDE

Formulation: Suspension concentrate (SC)

Pack Size: 5 Litre

About Unistar®

Unistar® contains 'boscalid' – a proven SDHI fungicide which has translaminar activity and is acropetally systemic. Unistar has excellent activity against Botrytis and Powdery mildew in grapes.

Unistar offers long-lasting protection and delivers excellent preventative control which arrests new growth of fungal cells whilst also inhibiting the energy production in existing cells.

Unistar's mode of action exhibits no cross-resistance to other fungicide groups such as the strobilurins, triazoles and aniline-pyrimidines – among others.

Unistar has shown excellent efficacy against Botrytis and Powdery mildew in 2014/15 Plant & Food Research trials (PFR No. 11573: Wood PN, Fisher BM, Agnew RA, Raw V, May 2015) in the Hawkes Bay and Marlborough on Chardonnay and Sauvignon Blanc grapes. These are some of the results from these trials:

Marlborough Sauvignon Blanc Botrytis Trial Results:

Treatment name (Product applied or control)	Botrytis bunch rot incidence (% fruit infected)		Botrytis bunch rot severity (% crop infected by volume)	
Unistar®	10.8	a	0.52	a
Unistar® + Protiva®	10.0	a	0.46	a
Pristine®	11.5	a	0.44	a
Unsprayed control	49.5	b	6.63	b

Within each column, means followed by the same letter are not significantly different (LSD, $\alpha=0.05$).

Table 1. Effect of different fungicide treatments applied to Sauvignon blanc grapevines in Marlborough twice (mid flowering (13 December 2014) and pre bunch closure (13 January 2015)) on botrytis bunch rot fruit incidence (expressed as mean percentage of grape bunches with botrytis bunch rot) and botrytis bunch rot fruit severity (expressed as mean percentage of crop infected by volume) compared with the unsprayed control (untreated from December 2014). The botrytis bunch rot assessment was performed immediately prior to harvest on 6 April 2015.

Marlborough Sauvignon Blanc Powdery Mildew Trial Results:

Treatment name (Product applied or control)	Powdery mildew incidence (% fruit infected)		Powdery mildew incidence (% crop infected by volume)	
Unistar®	11.0	a	0.34	a
Unistar® + Protiva®	3.0	a	0.11	a
Pristine®	6.7	a	0.13	a
Unsprayed control	85.0	b	7.03	b

Marlborough Sauvignon Blanc Powdery Mildew Trial Results Cont...

Within each column, means followed by the same letter are not significantly different (LSD, =0.05).

Table 3. Effect of different fungicide treatments applied to Sauvignon blanc grapevines in Marlborough twice (mid flowering (13 December 2014) and pre bunch closure (13 January 2015)) on powdery mildew incidence (expressed as mean percentage of grape bunches with powdery mildew) and powdery mildew severity (expressed as mean percentage of crop infected by volume) compared with the unsprayed control (untreated from December 2014). The botrytis bunch rot assessment was performed immediately prior to harvest on 6 April 2015. Powdery mildew assessments were performed on 11 February 2015 (veraison).

General Information

Unistar is a carboximide fungicide which gives protectant activity against certain diseases in apples and grapes. For optimal efficacy, good spray coverage is essential, and applications should be made before disease establishment.

Integrated Mite Control: Unistar is compatible with IMC programmes based on *Typhlodromus pyri*.

Resistance Management: Unistar is a GROUP 7 FUNGICIDE and is a member of the Succinate dehydrogenase inhibitor (SDHI) mode of action group.

Resistance to this fungicide could develop from excessive use. To minimise this risk use strictly in accordance with the label instructions and resistance management strategies that exist for any fungus listed on the label. Unistar should be used in a programme that incorporates fungicides with different modes of action to that of GROUP 7 FUNGICIDES. Unistar must be tankmixed with a suitable protectant fungicide from a different mode of action group. Refer to the NZPPS website resistance.nzpps.org for more detailed information.

Directions for use:

According to law, the listed restrictions on the use of this product must be observed, and the product must only be used according to the label instructions.

The recommended rates are for high volume spraying to the point of run-off. For concentrate spraying adjust dilution rate accordingly.

Crop	Disease	Rate	Remarks
Grapes	Botrytis Powdery mildew	75mL/100 litres of water – using a minimum of 750mL/ha in a minimum of 500 litres of water per hectare.	Apply in mixture with a suitable protectant fungicide from an alternative chemical group. Make protectant applications from early flowering to pre-harvest during periods of disease pressure. Ensure thorough coverage of bunch zone and total leaf area - which is critical to stop the transfer of Powdery mildew spores onto fruit. Do NOT apply more than 2 applications in a season. Do NOT apply to hybrid grape varieties without small scale testing first.

IT IS AN OFFENCE FOR USERS OF THIS PRODUCT TO CAUSE RESIDUES EXCEEDING THE RELEVANT MRL IN THE FOOD NOTICE: MAXIMUM RESIDUE LEVELS FOR AGRICULTURAL COMPOUNDS.

Withholding Periods: Grapes: Do NOT apply within 28 days of harvest.

Note: For all export crops, refer to the specific exporter guidelines which may differ from the above.

Do NOT allow stock to graze within treated orchards until after harvest.

Leaf plucking in vineyards: Where leaf plucking with sheep is carried out in vineyards sprayed with this product, a 2 month slaughter withholding period must be observed after the sheep have been removed from the vineyard.

Application: May be applied through all conventional, ground-based boom spraying equipment. Maintain agitation during mixing and spray application.

Compatibility: Unistar may be tankmixed with most commonly used insecticides and fungicides.

Rainfall: Unistar is rainfast once dried on the crop.

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