



USER GUIDE

Impulse

Prevents, Cures and Eradicates
Powdery Mildew in Grapes.

IMPULSE®

Impulse, a specialist powdery mildew fungicide is an essential component of any grape powdery mildew control programme.



**Powdery Mildew
– bunch infection**



**Powdery Mildew
– leaf infection**

The biological properties of Impulse.

- Highly systemic with protectant, curative and eradicant activity
- Impulse has a favourable distribution pattern
 - Rapid and even distribution in leaves
 - No accumulation of Impulse in the leaf tips
- Impulse has a very fast uptake into plant tissue and excellent rainfastness
- Good crop tolerance characteristics at all growth stages in grapes
- Activity is weather independent – equally effective in humid or dry conditions
- Impulse has no influence on fermentation and taste of wine
- Impulse has a low toxicity and a favourable environmental profile
- Impulse is safe to beneficials and bees and is IPM compatible

Impulse is an excellent tool for resistance management programmes.

The mode of action of Impulse is as a sterol biosynthesis inhibitor (SBI). The active ingredient in Impulse, spiroxamine is in the amine chemical group (SBI: Class II, FRAC code 5).

- DMIs (eg; Systhane*, Topas®) and amine fungicides are SBI fungicides (SBI: Class I, FRAC code 3)
- BUT they are in a different subgroup as they have different modes of action
- There is no cross resistance between DMIs and amines

Additionally Impulse:

- Acts on multiple (4) different sites within the sterol biosynthesis pathway
- Is classified by FRAC as a low to medium risk for resistance development
- Extensive global testing (for 15 + years) has shown no shift in grape powdery mildew sensitivity to Impulse

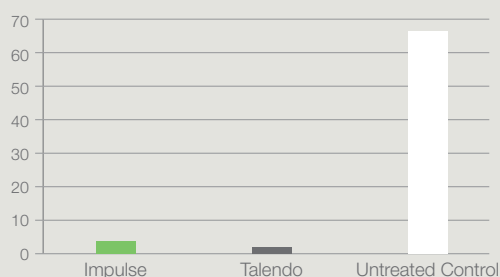
IMPULSE: USE RECOMMENDATIONS IN GRAPES

DISEASE	Powdery mildew (<i>Erysiphe necator</i>)
RATE	120 ml/100 litres, and apply with a water rate of 500 litres/ha (product rate 600 ml/ha). For concentrate spraying adjust the dilution rate accordingly.
NUMBER OF APPLICATIONS	No more than 2 applications per season
SPRAY TIMING	Impulse may be applied from pre-flowering through to pre-bunch closure. Under low to moderate disease pressure make the first application in the period from pre-flowering up to the end of capfall. Under high pressure make the first application at pre-flower. Monitor the crop to determine if a second application is necessary
SPRAY INTERVAL	Ensure a minimum application interval of 28 days
WITHHOLDING PERIOD	56 days. Do not apply after pre-bunch closure. Consult your winery for their PHI requirements
COMPATIBILITY	Impulse is compatible with commonly used insecticides and fungicides. DO NOT USE WITH FLUAZINAM, PRODUCTS CONTAINING FLUAZINAM AND ALKALINE MATERIALS
ADJUVANTS	None required
PACK SIZE	5 litre plastic bottle, Agrecovery compatible

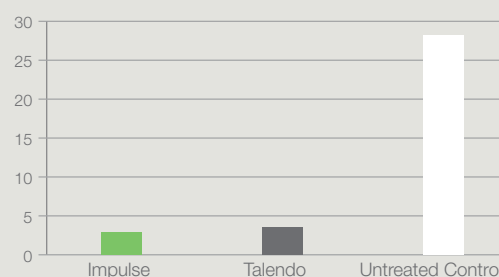
Grape – Powdery Mildew Trial, Marlborough 2015-16

4 applications – pre-flower, 80% capfall, pea size and pre-bunch closure. Assessed 72 days after last application.

Bunch Infection - % Severity



Leaf Infection - % Severity



Regional Territory Managers

Upper North Island

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Gisborne / Hawke's Bay / Nelson / Marlborough

Marc Fox 021 426 823

Lower North Island

Jeff Smith 021 426 824

North and Mid Canterbury

David Parker 021 760 794

Otago and Southland

Daniel Suddaby 021 426 822

Insist on Impulse from Bayer.

www.cropscience.bayer.co.nz



Science For A Better Life

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