COMBAT RESISTANCE WITH THE POWER OF FIVE



NOVEL ACTIVE INGREDIENT - CYALUFENAMID



NO KNOWN CROSS RESISTANCE WITH OTHER POWDERY MILDEW FUNGICIDES



RAINFAST SUPER PROTECTANT (WITHIN 2 HOURS)



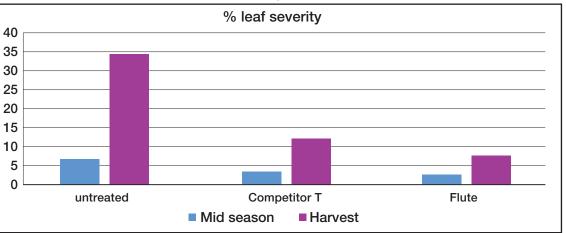
PENETRANT WITH TRANSLAMINAR MOVEMENT AND VAPOUR AGTION



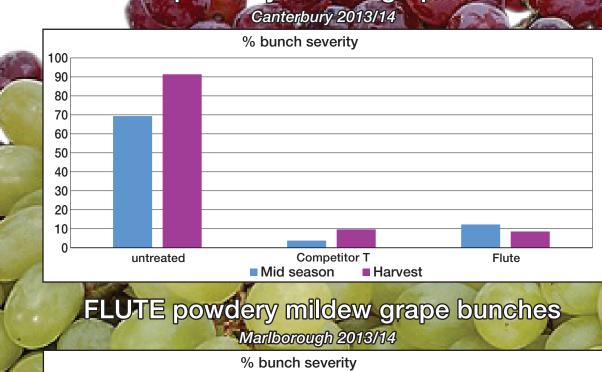
UNIQUE MODE OF ACTION WITH ACTIVITY ON 5 STAGES OF THE DISEASE LIFE CYCLE

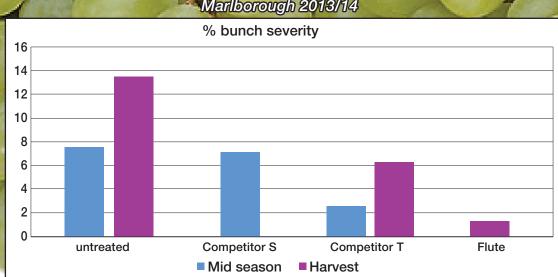
FLUTE powdery mildew grape leaves

Canterbury 2013/14



FLUTE powdery mildew grape bunches





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FLGR0516

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Combat resistance and celebrate success against powdery mildew this vintage.

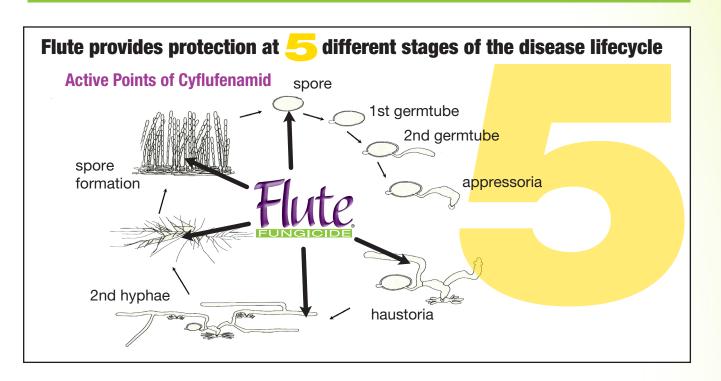
Powdery Mildew can be punishing on grapevines. The 2013/14 season saw very high levels of powdery mildew and growing fungicide resistance concerns.

Flute is an exciting new fungicide that has demonstrated excellent trial results for the control of powdery mildew in NZ.

FEATURES

- Is highly efficacious at the low use rate of 250ml/ha
- Controls powdery mildew strains resistant to other fungicide groups
- Reduces disease reproduction and ability to spread to healthy plants and foliage
- Is an EW (emulsion in water) formulation which offers a high level of crop safety even in high temperatures. Also offers good compatibility
- Excellent environmental profile and low use rate. Apply with Du-Wett[®] Superspreader to ensure good coverage

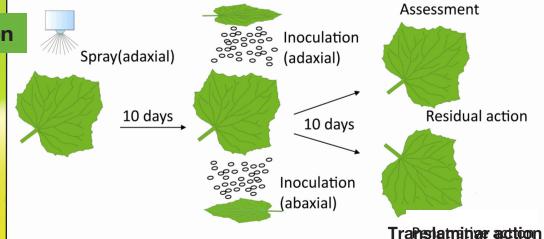
Novel new chemistry with a unique mode of action



FLUTE PERFORMS

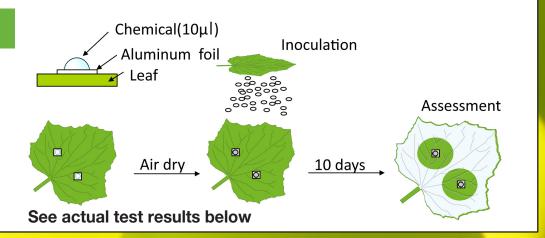
Translaminar action

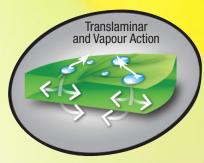
Flute was applied to the upperside of the leaf (adaxial). Inoculation with Powdery Mildew was made to the upper and lower side of the leaf after 10 days. Excellent disease control is reported 10 days later on both sides of the leaf, demonstrating translaminar movement.

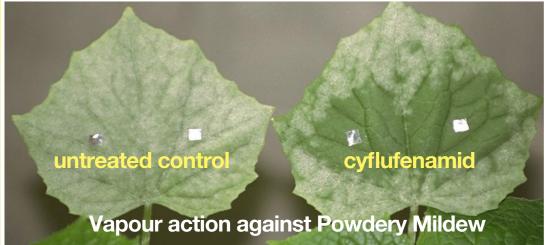


Vapour action

A Flute droplet was applied onto aluminum foil (to stop uptake) on a leaf. Disease inoculation was made onto a dry leaf. A strong zone of inhibition of disease was observed 10 days later.

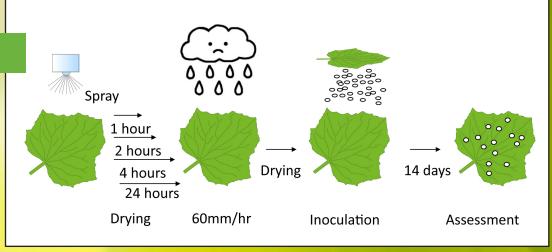






Rainfastness

Flute is sprayed on to a leaf and significant rainfall applied at intervals of 1 to 24 hours. After drying, disease inoculation is made. Excellent disease control demonstrated that Flute is rainfast within 2 hours.



General Information:

Tute is an amide fungicide that has a novel mode of action against a wide range of Powdery Mildew strains. It is active against strains resistant to strobilurin and triazole fungicides. Flute is rainfast within 2 hours of application.

Time of application

For best results Flute should be applied before first sign of disease or when conditions are conducive to disease development. Where disease pressure remains high or re-infection occurs, a further application of Flute can be made to the crop.

Recommendations:

Crop	Disease	Rate	Comments
Grapes	Powdery Mildew	50 ml / 100 litres in 500 litres of water / ha. Apply a minimum of 250 ml/ha. 10 to 14 day intervals	Apply before first sign of disease or when conditions are conducive to disease development. Where disease pressure remains or re-infection occurs, a further application of Flute can be made 14 days later. For resistance management do not apply Flute more than 2 times per season and use in a programme with fungicides from a different chemical group. Application should be made in sufficient water to obtain thorough coverage of the crop. Superior coverage can be obtained with Du-Wett super spreader in low to medium water volumes.

Withholding Periods:

Grapes: Pre Bunch Closure: Growth Stage E-L 31- not less than 65 days before harvest.

Resistance management

The mode of action of cyflufenamid is different to that of fungicides from other groups. There are no known cases of cross resistance to cyflufenamid in pathogens that have developed reduced sensitivity to other fungicides.

Disease control may be reduced if strains of pathogens less sensitive to cyflufenamid develop.

- Flute should be used as part of a programme that includes use of fungicides from an alternative group.
- Apply a maximum of 2 sprays per season.

Compatibility

Flute has demonstrated physical compatibility with a wide range of commonly used insecticides and fungicides including - Kocide®, Bravo®, Dithane®. However not all products have yet been tested.

Flute should be applied as part of a protectant fungicide program before disease symptoms are visible. Flute can be applied as consecutive sprays or alternated.

Beneficial safety

Flute has not shown any adverse effects to bees, green lacewing and trichogramma wasps in international trials.