

## **Prevention is far better than cure when controlling powdery mildew, downy mildew and Botrytis**

Recent developments in the viticulture industry will have a major impact on how grapegrowers control fungal diseases such as powdery and downy mildew in future.

The Australian Wine Research Institute (AWRI) has announced that phosphorous acid ('phosacid') cannot be used on grapes grown for export wine production because of an unacceptable residue level. This means that a major product for downy mildew control has been lost to many growers.

In addition, SARDI researcher, Dr Trevor Wicks, last season confirmed the existence of downy mildew strains resistant to phenylamide chemistry in the Hunter Valley wine region, with disappointing disease management results in several vineyards.

"Clearly, the trend in the industry will be towards preventative spray programs using protectant fungicides and this is likely to continue," said Sean Richardson, Nufarm Territory Manager, Tablelands/Hunter Valley.

"Fortunately, in addition to the traditional protectants such as dithianon, there are now excellent new chemistries available to prevent downy mildew, powdery mildew and Botrytis early in the season, and these products will have disease resistance benefits for growers.

"For example, Cabrio<sup>®</sup> is a new strobilurin fungicide which provides growers with control of both powdery and downy mildew in grapevines using a program of two or three sprays over the critical flowering period.

"The flowering period can be a critical time to control downy mildew, when it can cause the most economic damage and seriously affect yield potential. This is a more effective approach than trying to combat secondary infections later in the season.

"Cabrio can be used up to pre-bunch closure (E-L 31) on grapes grown for export wine or until three weeks before harvest on grapes grown for domestic wine."

Mr Richardson said that the systemic activity of Cabrio provided superior rainfastness when compared with other products that remain on the outside of leaves.

"In these times of lower returns and higher fuel prices, the last thing growers need is to have to respray because a product has been washed off in heavy rain. Using Cabrio helps ensure that won't happen."

Mr Richardson said by tank-mixing Cabrio with Filan<sup>®</sup>, growers could now control Botrytis at the same time as powdery mildew and downy mildew.

"Filan's spray application timing of up to 10% capfall is ideal for tank mixing with the first Cabrio application. This combination provides excellent disease control and helps to ensure that latent Botrytis does not appear later in the season."

Paul Brownsell, Manager of Jamiesons Vineyard at Mudgee is now a regular user of Cabrio and Filan in his spray programs.

"Going into flowering we are confident using Cabrio and Filan, particularly considering their synergy when mixed together," he said.

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“We need to cover for downy mildew in this area which is well taken care of with Cabrio. The Filan spray was put under some pressure with rain in late January and early February this year. But the blocks that were historically prone to Botrytis came through for us and produced good quality fruit.

“The proof’s in the pudding – we picked every berry!”

Mr Richardson said that the threat to the efficacy of phenylamides was a warning to growers that robust resistance strategies need to be built into every spray program to ensure that the available chemistry can be maintained for as long as possible.

“Phenylamides are still effective in many vineyards but growers must protect the mode of action by rotating to other fungicide groups,” he cautioned.

“Growers should take care not to overuse fungicides from the same activity group by:

- limiting the total number of applications per season,
- alternating fungicides with different modes of action,
- using tank mixes of full-rates of fungicides with different modes of action and
- using effective fungicides early before the disease builds up to high levels.”

Mr Richardson said by tank-mixing Cabrio with Filan growers gave themselves more options in resistance management.

“I have been concerned that the same fungicide groups have been used back to back for several years for Botrytis control. I would hate to see these products fall over because of the lack of sound resistance management.

“By using Filan, growers can create a more sustainable resistance management plan, rotating away from products that depend on the same chemistry.”

Mr Richardson said growers should seek expert advice in order to plan spray programs that are both economically and strategically sound.

In another development in viticulture, Nufarm’s wettable sulphur fungicide/miticide, Microthiol® Dispers® has been registered for use with spray oils prior to bud burst for scale and mite control, in accordance with HACCAP accreditation and export market requirements.

Trial work into the effects of fungicides on beneficial insects in vineyards has seen Polyram® (metiram) emerge with a better Integrated Pest Management profile than other dithiocarbamates.

Nufarm is also working in conjunction with BASF to expand the range of overseas destinations for its downy mildew fungicide, Acrobat®.

Acrobat (dimethomorph) is currently registered for application up to four weeks before harvest for grapes for domestic wine. A restriction of 80% capfall applies to grapes grown for export (unless otherwise negotiated with the winery/grape purchaser).

Because it is in a different fungicide group to Ridomil, it offers a valuable alternative for resistance management.

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Nufarm is an Australian owned and operated company which invests more than \$10 million a year in research and development.

“At a time when some crop protection companies are reducing their R&D effort in Australia, Nufarm is actively expanding its own program,” said Mr Richardson.

“The agreement we concluded last year to distribute the full BASF crop protection product range in Australia has given Nufarm a much broader product portfolio to offer our viticulture customers.

“The range will grow as new proprietary chemistries are launched onto the Australian market from the BASF pipeline.

“Our extensive and ongoing R&D program is evidence of the company’s continued commitment to viticulture, one of Australian’s most important horticultural sectors.”

For more information about preventative spray programs or resistance management, please contact Sean Richardson (T: 0438 985 785) or Territory Managers, Matt Taylor, Griffith (T: 0429 398 854) or Stuart Blair, Wagga Wagga (T: 0418 504 114).

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Photo captions:

1. Paul Brownsell, Manager of Jamiesons Vineyard at Mudgee
2. Sean Richardson, Nufarm Territory Manager – Tablelands/Hunter Valley.

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