In recent years, the impact of Downy Mildew on the production and quality of grapes in numerous regions has seen growers and wine makers seek improved management techniques.

A preventative program for Downy Mildew control is a good option to mitigate the effects of the disease on grapes, and is especially important as an anti-resistance management approach.

Traditionally, protectant fungicides such as mancozeb, copper and Captan* have been used as a part of preventative programs in Australia.

However, Syngenta Solutions Development Lead, Dave Antrobus, said that because traditional protectants act on the surface of the vine tissue, they need to be present in sufficient coverage and dose before a disease spore lands.

“This is so that the spore has sufficient contact with the chemical to be killed and for the protectant to be effective,” Dave said.

What has become evident in high pressure Downy Mildew years - those with regular rainfall that cause multiple primary infections - is the effective protected period for traditional protectants like mancozeb, copper, Captan* and metiram, can be as short as 3 to 5 days.

“Later in the season as vine growth slows and rainfall decreases, a traditional Downy Mildew protectant fungicide spray might provide protection from 10 to 14 days. But a lack of rainfastness can sometimes reduce the effectiveness of traditional protectants, causing them not to work as expected.”
Mandipropamid - the active ingredient in REVUS® – works differently to traditional protectants. It binds rapidly to the waxy cuticle of the leaf and moves through the leaf surface, giving REVUS complete rainfastness once the spray has dried.

“The translaminar movement of REVUS provides protection against Downy Mildew for up to 21 days even under extreme weather conditions, delivering superior coverage and disease prevention during the critical flowering period compared to traditional protectant fungicides such as copper.

“REVUS also provides protection during caps fall, when protection by traditional protectants lessens because of their lack of translaminar activity.”

REVUS should be applied as inflorescences develop on the vines and again 10 to 21 days later. The shorter intervals should be used during periods of rapid growth or when conditions are more conducive to disease development. Spray intervals of more than 14 days should only be used once significant new growth has ceased.

“New resistance management guidelines state that in ‘high pressure regions’ REVUS should be mixed with a protectant fungicide from a different fungicide group. In such high risk areas a maximum of 4 REVUS sprays can be applied in a season so long as they are part of such a tank mix. In other low to medium risk areas a maximum of 2 solo sprays of REVUS can be used, with no more than 2 consecutive REVUS sprays being applied. REVUS should not be the final downy mildew spray for the season and the number of REVUS sprays should comprise no more than 50% of the total number of downy mildew sprays for the season.

“In high pressure regions a third application may be applied, but no later than the end of flowering, and only after an equal number of sprays from a different resistance group,” Dave said.

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