

Karbyon Powdery Mildew Control Organic Grape Trial



Sauvignon Blanc, Marlborough, 2017/18 Season

A single bud break application of Karbyon reduced the incidence of powdery mildew infection by 62 % in late January

About Karbyon

BioStart Karbyon is an ACVM-registered (P8557) fungicide for use in the control of powdery mildew in a wide range of crops including grapes. Karbyon is BioGro Registered No.4436.

Trial Aim

Grower observations over several seasons in Marlborough have shown that an early application of Karbyon, in addition to the normal powdery mildew control programme, gave a better control of powdery mildew than using a standard programme alone. The trial aim was to quantify this effect.

Trial Protocol and Design

- The trial was conducted on an organic Sauvignon blanc block (rootstock 101-14) in Marlborough with a history of high powdery mildew incidence. Growing conditions were the same for the 1.3 ha treated and 1 ha untreated blocks.
- Karbyon was applied at 2.5 kg/ha in 250 L of water (1% dilution) at bud break; just as the buds were beginning to crack open. The standard organic powdery mildew prevention and control programme was used for the rest of the season.
- On 30 January 2018, Crop Monitoring Services, PGG Wrightson, measured the PM incidence and severity in Karbyon-treated and untreated rows (400 bunches/treatment).

Results

- Figure 1 and Table 1 show that the single application of Karbyon, at bud break, in addition to the standard organic powdery mildew control programme;
 - Reduced PM incidence by 62% from 50 to 19%
 - Statistically significantly reduced PM severity by 78% from 6.4 to 1.4%
 - Reduced crop loss by 91% from 3.2 down to 0.3%

Table 1 — Effect of Karbyon on PM incidence, severity and crop loss

Treatment	Incidence %	Severity %	Crop Loss %
Untreated	50	6.4	3.2
Karbyon	19	1.4	0.3
Reduction	62%	78%	91%
Statistics		***	

Conclusion

A single application of Karbyon at bud break, in addition to a normal PM control programme, further reduced PM incidence and severity, and as a result reduced the crop loss due to PM.

Figure 1 — Impact of Karbyon Applied at Bud Break on Powdery Mildew Sauvignon Blanc Marlborough January 2018

