



Case study

Heard it through the grapevine: VAPORMATE[®] gives Mildura-based grower the confidence to expand into South East Asia

Palm Vineyards, Mildura Victoria

When it comes to exporting table grapes, the number one objective for many growers is simple: deliver the produce pest-free and in top condition so they come back for more.

For Mildura-based table grape grower Palm Vineyards, this objective was not fully met by its sulphur dioxide (SO₂) and carbon dioxide (CO₂) fumigant, with the quality of its exported table grapes affected at times, resulting in a shorter-shelf life for the produce when it arrived in South East Asia.

After hearing through the grapevine that BOC had an alternate fumigant that could more effectively eradicate pests with zero impact on grape quality, and reduce venting times before shipment, Palm Vineyards decided to migrate to the VAPORMATE solution, which they have now been using for two years.

John Argiro, Palm Vineyards Owner said: "Its ability to eradicate pests more effectively without affecting the quality of our table grapes, has given us the confidence that our produce will arrive at its destination in excellent condition without its shelf-life being compromised."

The challenge

With Australian table grapes in high demand in China, Japan, Thailand and Korea, many Australian exporters rely on fumigants such as SO₂CO₂ to meet the pest control standards of the biosecurity and immigration departments.

Palm Vineyards found several challenges with using SO₂CO₂ in peak growing season because despite table grapes being best chilled after harvesting, this fumigant could only treat the table grapes at ambient field temperature. This meant longer windows in ambient temperature with a higher chance of breakdown and quality impairment.

The workers who were applying SO₂CO₂ to grapes, although protected by safety equipment, were working with a toxic fumigant mixture, so there was a desire to use an alternate with lower environmental impact that would be safer to work with.

Palm Vineyards also needed the confidence that their table grape containers would pass biosecurity and immigration inspections. "There's always a concern when exporting that one of our containers will not pass inspection, and cost our business thousands of dollars per container. We needed to find a solution that would give us assurance that 99.9 per cent of our table grapes would pass inspection."

The solution

BOC worked with Palm Vineyards to improve their fruit exporting capabilities through the VAPORMATE[®] solution which could reduce the breakdown of its produce, improve shelf-life and ensure pest-free delivery to its export markets.

VAPORMATE[®]'s active ingredient ethyl formate has a lower environmental impact compared to other fumigants, with no known ozone depletion or global warming potential as it degrades into metabolites which occur naturally in the environment.

After comparing the effectiveness of VAPORMATE[®] on specific grape pests with SO₂CO₂, Palm Vineyards made the decision to transition to the alternate fumigant which proved to be far more effective, improving cosmetic appearance, shelf-life of the grapes and reducing the venting times after fumigation.



“Migrating to VAPORMATE® was perfect for us. Our employees now feel safer using VAPORMATE®, plus the product has a lower environmental impact than other fumigants available.”

BOC’s entomologist and safety expert provided training for all workers to ensure they were safely handling the VAPORMATE® cylinders and getting maximum effectiveness from the fumigant.

The benefits

Since adopting the alternate fumigant to its harvesting procedures, Palm Vineyards has found that VAPORMATE® is more effective in eradicating insects and pests, such as red and blue beetle, light apple brown moth, fruit flies, long tailed mealy bug, two spotted spidermite and redback spider.

It has also lowered the fumigant volumes that Palm Vineyards requires, which have reduced the time spent fumigating, venting and costs. “When switching to VAPORMATE® we found we were using less fumigant for a better result and venting times have also come down considerably.”

In addition, VAPORMATE® offered quality gains and has no impact on table grape quality. Palm Vineyards could see no evidence of breakdown in the treated table grapes and shelf life has vastly improved since the switch to VAPORMATE®.

Palm Vineyards is now confident in its ability to meet export requirements and is planning to expand into new markets that will provide attractive returns for the business.

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About the companies

About BOC

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