Biosecurity Update - Learning from others

Australia and California have lessons to share to help strengthen our vineyard biosecurity

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EXPLORING BIOSECURITY practices in leading wine regions such as South Australia and California provides valuable insights into managing our own vineyards. Understanding their challenges and strategies can help inform future decisions for the New Zealand wine industry and strengthen our approach to protecting vine health and preventing pest and disease incursions.

AUSTRALIA

Vine health is a priority in Australia, and the focus is on proactive biosecurity and disease management. The country enforces quarantine measures, including import restrictions and offshore testing and certification for high-risk plant material, to prevent the introduction of exotic pests and diseases such as Xylella fastidiosa, which causes Pierce's Disease in grapevines. Xylella fastidiosa was declared Australia's number one unwanted plant pest in 2016, and remains a high-priority threat for the wine industry.

Maintaining healthy vines in Australian vineyards relies on key practices, such as using certified planting material, regular pest and disease monitoring, integrated pest management and good vineyard biosecurity practices. Industry collaboration, research and education further support these efforts.

While Australia takes biosecurity seriously, its regulations – both at the border and within the industry – are not necessarily stricter than those in New Zealand. In some areas, such as Xylella fastidiosa preparedness and response, Australia is well ahead. However, New Zealand maintains a rigorous approach to other aspects of biosecurity, such as border control and enforcement.

New Zealand does not have to manage phylloxera as extensively as Australia because most of our vineyards are planted on phylloxera-resistant rootstocks. Many older vineyards in Australia were initially planted on their own roots, making them highly susceptible to phylloxera infestations. Despite an ongoing effort to replant with resistant rootstocks, most regions still have vulnerable vines that require strict quarantine measures and biosecurity protocols to contain and manage phylloxera outbreaks. A key issue is the preservation of "legacy vines" in some vineyards; there is a reluctance to replant these with resistant rootstocks, hence the slow uptake and significant concern about phylloxera.

Biosecurity practices help minimise the risk of introducing and spreading pests within vineyards in Australia. The Australian Vineyard Biosecurity Manual provides detailed guidelines to help growers reduce the risks of pests and diseases impacting vineyards.

CALIFORNIA

California has strict quarantine measures to prevent the spread of invasive pests such as the glassy-winged sharpshooter, a vector for Xylella fastidiosa which poses a significant threat to their vineyards. Monitoring programmes such as those run by the California Department of Food and Agriculture (CDFA) help detect and contain outbreaks before they cause significant damage. The state's emphasis on research and innovation has led to cutting-edge pest control techniques, including using sterile insect technology to manage the navel orangeworm more effectively, and pheromone disruption to help eradicate the European grapevine moth from the state.

The spotted lanternfly (Lycorma delicatula) is not yet established in California and the state is taking proactive steps to monitor and prevent it coming in from other parts of the US. The pest feeds on grapevines, weakening the plants, reducing grape yields, and sometimes leading to vine death. Additionally, honeydew excreted by the lanternfly fosters sooty

The glassy-winged sharpshooter

mould growth, further diminishing grape quality. The CDFA has an action plan that includes detection, eradication, quarantine and management strategies for spotted lanternfly. There have been several interceptions, including in 2024 when egg masses were found on an art installation destined for California's wine country. In Pennsylvania, where the spotted lanternfly has been present since 2014, vineyards have experienced substantial challenges. Dealing with issues caused by the spotted lanternfly means increased labour costs, more agrichemical applications, and higher expenses for pest management.

LESSONS FOR NEW ZEALAND

New Zealand's wine industry has significantly strengthened vineyard biosecurity over the past decade. By working closely with growers and the government, the primary sector has helped ensure a robust biosecurity system that is widely regarded as one of the best in the world. However, the experiences of other wine regions offer valuable lessons. Australia's proactive approach to Xylella fastidiosa and California's investment in cutting-edge pest control technologies both highlight strategies that could enhance our preparedness. While New Zealand has strong border controls, it is an ongoing challenge to stay vigilant against pests like the brown marmorated stink bug and the spotted lanternfly – both of which are already disrupting viticulture overseas.

CONTACT:
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