Chilling warning from US

California is on high alert for the spotted lanternfly and NZ growers need to be vigilant too

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AFTER DEVASTATING some vineyards in Pennsylvania, the spotted lanternfly (SLF) is now on the radar for Californian growers, and New Zealand should be on the lookout too.

Native to China and Vietnam, the spotted lanternfly is a distinctive pest insect that invaded Berks County, Pennsylvania in 2014. As SLF populations built up, there were serious impacts on some vineyards, especially those close to the site of the original incursion. The Pennsylvania Secretary of Agriculture put it bluntly: "We have vineyards that after two years are dead. They're done. Kills the plant, you're out of business."

It's no surprise that in California, the heart of the US grape and wine industry, officials and growers are worried. At the recent 2025 SLF summit, Andy Cline, assistant director of Plant Health and Prevention Services of the California Department of Food and Agriculture (CDFA), detailed their preparations for the arrival of this pest, and the work being undertaken to keep it out. California grows many speciality crops, with grapes number one. Andy says 98% of US table grapes and 89% of US wine grapes originate from California, bringing in tens of billions of dollars a year. Add California's wine tourism revenue into the mix, and the CDFA estimates SLF could cause losses of up to about $50 billion a year.

Contrary to its name, the spotted lanternfly isn't actually a fly – it's a planthopper and prefers to jump between host plants. It breeds quickly and forms dense aggregations. Mass feeding on vine phloem affects sugar levels in berries at harvest and can kill grapevines. They also excrete sticky honeydew, creating sooty mould issues and affecting photosynthesis. While agrichemical control is available, the insect moves in and out of vineyards, often resulting in several additional spray rounds across a growing season.

Ailanthus altissima (the tree of heaven), and grapevines are the preferred hosts for SLF. California has a lot of both, and climate modelling has shown that conditions there are very suitable for SLF establishment. The grapegrowing area of Lodi, in the middle of the Central Valley, and Napa, much closer to the coast, are both suitable SLF habitat.

Seventeen US states have known SLF infestations, and there are no federal quarantine arrangements in place, so 16 border stations play a crucial role in protecting California. SLF is notorious for long-distance dispersal; it lays its egg on hard surfaces, including vehicles, shipping containers, outdoor furniture and construction materials. Multiple egg masses are regularly intercepted at California's border stations, where officers inspect all vehicles passing through.

Detector dog teams have been trained to check cargo and dead adult SLF are often found in cargo holds – adults do not survive long when separated from a host plant. Studies have shown that dogs are much better than humans at detecting SLF egg masses in complex environments such as forests, wooded areas and warehouses. However, humans are better than dogs at spotting SLF in vineyards, where egg masses tend to be visible on posts, walls of sheds and other structures.

Other initiatives in California include an annual statewide detection survey and a training programme known as Pest Prevention University. The survey runs from July to October each year and focuses on grapevine and tree of heaven as the primary host plants, in areas deemed high-risk for SLF arrival (close to ports, airports, etc). The canopy and trunk of hosts are visually inspected, as well as surrounding foliage. To date, no SLF have been detected via this survey, despite all life stages of SLF being found during border station inspections. Pest Prevention University is a long-running training programme offered to county agricultural commissioners and their staff. It equips them with

Spotted lanternfly adult and nymph

the knowledge and skills needed to prevent and manage pests to protect the Californian primary sector. SLF training has been included in the programme for several years.

RISK OF SLF TO NEW ZEALAND?

An assessment by the Ministry for Primary Industries found that the most likely ways spotted lanternfly might enter New Zealand are via inanimate pathways (such as shipping containers or vehicles), on forestry products or in passenger luggage. The life stage most likely to arrive here is egg masses, but the risk of them being viable is considered low due to transport conditions. However, if they are viable, the likelihood that a population could establish is considered moderate to high.

NZW urges members to ensure all vineyard and winery staff are aware of what to look for (the NZW Vineyard Pest and Disease Identification guide has some good images of all the life stages). Inspect all imported vineyard and winery goods on arrival, and if you see anything suspicious or unusual call the Biosecurity NZ hotline on 0800 80 99 66 and send an email to biosecurity@nzwine.com with a photo.

If you think you see a BMSB – or anything else unusual – catch it, snap it (take a photo), and report it to the Biosecurity NZ hotline on 0800 80 99 66 and to New Zealand Winegrowers Biosecurity Team **(biosecurity@nzwine.com).**