Fact sheet:
Spotted Lanternfly

The Spotted Lanternfly (SLF), or *Lycorma delicatula*, is an emerging biosecurity threat to many horticultural industries, including kiwifruit. The potential impacts to kiwifruit are unclear, but we do know kiwifruit is a reported host; the pest is hard to control; and is a proven invader capable of flying and hitchhiking on inanimate objects.

SLF has caused economic impacts to the winegrape industry and has recently been detected in the USA where eradication efforts have so far been unsuccessful.

Identification

Adult SLF resemble a moth with a wider abdomen. They can be recognised by their red hindwings and spotted forewings. You often won't see the red underwing if the insect isn't flying. Look for white, translucent wings with black spots.

Adults can be up to 2.5cm long and 1.2cm wide.

Eggs may be laid in a mass of 30-50 and covered in a yellowish brown wax. SLF don't just lay egg masses on trees. They will use just about any smooth outdoor surface. Rusty metal, outdoor furniture, mowers, BBQs, tile, stone, outdoor play equipment, and decks are all possible egg mass sites.

Figure 1. Spotted Lanternfly adult (top) and egg mass (below).

Figure 2. Spotted Lanternfly masses on apple trees. Photo credit: Erica Smyers/Penn State University.

Impacts

SLF attacks over 70 host species, including grapes, stonefruit, pipfruit and kiwifruit. However, the preferred host is Tree Of Heaven (*Ailanthus altissima)*, which is present in New Zealand and considered an invasive weed.

Kiwifruit is a reported host in Korea and China but impacts are unknown. SLF has caused economic impacts to vineyards in Korea.

Adults and nymphs feed on young stems and bark tissues with their piercing and sucking mouthparts and excrete large quantities of liquid. Extensive feeding results in oozing wounds on the trunk, wilting and death of branches.

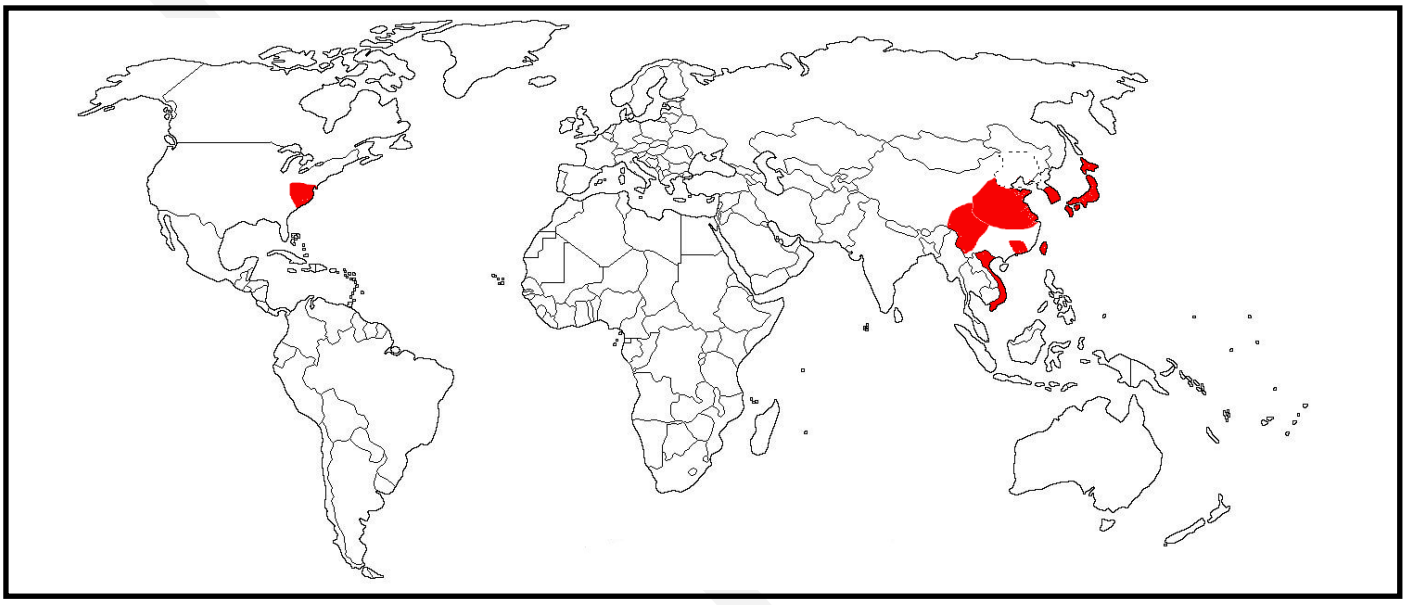
SLF has the potential to severely impact the kiwifruit industry through the accumulation of sooty mould on fruit from feeding excretions, ultimately rendering the fruit unmarketable. The pest also aggregates and may create a nuisance in urban areas.

Figure 3. Spotted Lanternfly nymphs on Tree of Heaven. Photo credit: Pennsylvania Department of Agriculture.

Distribution and climate change

SLF is native to northern China with distribution throughout Asia.

In 2014 it was reported in Pennsylvania where it has now spread into two neighbouring states. It is thought to have entered as egg masses on landscaping stone from China. An eradication attempt has been unsuccessful so far. The impacts of SLF have been described by some in the USA as worse than Brown Marmorated Stink Bug (BMSB).



Control

Chemical control is difficult as SLF tends to fly out of orchards when they are sprayed, only to return later.

The pest is reported to be susceptible to broad-spectrum pyrethroids, organophosphate and neonicotinoid insecticides. Cultural control methods are vital for managing SLF; such as host plant removal, egg mass removal, sticking banding, the use of trap trees laced with insecticide and netting.

In the image to the right, a tree has been banded with sticky taper (or tape can be used) to stop SLF nymphs crawling up the tree to find a place to feed.

Figure 5. Banding with sticky paper can stop SLF nymphs. Photo credit: Pennsylvania Department of Agriculture.

What should you do if you think you have seen this pest?

If you think you've seen SLF or eggs, phone the Biosecurity New Zealand hotline on 0800 80 99 66 or contact KVH on 0800 665 825.

If not detected early, chances of eradication or effective control of a pest or disease is severely reduced. Anything unusual should be reported immediately so we are able to minimise the impacts on people's livelihoods, communities, and environments.