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Spotted Lanternfly
Lycorma delicatula

Background

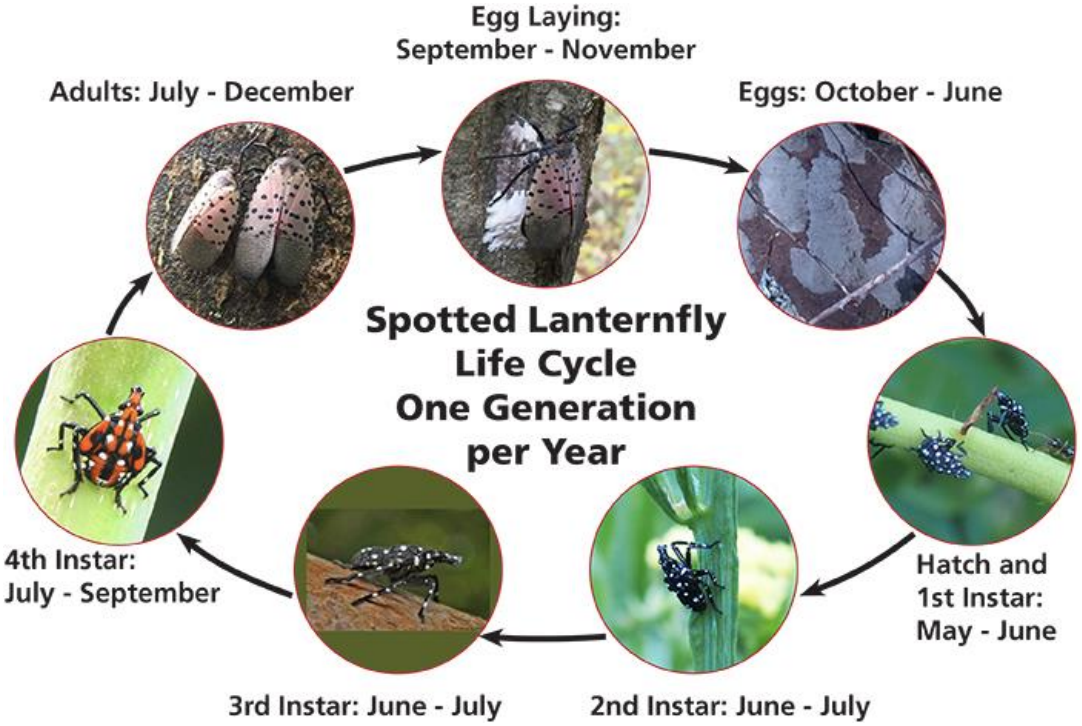
The spotted lanternfly (*Lycorma delicatula*, Hemiptera: *Fulgoridae*) is an impressive and colourful insect native to Asia, and has been recognised as a potential threat to the grape, fruit tree and forestry industries in Canada. It was first detected in North America in Pennsylvania in September 2014. As it is not known to exist in Canada, spotted lanternfly was added to the regulated pest list in 2018 in an effort to prevent the introduction from infested areas. Early detection activities would make managing the pest easier due to the discovery of this insect in the United States and the volume of articles potentially carrying the insect arriving from Asia. It can be distinguished from all other native and naturalized insects (such as planthoppers, moths) in Canada by its unique colouration. If you believe you have found suspect specimens, please contact the Canadian Food Inspection Agency (CFIA).

Identification

Adults are approximately 25 mm long and 12 mm wide. They have uniquely-coloured wings: the front wings are light brown/grey with black spots at the front and dark speckled bands near the back. The rear wings are red in colour and have black spots near the front and white and black bands at the back. The abdomen is yellow with horizontal black stripes.

Early stage nymphs are black and white, while later stage nymphs are black, white and red. Because of its distinctive appearance, this insect is not easily confused with any other insect known to occur in Canada.

Newly laid egg masses are brown in colour and covered in a grey, waxy coating. Older egg masses lose the coating, and look like seeds arranged in 4 to 7 vertical rows. Egg masses are approximately 25 mm long



Reference:
https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly

Hosts

The spotted lanternfly feeds on various host plants throughout its development. Nymphs feed on a wide range of plant species, while adults prefer to feed and lay eggs on tree-of-heaven (*Ailanthus altissima*), also known as the Chinese or stinking sumac. Other hosts include grape (*Vitis*), apples (*Malus*), plums (*Prunus domestica*), cherries (*P. avium*), peaches and nectarines (*P. persica*), apricots (*P. armeniaca*), and pine (*Pinus*). It also feeds on oak (*Quercus*), walnut (Juglans), and poplar (*Populus*). In Pennsylvania, adult spotted lanternflies have been found feeding and laying eggs on willow (*Salix*), maple (*Acer*), poplar (*Populus*), sycamore (*Platanus*), as well as on fruit trees, such as plum, cherry, and peach. In addition, they have been found on grape, tulip tree (*Liriodendron*) and cork-tree (*Phellodendron*).

Location of infestation within tree

Eggs are laid on smooth host plant and non-plant surfaces adjacent to host plants, such as bricks, stones, lawn furniture, vehicles and other structures. Eggs hatch in spring or early summer, and nymphs then disperse from their hatching site in search of a host. Feeding is communal, and the honeydew that the insects excrete can attract other insects such as bees and wasps. Adults develop in late July and focus their feeding on tree-of-heaven and grapevine (*Vitis vinifera*). Both nymphs and adults feed by sucking sap from young stems and leaves.

Nymphs and adults tend to congregate in large numbers on the host plant, either at the base of the tree or in the canopy. They are easiest to locate at dawn and dusk when they are migrating up and down the tree.

Distribution

The spotted lanternfly is native to China, India, Japan, Vietnam, and has been introduced to Korea where it is considered a pest. It was first detected in North America in Pennsylvania in September 2014, and is now found in 12 US states including NY and Michigan. Once introduced, it can disperse short distances through walking or flying, and it can be moved long distances through human-assisted transport of all life stages, especially egg masses.

Signs and symptoms

Adults and nymphs feed on sap that they suck from leaves and stems of host plants. This causes sap to excrete from wounds ('weeping' wounds), which appear grey or black and can occur along the stems, branches or trunk of the tree. Weeping wounds are also caused by debris (frass) and honeydew buildup from the spotted lanternfly. This can attract other insects to feed on the tree. The spotted lanternfly was first discovered in Pennsylvania because of bees that had been attracted to the honeydew. These fluids can prompt fungal growth and lead to mould patches occurring at the base of the tree which may give off a fermented odour and cause the eventual death of the plant. Mould patches are yellowish-white in colour.

Control

Egg Scraping - Spotted lanternfly egg masses are laid in late summer. These egg masses can survive winter temperatures and hatch in the spring.

Adult and Nymph Trap - A physical trap designed to attach directly to a tree trunk. It is a contact trap designed to funnel Spotted Lanternfly (SLF) into the replaceable bag at the top. This trap measures 24" tall and 30" wide. Spotted Lanternfly (SLF) Trap, replaceable Bag Design.

Spotted Lanternfly Lure – it can be used with the physical trap or sticky tree band.