

Glassy-winged sharpshooter



Plant Health
AUSTRALIA

EXOTIC PEST – CALL THE EXOTIC PLANT PEST HOTLINE IF SUSPECTED

What is the glassy-winged sharpshooter?

The glassy-winged sharpshooter (GWSS) (*Homalodisca vitripennis*) is a xylem feeding leafhopper that causes direct damage to grapevines through its feeding activities. However, the greatest threat posed by this pest is its ability to efficiently vector the harmful exotic bacterium *Xylella fastidiosa*, which causes Pierce's disease. Crepe myrtles and many other commercial and ornamental woody and annual plants may harbour this insect. Commercial hosts like grapevines, almonds and citrus would be threatened if GWSS became established, particularly if it carries *X. fastidiosa*.

What does it look like?

Adult GWSS are about 12–14 mm long with a dark brown to black colouring and a lighter underside. The upper parts of the head and back are stippled with ivory or yellowish spots, with wings that are partly transparent with reddish veins. Watery excrement often collects on either side of the insect, appearing as large white spots.

Clutches of up to 27 eggs are laid on the underside of leaves in a side-by-side arrangement, and dusted with a layer of whitish powder. Following hatching they change in appearance from green water blisters to leave tan to brown scars on the leaves. The immature nymphs are wingless.

What can it be confused with?

Australian leafhoppers from the Auchenorrhyncha suborder share some features with GWSS including large size, brown colouration and large head with prominent eyes.

What should I look for?

GWSS excretes copious amounts of liquid that can make leaves, stems and fruit appear white-washed when dry. Feeding causes no visible signs of damage. Look for egg masses that are usually laid into recently expanded foliage. Older foliage will contain the distinctive scars left after the eggs have hatched. If *X. fastidiosa* entered Australia with the GWSS, the symptoms of Pierce's disease, such as leaf scorch, leaf drop and brown lesions amongst 'green islands' on stems may be observed.



Adult glassy-winged sharpshooter on leaf surface

Johnny N. Dell, Bugwood.org



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Adult glassy-winged sharpshooter on stem showing transparent wings with red veins

Johnny N. Dell, Bugwood.org



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'Green islands' on a grapevine cane, surrounded by brown necrotic lesions caused by Pierce's disease (*Xylella fastidiosa*) infection

John Hartman, University of Kentucky, Bugwood.org

How does it spread?

Adult GWSS are strong fliers and can move rapidly from plant to plant. Nymphs are wingless but can distribute themselves by walking and jumping through the canopy or dropping from plants and walking to new hosts. Most rapid and long distance movement occurs through viable egg masses in nursery stock of either crop or ornamental plants.

Where is it now?

GWSS is found in the United States of America (including Hawaii), French Polynesia, the Cook Islands, Easter Island, Mexico and Chile.

How can I protect my vineyard from the glassy-winged sharpshooter?

Check your vineyard frequently for the presence of new pests and investigate any sick grapevines for unusual symptoms. Make sure you are familiar with common grapevine pests so you can tell if you see something different. Keep records of anything unusual and ensure all staff and visitors adhere to on-farm biosecurity and hygiene practices.

If you see anything unusual, call the **Exotic Plant Pest Hotline** on **1800 084 881**.

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Adult female GWSS. Note the pale yellowish white spots on the head and the chalky white spots on the abdomen

Reyes Garcia III, USDA Agricultural Research Service, Bugwood.org



Glassy-winged sharpshooter egg mass on leaf ready to hatch. Note the layer of the whitish powder surrounding the egg mass

Reyes Garcia III, USDA Agricultural Research Service, Bugwood.org