

Brown marmorated stink bug

Frequently asked questions for industry – January 2019



Fig 1. Adult showing distinct banding on antennae and abdomen (image courtesy of David R Lance USDA APHIS PPQ Bugwood.org)

Brown marmorated stink bug (Halyomorpha halys) has recently been found in Melbourne. Victoria is conducting surveillance work around Clayton, Dandenong South and Port Melbourne in response to this detection.

What is brown marmorated stink bug?

Brown marmorated stink bug (BMSB) is an agricultural pest, as well as a nuisance pest, that shelters inside homes and buildings, vehicles, machinery and sheds, producing a very unpleasant odour when it's disturbed or squashed.

What does it look like?

Adults are between 12 to 17mm long with a distinctive brown shield-shaped body (Fig.1). Although the body colour can vary, they are generally mottled brown with a faint reddish tinge and distinctive black and white banding around the outer edge of the abdomen.



Fig 2. Second through to fifth juvenile stages, adult male, and adult female (image courtesy of W. Hershberger StopBMSB.org)

BMSB undergo five distinct juvenile stages before reaching adulthood, each stage becoming darker and with the distinct black and white banding becoming more obvious (Fig. 2). First stage (just-hatched) juveniles have a dark head and shoulders with a distinct red or orange abdomen that features dark stripes (Fig 3). All juvenile stages are wingless and cannot fly.



Fig 3. Brown marmorated stink bug eggs and first stage juveniles on underside of leaf (image courtesy of David R. Lance USDA APHIS PPQ. Bugwood.org)

Eggs are white to light green colour and are laid in clusters of 25-30 on the underside of leaves (Fig. 3).

The Department of Agriculture and Water Resources has produced a field guide to assist in the identification of this pest, visit

<http://www.agriculture.gov.au/SiteCollectionDocuments/biosecurity/import/cargo/pests/guide-identification-brown-marmorated-stink-bug.pdf> for more information.

Biology

BMSB is dormant in the winter months and emerges when the temperature warms up in spring. Adults begin mating approximately two weeks after emerging. Females feed on a variety of host plants for at least two weeks after emerging before becoming sexually mature. The first juvenile stage emerges 3-6 days after egg laying and stay with the egg mass for another 3-5 days. From the second stage onwards, the juveniles disperse from the egg masses and begin feeding voraciously while developing.

Brown marmorated stink bug – *Halyomorpha halys*

How does it spread?

Adults can fly and take off quickly when disturbed. They can travel up to 5 km a day. Juveniles don't have wings and are active walkers. BMSB can also spread by hitch-hiking in shipping containers, machinery, vehicles and other imported goods.

What crops are at risk?

BMSB is a high priority agricultural pest that feed on over 300 hosts, including apples and pears, peaches, cherries, berries, grapes, grains, sweetcorn, tomatoes, tree nuts and truffles. It also attacks some ornamental and weed plant species.

What type of damage does BMSB cause?

BMSB can have a significant impact on agriculture. Feeding damage caused by the bug's saliva can affect fruit, kernels, buds, stems and bark. Damage to crops can result from direct production losses due to fruit drop, reduced fruit set and reduction in yield. The feeding damage and resulting contamination can also result in unmarketable produce.

Where is it originally from?

Originally from eastern Asia, BMSB is now widespread in North America and Europe.

How did it enter Australia?

BMSB most likely entered Australia by hitch-hiking in shipping containers, machinery, vehicles and other imported goods.

What is Agriculture Victoria doing about this pest?

Agriculture Victoria biosecurity officers are conducting trapping and surveillance activities around Clayton, Dandenong South and surrounding suburbs to search for this pest, with the aim of preventing further spread. Agriculture Victoria is also communicating with affected stakeholders and the community to raise awareness of the detection and encourage reporting to support response activities.

What should I look out for?

Practice good on-farm biosecurity and check your property, equipment, vehicles and crops regularly for BMSB and other unusual plant pests and diseases. In spring, summer and potentially autumn, BMSB will seek out ripe/ripening fruit to feed on. BMSB prefer edges of crops and orchards, so focus on these areas when conducting visual surveillance. Check under leaves for juveniles and eggs. Adults are attracted to light, so check around any outdoor lighting in the evening. Note that this pest is very sensitive to movement and will drop to the ground when disturbed. Regular visual surveillance appears to be the most effective approach to finding this pest.

How do I report suspected detections?

If you find a brown marmorated sting bug, or other unusual pest or disease, call the Exotic Plant Pest Hotline on 1800 084 881.

Alternatively, you can email photos of the suspected pest and damage, along with your contact details and the pest's location to plant.protection@ecodev.vic.gov.au.

Your report will be responded to by an experienced staff member, who will seek information about the detection and explain next steps, which may include a site visit and sampling to confirm the pest or disease.

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