

## Biosecurity Advice - Update

### Pest

Brown marmorated stink bug (BMSB) (*Halyomorpha halys*)

### Date

March 2018

### Location

Perth and Western Sydney

### Current Situation

- Brown marmorated stink bug (BMSB) (*Halyomorpha halys*) has been detected in imported cargo at two sites in Western Sydney and at a commercial premise in Perth.
- BMSB is an exotic pest that could cause major damage to agricultural crops and ornamental plants. It's also a nuisance because it seeks shelter in large numbers in buildings and equipment during the winter months. It has a foul-smelling odour when disturbed.
- These three detections occurred whilst unpacking goods that were recently imported from Italy.
- The first detection occurred at Glendenning in Western Sydney, in November 2017. Dead and live brown marmorated stink bugs were found in electrical equipment.
- The second detection occurred in January 2018 when pallets of bricks were being unpacked from a shipping container at Horsley Park.
- No further BMSB have been found during trapping and surveillance activities at these two sites. The NSW Department of Primary Industries monitors the sites on a weekly basis to confirm that these bugs are not present.
- The most recent incident occurred in Perth in February 2018 when a container of electrical components from Italy was unpacked at a commercial establishment. Many dead and live brown marmorated stink bugs were found.
- The bugs were reported quickly to the Department of Agriculture and Water Resources and swift action was taken to secure the goods and the container. The department treated the infested goods and the container was sent for treatment. The department has also fumigated the warehouse.
- Following fumigation, a single live BMSB was detected outside near the warehouse.
- The Western Australian Department of Primary Industries and Regional Development has set traps within the vicinity of the premises, including at nearby commercial premises and in residential areas.
- Surveillance teams are setting and checking traps and conducting surveillance. No further brown marmorated stink bugs have since been detected.
- Containers that have recently been moved from the affected site are being traced as a precautionary measure.
- The Federal and state departments are working together to manage all three incidents, using well established response arrangements and processes.
- The Consultative Committee on Emergency Plant Pests continues to meet in response to these incidents. A Response Plan is in place for the Glendenning incident, and the WA Department of

Primary Industries and Regional Development has developed a response plan and surveillance plan for areas around the Perth premises.

- BMSB is a high priority pest which is well known to stow away in cargo coming out of the northern hemisphere between September and April each year.
- Further information, including photos are available at [outbreak.gov.au](http://outbreak.gov.au).

## Biosecurity and reporting

- If you think you have seen brown marmorated stink bugs in your crop, phone the Exotic Plant Pest Hotline on 1800 084 881. This will put you in touch with your local Department of Primary Industries or Agriculture.
- The most effective way to detect brown marmorated stink bugs is by visually inspecting host plants. They are large bugs that emit a foul odour when disturbed.
- BMSB looks like native Australian stink bugs but it is larger. The white bands on its antennae are a distinguishing feature.

## Import conditions

- The Australian Government Department of Agriculture and Water Resources has robust import conditions in place for goods arriving from countries where brown marmorated stink bug is present.
- Every year the department reviews the import conditions in time for the brown marmorated stink bug season which begins in September.
- BSMB seek out a place to hide over winter in the northern hemisphere and often congregate in items where they are sheltered. For this reason, they are most likely to arrive in Australia between September and April.
- In previous years they have mostly been associated with goods from Asia and 'break bulk' cargo arriving from the USA. Break bulk cargo are items like vehicles and machinery that cannot be transported in a container.
- In addition to the measures in place for the USA and Asia, the department put in place new measures for the 2017-18 season, because of the bug establishing in Italy. The import measures have been further strengthened considering the recent detection, including mandatory fumigation for all goods arriving from Italy, except for live animals and some fresh produce which are managed under separate import conditions.
- The department is working with importers and businesses to manage the increase in cargo requiring fumigation. Fumigation is necessary to manage the biosecurity risk and the chances of live bugs making it past the border.
- The department is working with the Italian authorities, as well as our counterparts in New Zealand, who are also experiencing an increase in detections of brown marmorated stink bug.

## About the pest

- BMSB is a significant threat to agriculture due to its wide host range and the damage it can do to vegetable crops and fruit and ornamental trees.
- The BMSB is known to feed on more than 300 hosts, including agricultural crops such as nuts, grains, berries, cotton, citrus, soybean and some ornamental and weed plant species.
- While feeding, the bug's saliva causes significant damage to plant tissues.
- The bug is not a risk to human health, but it is regarded as a nuisance pest because it seeks sheltered places to overwinter such as inside homes, vehicles, machinery or sheds, often in large numbers.
- BMSB is native to eastern Asia (China, Japan and Taiwan) but was introduced to North America in the mid-1990s and more recently to Europe, where it is rapidly becoming a serious pest.
- BMSB adults range in length between 12-17 mm. They are mottled brown in colour and have a shield-shaped appearance.
- There are five nymph stages that range in size from less than 3 mm to 12 mm long. The nymphs are orange and black when they first hatch but quickly develop a similar colouration to the adults. The juvenile, or nymphal stages, cause the most damage to plants and crops.
- Eggs are cream to yellow-orange and approximately 1.6 mm long and laid in clusters on the underside of leaves.
- BMSB is a pest that opportunistically uses cargo containers and freight vehicles to hitchhike across continents and oceans. The bug's ability to hitchhike, fly, and to feed on a wide range of plant hosts, enables it to spread rapidly when it is introduced to new areas.
- It can survive in cargo for long periods by remaining in a dormant state.
- BMSB can be confused with several other brown coloured stinkbugs that are present in Australia. There is a comprehensive identification guide available through at <http://www.agriculture.gov.au/SiteCollectionDocuments/biosecurity/import/cargo/pests/guide-identification-brown-marmorated-stink-bug.pdf>

## Trade

- At this stage there are no expected trade impacts due to this detection, however, the Department of Agriculture and Water Resources will work with our overseas trading partners should any issues arise.
- Domestic trade restrictions have not been implemented as part of the response to the incidents in NSW and WA, as there is currently no evidence of the pest establishing at those locations.
- The brown marmorated stink bug is unlikely to be associated with wholesale and retail commodities because it is a large active insect that would be readily disturbed by harvesting and packing processes.
- This bug is well established in many regions of the world including China, Europe and the USA, where it is not considered to be a quarantine pest.

## Response arrangements

- The Consultative Committee on Emergency Plant Pests provides technical and scientific advice in response to exotic plant pest and disease incursions. It involves the Chief Plant Health Managers and other specialists from federal, state and territory governments, Plant Health Australia, and representatives from affected industries including NGIA. It is chaired by Australia's Chief Plant Protection Officer.
- The National Management Group (NMG) consists of Chief Executive Officers from government agencies responsible for agriculture and affected industry organisations including NGIA. It is chaired by the Secretary of the Australian Government Department of Agriculture and Water Resources. Plant Health Australia is a non-voting member.
- NMG makes decisions on whether to support national eradication programs for pest or disease outbreaks under the Emergency Plant Pest Response Deed. NMG considers recommendations provided by the consultative committee before making decisions on whether a pest or disease is technically feasible to eradicate.
- The Emergency Plant Pest Response Deed is a formal legally binding agreement between Plant Health Australia, the Australian, state and territory governments, and national plant industry bodies representing specific cropping sectors. The Deed covers the management and funding of nationally agreed responses to emergency plant pests.
- There are processes in place that allow for the prompt notification of plant pests. An emergency plant pest must be reported to the Australian Chief Plant Protection Officer within 24 hours of a party becoming aware of an incident. Upon this notification, the consultative committee meets quickly, in accordance with the Deed.