

Brown marmorated stink bug update – information for growers as at 27 February 2018

There has been significant media coverage about ships arriving from Japan with brown marmorated stink bugs on board, and a lot of commentary from the Vehicle Importers Association about the impact on their industry. This update is to let growers know what is happening from a horticulture perspective. There is no hint of an incursion, the Ministry for Primary Industries has increased its border controls based on increased threat levels.

How many ships have been turned away?

The Ministry for Primary Industries (MPI) directed three ships to leave New Zealand from Auckland port in February, due to excessive contamination of bugs that New Zealand is free from and does not want here. All three ships were from Japan. The bugs included brown marmorated stink bug (BMSB) and some yellow spotted stink bug (YSSB). Due to this contamination, the cargo did not meet the requirements for importing goods into New Zealand. As the biosecurity regulator, MPI can take action to mitigate biosecurity risks, often through re-shipping, treatment, or destruction of risk goods.

A fourth ship chose not to enter New Zealand waters after discovering bugs on its way to New Zealand.

Will more ships be turned away?

More ships from Japan carrying cars and machinery are due to arrive in New Zealand in the coming months. These will be checked for regulated pests, such as brown marmorated stink bugs (BMSB), and an appropriate course of action will be determined by MPI. Other bulk carriers have arrived and had their cargo cleared to enter New Zealand after passing MPI's strict border checks.

How do we know that BMSB aren't escaping from the ships?

MPI encourages shipping lines to use traps to monitor for the presence of BMSB on board their ships. Under the Biosecurity Act, the ships have an obligation to report any finds to MPI.

At the border, MPI quarantine officers inspect imported risk goods through visual inspection and targeted use of biosecurity dogs trained to detect BMSB.

Carriers from Japan currently undergo rigorous inspection and fogging with insecticide on arrival. If no live insects are found, a sample of the cargo will be permitted to discharge to undergo further inspection and, if need be, verification by heat treatment. The sample is treated with a knock-down spray and contained in a controlled biosecurity area during these checks. If there is any evidence of live bugs, MPI will take further action. eg direct the vessel to leave New Zealand.

Will we still be able to get machinery?

MPI and importers are working together to come up with a solution that doesn't compromise our biosecurity. This includes considering treatment options. BMSB is an import concern during the Northern Hemisphere winter when the bugs crawl into sheltered spaces, like stacks of tiles and vehicles, to overwinter. If these goods are then shipped to New Zealand the insects can hitchhike their way here. MPI has placed treatment requirements on risk goods from countries with high numbers of BMSB (such as the United States and Italy)

during the risk period. Goods shipped during the northern hemisphere summer are much less likely to harbour hitchhiking BMSB.

Are any of these treatments harmful to people or the machinery?

Treatments can only be applied by those trained and authorised to do so. There are strict requirements to ensure the safety of those carrying out the treatment and those receiving the goods after treatment.

Is BMSB a long-term problem for New Zealand?

If BMSB establishes here, the damage is irreversible, long-term and ongoing for both the food industry and for homeowners who would suffer infestations of bugs every autumn when they go inside to overwinter. While turning ships away from Auckland port may be causing disruption for the used-car industry at the moment, it is short-term. This tough course of action prevents the long-term consequences that New Zealand would face if BMSB were to establish here.

What measures are in place at the border to stop BMSB arriving here?

New requirements for Japan:

All used vehicles (cars and trucks) are required to undergo inspection and cleaning at an MPI-approved facility in Japan prior to export and any used machinery, or other types of used vehicles, require certification proving it has undergone cleaning by an appropriate provider.

Existing requirements for other countries:

Imported break-bulk (not in a container) or containerised sea cargo from the United States or Italy must meet certain MPI requirements (see the MPI website:

<https://www.mpi.govt.nz/importing/other/vehicles-and-machinery/requirements/brown-marmorated-stink-bug-requirements/>) to manage the risk of BMSB. Imported goods that have a higher risk of carrying the pest are targeted. These goods include new and used vehicles and machinery which:

- must be treated (fumigation or heat treatment) before shipment if from the United States or Italy. This applies for vehicles and machinery shipped from the United States all year round and for vehicles and machinery shipped from Italy from 1 September 2017 to 30 April 2018 inclusive. This also applies for all containers of goods from Italy other than vehicles and machinery until 28 February 2018.
- Other cargo may be inspected if from a country of concern for BMSB.

What countries can BMSB come from?

BMSB is native to Asia and present in Japan, China and Korea. It has spread to the USA and a number of European countries including Italy, Hungary, Switzerland and Georgia.

What crops does BMSB feed on?

Concerns for horticulture are that the BMSB feeds on apples, pears, peaches, nectarines, plums, kiwifruit, avocados, berries, sweet corn, capsicum, tomatoes, eggplant, beans, and other crops.

How is BMSB a pest for the public?

Overseas, brown marmorated stink bugs are a significant public nuisance pest, moving into homes in the autumn to overwinter. Insects have been found in attics, in clothing, and even under bedsheets - home owners gather up the insects daily. Thousands of BMSB can infest a single dwelling when the pest population reaches high numbers. They do not harm people, but release an unpleasant odour when disturbed.

What would be the impact for horticulture if BMSB established here?

The impact of BMSB would be devastating for our horticulture industry as once established, it becomes a pest to be managed every season. Our industry value is \$5.6 billion (excludes wine) and of that, exports of fruit and vegetables total \$3.4 billion, with produce going to 124 overseas markets. Horticulture employs about 60,000 around New Zealand.

Feeding by BMSB causes pitting and scarring in fruit and vegetables, sometimes leading to a mealy texture. This can make the fruit unmarketable as a fresh product and in severe cases can even render the crop unusable for processed products.

In the United States, without treatment some farmers have reported crop losses of up to 90 percent.

It has been estimated that BMSB establishment in New Zealand, if not managed, would result in average yield losses of 26% for 18 host crops after 10 years. In the United States growers have also experienced significant management costs due to the need for an increase in spraying.

What is being done to prepare for BMSB in New Zealand?

The BMSB Council, a collaboration between the horticulture, wine and arable industries and MPI, is undertaking a range of activities to prepare for BMSB. These include investigating chemical control tools (insecticides) and biological control agents (the samurai wasp - a small parasitoid wasp that attacks BMSB eggs) to manage BMSB, and work on surveillance and trapping options.

We need to ensure we have tools to quickly respond to a BMSB incursion in New Zealand to maximise the chance of eradication success, or if eradication is not possible, to control BMSB populations long-term.

What do I do if I think I've found BMSB?

Catch it and call the MPI pest and disease hotline on 0800 80 99 66.

Where do I find more information?

MPI website: <https://www.mpi.govt.nz/protection-and-response/responding/alerts/brown-marmorated-stink-bug/>