



# **The Risk Management Proposal Associated with the Review and Amendment of the Import Health Standard for Vehicles, Machinery and Equipment**

**FOR PUBLIC CONSULTATION**

April 2019



## Disclaimer

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## Submissions

The Ministry for Primary Industries (MPI) invites comment from interested parties on the proposed amendments to the Import Health Standard for Vehicles, Machinery and Equipment. The proposed changes are supported by this discussion document. An Import Health Standard (IHS) “specifies requirements to be met for the effective management of risks associated with importing risk goods, including risks arising because importing the goods involves or might involve an incidentally imported new organism” (section 22(1) Biosecurity Act 1993).

MPI seeks comment on the proposed amendments to the IHS: Vehicles, Machinery and Equipment. MPI has developed this proposal based on best assessment of the best available scientific evidence regarding risk associated with this pathway. If you disagree with the measures proposed to manage the risks, please provide either data or published references to support your comments. This will enable MPI to consider additional evidence which may change how risks are proposed to be managed. The following points may be of assistance in preparing comments:

- wherever possible, comments should be specific to a particular amendments in IHS requirements or a question asked in this document (referencing section numbers or subjects as applicable);
- where possible, reasons, data and supporting published references to support comments are requested; and
- the use of examples to illustrate particular points is encouraged.

The amendments proposed in this document are intended to update the IHS to ensure that the biosecurity risks associated with the importation of VME are managed in response to commercial practices and changing scientific knowledge.

MPI encourages respondents to these documents to forward comments electronically. Please include the following in your submission:

- the title of the consultation document in the subject line of your email;
- your name and title (if applicable);
- your organisation’s name (if applicable); and
- your address.

Please send submissions to: [standards@mpi.govt.nz](mailto:standards@mpi.govt.nz), or should you wish to forward submissions in hard copy format (writing), please send them to the following address to arrive by close of business on the 3<sup>rd</sup> June 2019.



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Submissions received by the closure date will be considered during the development of the final versions of the IHS. Submissions received after the closure date may be held on file for consideration when the IHS is subsequently reviewed.

### **Official Information Act 1982**

Please note that submitted documents are public information. These documents may be the subject of requests for information under the Official Information Act 1982 (OIA). The OIA specifies that information is to be made available to requesters unless there are sufficient grounds for withholding it, as set out in the OIA. Submitters may wish to indicate grounds for withholding specific information contained in their submission, such as the information is commercially sensitive or they wish personal information to be withheld. Any decision to withhold information requested under the OIA is reviewable by the Ombudsman.

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## Information on the IHS Consultation starting April 2019

### Purpose

The purpose of this document is to:

- clarify the proposed amendments to the requirements for the IHS: Vehicles, Machinery and Equipment – VEHICLE-ALL; and
- provide justification for the proposed amendments and how they manage risk; and
- seek feedback on the proposed amendments to importing requirements.

### Background

The Import Health Standard (the IHS) for Vehicles, Machinery and Tyres was released in October 2009. Over the last 5 years, the spread of Brown Marmorated Stink Bug (BMSB) outside of its home range along with increased on-arrival detections of BMSB from countries where the pest is native, has necessitated additional requirements for its effective management. Previous management measures were introduced via Chief Technical Officer Decisions (CTOD) or as emergency amendments to the IHS prior to August 2018.

In August 2018, the IHS was re-named and released as the Import Health Standard for Vehicles, Machinery and Equipment. Many changes were made to requirements, mostly due to the increasing need for enhancing BMSB management measures while incorporating the relevant CTODs into the IHS. For a better understanding of the requirement changes made to this IHS, a timeline of changes has been included as [Schedule 2](#).

Further proposed changes to the IHS have now been made to improve BMSB management primarily through increasing the list of actionable BMSB countries and mandating before-arrival treatment. There are also refinements of current requirements relating to treatment and system management of vehicles, machinery and equipment from countries listed in Schedule 3 of the IHS. The proposed IHS also features some requirement changes designed to address other aspects of biosecurity risk associated with the importation of vehicles, machinery and equipment, but not directly related to BMSB management.

### Timing and Consultation

The proposed IHS has been released for consultation on 3 April 2019 and will remain open for consultation until 3 June 2019. The IHS is planned for finalisation in June 2019 and implementation of the IHS will begin 1 September 2019 (the start of the next BMSB season).

### Background and Context to Consultation

#### International Regulation of Risk Goods

The WTO and SPS Agreements set in place rules that protect each country's sovereign right to take the measures necessary to protect the life or health of its people, animals, and plants while at the same time facilitating trade. It embodies and promotes the use of science-based risk assessments to manage the risks associated with the international movement of goods. "The SPS Agreement will continue to guide how NZ sets standards and makes decisions related to biosecurity. In particular, it will be important to maintain the standards of transparency and scientific rigour required by the SPS Agreement, and to make decisions as quickly as possible. This will encourage other countries to comply with the rules of the SPS Agreement, and also demonstrate that NZ's strict controls are justified to countries that challenge them." Balance in Trade [online reference ISBN 978-0-478-33881-2].



## Domestic Regulation of Risk Goods

The NZ biosecurity system is regulated through the Biosecurity Act 1993 (the Act). Section 22 of the Act describes an import health standard (IHS) and requires all risk goods (including inanimate items such as Vehicles, Machinery and Equipment) entering NZ to be covered by one. MPI is the NZ government Ministry responsible for maintaining biosecurity standards for the effective management of risks associated with the importation of risk goods into NZ (Part 3, Biosecurity Act 1993).

MPI is committed to the principles of transparency and evidence-based technical justification for all phytosanitary measures, new and amended, imposed on importing pathways. MPI periodically reviews IHSs, related documents and other standards so that the legal requirements are clear and that information is consistently presented and easy as possible to understand.

## Biosecurity Risk Associated with Vehicles, Machinery and Equipment

### Import Risk Analysis of Biosecurity Risk (Conclusions and Explanation)

The biosecurity risk associated with this pathway was documented in the vehicles and machinery import risk analysis in 2007 (MAF 2007). This risk analysis demonstrated that many different pests and types of contaminants could be associated with imported vehicles and machinery. The main conclusions were:

1. Biosecurity risk depends on the conditions and locations where vehicles and machinery are used and stored prior to export.
2. Used vehicles are a higher biosecurity risk than new vehicles.
3. Vehicles and machinery are a higher risk than other “inanimate” cargo such as shipping containers due to:
  - a) The complex construction of vehicles and machinery creates more habitats for pests and can make inspection and cleaning more difficult.
  - b) Used vehicles usually have a longer period of time and greater opportunities for contamination and infestation through ordinary daily use than new cars.
  - c) Vehicles and machinery usually remain in NZ permanently and are used outside the main MPI surveillance networks. This increases the likelihood of pests establishing in NZ if they arrive on vehicles and machinery.

## Specific Pests of Significance to the vehicle, machinery and equipment IHS (as highlighted in the Import Risk Analysis)

### Asian Gypsy Moth – AGM (*Lymantria dispar*)

AGM has been considered as a high-risk pest to NZ for decades given the larvae are voracious feeders on a huge range of host plants including forestry and horticultural species and could significantly impact NZ's primary industries. In addition, AGM is also likely to be problematic on NZ native vegetation and negatively affect NZ's ecological status. MPI interception data shows that used vehicles are the highest risk pathway for AGM egg masses to arrive in NZ. The way that used vehicles are stored before export combined with the volume of trade from Japan has led MPI to thoroughly manage this vehicle pathway from Japan. These continuing concerns led MPI to propose modification of the 2017 draft version of the IHS where all used vehicles from Japan are to be managed through MPI-Approved Systems.



### Brown Marmorated Stink Bug – BMSB (*Halyomorpha halys*)

Another significant pest associated with the import of vehicles, machinery and equipment is BMSB. This pest has the potential to become a significant problem in NZ due to biology, phenology and current global distribution if not prevented from entering and establishing (Fraser et al 2017, MPI 2012). The biosecurity risk of BMSB was also documented in a MPI pest risk analysis in 2012 (MPI 2012). Vehicles and machinery were identified as a likely pathway of entry. It concluded that the use of visual inspection alone had limited effectiveness for detecting mobile or hidden organisms associated with vehicles and machinery; and at that time vehicles and machinery were not identified as being a higher risk pathway over other inanimate or inorganic commodities.

The natural range of BMSB is China, Korea and Japan. BMSB has become widespread and a major horticultural and human nuisance pest in other parts of world including the USA and Italy. In late 2014, large numbers of BMSB were detected arriving in NZ on vehicles imported from the USA. This situation resulted from BMSB reaching high population density in manufacturing areas in the Eastern USA and then seeking shelter from winter weather conditions inside the vehicles were being stored prior to export (StopBMSB 2015). This led MPI to urgently amend the IHS for Vehicles, Machinery and Tyres on the 23<sup>rd</sup> of December 2014 and add new measures for specific management of BMSB from the USA. The measures added were imposed for imported vehicles and machinery from the USA over all 12 months of the year. MPI has also been closely monitoring this pathway for compliance since that time.

BMSB is continuing to spread and become more problematic in other places such as Europe. BMSB is estimated to have established in Italy in 2009 and has now become an important agricultural and nuisance pest across Italy and other European countries since 2015 with significant population increases and distribution. This led MPI once again to urgently amend the IHS for Vehicles, Machinery and Tyres on the 25<sup>th</sup> of August 2017 and add similar measures for specific management of BMSB from Italy although a specific risk period between the 1<sup>st</sup> of September and the 30<sup>th</sup> of April of any year is specified.

### Other pests of significance which have influenced the proposed IHS requirement changes (as highlighted in 2018 MPI Technical Advice)

#### Yellow Spotted Stink Bug –YSSB (*Erthesina fullo*)

YSSB is found in China, Hong Kong, Japan, and Taiwan. The chance of establish in New Zealand is considered moderate based on life cycles and temperatures of the pests native range. Establishment impact is expected to be moderate to high in some areas of New Zealand with a suitable climate, mostly effecting host crops including citrus, kiwifruit, and stone fruit.

The overwintering habits of the YSSB are comparable to those of BMSB. They are most likely to enter New Zealand in aggregations (typically 2-35 bugs) associated with the inanimate pathways especially vehicles, machinery and equipment, between October and April.

Numerous live YSSB were found on various vessels in late 2018 and early 2019. Single live YSSB have been found associated with used vehicles from Japan in recent months when vehicles have undergone safety checks on-arrival (including partial dismantling). YSSB are believed to be less susceptible to natural mortality during shipping than BMSB and therefore have a greater likelihood of being able to survive shipping to New Zealand.

#### Polished Green Shield Bug - PGSB (*Glaucias subpunctatus*)

PGSB is found in Indonesia, Taiwan, Japan, South Korea and Thailand. The chance of establish in New Zealand is considered moderate based on life cycles and temperatures of the pest's native range. The known distribution of PGSB suggests that climate would not be a barrier to establishment in New Zealand, but PGSB would likely be confined to warmer areas of the country which coincide with New Zealand's major fruit growing regions. Given the potential distribution of PGSB in New Zealand and its known host range, the potential impact of establishment is considered to be moderate.



PGSB is an outbreak pest in Japan where it is ranked in the top four most damaging fruit bugs and considered a major pest of peach, apple and citrus. Outbreaks typically occur after a hot summer and are associated with high amounts of *Cryptomeria japonica* (Japanese cedar) pollen.

The overwintering behaviour of PGSB is comparable to that of BMSB with the same approximate aggregation, overwintering and emergence times. Like BMSB it will emerge from overwintering earlier when March/April temperatures are higher and survivorship is greater with increased winter temperatures.

## MPI-Approved Treatments for Vehicles, Machinery and Equipment

Under the proposed IHS, MPI-Approved Treatments for vehicles, machinery and equipment, have not changed following the August 2018 IHS release. Therefore MPI is not seeking feedback on these treatments. Research on treatments for BMSB management was included in the August 2018 RMP and included as [Schedule 1](#) of this RMP.

MPI and the Australian Department of Agriculture and Water Resources (DAWR) have agreed to align specific treatments and treatment rates for the management of BMSB where possible. Due to this, MPI will be updating the wording in *Approved Biosecurity Treatments* to align with the DAWR description of the same treatments, however there are no changes to treatment rates, temperatures or endpoints.

MPI-Approved Treatments remain in a single location for easy access for importers, MPI Inspectors, stakeholders, and treatment operators. Treatments required by the IHS either before-arrival (pre-export) or on-arrival are specified in MPI Standard: [Approved Biosecurity Treatments](#) and incorporated by reference into the IHS to ensure the treatments are mandatory for importation (where required).

MPI has a list of [MPI-Approved Offshore Treatment Providers](#) which are jointly approved by MPI and DAWR to perform treatments of vehicles, machinery and equipment before-arrival in New Zealand. Under the proposed IHS, these providers must be used to comply with BMSB management requirements (Part 4 of the proposed IHS). MPI also maintains a list of [MPI-Approved Treatment Suppliers](#) in New Zealand who provide treatment of vehicles, machinery and equipment on-arrival.

## Proposed Amendments to the 2019 Draft Version of the Import Health Standard for Vehicles, Machinery and Equipment.

### General formatting and layout changes

The layout of the proposed IHS has been changed to improve usability, consistency and to help increase the readers understanding of import requirements for vehicles, machinery and equipment. The layout has become commodity based and any specific requirements relating to the type of vehicles, machinery and equipment or the country of origin, have been outlined under the relevant commodity sections of the IHS.



## Amended Management Measures for Vehicles, Machinery and Equipment – Section Specific.

Section of IHS	Description of change
Section 2.5	Transshipping section added to clarify requirements for goods transhipped through New Zealand.
Section 2.6	Section added to clarify requirements for vehicles, machinery and equipment imported as airfreight.
Section 3.1	<ol style="list-style-type: none"> <li>1) The title of section 3.1 has been changed from “Used machinery from all countries” to “Used outdoor and targeted machinery from all countries”.</li> <li>2) The Certified Cleaning requirement for Japanese used outdoor and targeted machinery has been removed from BMSB management requirements and added under section 3.1</li> </ol>
Section 3.2	The title of section 3.2 has changed from “Vehicles, machinery parts/equipment from all countries” to “Parts derived from a vehicle or machine”.
Section 3.4	Removal of on-arrival treatment option for break-bulk used tyres from any country.
Part 4	<ol style="list-style-type: none"> <li>1) All requirements for vehicles, machinery and parts from Schedule 3 countries have been grouped into Part 4 by commodity type.</li> <li>2) Schedule 3 has been extended to include Japan and 32 other countries.</li> <li>3) Before-arrival (pre-export) treatment by an MPI-Approved Offshore Treatment Provider has become a requirement for BMSB management.</li> </ol>
Section 4.1 and Section 4.2	Used vehicles and machinery managed by an <a href="#">MPI-Approved Used Vehicle and/or Machinery System</a> must use an MPI-Approved Treatment during the BMSB risk season if exported from any Schedule 3 country.
Section 4.4	Additional treatment options (heat treatment and fumigation) added for use with aircraft and watercraft from all Schedule 3 countries.
Section 4.5	New and used vehicle and machinery parts from Japan have been included under BMSB management measures.
Section 4.6	<ol style="list-style-type: none"> <li>1) All post-treatment requirements relating to BMSB management are now included under section 4.6 with references made to the sections of Part 4, where required.</li> <li>2) MPI-Approved Agreement option for post treatment requirements has been added as an option to importers or other industry parties.</li> <li>3) Removal of 24 hour time extension between treatment and exportation for West Coast Ports in the USA (now 120 hours only).</li> </ol>



Part 4.7	<ol style="list-style-type: none"> <li>1) All requirements relating to vehicles, machinery and equipment transhipping through Schedule 3 countries on the way to New Zealand have been included in section 4.7</li> <li>2) MPI-Approved Agreement option for transhipping through Schedule 3 countries has been added as an option to importers or other industry parties.</li> </ol>
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## Rationale behind the proposed changes to the Import Health Standard for Vehicles, Machinery and Equipment.

### Section 2.5: Section added to clarify requirements for goods transhipped through New Zealand.

Vehicles, machinery and equipment may be shipped as break-bulk cargo and arrive at a New Zealand port for a period of transhipment, prior to shipment to other destinations such as Australia, the Pacific Islands or Antarctica. The current and proposed IHS includes requirements for goods that require clearance on-arrival and not for goods that arrive in New Zealand for a period of time while being held at a Port of First Arrival (POFA). To address this difference a transhipment section has been added to clarify what requirements must be met for vehicles, machinery and equipment being transhipped through New Zealand

The transhipping requirement for vehicles, machinery and equipment to be clean and free of biosecurity contamination has not changed from the current IHS but has been explicitly stated with appropriate guidance under Section 2.5. Transhipped goods are not required to comply with applicable Parts 3 and 4 of the proposed IHS but may be subject to risk management measures such as treatment, re-shipping or destruction if they are non-compliant with the requirement to be clean and free of biosecurity contamination on arrival.

A recommendation in the form of guidance has been added to advise the importer to follow the applicable requirements of the IHS in full to reduce the possibility that transhipped vehicles, machinery and equipment are found to be non-compliant on arrival and may be subject to risk management measures.

### Section 2.6: Section added to state requirements for vehicles, machinery and equipment imported as airfreight

This section has been added to clarify the requirements for vehicles, machinery and equipment which are imported into New Zealand as cargo on-board aircraft (referred to as airfreight). Under the current IHS, vehicles, machinery and equipment exported via airfreight from Schedule 3 countries (3.7 of the current IHS) during the BMSB season, are excluded from BMSB requirements and must meet Part 2 requirements of the IHS only. However airfreighted vehicles, machinery and equipment were not explicitly stated as being excluded from sections 3.1 - 3.5 of the current IHS.

At this time MPI do not believe that the risk of vehicles, machinery and equipment exported as airfreight pose a significant risk to warrant additional treatment requirements of Parts 3 and 4 of the proposed IHS which are aimed at importation by vessel and not aircraft. The small volume and lack of the more complex vehicles and machinery types lessens the need for BMSB management measures with airfreighted vehicles, machinery and equipment. Furthermore operationally, airports and the airfreight industry do not have the capability or infrastructure to include treatment, segregation and additional processing functions.

Under the current and proposed IHS, any vehicle, machinery or equipment captured by the IHS is required to be clean and free of biosecurity contamination (Part 2.3 of proposed IHS) and may be subject to verification on arrival, regardless of whether or not additional requirements are carried out.



**Section 3.1 and 4.2: The title of Sections 3.1 and 4.2 have been changed from “Used machinery from all countries” to “Used outdoor or targeted machinery from all countries”.**

The title of this section has been changed to exclude some types of low risk, indoor machinery from being required to undergo certified cleaning before-arrival in New Zealand. Inclusion/exclusion criteria has been added to ensure the importer can determine if certified cleaning requirements apply to specific types of used, indoor machines (see Schedule 1 – Part 3-specific definitions of proposed IHS). The same naming of outdoor or targeted machinery has been duplicated in Section 4.2 to prevent low risk, indoor machinery from having to meet inappropriate BMSB management measures such as treatment or system management during the BMSB risk period.

Under section 3.1.1 of the current IHS, all used machinery from any country must be certified as clean, and a cleaning certificate must be submitted to MPI. This requirement, introduced in the August 2018 IHS, is aimed at outdoor machinery such as those used around forestry, farming, agriculture, construction and any other machine used outdoors which will have had exposure to biosecurity contamination. Justification for this requirement was mainly due to on-arrival verification inspections carried out by MPI Inspectors showing that machines, especially when large and of an outdoor nature, are often not cleaned sufficiently to be compliant with the IHS.

The current broad title of this section and the definition of a ‘machine’ has meant very low risk, indoor used machines have been captured by this requirement, which is not appropriate and was not MPI’s intention. MPI considers some used indoor machines such as home or workplace appliances, textile cutting machines, X-ray machines and medical machines, to be of low risk and do not require certified cleaning as per section 3.1 of the current IHS, or BMSB risk management measures as per sections 3.6 and 3.7 of the current IHS

Under the current and proposed IHS, any vehicle, machinery or equipment captured by the IHS is required to be clean and free of biosecurity contamination (sections 2.3 of proposed IHS) and may be subject to verification on-arrival at MPI’s discretion, regardless of whether or not certified cleaning is required under the IHS.

**Section 3.1: The certified cleaning requirement for used outdoor or targeted machinery from Japan has been removed from BMSB specific requirements. Used outdoor or targeted machinery from Japan is now required to meet the same certified cleaning requirements as all countries under section 3.1.1.**

The requirement for used machinery from Japan to undergo certified cleaning by an MPI-Approved Cleaning Provider in Japan was added to the IHS as an emergency amendment on the 19<sup>th</sup> February 2018. The certified cleaning requirement for used machinery had previously been consulted on in December 2017 to address the high level of non-compliance with all types of biosecurity contamination associated with this particular commodity type. The requirement was brought into the IHS for Japan only, ahead of the August 2018 IHS release as an emergency measure to help reduce the risk of BMSB with used machinery following the high detections of BMSB on vessels carrying new and used vehicles and machinery from Japan in early February 2018. A very similar requirement (section 3.1 of the current IHS) was then introduced, as planned, for used machinery from all other countries in the August 2018 IHS.

More targeted and appropriate BMSB risk management requirements were introduced for used machinery from Japan in the August 2018 IHS, in the form of mandatory system management and approved treatment requirements when used machinery is exported during the BMSB risk period. The certified cleaning requirement for Japan is therefore now better recognised as a requirement to manage all types of biosecurity contamination associated with used outdoor or targeted machinery types, when not managed under an MPI-Approved System. Furthermore, MPI believe that the certified cleaning requirement that was applied to all other countries in August 2018, should be applied equally to Japan and therefore the current requirement that an MPI-Approved Cleaning Provider must be used in Japan, has been removed. The current cleaning providers in Japan will remain approved by MPI and listed on the MPI website to help importers ensure used machinery arrives in New Zealand in a compliant state. MPI may look to approve other cleaning providers in other countries if a need is shown by high levels of non-compliant outdoor or targeted machinery in the future.



### Section 3.2: The title of section 3.2 has changed from “Vehicles, machinery parts/equipment from all countries” to “Parts derived from a vehicle or machine from all countries”.

This title change does not include any amendments to requirements and instead was changed to remove any confusion around this section, which targets parts that have come from a vehicle or machine only. The corresponding definition in Schedule 1 has been reworded accordingly for clarity.

### Section 3.4: Removal of on-arrival treatment option for used tyres exported as break-bulk from any country.

Used tyres, not on rims are primarily managed for unregulated species of mosquitos whose larvae may be imported into New Zealand in the water that pools inside the tyres. Under the current IHS, used tyres can be exported in containers or as break-bulk consignments and treated before arrival in New Zealand or on-arrival in New Zealand.

The removal of on-arrival treatment for break-bulk tyres is aligned with MPI’s policy of keeping risk offshore where possible and practical. The risk of on-arrival treatment associated with containerised used tyres can be managed effectively by sealing vents and using a residual insecticide when inspection cannot be completed immediately. Sealing of break-bulk tyres before treatment for the purpose of preventing pests from escaping is less effective.

The requirement change is also aimed to stop regulated pests from being placed on a vessel which could lead to re-contamination of treated, system managed or other compliant cargo on-board. Break-bulk exportation of used tyres is seldom used by importers and shipping companies have become cautious about loading untreated goods on vessel decks after recent BMSB and other regulated pests detections have been made on vessels.

### Part 4: Schedule 3 has been increased to include Japan and 32 other countries.

MPI has agreed to align with the Department of Agriculture and Water Resources (DAWR) in Australia, where possible, regarding BMSB management measures and this includes an agreement around the actionable BMSB countries list, referred to as Schedule 3. In the proposed IHS, Schedule 3 has increased from 16 to 33 countries. Japan has been incorporated as a Schedule 3 country with some minor differences in addition to the BMSB management requirements to account for other high impact pests associated with the vehicles and machinery pathway in Japan.

The additional Schedule 3 countries have been added using the following criteria:

- a. Already established BMSB populations.
- b. A highly suitable climate for BMSB establishment when in close proximity to a region/country with significant numbers of BMSB.

This recognises that there are currently no border restrictions and/or interventions between countries in Europe and there is no formal reporting systems of BMSB populations in place in countries where it has established.

This Schedule 3 list will be continually monitored and amended with consideration of new information, detections and review of current conditions. MPI expects that over time, more countries will be added to this list, especially in areas where BMSB has been introduced, and is not native such as within the European continent.

MPI is closely monitoring vehicles, machinery and equipment from Korea and China which like Japan are countries where BMSB is native. While there have been some BMSB detections, these have not been at the level that is consistent with MPI implementing BMSB management requirements at the current time.



#### Part 4: All treatment requirements for BMSB management (Part 4) must be conducted before-arrival and must be conducted by an MPI-Approved Offshore Treatment Provider.

One of MPI's core principles is that biosecurity risk management including treatment must occur before-arrival wherever possible (and especially for targeted pests such as BMSB). MPI interception data from 2014 through to the end of 2018 shows that BMSB numbers are increasing rapidly each year with vehicles, machinery and equipment imported as break-bulk and in containers.

Offshore risk management is being jointly applied to both the Vehicle, Machinery and Equipment IHS as well as the Import Health Standard for Sea Containers from All Countries (SEACO). Before-arrival treatment for all sea containers that arrive from Italy when exported on or after 1 September and arrive in New Zealand on or before 1 April of any year is planned for implementation on 1 September 2019, at the same time the proposed changes to VME are planned for implementation.

Under the current IHS, vehicles, machinery and equipment exported as break-bulk from Schedule 3 countries have required before-arrival treatment from the time that BMSB requirements were implemented. Treatment before arrival is crucial to prevent recontamination of other clean cargo on board a vessel and to reduce likelihood that vessels arriving in New Zealand will be subject to increased verification action or denial of offloading due to BMSB found on-board.

Under the current IHS, containerised vehicles and machinery from Japan must be treated before-arrival in New Zealand. Therefore, this proposed requirement change aligns BMSB management of containerised vehicles, machinery and parts across all Schedule 3 countries.

Operationally, the treatment systems and service providers at the places of first arrival in New Zealand are over capacity for conducting treatment work for biosecurity reasons. This situation places pressure on treatment systems and treatment service providers that can contribute to increase risk due to delays and could also result in short-cuts being taken.

While the risk of vehicles, machinery and equipment exported in a fully enclosed sea container is less due to an inability to escape during export, live BMSB do pose a low risk on arrival. In recent years, detections of live BMSB including total numbers that constitute an aggregation, have been found alive when the container has been opened on-arrival. Containers have to be opened to assess the ability for cargo to be treated, and to facilitate fumigation or heat treatment for monitoring purposes. As such, there is the possibility that BMSB could escape as the container doors are opened and before treatment begins. This is because BMSB can fly and live ones are highly likely to have finished hibernation and become more active on arrival with warmer temperatures in New Zealand from the beginning of September through to the end of April.

MPI is actively working to increase the number of offshore treatment providers approved as part of a joint MPI/DAWR list to ensure that offshore treatment capability is sufficient enough to prevent trade restrictions due to lack of sufficient treatment providers in Schedule 3 countries. MPI still has concerns in the ability of some offshore treatment providers to consistently carry out compliant treatments, and therefore plans to have MPI officials stationed offshore during the BMSB period to assist treatment providers through the provision of technical advice and training material. The officials will also audit MPI-Approved Offshore Treatment Providers and ensure treatments conducted are effective at managing BMSB risk in Schedule 3 countries. MPI and the DAWR will collectively monitor treatment failures and take the appropriate course of action which may be removal of the treatment providers for the approved list.

MPI do acknowledge that mandating offshore treatment requirements for the management of BMSB may lead to reduced treatment capability on-arrival due to less investment by treatment facilities needed in New Zealand. Any treatment required for certain commodity types addressing risk other than BMSB, can still be treated on arrival under the proposed IHS. Any live BMSB found by verification inspections will also require on-arrival treatment by an MPI-Approved Treatment Supplier in New Zealand.

The International Plant Protection Convention (ICCP) framework: [\*International Standard for Phytosanitary Measures 14 - The use of integrated measures in a systems approach for pest risk management\*](#) includes responsibilities for the exporting country which includes pest management measures. MPI believes that offshore



treatment is one of these responsibilities that is better addressed in the exporting country and most effectively when treatment providers are certified by the exporting country's National Plant Protection Organisation (NPPO).

**Sections 4.1 and 4.2: Used vehicles and outdoor or targeted machinery from Schedule 3 countries, managed by an MPI-Approved Used Vehicle and/or Machinery System, are required to use an MPI-Approved Treatment for vehicles and machinery exported on or after 1 September and arrive in New Zealand on or before 30 April.**

MPI-Approved New Vehicle and Machinery Systems are able to control and monitor exposure to BMSB and other regulated pests through achieving a pest-free place of production. MPI-Approved Used Vehicle and/or Machinery Systems are not able to control where the vehicle or machinery has been prior to entering system management, making them a much higher biosecurity risk (MAF 2007), and especially for BMSB. Inspection of higher risk used vehicles and machinery alone remains insufficient as a tool for detecting BMSB aggregations within an MPI-Approved Used Vehicles and/or Machinery System. Therefore, system management of used vehicles and machinery needs to include an MPI-Approved Treatment during the BMSB risk season.

Under the current IHS, MPI-Approved Used Vehicle and/or Machinery Systems in Japan must use an MPI-Approved Treatment for vehicles and machinery exported on or after the 1 September and arriving in New Zealand on or before 30 April of any year. The proposed requirement will mean that MPI-Approved Used Vehicle and/or Machinery Systems from any other Schedule 3 country must meet the same requirements as Japan currently must by using an MPI-Approved Treatment during this period. MPI would like to point out that there are currently no MPI-Approved Used Vehicle and/or Machinery Systems in Schedule 3 countries besides Japan and no applications have been presented to MPI at this time.

MPI acknowledges that some Schedule 3 countries may present a lower BMSB risk than Japan and other countries due to smaller current populations. However, mandating treatment for MPI-Approved Used Vehicles and/or Machinery Systems in all Schedule 3 countries is needed due to MPI's inability to accurately gauge the BMSB populations. Currently there is no formal reporting systems of BMSB populations in place in countries where it has invaded. BMSB populations are also expected to increase greatly in countries where the pest has been introduced. Italy and the USA are examples of significant BMSB population increases over periods of a few years.

MPI-Approved Used Vehicle and/or Machinery Systems in all other Schedule 3 countries will not be required year-round like these systems in Japan are, due to the additional risk of AGM and other regulated stink bug species including YSSB and PGSB. These additional risks are managed by some of the measures that are used to manage BMSB, however, because AGM risk exists outside of the BMSB season in Japan, MPI-Approved System management is required for all used vehicles and machinery, year round. The large export volume from Japan is also a reason that these systems are required for 12 months of the year.

**Section 4.4: Additional treatment options (heat treatment and fumigation) have been proposed for use with aircraft and watercraft from any Schedule 3 country**

The proposed addition of fumigation with Methyl Bromide (MB) or Sulfuryl Fluoride (SF) and heat treatment as treatment options for importers of aircraft and watercraft, (not arriving under their own power), has been added to provide options to importers of these vehicle types. The efficacy of these treatments are proven as discussed in Schedule 2 and were only removed from the August 2018 IHS due to importer feedback around potential craft damage and not due to concerns over treatment efficacy with these particular vehicle types.

Since the 2014 emergency IHS amendment, which required that new and used vehicles (including aircraft and watercraft) exported from the USA, must be treated year-round for the management of BMSB, MPI has received many requests to allow treatment of aircraft and watercraft by means other than heat treatment or fumigation with MB or SF. Requests were based on the importers' beliefs that these treatments may cause damage to these vehicle types due to sensitive interiors or the unknown effect these treatments may have of safety aspects surrounding aircraft.



In August 2018, aircraft and watercraft (then referred to as aircraft, motor boats and yachts) were included in Section 3.5 which required a different treatment option to manage the risk of BMSB from Schedule 3 countries during the BMSB risk season. This treatment includes application of residual insecticide, as per [Approved Biosecurity Treatments](#) before-arrival and on-arrival, followed by an inspection by an MPI Inspector to verify full compliance with the IHS. MPI allowed this treatment option as these vehicle types are typically less complex than standard vehicles or machinery, meaning inspection is a more effective tool and importer cleaning of these used vehicles is generally very thorough. For this reason the alternative treatment option will remain in the IHS for those importers who harbour concerns around fumigation or heat treatment with their particular craft types.

With the addition of fumigation and heat treatment options for aircraft and watercraft, guidance has been added stating that MPI will not take responsibility for any damage to these craft types or safety aspects of aircraft which are treated with any MPI-Approved Treatment. It is the importer's responsibility to investigate the possible effects of any treatment prior to application.

#### [Section 4.5 New and used vehicle and machinery parts from Japan have been included for BMSB management measures.](#)

Under the current IHS, new and used parts derived from a vehicle or machine from Schedule 3 countries must comply with BMSB requirements (Section 3.7 of current IHS). All new and used vehicles and machinery from Japan are currently included under BMSB management requirements (Section 3.6 of the current IHS), however the decision was made to not include parts under this section with the August 2018 IHS.

The proposed requirement change will align Japan with all other Schedule 3 countries with regards to BMSB risk management for new and used vehicle and machinery parts. The risk of BMSB associated with vehicles and machinery parts from Japan, has been demonstrated with 2 detections of BMSB during the 2017/2018 season, one of which was a large aggregation.

Vehicle and machinery parts become a higher BMSB risk if they are stored outside during the manufacturing process or they have been used or stored outdoors as a whole or dismantled vehicle or machine. The size and structure of parts along with the period in which they are stored outdoors, contributes to the likelihood of being contaminated with BMSB during the aggregation period. The larger and more complex in structure the parts are such as motors and engines, the higher risk of BMSB they present. As there is no certified cleaning requirements for parts derived from a vehicle or machine, inspection before-arrival is the only tool available to manage BMSB risk and as previously discussed in this document, inspection for BMSB is limiting.

Most new vehicle and machinery parts present a lower risk for BMSB due to common manufacturing practices and for this reason the exclusion criteria is aimed to only capture new parts that are stored outdoors and/or are so large that they can't be exported as in a fully sealed contain. It is MPI's belief that very few Japanese manufacturers of vehicle and machinery parts will be required to meet the BMSB requirements due to the associated exclusion criteria. If the exclusion criteria cannot be achieved by a manufacturer of vehicle and machinery parts, system management for the parts can be achieved with only a few risk management measures as the manufacturing supply chain would be much simpler than the average new vehicle or machinery supply chain.

#### [Section 4.6: All post-treatment requirements are now included under Section 4.6 and are applicable to all treatments carried out as per Part 4 \(BMSB management\) from all Schedule 3 countries.](#)

All post-treatment requirements that apply to specific types of vehicles, machinery and parts from all Schedule 3 countries during the BMSB season, have been placed in one section of the IHS (Section 4.6). Requirements for break-bulk and non-fully enclosed container exportation as well as fully enclosed container exportation have been separated.



#### Section 4.6: Removal of post treatment time extension for vehicles and machinery shipped from the West coast of the USA.

The 144 hour limit between treatment and exportation of vehicles and machinery exported from West Coast ports, has been removed in the proposed IHS. Vehicle and machinery exported from the West Coast will therefore need to comply with the 120 hours limit that all other Schedule 3 countries and USA East Coast ports must comply with.

In 2015, a CTO Direction (CTOD) was completed to allow an additional 24 hours for goods shipped out of a USA West Coast port. The CTOD was then incorporated as a requirement exemption in the August 2018 IHS.

The reason for this time extension was due to the West Coast ports of the USA not permitting fumigation on the port and therefore treatments had to occur elsewhere. In 2015, vehicles were required by US Customs Service to be on the port for 120 hours prior to export for verification which did not allow enough time for vehicles or machinery to comply with MPI's post treatment time requirements. In 2017, the US Customs Service shortened their requirements to 72 hours, allowing enough time to meet the 120 hours in the IHS. Due to this and along with the DAWR removal of the time extension, MPI no longer believe that vehicles and machinery from the West Coast of the USA can't be compliant with the standard 120 hour limit and therefore do not require the additional 24 hours.

#### Section 4.6: Approved arrangements for deviation from post treatment requirements

Post treatment requirements exist to prevent recontamination after a treatment has taken place. The risk of BMSB following an MPI-Approved Treatment is significantly lower than may occur at manufacturing or storage sites before treatment is carried out. Providing cargo can be protecting from recontamination following treatment, the chance of BMSB can be kept low while the cargo remains compliant with MPI's BMSB management requirements.

Under the proposed IHS, Section 4.6 allows an importer or other industry party to request an approved agreement with MPI which will allow for some level of deviation from the time and segregation requirements specified after treatment occurs. For an agreement to be approved by MPI, the applicant must state what alternative risk management measures will be used and under what circumstances. An agreement must be approved beforehand and not at the time the non-compliance has already occurred or is about to occur.

Protecting cargo from BMSB recontamination after treatment can be achieved by use of multiple measures including reduction of time in which the cargo is stored outside, distance from possible sources of contamination and segregation of a physical or chemical nature. MPI have specified time (120 hours) and segregation as the post treatment requirement but acknowledge there are other options, which can be used in combination to prevent BMSB recontamination after treatment has occurred and before exportation to New Zealand. A transshipping agreement allows for the proposal of alternative measures which if agreed to by MPI could be less trade restrictive than the requirements specified in the IHS. A post treatment agreement can also act as contingency plan for when shipping schedules do not go as planned due to unforeseen circumstances leading to the cargo becoming non-compliant in the absence of an agreed arrangement.

#### Section 4.7: Transshipping requirements are now included under Section 4.7 and are consistent to all treatments carried as per Part 4 (BMSB management) from all Schedule 3 countries.

Section 4.7 has been included in the proposed IHS to consolidate all requirements around transshipping through Schedule 3 countries where BMSB risk exists.

#### Section 4.7: Approved arrangements for deviation from transshipping requirements

Requirements around transshipping through Schedule 3 countries exist to prevent recontamination in controlled port or bonded areas used for transshipping. The risk of BMSB aggregations in these areas is significantly lower



than most manufacturing or storage sites in Schedule 3 countries. Providing cargo can be protecting from recontamination in port areas, the chance of BMSB recontamination can be kept low while the cargo remains compliant with MPI's BMSB management requirements.

Under the proposed IHS, Section 4.7 allows an importer or other industry party to request an approved agreement with MPI which will allow for some level of deviation from the time and segregation requirements specified for transshipping through Schedule 3 countries. For an agreement to be approved by MPI, the applicant must state what alternative risk management measures will be used and under what circumstances. An agreement must be approved beforehand and not at the time the non-compliance has already occurred, or is about to occur.

Protecting cargo from BMSB recontamination in controlled or bonded areas can be achieved by use of multiple measures including reduction of time in which the cargo is stored outside, distance from possible sources of contamination and segregation of a physical or chemical nature. MPI have specified time and segregation as the requirement for transhipped goods but acknowledge there are other options, which can be used in combination to prevent BMSB recontamination during periods of trans-shipment. A transshipping agreement allows for the proposal of alternative measures which if agreed to by MPI could be less trade restrictive. A transshipping agreement can also act as contingency plan for when transshipping schedules do not go as planned due to unforeseen circumstances leading to the cargo becoming non-compliant in the absence of an agreed arrangement.



## Schedule 1 – MPI-Approved Treatments for vehicles, machinery and equipment

MPI is not consulting on fumigation or heat treatment as these treatments remain unchanged from the current IHS. However, further information is provided below on the use of residual insecticides for aircraft and watercraft as this was not provided in the original RMP for the August 2018 IHS.

### Residual insecticide

Residual insecticide treatment is only approved as an MPI-Approved Treatment for use with aircraft and watercraft not arriving under their own power, and must be applied as a two part treatment process coupled with On-arrival inspection. This alternative treatment has been implemented due to the lower risk of this type of cargo with reduced exposure to BMSB and due to concerns around the volume of sensitive materials that may react to the treatment in the interiors or the unknown effect of the fumigation or heat treatment may have on aviation safety.

Residual insecticide applied twice with a two to six week interval and coupled with an MPI on-arrival inspection is approved for aircraft and watercraft as a risk management system rather than a one-time treatment. Cleaning and maintenance of used aircraft and watercraft is generally of a high standard and aircraft are usually exported in a partially or fully dismantled state. The residual insecticide application before shipping must be completed to ensure BMSB or other pests not killed during the application, are highly likely to be exposed to further residual chemicals during the voyage to New Zealand, increasing the already high mortality rate of BMSB during the voyage

Residual insecticide spraying or fogging has not been proven to be as efficacious to the level that fumigation with SF or MB has been and therefore is not approved as a single treatment for the larger volume of vehicles and machinery. The interception data suggests aircraft and watercraft have a very low risk of infestation by aggregations of BMSB but if any BMSB are concealed in difficult to inspect areas they are likely to be flushed out (pyrethroids are a known BMSB agitator) and killed by the pesticide spray application. The use of pyrethroids carries a potential advantage in detection of BMSB as they act as an irritant inducing uncoordinated irregular movement within 10 minutes of exposure (Lee et al., 2013). This excitation decreased significantly within 1.5 hrs of exposure to pyrethroid residues as insects became incapacitated (Lee et al., 2013). However, it is also possible that this excitation may result in BMSB moving from their overwintering spot in aircraft and watercraft vehicles as they warm up during the voyage across the equator to other localities where there is residual insecticide during the three to six week voyage.

It has been noted that *Halyomorpha halys* has demonstrated the ability to recover from a moribund state induced by exposure to pyrethroid based insecticides by contact with residues on a substrate, ingestion or direct application (Nielsen et al 2008), however the long voyage will mean they will be re-exposed to chemical for three to six weeks during the trip whilst weakening and becoming more susceptible to a high level of natural mortality

Residual insecticide chemicals such as Bifenthrin, Cyphenothrin, Esfenvalerate, Permethrin or Silafluofen have been proven effective against BMSB and other insects, and increase in efficacy with increased application and exposure to the residual chemical (Nielsen *et al* 2008). Pyrethroid insecticides (especially those with residual properties) have shown a strong correlation between exposure and almost instant neurotoxicity of BMSB resulting in rapid and uncoordinated movements followed by incapacitation (Lee et al 2013). This effect helps to increase the effectiveness before shipping and on-arrival and has been used by MPI Inspectors to help detect BMSB in vehicles and machinery on arrival in the past.



## Schedule 2: Timeline of changes to Import Health Standard for Vehicles, Machinery and Equipment to address increasing BMSB risk.

This table has been included to help explain the various IHS changes that have occurred since 2014.

### **October 2009: Vehicle, Machinery and Tyres IHS released**

#### **December 2014: Requirements added for the USA - Vehicles, Machinery and Tyres IHS**

- BMSB requirements were applied to new and used vehicles and machinery.
- This was due to detections of BMSB aggregation in/or trucks exported from the USA.
- Mandatory offshore treatment year round was imposed on USA risk goods.

#### **September 2017: Requirements added for Italy and the USA - Vehicles, Machinery and Tyres IHS**

- BMSB requirements were applied (urgent CTOD) to new and used vehicles and machinery exported from Italy.
- This was due to detections made on vehicles and machinery from Italy and information on high population numbers occurring in northern Italy.
- Mandatory offshore treatment between September and April of any year was imposed for such risk goods.
- BMSB requirements for USA vehicles and machinery were aligned with the recognised BMSB risk season (September to April of any year).

#### **February 2018: Requirements added for Japan - Vehicles, Machinery and Equipment IHS**

- BMSB requirements were applied to used vehicles and machinery from Japan via an urgent change to the IHS.
- This was due to sudden BMSB detections on vessels carrying Japanese vehicles and machinery.
- All used cars and trucks from Japan must now be managed by an MPI-Approved Vehicle System and all used machinery must be certified as being clean after processing by an MPI-Approved certified cleaning provider.

#### **August 2018: Requirements added for Japan, USA and 15 European countries (major version release) - Vehicles, Machinery and Equipment IHS**

- BMSB requirements were applied to new and used vehicles and machinery from additional BMSB risk countries (Schedule 3 of the IHS includes the USA and 15 European countries).
- Additional BMSB requirements were added to new and used, vehicles and machinery from Japan.
- Mandatory offshore treatment or MPI-Approved System management for all new and used vehicles and machinery from Japan and Schedule 3 countries must occur during the BMSB risk season.
- Mandatory treatment of vehicle and machinery equipment/parts from Schedule 3 countries was implemented.



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