MANAGING ASIAN GYPSY MOTH RISKS
FREQUENTLY ASKED QUESTIONS
ASIAN GYPSY MOTH
FREQUENTLY ASKED QUESTIONS

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Disclaimer
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Vessels calling at certain ports in the Asia Pacific between May and September should be inspected and “certified free of Asian Gypsy Moth” prior to departure, to minimise the potential for regulatory action when arriving in a country where this destructive forest pest is not native.

BACKGROUND
The Asian Gypsy Moth (AGM) is a destructive forest pest known to spread via ocean-going vessels in international trade. The pest has established populations only in countries in the Asia Pacific, such as Russia, China, Korea, and Japan. If introduced in countries where it does not exist naturally, it has the potential to seriously affect the country’s agricultural and forest resources. Adult moths frequently lay their egg masses on vessels and shipping containers, and since these egg clusters often survive to hatch at ports of call around the world, exclusion efforts are considered a priority by many local port authorities.

Preventing the introduction and spread of AGM is a shared responsibility that relies on cumulative efforts at origin, en route and at arrival in port. However, it is the responsibility of the ship operator to meet all port entry requirements related to AGM and managing the risk at its origin to ensure that a vessel is free of AGM upon departure from ports in the infested areas is recognised as the key measure.

FREQUENTLY ASKED QUESTIONS (FAQ)
General knowledge about the AGM and each country’s requirements on how to manage AGM risks will minimise the potential for regulatory action and delays during port entries. The purpose of this FAQ is therefore to provide answers to some of the AGM related questions raised by Gard’s Members and clients, to summarises the requirements set forth by each of the regulating countries and provide links to relevant government websites. The FAQ also contains guidelines for how the crew can carry out systematic self-inspections onboard the vessel while en route.

Q1: WHAT ARE THE RISKS RELATED TO THE INTRODUCTION OF AGM?
The United States has detected and eradicated many AGM infestations in the past and in an AGM pest alert from April 2016, their Department of Agriculture describes the risks as follows: “Large infestations of AGM can completely defoliate trees, leaving them weak and
more susceptible to disease or attack by other insects. If defoliation is repeated for 2 or more years, it can lead to the death of large sections of forests, orchards, and landscaping. Any introduction and establishment of AGM in the United States would pose a major threat to the environment and the urban, suburban, and rural landscapes."

Q2: WHY DOES THE MARITIME INDUSTRY HAVE A ROLE IN MANAGING AGM RISKS?
Attracted to lights, the AGM females often lay their eggs on a vessel’s superstructure. Vessels and cargo, such as containers, are therefore known to be involved in the artificial spread of the pest by carrying the egg masses from one port to another. AGM egg masses tolerate extremes in temperature and moisture, and the larvae can, under the right conditions, hatch from an egg mass up to a year after it was attached to a vessel’s structure. After hatching, the larvae travel great distances with the wind to find food and may colonise in a new country if left unaddressed. It is therefore vital that the maritime industry and relevant port authorities collaborate on measures to minimise the risk of AGM incursions and implement procedures and policies emphasising vessel inspections.

Q3: WHICH PORTS ARE INFESTED BY AGM AND AT WHAT TIME OF THE YEAR DO THE AGM FEMALES LAY THEIR EGGS?
AGM is found in Asia Pacific and there are high density populations in ports in East Russia, Northeast China, Korea, and Japan. These AGM infested areas are also referred to as the regulated areas or the risk areas.

The AGM flight season, when females lay their eggs, extends from May to September, primarily from July to September in East Russia and northern Japan, from June to September in Korea and China, from mid-May to mid-September in the remaining parts of Japan depending on the specific port location. The AGM flight season is also referred to as the specified risk period or the high-risk period in each of the regulated areas.

Q4: WHICH COUNTRIES REGULATE AND INSPECT ARRIVING VESSELS FOR AGM?
Countries where this pest is not native and that are currently known to regulate and inspect arriving vessels for AGM are: the United States, Canada, Chile, Australia and New Zealand (the regulating countries) and question Q9 below provides an overview of their relevant requirements. However, authorities in other countries are also likely to be alert to the risk of this invasive and destructive pest.

Q5: WHAT ARE THE CRITERIA FOR CLASSIFYING A VESSEL AS HIGH RISK OF AGM?
In general, and since the AGM larvae can hatch from egg masses up to a year after they were laid/attached to the vessel, a vessel which has called at a port in a regulated area during the specified risk period of the current or previous calendar year is considered high risk of AGM. However, there is no uniform international definition of the regulated areas or specified risk periods and we refer to Q9 and the country specific requirements for further details.

Q6: WHAT IS REQUIRED FROM A VESSEL THAT IS CLASSIFIED AS HIGH RISK OF AGM?
The regulating countries generally require all arriving vessels to declare whether they have traded to ports within the regulated areas in the current or previous specified risk period and the need for an inspection will be determined based on an assessment of the vessel’s overall AGM risk. Most regulating countries also require vessels to be certified free of AGM. Please see Q9 for details about each country’s entry requirements.

Q7: ARE THE REGULATING COUNTRIES PERFORMING AGM INSPECTIONS ALL YEAR ROUND?
Vessels entering a regulating country may be subject to inspection at any time of the year to verify freedom from AGM. However, as the potential for larvae to hatch from egg masses attached to a vessel in port, and spread, depends on the local climatic conditions at a specific port, each of the regulating countries may specify certain periods of the year with heightened surveillance and more systematic inspection for AGM. Please see Q9 for details about each country’s inspection procedures.

Q8: WHAT HAPPENS IF AGM EGG MASSES ARE DETECTED DURING PORT INSPECTIONS?
Actions imposed on the vessel depend on each country’s regulation, taking into account climatic conditions at the time of entry as well as the degree of AGM infestation, and the stage of development of the egg masses detected.

In some cases the vessel may be allowed to berth before being cleaned and handled with insecticide spraying whilst alongside. In other cases, if the vessel’s itinerary indicate that the presence of AGM life stages are possible and large amounts of egg masses that appear fresh and viable for hatching are detected, the risk may be considered too high and the vessel can be ordered to leave the country’s territorial waters immediately. In extreme cases, vessels may be refused entry for up to two years during the AGM risk periods in that country (e.g. Canada).

Q9: WHAT ARE THE COUNTRY SPECIFIC REQUIREMENTS?
Below is a summary of available information from each of the countries known to regulate and inspect arriving vessels for AGM. Each country’s definition of AGM regulated areas and specified risk periods as well as entry requirements and inspection procedures are emphasised.
UNITED STATES OF AMERICA (US)

US’ DEFINITION OF REGULATED AREAS AND SPECIFIED RISK PERIODS
Regulated areas include ports in East Russia, Japan, Korea and Northern China and the US base their AGM policy on the following specified risk periods:

US ENTRY REQUIREMENTS
Vessels that, in the past 24 months, have visited one of the regulated areas during the specified risk period must:

- obtain a valid pre-departure certificate from a recognised certification body issued at the last port of call in a regulated area;
- perform vessel self-inspections en route; and
- forward a copy of the pre-departure certificate together with two years of port of call data to the vessel’s local agent at least 96 hours prior to arrival. The agent must ensure that this information is provided to US officials.

INSPECTIONS IN US PORTS
We are not aware that any specific heightened surveillance periods are specified for US ports. Although climatic periods conducive to sustain AGM lifecycles are likely to occur from March through September in Northern US ports, such conditions may exist all year round in Southern US ports. It is therefore the local climatic conditions at a given US port at the time of entry as well as a vessel’s itinerary and certification that determines its level of risk. The following enforcement actions can be expected:

- Non-certified vessels will receive AGM inspections at all US ports on each voyage when the itinerary suggests an AGM risk.
- Certified vessels will be subject to an assessment of risk to determine the need for inspection.
- If AGM is suspected on a vessel, re-inspections at subsequent ports will occur.
- If AGM is detected, and/or confirmed, the vessel will be subject to receive removal orders and may be removed from port.

AVAILABLE INFORMATION FROM APHIS
Relevant information includes a separate Gypsy Moth web page, found under the Plant Pests and Diseases Programs. This page provides links to a number of useful publications such as the Asian Gypsy Moth Pest Alert as well as to their relevant inspection requirements, outlined in the Special Procedures for Ships Arriving from Areas with Asian Gypsy Moth (AGM). APHIS has also produced a Gypsy Moth Inspectional Pocket Guide which provides helpful instructions to the crew responsible for performing self-assessments, e.g. what the egg masses look like, where they might be found on vessels, and how the eggs should be removed.
CANADA
The AGM programme is managed by the Canadian Food Inspection Agency (CFIA, www.inspection.gc.ca).

CANADA’S DEFINITION OF REGULATED AREAS AND SPECIFIED RISK PERIODS
CIFA and the US APHIS are working together to manage AGM risks at origin and the Canadian requirements are aligned with the requirements enforced in US ports. Hence, Canada's definition of regulated areas and specified risk periods are equivalent to those of the US listed above. In addition, CIFA has published a policy clarification stating that the country's AGM policy does not exempt bunkering locations, including those at anchorage sites, located in the defined regulated areas.

CANADIAN ENTRY REQUIREMENTS
As for entry to US ports, vessels that, in the past 24 months, has visited one of the regulated areas during the specified risk period must:

• obtain a valid pre-departure certificate from a recognised certification body issued at the last port of call in a regulated area;
• perform vessel self-inspections en route; and
• forward a copy of the pre-departure certificate together with two years of port of call data to the vessel’s local agent at least 96 hours prior to arrival. The agent must ensure that this information is provided to Canadian officials.

INSPECTIONS IN CANADIAN PORTS
CIFA states that the AGM risk period for Canada begins on 1 March in Western Canadian ports and on 15 March in Eastern Canadian ports and ends on 15 September for all Canadian ports. During these periods, vessels arriving without the required certificates may be refused entry into Canada unless an inspection by the CFIA at a designated offshore inspection site is conducted, and the inspector is satisfied that the risk of introducing AGM has been mitigated. If an inspector is not satisfied that the risk of introducing AGM has been mitigated, the vessel will be ordered out of Canadian waters and may be refused entry for up to two years. Outside the AGM high risk periods for Canada, vessels classified as high risk of AGM are likely to be allowed to berth without interruption, subject to inspections at the discretion of the CIFA.

Vessels calling on all ports of Labrador and north across Canada to the Yukon territory (including all ports in Yukon territory, Northwest territory, Nunavut, and all ports in Ontario and Quebec adjacent to Hudson Bay or James Bay) are exempt from the certification requirements if these ports are the first and only ports of call in Canada. However, vessels calling on these northern ports are not exempt from notification requirements for AGM and must provide their port of call data as per the requirements above.

AVAILABLE INFORMATION FROM CIFA
Relevant information includes a separate AGM web page, found under the Plant Protection Program. This page provides links to a number of useful publications such as the Pest Factsheet as well as to the relevant inspection requirements, outlined in Policy Directive D-95-03 “Plant protection policy for marine vessels arriving in Canada from areas regulated for Asian Gypsy Moth”. Associated guidance documents clarifying CIFA’s certification requirements and critical response plan to prevent the incursion of AGM via marine vessels are also available. In addition, CFIA has produced an Inspect Before Entry Guide which provides helpful instructions to the crew responsible for performing self-assessments. The guide can also be printed as a poster that can be displayed onboard the vessel.
CHILE

The AGM programme is managed by the Chilean Agriculture and Livestock Service (Servicio Agrícola y Ganadero (SAG), www.sag.cl).

CHILE’S DEFINITION OF REGULATED AREAS AND SPECIFIED RISK PERIODS

SAG’s regulations concerning entry of vessels from areas with presence of AGM (Exempt Resolution No.: 4412/2013) entered into force in February 2014. Regulated areas include ports in Russia, Japan, Korea and China between 60°N and 20°N latitude and Chile base their AGM policy on the following definition of regulated areas and specified risk periods:

<table>
<thead>
<tr>
<th>AGM regulated area</th>
<th>Specified risk period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ports located between 60°N and 20°N latitude included</strong></td>
<td></td>
</tr>
<tr>
<td>East Russia</td>
<td>1 Jul - 30 Sep</td>
</tr>
<tr>
<td>South Korea</td>
<td>1 Jun - 30 Sep</td>
</tr>
<tr>
<td>People’s Republic of China</td>
<td>1 Jun - 30 Sep</td>
</tr>
<tr>
<td>Northern Japan</td>
<td>1 Jul - 30 Sep</td>
</tr>
<tr>
<td>Aomori, Fukushima, Hokkaido, Iwate, Miyagi, Perfectures</td>
<td>1 Jul - 30 Sep</td>
</tr>
<tr>
<td>Western Japan</td>
<td>25 Jun - 15 Sep</td>
</tr>
<tr>
<td>Akita, Ishikawa, Niigata, Toyama, Yamagata Perfectures</td>
<td>25 Jun - 15 Sep</td>
</tr>
<tr>
<td>Eastern Japan</td>
<td>20 Jun - 20 Aug</td>
</tr>
<tr>
<td>Aichi, Chiba, Fukui, Ibaraki, Kanagawa, Mie, Shizuoka, Tokyo Perfectures</td>
<td>20 Jun - 20 Aug</td>
</tr>
<tr>
<td>Southern Japan</td>
<td>1 Jun - 10 Aug</td>
</tr>
<tr>
<td>Ehime, Fukuoka, Hiroshima, Hyogo, Kagawa, Kagoshima, Kochi, Kumamoto, Kyoto, Miyazaki, Nagasaki, Oita, Okayama, Osaka, Saga, Shimane, Tokushima, Tottori, Wakayama, Yamaguchi Perfectures</td>
<td>1 Jun - 10 Aug</td>
</tr>
<tr>
<td>Far Southern Japan</td>
<td>25 May - 30 Jun</td>
</tr>
<tr>
<td>Okinawa Perfecture</td>
<td></td>
</tr>
</tbody>
</table>

CHILEAN ENTRY REQUIREMENTS

Vessels that, in the past 24 months, have visited one of the regulated areas during the specified risk period must:

- obtain a valid pre-departure certificate from a recognised certification body issued at the last port of call in a regulated area; and
- forward a copy of the pre-departure certificate together with two years of port of call data to the Chilean officials at least 24 hours prior to arrival.

INSPECTIONS IN CHILEAN PORTS

We are not aware that any specific heightened surveillance periods are specified for Chilean ports. Vessels arriving without the required certificates will be subject to inspections – the extent and location of the inspection will be determined based on an assessment of a vessel’s overall AGM risk. Such inspection must take place in daylight and free pratique may not be granted until the inspection has been completed.

AVAILABLE INFORMATION FROM SAG

Relevant information (in Spanish) includes a separate gypsy moth web page, with links to the country’s regulations, procedures, instructions and forms, and other guiding documents.

An English version (unofficial translation) of the Chilean regulations can be found here: Res. No. 4412/2013 (en) as revised by Res. No.8870/2015 (en). Other useful documents in English include the posters: “Check the ship before your arrival to Chile” and “Asian Gypsy Moth (AGM)”.
AUSTRALIA

The AGM programme is managed by the Australian Department of Agriculture and Water Resources (DAFF, www.agriculture.gov.au).

AUSTRALIA’S DEFINITION OF REGULATED AREAS AND SPECIFIED RISK PERIODS

The regulated areas include ports in Russia only and Australia base their AGM policy on the following definition of regulated areas and specified risk periods:

<table>
<thead>
<tr>
<th>AGM REGULATED AREA</th>
<th>SPECIFIED RISK PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Russia</td>
<td>1 Jul - 30 Sep</td>
</tr>
<tr>
<td>All ports between 40°N and 60°N latitude and west of 147°E longitude</td>
<td></td>
</tr>
</tbody>
</table>

AUSTRALIAN ENTRY REQUIREMENTS

As part of the Australian Maritime Arrivals Reporting System (MARS) and the required Pre-Arrival Report (PAR), vessels are required to:

- disclose whether they, in the past 24 months, visited a port in the regulated area during the specified risk period (question 6), and if yes;
- advise if they since the last port call in a regulated area have been inspected and cleared by an agricultural authority in Australia, Russia, Canada, New Zealand or the US (question 6.2) and forward a copy of the relevant clearance certificate as an attachment to the PAR.

INSPECTIONS IN AUSTRALIAN PORTS

DAFF states that the heightened surveillance period for Australian ports is between January and May each year. Vessels classified as high risk of AGM will be assessed by DAFF to determine the need for AGM inspection on arrival and will be notified if a targeted AGM inspection is required as part of their first port arrival formalities.

AVAILABLE INFORMATION FROM DAFF

Relevant information includes an AGM Factsheet, found under their information on high risk cargo pests that shall be considered before importing goods to Australia. Access to the Maritime Arrivals Reporting System (MARS), containing Pre-Arrival Report forms, user guides and frequently asked questions, is available via DAFF’s Biosecurity > Vessels portal. Changes to the targeted AGM inspection program are usually announced through their Import Industry Advice Notices.
**NEW ZEALAND**
The AGM programme is managed by the Ministry of Primary Industries (MPI, www.mpi.govt.nz).

**NEW ZEALAND’S DEFINITION OF REGULATED AREAS AND SPECIFIED RISK PERIODS**
Regulated areas include ports in East Russia, Japan, Korea and Northern China and New Zealand base their AGM policy on the following definition of regulated areas and specified risk periods:

<table>
<thead>
<tr>
<th>AGM REGULATED AREA</th>
<th>SPECIFIED RISK PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Russia</strong></td>
<td><strong>1 Jul - 30 Sep</strong></td>
</tr>
<tr>
<td>South of 60°N latitude and west of 147° longitude (excluding those ports on the Kamchatka Peninsula)</td>
<td></td>
</tr>
<tr>
<td><strong>China</strong></td>
<td><strong>1 Jun - 30 Sep</strong></td>
</tr>
<tr>
<td>North of 31°15’N latitude</td>
<td></td>
</tr>
<tr>
<td><strong>Republic of Korea</strong></td>
<td><strong>1 Jun - 30 Sep</strong></td>
</tr>
<tr>
<td>All ports</td>
<td></td>
</tr>
<tr>
<td><strong>Northern Japan</strong></td>
<td><strong>1 Jul - 30 Sep</strong></td>
</tr>
<tr>
<td>Hokkaido, Aomori, Iwate, Miyagi, Fukushima</td>
<td></td>
</tr>
<tr>
<td><strong>Western Japan</strong></td>
<td><strong>25 Jun - 15 Sep</strong></td>
</tr>
<tr>
<td>Akita, Yamagata, Niigata, Toyama, Ishikawa</td>
<td></td>
</tr>
<tr>
<td><strong>Eastern Japan</strong></td>
<td><strong>20 Jun - 20 Aug</strong></td>
</tr>
<tr>
<td>Fukui, Ibaraki, Chiba, Tokyo, Kanagawa, Shizuoka, Aichi, Mie</td>
<td></td>
</tr>
<tr>
<td><strong>Southern Japan</strong></td>
<td><strong>1 Jun - 10 Aug</strong></td>
</tr>
<tr>
<td>Wakayama, Osaka, Kyoto, Hyogo, Tottori, Shimane, Okayama, Hiroshima, Yamaguchi, Kagawa, Tokushima, Ehime, Kochi, Fukuoka, Oita, Saga, Nagasaki, Miyazaki, Kumamoto, Kagoshima</td>
<td></td>
</tr>
<tr>
<td><strong>Far Southern Japan</strong></td>
<td><strong>25 May - 30 Jun</strong></td>
</tr>
<tr>
<td>Okinawa</td>
<td></td>
</tr>
</tbody>
</table>

Vessels that, in the past 12 months, have visited one of the regulated areas during the specified risk period must:

- obtain a valid pre-departure certificate from a recognised certification body issued at the last port of call in a regulated area;
- make sure the certificate confirms that the vessel was inspected during the daylight hours on the same date as the vessel’s departure; and
- forward a copy of the pre-departure certificate together with one year of port of call data to the MPI at least 48 hours prior to arrival.

**INSPECTIONS IN NEW ZEALAND PORTS**
We are not aware that any specific heightened surveillance periods are specified for New Zealand ports. Vessels arriving without the required certificates will be subject to inspection at a specific port as determined by the MPI or potentially four nautical miles offshore at an agreed location if the risk is considered to be very high.

**AVAILABLE INFORMATION FROM THE MPI**
Relevant information is found under the Hitchhiker Pests website. This page provides links to a number of useful publications, such as the brochure “Don’t bring hitchhikers to New Zealand on your commercial vessel” as well as to the relevant inspection requirements, outlined in the “Craft Risk Management Standard (CRMS) Vessels”. In addition, the website Vessel arrival process steps provides an overview of all requirements applicable to vessels arriving in New Zealand, including those related to biosecurity and AGM inspections.
Q10: HOW CAN THE CREW REDUCE THE VESSEL’S RISK OF AGM INFESTATION?
The implementation of proper routines for carrying out systematic self-inspections onboard the vessel while en route can be a good way to avoid delays and re-routing during subsequent port calls.

Guides for conducting vessel self-inspections have been published by various authorities and are available to download, examples are Canadian authorities’ “Inspect Before Entry” and US authorities’ “Gypsy Moth Inspectional Pocket Guide.” The guides provide helpful instructions to vessel crews on what the egg masses look like, where they might be found onboard the vessels, and how the eggs should be removed and destroyed. In summary, the crew should:

• Carry out a thorough visual inspection of all accessible areas of the vessel’s superstructure, decks, holds, cargo and cargo gear. Use binoculars to inspect unreachable areas. Egg masses are often deposited in sheltered locations, in crevices or cavities, under tarps, behind doors, around light fixtures, and underneath the hold rims. As female AGMs are attracted to light, female moths could lay their egg masses on surfaces of the vessel exposed to night lights.

• Scrape off any egg masses found and destroy them in alcohol, boiling water or by incineration. Do not paint over egg masses or drop egg masses into the sea as this will not kill the eggs or larvae.

• Record details of the inspections undertaken and the removal and disposal of AGM egg masses in the vessel’s deck log book.

Q11: ARE THERE OTHER RELEVANT SOURCES OF AGM INFORMATION?
North American Plant Protection Organization (NAPPO)
NAPPO (www.nappo.org) is a forum for public and private sectors in Canada, U.S. and Mexico to collaborate in the development of science-based standards intended to protect agricultural, forest and other plant resources against regulated plant pests, while facilitating trade. NAPPO has published the standard RSPM 33: Guidelines for regulating the movement of ships and cargo from areas infested with the Asian gypsy moth describing various risk management options for vessels which called at ports where the AGM is present.

BIMCO
The BIMCO clause “Asian Gypsy Moth Clause for Time Charter Parties” focusing on the basic obligations and responsibilities of owners and charterers when dealing with AGM was published in January 2015, see our Gard Alert of 30 January 2015.

The full text of the Asian Gypsy Moth Clause for Time Charter Parties can be found in the Contracts & Clauses section of BIMCO’s website at www.bimco.org and Members and clients are recommended to verify that the wording of existing charterparties addresses the allocation of responsibilities in respect of the risk of infestation by AGM.

A collection of AGM information, both general and country specific, is also made available by BIMCO and can be found in the Ships, Ports & Voyage section of their website.