



**NAPPO**

North American Plant Protection Organization  
Organización Norteamericana de Protección a las Plantas  
MEXICO - USA - CANADA

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## **NAPPO Position Document**

### **P 07**

#### **Asian gypsy moth (AGM) specified risk periods in Japan, Russia, Republic of Korea, and China**

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1 **Virtual approval of NAPPO Products**

2 Given the current travel restrictions brought about by the COVID-19 pandemic, the NAPPO  
3 Management Team unanimously endorsed a temporary process for virtual approval of its  
4 products.

5  
6 Beginning in January 2021 and until further notice, this statement will be included with each  
7 approved NAPPO product in lieu of the Executive Committee original signature page.

8  
9 The Position Document – **Asian gypsy moth (AGM) specified risk periods in Japan, Russia,**  
10 **Republic of Korea and China** - was approved by the North American Plant Protection  
11 Organization (NAPPO) Executive Committee – see approval dates below each signature - and is  
12 effective from the latest date below.

13

14

15 **Approved by:**

16

17

**Greg Wolff**  
Executive Committee Member  
Canada  
Date XXXX, 2021

**Osama El-Lissy**  
Executive Committee Member  
United States  
Date XXXX, 2021

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**Francisco Ramírez y Ramírez**  
Executive Committee Member  
Mexico  
Date XXXX, 2021

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1 **Executive Summary**

2  
3 The specified risk period (SRP) is the time in each of the Asian Gypsy Moth (AGM)-regulated  
4 areas when there is a high risk of AGM flight and egg mass deposition on marine vessels. The  
5 SRP in a regulated area is a critical component of pre-departure vessel inspection and certification  
6 programs that are designed to mitigate the risk of AGM introduction to North America and other  
7 countries that regulate AGM. There was a need to re-evaluate the SRPs for all AGM-regulated  
8 countries as several years have elapsed since the time when these SRPs were adopted and flight  
9 periods for AGM may have changed due to such factors as climate. Reported sightings of moths  
10 flying outside or very near the beginning and end of the current SRPs also indicated that a review  
11 was needed. It is important to validate the SRP in AGM-regulated areas to ensure that risk  
12 continues to be effectively mitigated.

13  
14 The AGM Expert Group (EG) of the North American Plant Protection Organization (NAPPO) has  
15 reviewed the SRPs for the AGM species complex in all AGM-regulated countries (China, Japan,  
16 Republic of Korea, and Russia). The available AGM data has been analyzed to determine if the  
17 current SRPs for AGM-regulated areas are adequate to include moth flight and the risk of egg  
18 mass deposition or if modifications should be considered.

19  
20 The data reviewed included, where available, primarily trapping data, results of AGM vessel  
21 inspections in regulated countries, records of adult moth occurrences in the literature and climate  
22 data. The evaluations of each source of data were then considered together and summarized to  
23 develop the new SRP proposal.

24  
25 In addition to analyzing available data, the analysis considered the feasibility and practicality for  
26 National Plant Protection Organizations (NPPOs) and stakeholders, such as AGM inspection  
27 bodies and the shipping industry, to implement a proposed revision to the AGM SRPs. Taking all  
28 of this into account, revisions were proposed for Japan and Russia which include:

- 29  
30 – Adjustments to the SRP regions and extending the SRP start and end dates for some regions  
31 in Japan;  
32 – Extending the SRP start and end date in Russia;  
33 – A reduction in the total number of specified risk periods from six to four.

34  
35 Based on available data, there are no changes to the SRPs for the Republic of Korea or China at  
36 this time. Implementation of changes to the SRPs is planned for 2022 and will occur only after  
37 consultation, and policy and program updates. The SRPs for all areas will continue to be reviewed  
38 periodically, should additional data become available.

39  
40 The implementation of the revised AGM SRPs is anticipated to decrease the risk of AGM  
41 spreading into North American through marine vessels from regulated areas and to make it  
42 simpler for stakeholders to comply with AGM program requirements.

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## 1 Background

2  
3 Asian gypsy moth (AGM) (for regulatory purpose, a complex of closely related *Lymantria* species  
4 including *Lymantria dispar asiatica*, *L. d. japonica*, *L. albescens*, *L. umbrosa*, and *L. postalba*) is  
5 a serious threat to North American forests and biodiversity. The larval stage feeds on over 500  
6 known host plants including many deciduous and coniferous trees. Introduction and establishment  
7 of AGM in North America could cause significant damage to the North American agriculture,  
8 forestry, and environmental sectors, to commerce that relies on those sectors, and to market  
9 access. One of the risk mitigation objectives for North American is to manage AGM risk at origin  
10 through vessel pre-departure inspection and certification. The vessel pre-departure inspection  
11 program for AGM was established in 1992 to mitigate the risk of AGM introduction and spread to  
12 North America while minimizing impacts to trade with the Asia-Pacific region.

13  
14 An important consideration to the success of the pre-departure inspection and certification  
15 program in mitigating the risk is understanding when there is a high risk of moth flight and egg  
16 mass deposition on marine vessels. That time period is known as the specified risk period (SRP).  
17 There are currently seven SRPs for AGM. Vessels that visit regulated ports during their SRPs are  
18 required to be inspected and certificated free of AGM prior to calling on North American ports.  
19 Japan currently has five SRPs while each other country that is regulated for AGM has a single  
20 SRP.

21  
22 The original SRPs were determined based on flight data available at that time. A buffer period of  
23 two weeks was included at the beginning and end of each SRP to account for annual variation.

24  
25 The AGM pre-departure inspection and certification program has been in place for many years,  
26 including almost 30 years in Russia. With access to additional flight data, there is now a  
27 recognition that flight periods for AGM may change over time, due to such factors as climate. As  
28 part of on-going, regular program evaluation and review to ensure that risks continue to be  
29 effectively mitigated, a validation of SRPs in AGM-regulated areas was warranted.

30  
31 In AGM vessel inspection reports from some regulated countries, inspectors have recorded  
32 evidence of moth flight outside of the current SRPs or very close to the start or end dates of the  
33 current SRPs. Further examination of the available AGM trapping data indicates that AGM male  
34 adults were captured in traps outside, or close to the current beginning or end, of the SRP in some  
35 regulated areas. There were also photos of AGM adults taken on dates close to the current  
36 beginning or end of the SRPs and posted on public web sites. This information indicated that  
37 some AGM flight may be occurring outside of the current SRPs, which then need to be revised to  
38 reflect the reality of adult flights and thereby minimize the risk. These revisions also need to be  
39 mindful of facilitating trade and to ensure that requirements are as simple as possible for industry.

## 40 Data Reviewed and Approach

41  
42 Several sources of data were evaluated. The primary data included available trapping data  
43 provided by National Plant Protection Organizations (NPPOs) in AGM-regulated areas and  
44 inspection reports provided by recognized AGM vessel inspection bodies. These data were  
45 supplemented with reports of occurrences of live adults from public web sites, and climate data.  
46 The evaluations of each source of data were then considered together and summarized to  
47 develop revised SRPs, as warranted.

1  
2 The differences between the first date of AGM male capture versus the current beginning of the  
3 SRP for the region, and the last date of capture versus the ending of the current SRP for that  
4 region were calculated. As was done when the dates for the current SRPs were established, a  
5 two-week buffer period was applied to the beginning and the end of the observed flight periods.  
6 This two-week buffer period mitigates the risk associated with changes to observed adult flight  
7 times due to factors such as annual climate abnormalities and trap efficacies.

8  
9 The focus of the analysis of AGM vessel inspection reports was on the detection of adults,  
10 especially confirmed live AGM female adults, observed during vessel inspection by inspection  
11 companies in regulated countries. Egg masses and dead adults were not considered as they did  
12 not indicate when adult moths might be laying eggs.

13  
14 The web site [jpmoth.org](http://jpmoth.org) has pictures of some *Lymantria* adults with information about the location  
15 and dates when the pictures were taken. It includes all species and subspecies of AGM in Japan,  
16 although not necessarily at the actual beginning date and ending date of moth flight.

17  
18 The development rate of an insect depends primarily on climate conditions, especially the  
19 temperature. Climate data from Japan Meteorological Agency (JMA) were considered as part of  
20 the analysis of SRPs. Similar climatic regions of Japan and corresponding adult moth flight times  
21 were grouped and considered. When locations of reported AGM occurrence were in inland  
22 prefectures, and therefore not included in a current AGM SRP region, the locations were  
23 compared to that of current AGM SRP regions for similarities in climate zones, as well as to  
24 monthly average temperatures.

## 25 **Results**

### 26 27 Review of Specified Risk Periods and modifications to AGM regions for Japan.

28 The grouping of different locations into AGM SRP regions is based on scientific evidence,  
29 especially trapping and inspection data. In some ports, the data revealed earlier and later flight  
30 times than are currently reflected in the SRP's. After combining all results, the SRP's would be  
31 as follows: June 18 – October 17 for the Northern region, June 11 - September 30 for the Western  
32 region, June 1 – September 30 for the Eastern region, May 19 - August 31 for the Southern region,  
33 and May 25 - June 30 for the Far Southern region.

34  
35 To simplify the requirements, increase compliance, and facilitate trade, the 15<sup>th</sup> day of a month  
36 was used when the SRP dates were in the middle of the month. However, in the case of the Japan  
37 Western SRP where the new start date falls close to the middle of the month, but is earlier than  
38 the 15<sup>th</sup>, the start of the period was moved to the beginning of the month to capture the entire risk  
39 period.

40  
41 Based on the review of the SRP and climate data, the current Western and Eastern regions were  
42 combined to form a single region, now referred to as "Central." The earliest and latest incidences  
43 of moth flight are similar for the Western and Eastern regions and the SRPs are essentially the  
44 same. When the dates were simplified to correspond to the beginning, middle or end of the month,  
45 the proposed SRPs for the Western and Eastern regions become the same. This new Central  
46 region now corresponds to the established SRPs for both China and Republic of Korea. Climate  
47 is also similar for the Western and Eastern AGM SRP regions as they fall into the Eastern Japan  
48 climate district as defined by the JMA.

1  
2 Akita and Yamagata prefectures are currently placed in the Western AGM SRP region. However,  
3 the monthly mean temperature of the two AGM Western ports, Akita (in Akita prefecture) and  
4 Sakata (in Yamagata prefecture) are almost identical to that of current AGM Northern SRP port  
5 of Onahama in Fukushima prefecture). The JMA groups these two prefectures into the same  
6 climate region as the prefectures in the AGM Northern SRP. Based on this, both Akita and  
7 Yamagata prefectures have been placed in the AGM Northern SRP region.

8  
9 Review of Specified Risk Period for Russia  
10 The review was based on male moth trapping data from 2014 to 2020 provided by All Russia  
11 Plant Quarantine (FGBU “VNIKR”) Center. The earliest moth capture was on July 4 (Korsakov,  
12 2014) and the latest was on September 25 (Vanino, 2014) and September 21 (Vladivostok, 2016).  
13 With 2-week buffers added to both ends, the SRP for the Russian Far East ports would be equal  
14 to June 19, 2020 and October 8, 2020. Considering the practicality, and also synchronization with  
15 the SRP for Northern Japan, the SRP for Russia Far East is revised from the current July 1 -  
16 September 30 to June 15 - October 15.

17  
18 Review of SRPs for Republic of Korea and China  
19 No revisions to current SRPs were made based on the available data. The SRPs for these areas  
20 will be reviewed again, should additional data become available.

## 21 **Summary and Conclusion**

22  
23 The available data and information indicate that revisions to the SRPs in Japan and Russia are  
24 warranted to better reflect the AGM flight periods and climate factors. The summary of revised  
25 SRP dates and regions is shown in Table 1 and illustrated in Figure 1. For Japan, the number of  
26 SRP regions has been reduced from five to four. Within the Northern, Central and Southern  
27 regions, the SRPs have been extended. For example, in the Northern region and Southern  
28 regions, the SRP begins 15 days earlier than the current SRP. In the Northern region, the SRP  
29 ends 15 days later and in the Southern region the SRP ends 20 days later. The SRP in the Central  
30 region begins about three weeks earlier and ends two to four weeks later than the former Western  
31 and Eastern regions. The new Central region SRP of June 1 - September 30 also aligns with the  
32 current SRP for China and Korea. No modifications have been proposed for the far Southern  
33 region.

34

1 **Table 1. Current and New Specified Risk Periods (SRP) in Russia, Japan, China and**  
 2 **Republic of Korea**

3

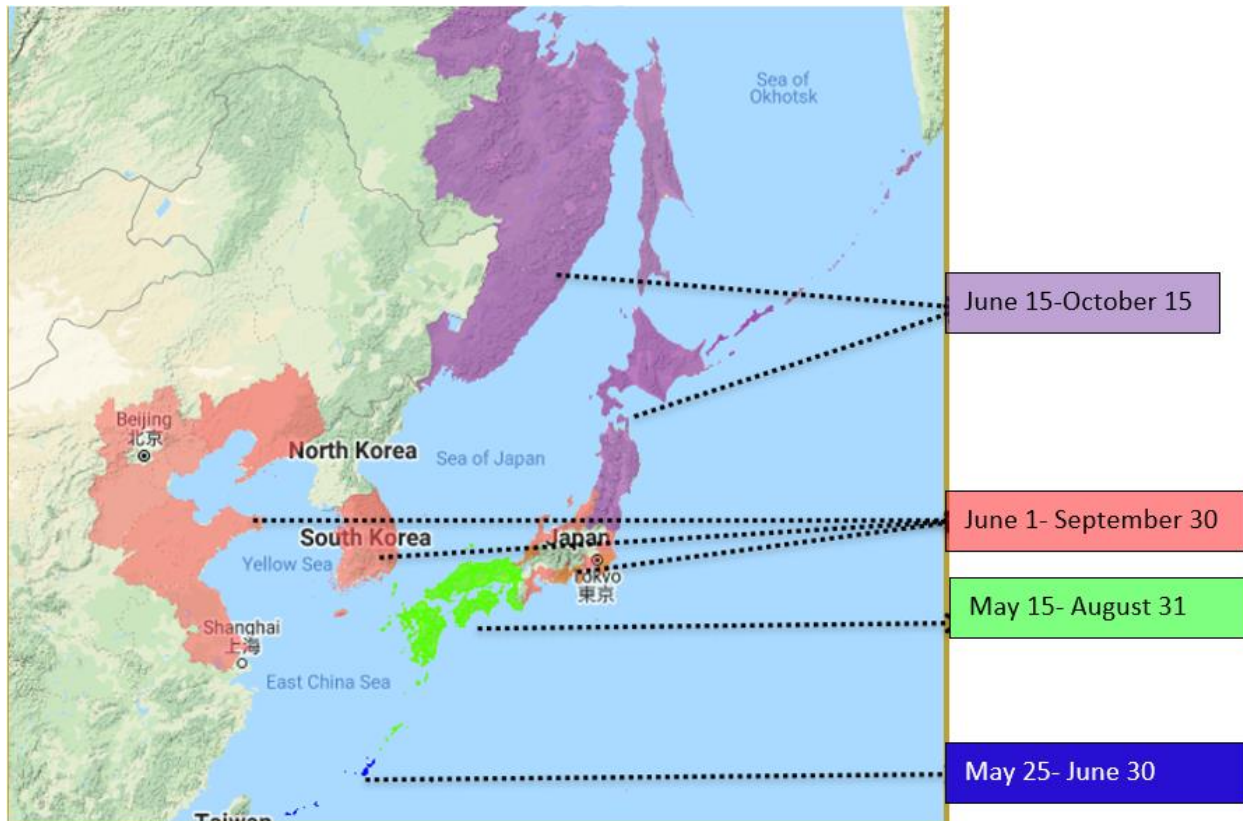
Country	SRP Region		Area/Prefecture	Current SRP (2021)	Revised SRP beginning in (2022)
<b>Japan</b>	Northern		Hokkaido, Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima	July 1 – September 30	June 15 – October 15
	Central	Western	Niigata, Toyama, Ishikawa	June 25 – September 15	June 1 – September 30
		Eastern	Fukui, Ibaraki, Chiba, Tokyo, Kanagawa, Shizuoka, Aichi, Mie	June 20 - August 20	
	Southern		Wakayama, Osaka, Kyoto, Hyogo, Tottori, Shimane, Okayama, Hiroshima, Yamaguchi, Kagawa, Tokushima, Ehime, Kochi, Fukuoka, Oita, Saga, Nagasaki, Miyazaki, Kumamoto, Kagoshima	June 1 – August 10	May 15 – August 31
	Far southern		Okinawa	May 25 – June 30	May 25 – June 30 (no change)
<b>Russia</b>	Far east			July 1 – September 30	June 15 – October 15
<b>China</b>	On or North of latitude 31° 15'N			June 1 – September 30	June 1 – September 30 (no change)
<b>Republic of Korea</b>	all areas			June 1 – September 30	June 1 – September 30 (no change)

4

5



1 **Figure 1. New specified risk period (SRP) for regions in regulated countries (same**  
2 **background color regions have the same dates)**



Overall, the new SRPs for Japan and Russia, as well as adjustments to regions for Japan, provide greater confidence that the risk of AGM on vessels will be mitigated through the inspection and certification process. The reduction in SRP regions and alignment of dates is also expected to further assist the marine transportation industry, inspection and certification companies and NPPOs in continuing to achieve high rates of compliance for obtaining vessel certification and for vessels arriving in North America AGM-free.

Revision of the SRP dates in AGM-regulated countries could have an impact on AGM programs in other regulating countries such as Argentina, Chile, and New Zealand. Discussions with other regulating countries have occurred and will continue to ensure that current program alignment is maintained to the highest degree possible. This will ensure on-going predictability and facilitate compliance with the programs by the marine shipping industry.

Along with the NAPPO country consultation process, NPPOs, the marine shipping industry and other stakeholders will be informed of the new SRPs through World Trade Organization notification, bulletins, and other outreach material at national and regional levels. Policy and program changes in AGM-regulating countries will need to be made to reflect the new SRPs and these changes will also be communicated through, regional, national and international mechanisms. It is recognized that NPPOs, and inspection and certification bodies will require time to adjust to the new SRPs so that they can develop procedures and communication materials, train staff and determine resource needs. For the first year of implementation (2022), a transition between the old and new SRPs will be in place. For example, a vessel that received its certificate

1 while the old SRPs were in place (2021) would not be penalized if it had not returned to a regulated  
2 area in the year that the new SRPs came into force (2022).  
3  
4 NAPPO encourages NPPOs with existing AGM programs or those considering designing a  
5 program to align program components where feasible, including using the same suite of SRPs.  
6 As with any phytosanitary program, program review will continue to occur, and requirements will  
7 be re-assessed as new information becomes available.  
8