



Australian Government  
Department of Agriculture  
and Water Resources

# Brown Marmorated Stink Bug (BMSB)

## Industry Session



July 2018

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# Peta Lane

First Assistant Secretary, Compliance Division

# Agenda

- Rama Karri
  - BMSB risks and measures - recap
  - Lessons learned from previous seasons
  - What worked well
- Caroline Martin
  - BMSB spread and establishment
  - Methodology to develop next measures
  - Likely measures for next season
- Nathan Reid
  - Treatment requirements

BMSB risks and measures - recap

Lessons learned from previous seasons

What worked well

Rama Karri

# BMSB – the agriculture pest

- Potential to severely impact our agricultural industries
- Juveniles and adults feed on, and severely damage fruit and vegetable crops
- Known to feed on around 300 different plant species
- Overwintering bugs do not respond to pheromones so traps are of limited use



*Images source: google*

# BMSB – a nasty peach of work



Total loss of early season stone fruit due to BMSB

*Images source: google*



# BMSB – the nuisance pest

- Adults enter vehicles, homes and factories in large numbers in autumn months, looking for places to shelter over winter
- In some cases people experience a burning sensation if skin comes in contact with BMSB secretions
- The smell emitted is an aeroallergen that can cause allergic reactions in some people



*Images source: google*



# BMSB detections

- Found in large numbers seeking shelter from cold weather in crevices or protected areas of shipping containers, vehicles, boats, caravans, machinery and personal stored items

Examples of goods with historical BMSB detections:

Previously...	Recently...
Machinery	Plastics
Vehicles	Printed matter
Ships	Ceramics
Boats	Container surfaces



# Focus of previous seasons

- Mainly focussed on large complex machinery, vehicles and parts
- Measures included mandatory treatment of high risk goods shipped as breakbulk or containerised cargo from the USA and Italy
- Random onshore inspection of goods from emerging risk European countries
- Heightened surveillance of roll-on/roll-off vessels and pre-arrival reporting with a BMSB questionnaire



*Images source: google*

# Lessons learned



## Previous seasons

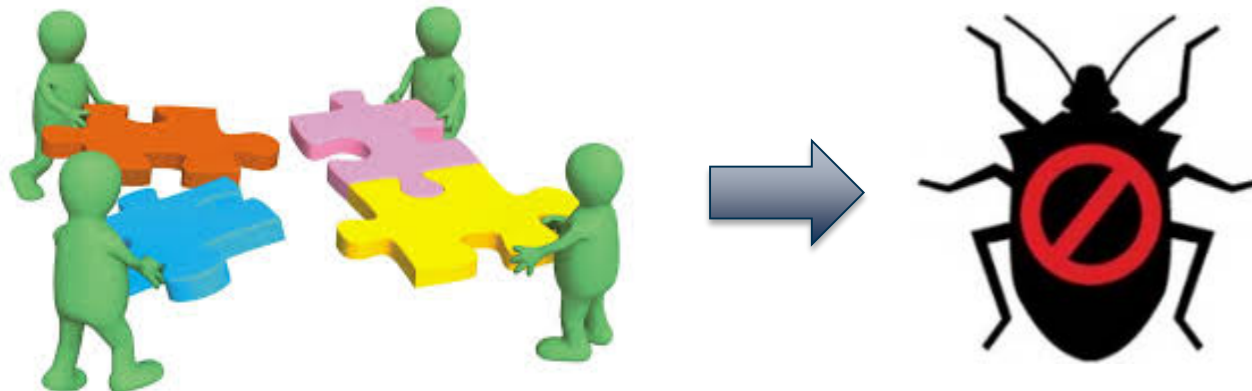
- Onshore inspections are not a practical and effective tool in detecting bugs
- Limited onshore commercial fumigation capacity contributed to treatment and clearance delays
- High risk goods continued to arrive without meeting the mandatory offshore treatment requirement

## Last season

- Increased number of detections on a range of pathways/goods not normally associated with BMSB
- Difficulties associated with the management of LCLs – both from a risk management and logistics perspective
- Issues with the validity of offshore treatment certificates

# What worked well...

- Collective effort in preventing the establishment of this nasty bug in Australia
- Collaboration with industry in quickly identifying and implementing measures to manage rapidly changing risk profile



# What else are we doing...

- Exploring use of detector dogs as an inspection tool
- Collaboration with states and territories and Plant Health Australia on a BMSB preparedness and contingency plan
- Considering research conducted overseas into treatment options and efficacy, and use of biological control agents



BMSB spread and establishment

Methodology to develop next measures

Likely measures for next season

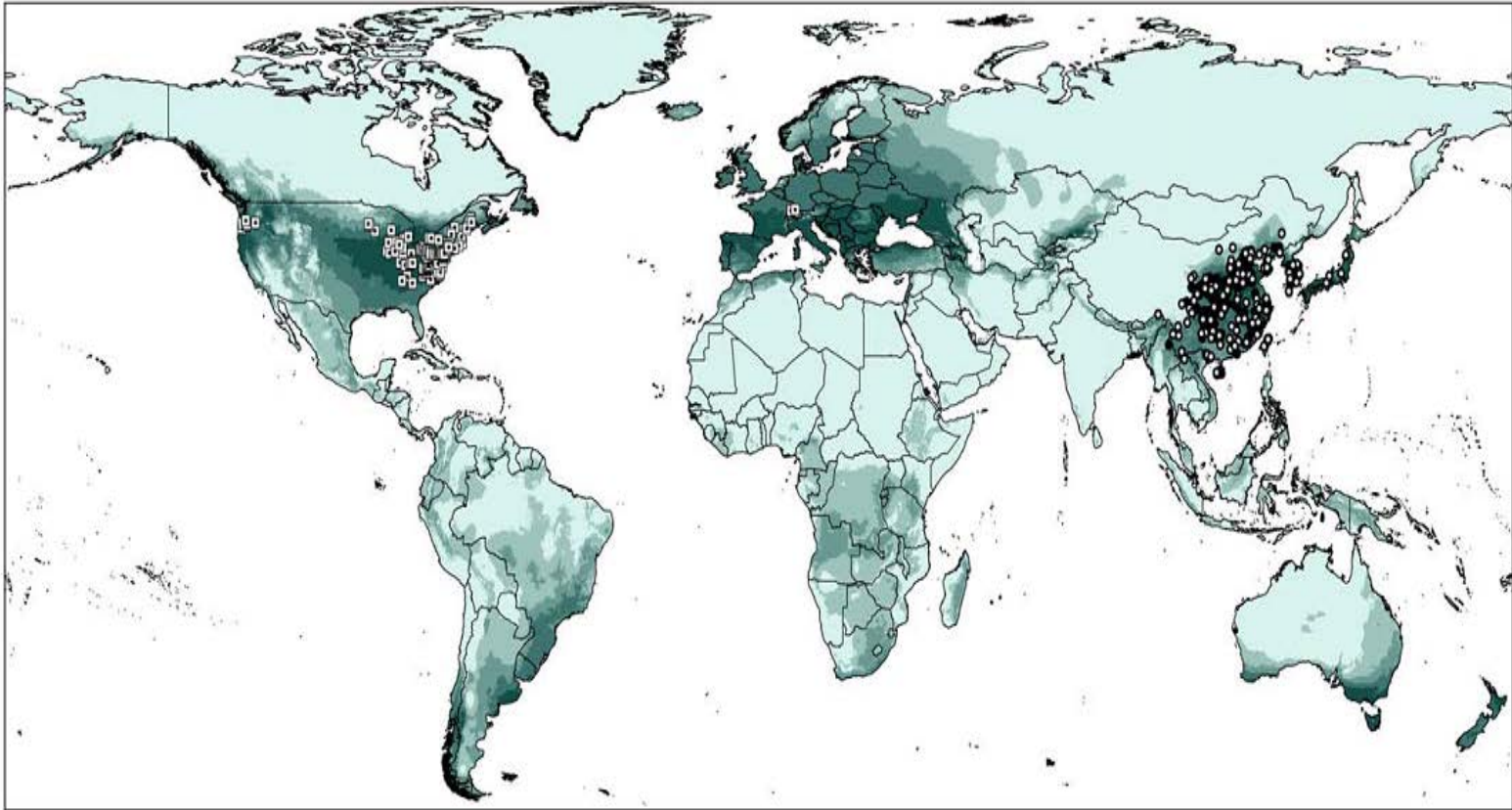
Caroline Martin

# BMSB – distinct markings

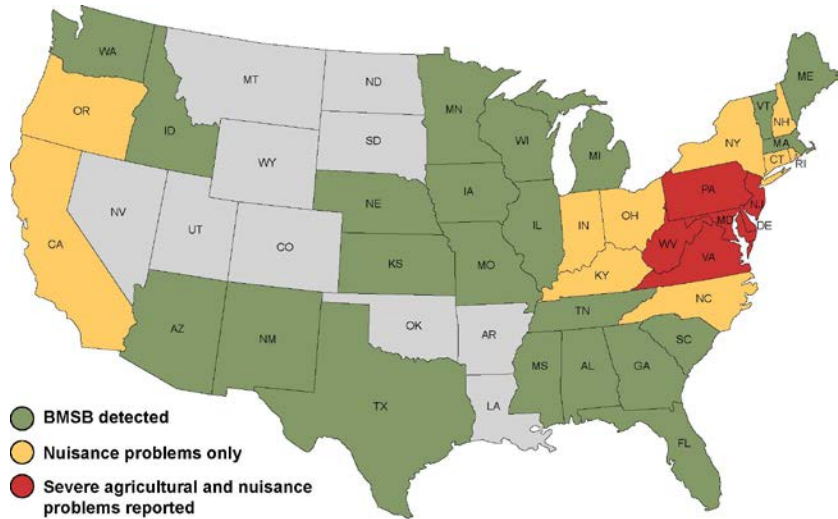
FIGURE 20 A selection of Australian native and exotic stinkbugs



# BMSB climate suitability

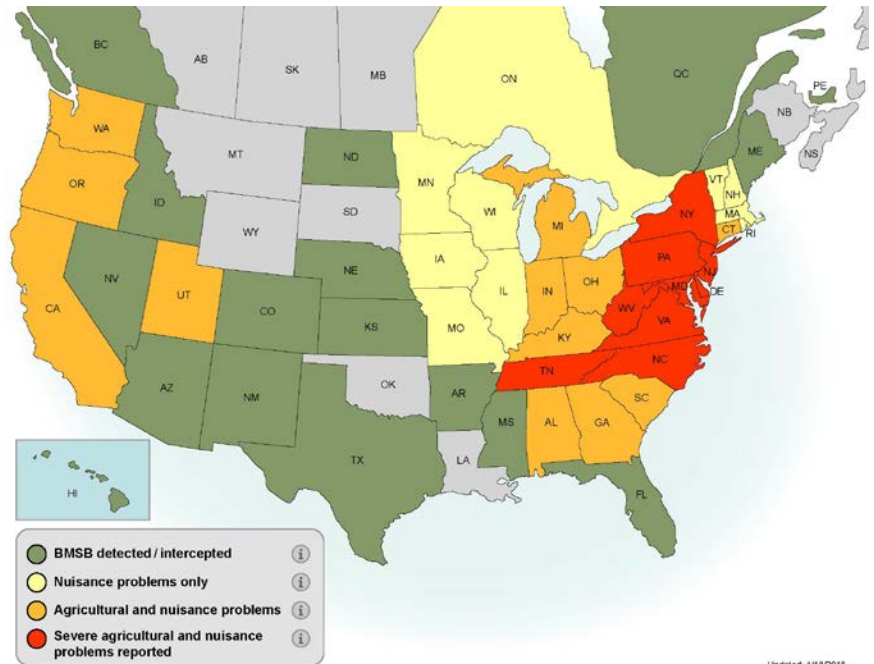


# BMSB spreads across North America



Map of USA as at May 2012

Map of USA and southern Canada as at January 2018

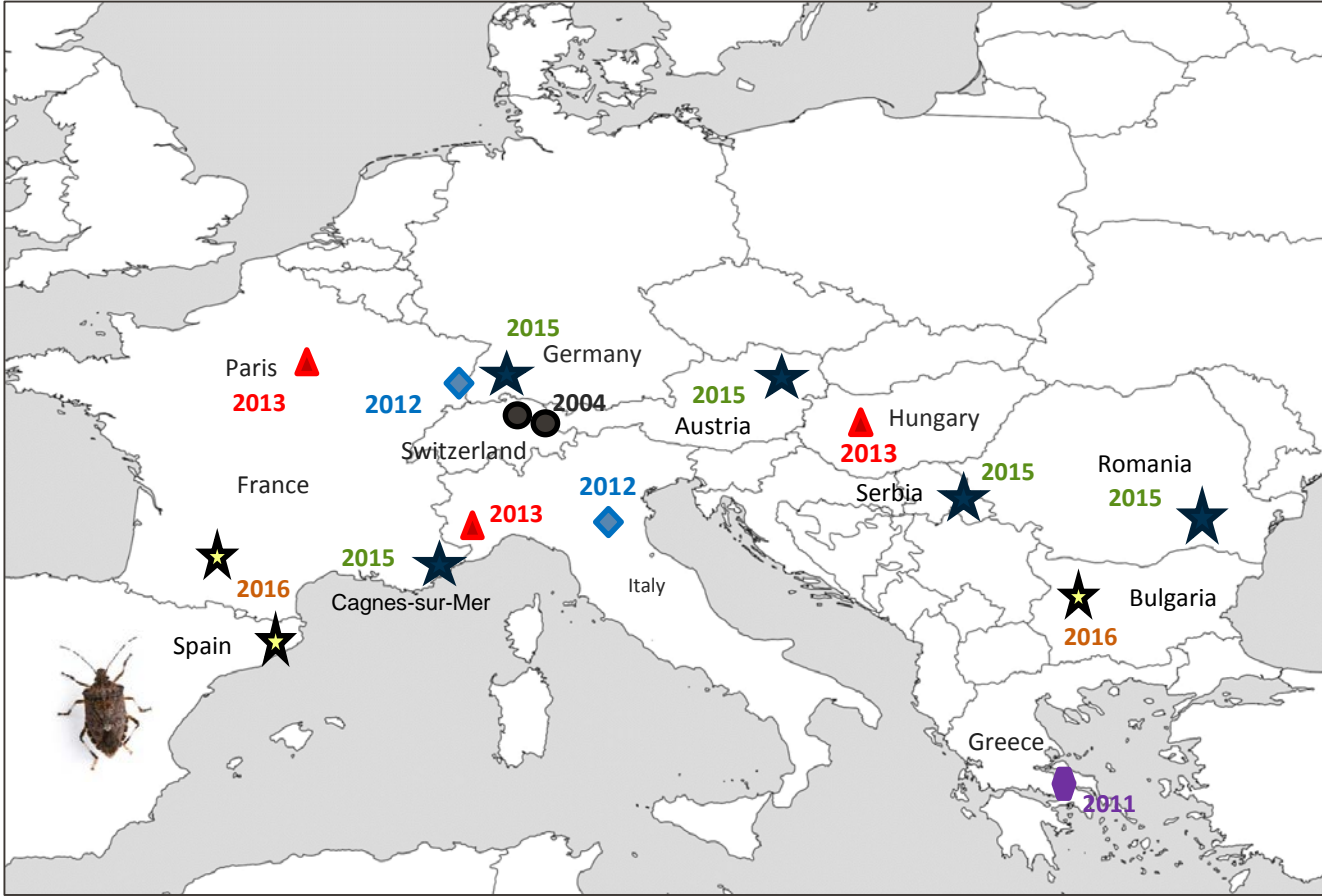


Updated: 1/18/2018

Credit: Maps provided by Northeastern IPM Center



# BMSB – making moves






# Keeping the bug out





# Seasonal measures methodology

- 
- Reviewed historical data on BMSB detections and contaminations
  - Reviewed historical data of arriving volumes of cargo and commodities
  - Conducted analysis and understanding of the BMSB pest spread of across Europe
  - Goods with BMSB detections were considered a reasonable risk for measures to be applied
  - Reviewed last season's measures and lessons learned
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# 2018-19 season measures

- The 2018-19 BMSB season commences on 1 September 2018 and finishes on 30 April 2019
- Seasonal measures apply for all target risk goods shipped on or between these dates
- Heightened surveillance will apply on all roll-on/roll-off (ro-ro) and general cargo vessels with pre-arrival reporting through a questionnaire and daily checks for BMSB from target risk countries
  - high risk vessels identified from the surveillance will be directed for inspection or treatment



# 2018-19 season measures

- seasonal measures will apply to all break bulk and open top containers from target risk countries, as well as containerised target risk goods
- target high risk goods will be subject to mandatory offshore treatment
- target risk goods will be directed for increased onshore intervention
- target high risk goods requiring mandatory offshore treatment and arriving untreated, will be directed for export or destruction, unless exceptional circumstances are granted



# 2018-19 season measures

- Target risk countries *(to be finalised)*



USA



Italy



Germany



France



Russia



Greece



Hungary



Romania



Georgia



Japan\*

*\* Heightened surveillance for all roll-on/roll-off (ro-ro) and general cargo vessels only*

# 2018-19 season measures

- Target high risk goods (*to be finalised*)
  - break bulk, including vehicles, machinery and equipment
  - bricks, tiles, ceramics, steel, stone, cement
  - goods likely to be stored in a manner that provides access for BMSB to overwinter
- Target risk goods (*to be finalised*)
  - chemicals, chemical products, salt, minerals, fertilizers
  - wood pulp, printed matter, straw, paper, cardboard
  - plastics, wadding, tyres

# 2018-19 season measures

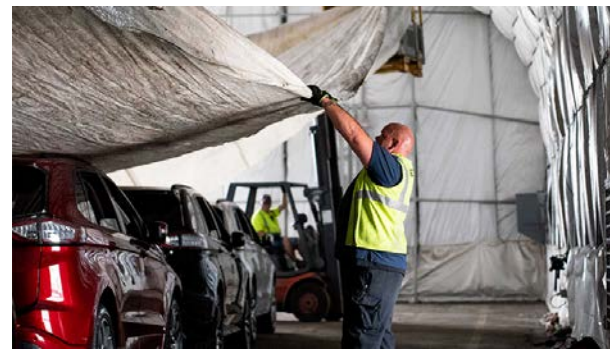
- Exempted goods for 2017-18 season
  - Fresh produce (including nursery stock and plants)
  - Live animals
  - Food for human consumption (including beverages)
  - Seeds for sowing
  - Registered pharmaceuticals
- For 2018-19 seasonal measures will not apply to goods not identified as 'target high risk' and 'target risk'



# 2018-19 season measures

*Image source: 2wglobal.com*

- Treatment options:
  - Sulfuryl fluoride fumigation
  - Methyl bromide fumigation
  - Heat treatment
- Target high risk goods will be directed for mandatory offshore treatment
- Target risk goods will be directed for increased onshore intervention
- Target high risk goods requiring mandatory offshore treatment and arriving untreated, will be directed for export or destruction, unless exceptional circumstances are granted



# BMSB Offshore Treatment

Nathan Reid

# Treatment assurance measures

- The department is developing new treatment assurance measures for the 2018-19 season. These will include:
  - Minimum standards for BMSB treatments and offshore treatment providers
  - An approved offshore treatment provider list
  - Processes to prevent fraudulent treatment certificates

# Treatment minimum standards

- The department has three approved treatments for BMSB:
  - Sulfuryl fluoride
  - Methyl bromide
  - Heat
- The department is developing minimum standards for offshore treatments
- Standards will be detailed in methodologies and published on the department's BMSB webpage
- Offshore treatment providers will be required to deliver treatments that are consistent with the standards set out in the methodologies

# Approved offshore treatment providers

- The department is establishing an Offshore BMSB Treatment Providers Scheme
- The department will only accept BMSB treatment certificates from treatment providers who have been approved under the scheme
- To become an approved treatment provider, applicants must demonstrate that they meet the requirements of the scheme. The full details of the scheme will be released in July.
- Treatment providers who intend to participate in the scheme are encouraged to submit a Notification of Intent, available at [www.agriculture.gov.au/bmsb](http://www.agriculture.gov.au/bmsb)

# Fraudulent certificates

- In 2017-18, the department ceased accepting certificates for sulfuryl fluoride treatments conducted in Italy. This was in response to BMSB detections, and a review of treatment providers and certificates.
- The Offshore BMSB Treatment Providers Scheme includes requirements to prevent the use of fraudulent certificates, including:
  - Unique identifiers, and
  - Pre-arrival reporting of treatments
- The new requirements will enable the department to match a consignment's treatment certificate to data from approved treatment providers.
- Consignments that arrive in Australia with a certificate that is fraudulent, defective, or from an unapproved treatment provider will be directed for export or disposal.

# Questions



Registered industry representatives will continue to receive updates on BMSB measures.

If you haven't registered, please email:  
[airandseacargo@agriculture.gov.au](mailto:airandseacargo@agriculture.gov.au)



Alternatively, visit the department's webpage for updates

[www.agriculture.gov.au/bmsb](http://www.agriculture.gov.au/bmsb)