All things BMSB

Wednesday 5 August 2020

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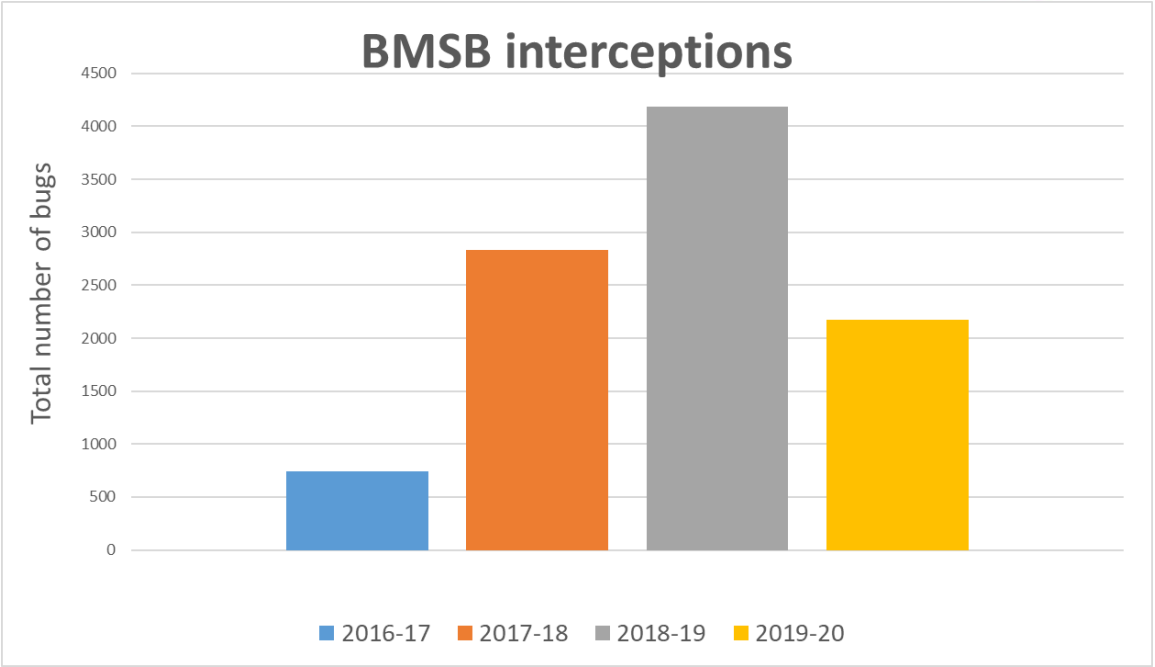
BMSB 2019/2020 season (Sep-Apr)

- Total number down by 43%
  - 73% less live at border
  - 47% less dead

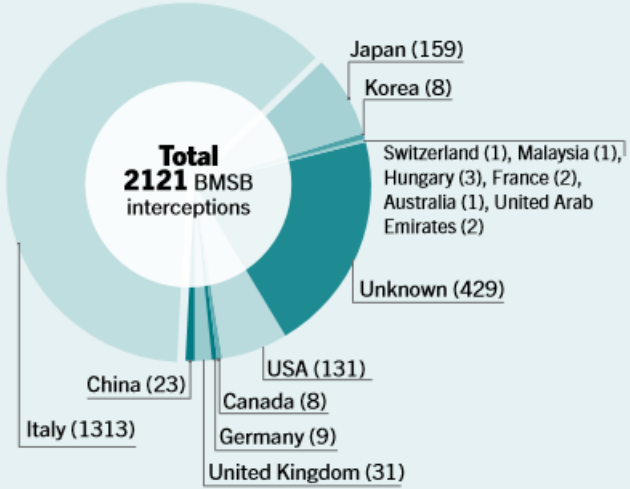
- Requirements for 19/20:
  - All vehicles and machinery from high-risk countries needs to be treated offshore
  - All sea containers from Italy need to be treated offshore



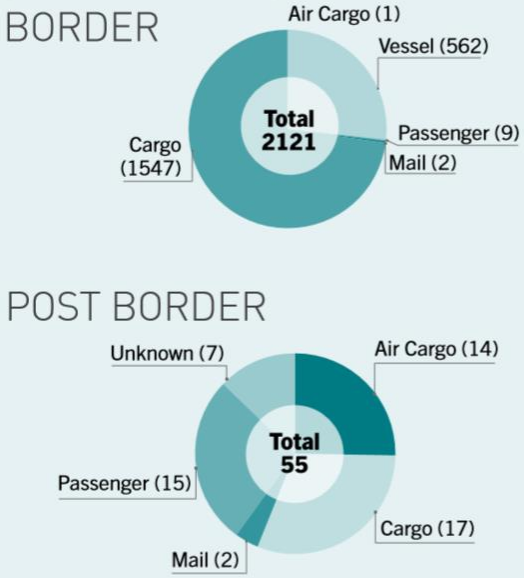
Some more detail…

BMSB season 2019/2020

Where the BMSB came from
(Total Border interceptions)



Pathway of interception
(Total number of BMSB)



Some BMSB facts

61%
OF INTERCEPTED STINK BUGS ARRIVED FROM ITALY.
This includes a single consignment with 834 dead bugs (**38%** of total number of bugs detected during the season).

93%
OF INTERCEPTED BUGS WERE DETECTED IN AUCKLAND OR CHRISTCHURCH.

The seasonal peak was **DECEMBER AND JANUARY**.

Arriving vessels and cargo have been the most **compliant on record** during the 2019/20 season.

Unlike previous seasons, Biosecurity NZ **did not have to direct any vehicle ships to leave New Zealand** due to stink bug contamination.

Reasons for success

- Partnership with Australia

Australian Government
Department of Agriculture

Ministry for Primary Industries
Manatū Ahu Matua

- Partnership with industry
  - Most successful awareness campaign yet
  - Industry awareness comms
  - KVH/Zespri commissioned PFR BOP trapping network feed into MPI national network

- Voluntary measures
  - Shipping lines undertaking voluntary fumigations/checks

- Tightening regulations going forward

Research update

Impacts and parasitoids

Research - BMSB impacts and parasitoids

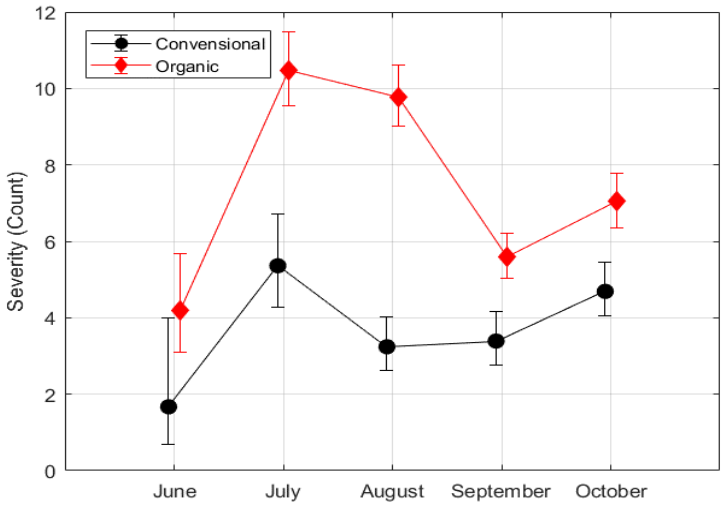
- Anecdotally 5-10% with up to 30% on worse orchards but looking to quantify this

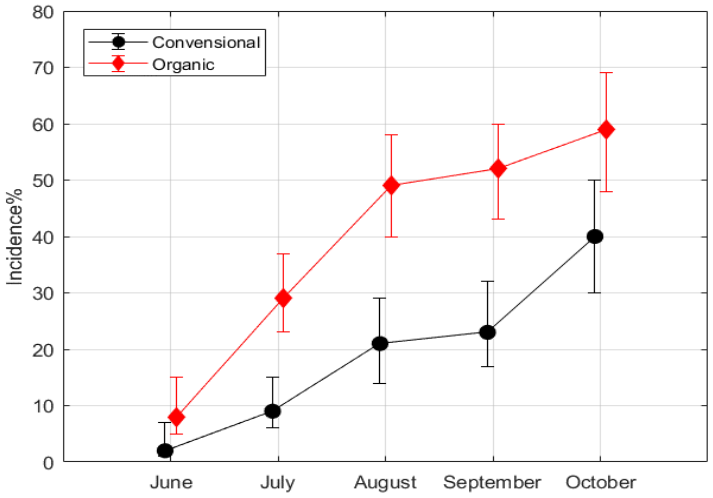
- Research undertaken to date:
  - Chinese translations
  - UCR project
  - Trials in Italy - 2 year project (complete)
  - Trials in China - 3 year project (2nd year complete)

Key findings:

- China
  - Chinese translations
    - 7-10% up to 25-30% in heavily infected orchards
  - China trials
    - Conventional vs organic- Hayward
    - Damage 40% conv and 60% organic
- Italy
  - Average damage was 60% HW and 50% G3

- First signs of damage were when fruit had reached third of size and highest damage was at harvest
- Kiwifruit can be used as a host for feeding and breeding





Research- Parasitoids

- In Italy: trials did not show a high level of promise for control: <u>spiders, earwigs, ants, tachinid flies and *Anastasus bifasciatus* were those found</u>

- In China: Dominant species were *T. japonicus* and *T. cultratus*

- Using sentinel egg masses - parasitism in field was significantly lower than reported at around 21% (12% in conventional and 30% in organic)