



Industry partners play a vital role in the fight against BMSB

By LYN O'CONNELL, Deputy Secretary, Department of Agriculture

Australia's enviable pest and disease free status is no accident. Thanks to our strict biosecurity controls, we remain free from many of the world's worst pests and diseases.

Over the last year, we have worked with industry and other stakeholders to manage the seasonal risk of Brown marmorated stink bugs (BMSB), as well as the risk of imported porcine products and meat goods in response to the global spread of African Swine Fever.

This disease is not present in Australia and an outbreak here could devastate pig health and production compromising our access to international markets.

These measures have resulted in the seizure or surrender of over 22,000 pork products in the last six months. When we tested samples of the products, 46 tested positive for African Swine Fever and two for foot and mouth disease.

We continue to monitor pathways for African Swine Fever (as well as BMSB and other pests and diseases) and have increased communications and awareness raising with vet associations, importers, travellers, airlines, postal services, tourist group operators, and online sellers.

The surge in declarations by arriving passengers alone suggests our communication activities are working.

We are also progressing a range of other activities that demonstrate our strategic investment and commitment to innovative practices and new technologies to reduce the risk of exotic pests and diseases reaching our shores.

2019-20 BMSB Season

Following a series of information sessions and targeted workshops with

our logistics and importer industry partners, we have released the final measures to manage the risk of BMSB during the upcoming 2019–20 season. This season will run from 1 September 2019 to 31 May 2020.

For the 2019–20 BMSB risk season, measures will apply to certain goods manufactured in, or shipped from, target risk countries, and/or vessels that berth at, load or tranship from target risk countries.

Most importantly, in response to the rapid expansion of this pest throughout Europe and North America, the target risk countries will increase to 33 for the 2019–20 season from 10 last season.

Target high risk and risk goods that were in scope for the 2018–19 season are expected to remain unchanged. These goods will be subject to increased onshore inspections to verify the presence of the bug. Any roll-on roll-off vessel that tranships or loads from the target risk countries will be subject to heightened vessel surveillance and mandatory seasonal pest inspection.

The final seasonal measures are available at: agriculture.gov.au/bmsb.

On behalf of the department, I would like to thank FTA members for their participation in these events and continuing engagement in the development of seasonal measures to manage the risk of BMSB.

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3D X-ray trials

New biosecurity video for Approved Arrangement operators

Given the focus on the upcoming BMSB season, it is timely that we have released a video to raise awareness of pests and diseases that may be present at cargo terminals.

You can view the video at https://www.youtube.com/watch?v=GeJHZY_LJ2Y&feature=youtu.be.

Many members of our importing community enter into approved arrangements to manage biosecurity risk on behalf of the department. If you work on a site with an approved arrangement, make sure you look for and report suspected pests and diseases.

Keep an eye out for pests that hitchhike their way into Australia on imported goods, shipping containers and machinery.

The video explains what to look for on sites, what to do next and how to report suspected risks.

If you see suspected something on a site, make sure you report it. Phone the department immediately on 1800 798 636 or visit agriculture.gov.au/pests-diseases-weeds/report.

3D X-ray trials - a biosecurity world first

We are trialling the use of 3D X ray technology to improve screening rates

and develop the auto-detection algorithms to identify biosecurity risk material at the border. Put simply, algorithms are specific instructions and rules that tell a computer what to do and what to look for. While they exist for explosives and other material, they have never been adapted for biosecurity purposes making this a world first.

In November 2018 a Rapiscan RTT 110 3D X-ray unit was installed in the passenger baggage area of Melbourne Airport. The unit produces high resolution three-dimensional images in real time, which allows biosecurity officers to rotate and slice the images different ways for more accurate and faster screening.

The trial had early success with the 3D capability detecting a significantly higher rate of risk material compared to our existing 2D X-ray units.

On 12 April 2019, after months of amassing an extensive image library of biosecurity risk items, the first biosecurity auto-detection algorithm was deployed. Within hours the algorithm detected a banana, an apple and mangosteens in passenger baggage.

Further algorithms are being developed and refined to help us target high risk threats such as meat products and seeds.

Across the Tasman, New Zealand has installed an identical unit at Auckland Airport and is working with us to develop

the image library and algorithms under the Trans Tasman Biosecurity Risk Detection Technologies Cooperation Agreement.

Following the success of the airport trials, we have installed a second unit at an Australia Post International Gateway Facility to trial the technology to screen mail and parcels.

Container Management Challenge

Through the Australian Government's Business Research and Innovation Initiative, we have sought ideas to enhance the way we prevent, detect and manage hitchhiking pests on or in shipping containers.

Under a two-step process, small to medium businesses were able to submit proposals to meet this challenge. Successful applicants can qualify for grants of up to \$100,000 to further develop ideas and test feasibility over three months, and a further grant of up to \$1 million to develop a prototype or proof of concept over the following eighteen months.

The department received many interesting proposals around the use of sensor imaging and scanning technology, drones, artificial intelligence and machine learning. Some proposals focused on treatment alternatives and automated container washing.

Announcements will be made shortly on the successful applicants who will progress to the feasibility stage.

It is great to have opportunities like this to draw upon the expertise and creativity of businesses to improve our biosecurity system. There is also scope for the above solutions to be modified for other uses in the future.