



DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 2.2

National Biosecurity Strategy

PURPOSE

To seek views and suggested priorities from members of the Department of Agriculture, Water and the Environment's Cargo Consultative Committee (DCCC) for inclusion in a national biosecurity strategy.

KEY POINTS

Australia's first national biosecurity strategy is currently being developed, with an early draft expected to be released in early 2022.

It is intended the national biosecurity strategy will:

- provide a strategic direction for Australia's national biosecurity system to 2030
- articulate a collective national vision, objectives and outcomes
- provide a means to drive coordinated reform and investment
- support nation-wide engagement on biosecurity
- include an implementation approach, focusing on co-design of actions and next steps with biosecurity partners
- be a vehicle to build on – and bring together – key strategic biosecurity documents, such as Commonwealth Biosecurity 2030, state and territory strategies, and industry strategies.

Initial consultation on the strategy design is underway, focusing on priorities and key themes. Further information is provided at [Attachment A](#).

We would like to hear from DCCC members their priorities for a national biosecurity strategy.

Submissions through [Have Your Say](#) as part of the initial consultation phase close on 26 November.

The National Biosecurity Strategy Project Team is also happy to arrange bilateral discussions with member organisations.

Some early views we are hearing from stakeholders include:

- Stakeholders recognise the importance of a national biosecurity strategy and want to be involved throughout its development.
- The process to develop the strategy is as important as the final document.
- They would like to see the strategy set out the areas we will be focusing on nationally to help guide our collective work together – and not just the work of governments - with all stakeholders able to see themselves in the strategy's agenda.
- There is a strong desire for a strategy that can be delivered upon – with tangible, achievable outcomes and supported by a proper implementation framework.

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- They would like more cohesion nationally and greater connectivity of elements within the system.
 - System investment and funding (across government and non-government) needs to be a part of the conversation.

BACKGROUND

- In June 2021 agriculture ministers agreed to develop a national biosecurity strategy.
 - The national biosecurity strategy was also a commitment in Commonwealth Biosecurity 2030.
- The National Biosecurity Committee (NBC) is leading this work.
 - The NBC provides advice to the Agriculture Senior Officials Committee on national biosecurity and is comprised of state, territory and Commonwealth government officials and peak body observers.
- The NBC has formed a working group (chaired by the Commonwealth and consisting of state and territory representatives as well as Animal Health Australia and Plant Health Australia) to drive this work.
- The working group, alongside a small departmental project team and PwC form an integrated delivery team for the strategy's development.
- The NBC has also established a stakeholder reference group to provide expert advice and input throughout the strategy's development. The members of the reference group are:
 - Australian Banana Growers' Council
 - CSIRO
 - Freight and Trade Alliance
 - Invasive Species Council
 - National Farmers' Federation
 - Rural Research and Development Corporations representative - Australian Pork Limited
 - Seafood Industry Australia
 - Torres Strait Regional Authority.

CLEARED BY

Jo Laduzko, Assistant Secretary Biosecurity Response and Reform

ATTACHMENTS

Attachment A: National biosecurity strategy - initial consultation material



DCCC paper suitable for sharing

DCCC 90 – 25 November 2021

Agenda Item 2.3

Advice on non-compliant behaviours

PURPOSE

To seek views and suggestions from members of the Department of Agriculture, Water and the Environment's Cargo Consultative Committee (DCCC) for a non-compliant behavior report for industry.

RECOMMENDATIONS

That DCCC members **discuss** and **provide** feedback on the desired content and structure of a non-compliant behaviours report.

KEY POINTS

Through the department's ongoing discussions with industry, the department has been asked to provide examples of non-compliance in the documentation assessment and inspections space.

The department has commenced work on a report for industry to capture non-compliance behaviours.

Member views are sought on the preferred design and content of this report, including:

- the level of detail to ensure a meaningful product that is not onerous to produce, noting information would be de-identified for reasons of privacy and confidentiality.
- how the information could be used to inform and educate industry on the impacts of these behaviours
- actions industry groups could take to address non-compliant behaviour
- the frequency of the report (issuance on a quarterly basis should provide the necessary insight and trend analysis).

The information would be indicative and not a reflection of all non-compliant behaviours. As an example, instances of non-compliance that are subject to enforcement action would not be included.

Members are also asked to consider how industry can partner with the department to build good intelligence holdings and counter measures to address non-compliance.

Background

Non-compliance behaviour includes but is not limited to:

- downgrading of Community Protection (CP) questions in the Integrated Cargo System (ICS)
- misdeclaration of tariffs and goods or importer details to bypass rural tailgate, imported food or other inspections
- submission fraudulent and falsely modified documents.

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- non-adherence to minimum documentary and import declaration requirements policy, and/or inspection, treatment and export/destroy directions.

Poor brokerage administration practices and errors can also result in diversion of resources from documentation assessment and inspection activity including processing of booking requests. Common scenarios include:

- submission of excess documentation resulting in departmental officers having to sift through endless pages of paperwork to find what is relevant
- lodgment of documents within two business days or less from the goods arriving at the discharge port, with pressure then being placed on departmental officers to clear goods, at times to the detriment of importers/brokers who lodge early
- calls to the department on the status of lodged documents, rather than using the COLS self-service status checker.

CLEARED BY

Leanne Herrick, Principal Director, Industry Partnerships and Engagement, with input from relevant business leads



DCCC paper suitable for sharing

DCCC Meeting 90 – November 2021

Agenda Item 4.1a

Work to deliver the nine strategic actions under Commonwealth Biosecurity 2030

PURPOSE

This is an information only paper for DCCC members to note the work to progress a public facing implementation plan that will report on progress of the work to deliver the nine strategic actions under the Commonwealth Biosecurity 2030 strategy.

KEY POINTS

The [Commonwealth Biosecurity 2030](#) strategy was released in May 2021 and is the Australian Government's roadmap to build a stronger, smarter biosecurity system through to 2030.

Our roadmap will help ensure our biosecurity system continues to protect us from current and future threats by focusing on better regulation and partnerships, smarter border clearance processes, improved use of technology, and ensuring our funding and investment model is sustainable in the long-term. Our goal for the biosecurity system will be realised by implementing nine strategic actions. These are:

- Accelerate our efforts with key partners to create a strong, future orientated and efficient national biosecurity system
- Expand offshore assurance arrangements and overseas supply chain integration
- Increase partnership activities with our near-neighbours to build their risk management capability and continue our engagement with key international bodies
- Invest in a skilled and responsive workforce supported by improved regulatory tools and information
- Roll out advancements in detection technologies and business practice innovations
- Generate greater shared responsibility through improved awareness and understanding
- Increase offshore intelligence, research and data sourcing to support risk-based interventions, preparedness and response
- Lift our national preparedness, response and resilience to exotic pest and disease incursions
- Align our funding and investment model to emerging system needs

The Department of Agriculture, Water and the Environment (department) is undertaking a significant amount of work and investing in a range of new initiatives and technologies designed to offer operational efficiencies whilst helping industry prepare for the biosecurity challenges that lay ahead.

In line with the department's commitment to consult with key partners, we welcome DCCC member views or feedback ahead on the department's first annual action plan. The action plan is currently being developed and will include a snapshot of projects that will set the groundwork in achieving our goal of a risk-based biosecurity system to protect against current and future threats.

CLEARED BY

Leanne Herrick, Principal Director, Industry Partnerships and Engagement, following input from relevant business leads.

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DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 4.1b

Cargo Operational Reforms and Innovation Initiatives

PURPOSE

This is an information only paper for DCCC members to note some of the cargo operational reform initiatives and broader innovation initiatives underway across the department.

KEY POINTS

The department has been exploring ways to improve assessment and inspection services at the border to ensure a less congested and costly biosecurity system.

Updates on key initiatives that relate to cargo operations are outlined below and in **Attachment A**

A number of innovation initiatives are also currently being undertaken by the department to assist it meet current and future challenges. Several programs have been established to achieve this goal and are outlined in **Attachment B**.

Cargo Operational Reforms

- **Proof of concept (POC) trial of new arrangements for imported cargo**

As part of the Australian Government's Deregulation Agenda, the department established a proof-of-concept trial to test if equal or better biosecurity outcomes could be achieved by using existing importer assurance systems to manage biosecurity risk across their supply chains.

A series of pilots are being conducted in collaboration with selected import businesses.

A targeted outreach program was also undertaken with companies not selected for a pilot and delivered additional insights into business import experiences. This also led to the program being extending to include 3 additional pilots to cover other industry sectors/supply chains.

The trial is expected to run until May 2022. Further information on this trial will be provided at Agenda item 2.4.

- **Biosecurity Portal**

Phase 1 functionality will enable importers or their agents to schedule and manage inspection bookings without needing to speak to a booking officer. It will also address a key industry pain point by allowing users to see all their requests in the one place, potentially saving them time and money.

Phase 2 will automate the booking processes providing quicker turnaround of booking requests and introduce additional self-service functionality reducing wait times and effort.

- **Virtual inspections**

Following the success of the trial of virtual label/visual inspections under the Imported Food Inspection Scheme, virtual inspections are now a permanent option for low-risk surveillance foods.

We are currently exploring how best to extend this to certain other types of inspections and the use of different streaming devices. In some cases, this may be an interim step pending authorisation of industry personnel to undertake low-risk inspection activity on behalf of the department.

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Verification trials for cameras to detect biosecurity risks

The department continues to work with two separate companies on two projects to automate screening of shipping containers.

The first is a system based on standard high-resolution, optical (RGB – red, green blue) cameras. During the proof-of-concept stage, the project determined minimum camera number, positioning and synchronisation to capture suitable images from the surfaces of the containers as they move from ship to shore. The project investigated suitable data transfer and storage and options for system integration between the scanning system and departmental and stevedore systems. It also developed a detection algorithm involving machine learning.

- o The next phase of this project will investigate the accuracy and potential refinement of the algorithm and outstanding technical, operational and regulatory issues that would enable the new system to be implemented on a larger scale or nationally. Cameras, initially installed on a quay crane in the Port of Brisbane, will be extended to up to five cranes. All containers processed by these cranes will be scanned, and a sample of containers manually inspected. Images of identified pest specimens collected during the manual inspections will be used to further develop the algorithm and potentially assist in automatic identification of invertebrates to order, or family taxonomic rank.

The second project is to extend a biosecurity risk detection system based on hyperspectral cameras which, combined with a machine learning algorithm, is detecting and classifying soil, plant and animal material on a pixel-by-pixel basis with very high accuracy (>99%) to detect very small pests or seeds or parts thereof at short distance.

The extension is to create a handheld surveillance and inspection tool based on the camera and algorithm already developed. Such a tool could help officers detect small insects such as ants, termites or khapra beetle in places that are difficult to inspect and may also be suitable for the inspection of goods with difficult-to-see/dark areas (e.g., in machines and vehicles) or where pests may be present that are difficult to distinguish from the commodity (e.g., khapra larvae in brown rice or wheat, and mosquito eggs in tyres).

The ongoing project will trial the ability of the tool to distinguish between dead and live insect larvae, eggs and soft-skinned adults; to detect mosquito eggs and larvae in water; and to produce an RGB image to enable a biosecurity officer to visually assess/identify the organism detected by the device.

- **Streamlining document assessment through world first automation technology and system enhancements**

The department has worked with a third party to develop technology and world first algorithms to deliver an automation solution that will support biosecurity officers assess import documentation. This involves a combined suite of technologies and custom built algorithms able to handle the volume and complexity of documentation provided to the department for assessment purposes (noting we receive and manually assess over 6 million documents a year).

We are aiming to fully automate the Minimum Documentation (Min Docs) assessment component, which is a highly manual and resource intensive part of the import document assessment process. This will help us manage the increased volumes and will enable our staff to focus on the higher risk parts of the assessment process. The addition of 'Bots' or 'Digital Workers' will speed up the assessment process and reduce delays where documents are lodged in accordance with the Min Docs policy and import conditions. We expect to implement the automation into Min Docs toward the end of this calendar year.

We are also using the same type of automation solution to streamline the ICS screening process for biosecurity officers processing Self Assessed Clearances (SACs). We are aiming to automate some highly manual screening processes currently undertaken in the ICS by our biosecurity officers. This

automation solution provides greater visibility of current and emerging biosecurity risks as well as time efficiencies in processing SACs.

The department is also undertaking enhancements to COLS that will provide the ability for better queue management that does not rely on manual processes. This change is required as a result of the significant increase in broker/importer lodgements being submitted in 12 hours or less of arrival. This has in effect made it impossible for our workforce to assess and turn around the high volumes of what is therefore classified as 'urgent' cargo within the service standards. The enhancements seek to enable the identification of legitimate urgent cargo, and subsequent prioritisation in the assessment queue.

Innovation Initiatives

- **Pre-screening of passenger baggage**

This project is a multi-stream proof-of-concept that will use x-ray images and biosecurity algorithms to screen aircraft passengers' bags prior to collection on arrival. Key outcomes are an improved passenger experience and a faster, more streamlined clearance process for passenger baggage.

- Onshore pre-screening - stream 1 of the project tests onshore operations by screening hold baggage after arrival but before the passenger collects their baggage. As bags are unloaded onto the baggage handling system, they will be scanned by the 3D x-ray unit. X-ray images will be sent to a control room where a biosecurity officer will assess the contents for biosecurity risk. Bag tracking technology will be applied to link individual bags to scanned images and to assign a biosecurity status to the bag.
- Offshore pre-screening (Trans-Tasman) - The department is working with New Zealand Aviation Security to test the offshore stream of the proof of concept. Outbound baggage from aviation security screening (2D) in New Zealand will be risk assessed on inbound passengers' hold baggage whilst in flight. Auto detection algorithms will be applied to these images to assist in making a biosecurity decision. Bags containing risk items will be electronically tagged for further inspection.

In-principle agreement has been provided by two airports to partner in the delivery of this proof of concept with formal arrangements and project schedules to be finalised in the coming weeks.

- **Biosecurity Algorithms, Software and Networking**

Discussions are underway with the department's Cyber Engagement and Testing team to identify any potential cyber security issues with moving to cloud-based systems. A risk assessment process is currently underway. In addition, the Legal Division has been engaged to ensure permissions, privacy and regulatory aspects are considered to support the transfer of images.

Algorithm Development

- Rapiscan Systems: continuation of 3D x-ray biosecurity algorithm development (fruit, meat, seafood, plant/vegetable and wildlife) and 2D x-ray biosecurity algorithm development for meat detection. Melbourne University is undertaking independent analysis and validation.
- Smith's Detection: develop proof of concept algorithm development for 2D meat detection.

Image Transfer and Access

- Rapiscan are in the process of acceptance testing and deploying ScanOS, their new cloud-based system which will enable remote screening, image transfer and the overlaying of detection algorithms.
- Smiths are proposing to use their existing cloud-based system iCMore for image transfer of Trans-Tasman baggage. Smith's EDX-2 x-ray equipment is owned and operated by NZ AVSEC.

- Seed Detection

This innovation project is exploring alternative technologies using low energy, high resolution x-rays and is currently moving into its final phase.

- Current high energy 2D or 3D x-ray technology deployed in mail centres is not effective in detecting smaller items such as seeds that have a less dense molecular structure. The x-ray beams are not able to fully penetrate the item resulting in no image being produced. Phase 1 of the project tested a prototype on a stand-alone unit as a proof of concept. This phase has been completed and was successful.
- Phase 2 was to prove the concept of auto-detection of seed packets and their contents using video cameras, low energy x-ray and computer algorithms on a moving conveyor system. The department and Rapiscan undertook validation testing to determine true and false positive/negative detection rates. Scanning of various granular powders was also conducted to evaluate the image quality and determine whether there is potential for the technology to be utilised by other government agencies. This phase was successfully completed, and the project has now moved to Phase 3.
- Phase 3 will involve a redesign of the unit, and research, design and development of a bespoke materials handling solution. Final design and implementation of solution will incorporate the unit into a live operational environment.

- COVID-19 Detector Dog Feasibility Project

Since April 2020, the department has been working with Adelaide University and the ABF to monitor international research and progress of trials to test the feasibility of dogs to detect COVID-19. The project seeks to determine the viability of using detector dogs to identify COVID-19 infected persons through changes in their body odour. The dogs are not currently directly searching passengers, they instead search sweat samples presented on cotton swabs in a separate area away from passengers.

The department has committed an experienced Adelaide based detector dog handler to assist in the training and deployment of project dogs and contributed to controlled trials at the Brisbane National Training Centre. Operational trials at Sydney and Adelaide International airports provided inconclusive results due to a variety of factors primarily due to sample availability and the method to collect these.

Controlled trials focused on assessing the sensitivity and specificity of the dogs. Sensitivity relates to the capacity of the dogs to accurately discriminate against COVID-19 infected persons while specificity relates the capacity of dogs to accurately discriminate against non-infected persons. results of these controlled trials encouraging with most dogs proving comparable sensitivity to COVID-19 as polymerase chain reaction (PCR) testing.

Ongoing training and deployment of detector dogs requires ready access to suitable target material. Research is underway on multiple fronts investigating the ability to manufacture a suitable training aid to reduce the reliance on live samples from infected patients. Engagement with state and territory health agencies to identify further in field trial scenarios continues and a final report date is unlikely until these are explored and questions around training aid availability have been answered.

- **National eDNA Testing Program**

The department has been researching innovative molecular environmental DNA (eDNA) and point-of-care molecular testing technologies for the last decade with the aim of operationalising scientifically robust, efficient technologies for environmental and biosecurity risk management and other compliance and control purposes.

The department is progressing key cross-sectoral projects to achieve its goal of national eDNA testing competency, capacity, and capability:

- National eDNA Test Validation Guidelines & eDNA Test Validation **Reports**
- National Environmental DNA Test Protocols & NETP Guide for Authors
- The department/NATA Memorandum of Understanding Schedule 5. Laboratory Accreditation for eDNA testing
- Establishment of a National eDNA Reference Centre & eDNA Collaboration Centre Network
- National eDNA Proficiency Testing Scheme
- Research: Biosecurity molecular screening using eDNA and Point-of-Care technology, & the department eDNA Research Planning Guidelines
- DNA Barcode Reference Library & Data Analytics
- Establishment of the department's eDNA Expert **Reference Group**
- eDNA Implementation: Policy & Testing Options Guidelines

Since 2019, the department has funded the research and development via its Biosecurity Innovation Program of over thirty eDNA assays to detect target species of environmental and biosecurity concern. The outcome of this work has proven the potential of eDNA technology as a biosecurity screening tool for use in the field or laboratories as appropriate. The department has also provided funding for the Khapra beetle Surge Trial (two years) to understand the prevalence of khapra beetle in imported goods, and the Hitchhiker Action Plan (four years) for the research and development of eDNA assays targeting priority hitchhiker pests. An additional thirty tests for high-priority pests will be developed under the Hitchhiker Action Plan.

The National eDNA Testing Program will deliver the underpinning infrastructure, governance and policy framework, and implement eDNA testing at border and post-border locations across Australia and at critical pre-border control points. The nine projects currently funded by the Commonwealth are at various stages of progression. Establishment of the National eDNA Testing program is on-track for completion in the 2022-23 financial year.

CLEARED BY

Leanne Herrick, Principal Director, Industry Partnerships and Engagement, following input from relevant business leads.

ATTACHMENT

Attachment A – Cargo Operational Reforms

Attachment B – Innovation Initiatives

Attachment A – Cargo Operational Reforms



Australian Government
Department of Agriculture,
Water and the Environment

Imported Cargo Reforms Biosecurity Operations Division

March 2022

CONTEXT

Increasingly complex global pest and disease spread, trade and supply chains means we need to modernise biosecurity risk management in the cargo pathway to protect our most valuable assets and industries.

BACKGROUND

The department continues collaboration with industry to co-design a more robust and sustainable biosecurity system to relieve pressure at the border and deliver the **Commonwealth Biosecurity 2030** strategic actions.

2030 STRATEGIC ACTIONS

- Accelerate key industry partnerships to create a strong, future ready and efficient national biosecurity system
- Roll out advances in detection technologies and innovative business practices
- Align our funding and investment model with future biosecurity system needs

Proof of Concept Trial for New Third Party Arrangements for Imported Cargo

Trial will test if equal or better biosecurity outcomes could be achieved using existing importer quality assurance systems across their supply chains

Jul – Sept 2021

Oct – Dec 2021

Jan – Mar 2022

Industry co-design leading to public EOI and selection of pilot participants. Launch of four initial pilot's discovery, co-design and risk assessment processes.

- Scalability across the importer business and that of other importers of similar commodity/industry sector.

Pilot 1-4 evaluation phase and commencement of planning to implement more permanent arrangements. Launch of additional 3 pilots.

- Data can be drawn from industry systems directly, saving industry time and money from having to re-provide.

Discovery and co-design process Pilots 5-7 and finalisation of planning to implement more permanent arrangements.

- Delivery under Government's agendas for Deregulation, Ag 2030 and Simplified Trade System reform.

Self managed bookings via the Biosecurity Portal

The Biosecurity Portal addresses a key industry pain point by allowing users to see all their requests in the one place, potentially saving time and money.

Jul – Sept 2021

Oct – Dec 2021

Jan – Mar 2022

Planning and developing

- Initial functions include self service for inspection bookings and booking management, and the ability to view upcoming bookings.

Phase 1 – Private beta

- Testing initial functionality with a small group of industry trial participants

Phase 2 – automate the booking processes

- Quicker turnaround of booking requests
- Introduction of additional self-service functionality

Month - month 2022

Month – month 2022

Streamlining document assessment through world first automation technology and system enhancements

Use of world first technology to streamline the assessment of complex import documentation needed to manage biosecurity risk. Further automation opportunities are being explored and planned enhancements to the department's COLS system will streamline the document lodgment process.

Jul – Sept 2021

Oct – Dec 2021

Phase 1 in development

- Using complementary mix of technologies and custom-built algorithms to automate the Min Docs component of assessments and SAC screening functions.

Automation of Assessment Phase 1 Implemented, Phase 2 in progress

- Reduction in manual, resource intensive processes.

Trialling technologies to automatically screen containers

Trials of the use of cameras attached to port crane gantries supported by hyperspectral imaging and deep learning techniques to screen containers during standard ship to shore movements. This includes incorporating mobile applications and tools to support these technologies.

Trial of hyperspectral imaging during standard ship to shore movements.

- Screening of all arriving shipping containers in real time with ability to make remote decisions on the need for further intervention.
- Benefits will have a flow on effect for industry.
- Shippers, stevedores and port authorities will also benefit as the scanning process will be able to identify damaged containers.

Attachment A – Cargo Operational Reforms cont....



Australian Government
Department of Agriculture,
Water and the Environment

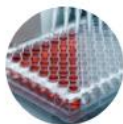
Innovation Initiatives

November 2021

Context A number of innovation initiatives are being undertaken across the department to ensure we are 'future ready' and able to meet our future challenges. Several programs have been established to achieve this goal	2030 STRATEGIC ACTIONS <ul style="list-style-type: none"> Accelerate our efforts with key partners to create a strong, future orientated and efficient national biosecurity system Roll out advancements in detection technologies and business practice innovations Align our funding and investment model to emerging system needs 			
New 3D (RTT) x-ray units in international mail centres This project builds on the early benefits identified through existing installations at Sydney and Melbourne Gateway Facilities, and to further enhance and streamline the detection of biosecurity risks. Results to date show that these machines are detecting 2-3 times more biosecurity risk material and have double the throughput rate when compared to traditional 2D x-ray units.	Jul – Sept 2021 <ul style="list-style-type: none"> Unit 1 SGF site survey, concept designs, feasibility studies completed Unit 1 SGF preferred configuration option decided Feasibility study & technical review commenced to determine locations of units 2&3. MEL, SYD, BNE, PER are being considered. 	Oct – Dec 2021 <ul style="list-style-type: none"> Unit 1 SGF project & implementation planning completed Recommendation -feasibility report for RTT @ 110 installation 	Jul – Jan – Mar 2022 <ul style="list-style-type: none"> Unit 1 SGF installation. Unit 2 site surveys and concept designs completed. 	Apr – June 2022 <ul style="list-style-type: none"> Unit 3 site surveys and concept designs completed. Unit 2 preferred configuration option completed.
Pre-screening of passenger baggage This project is a multi-stream proof-of-concept that will use x-ray images and biosecurity algorithms to screen aircraft passengers' bags prior to collection on arrival. Key outcomes are an improved passenger experience and a faster, more streamlined clearance process for passenger baggage.	Jul – Sept 2021 <ul style="list-style-type: none"> Onshore <ul style="list-style-type: none"> Trial proposal complete Offshore <ul style="list-style-type: none"> Trans-Tasman Joint Taskforce established. Contract negotiations with Smiths Detection/Rapiscan Systems completed. 	Oct – Dec 2021 <ul style="list-style-type: none"> Onshore <ul style="list-style-type: none"> Concept designs and site feasibility studies (BNE, MEL, SYD) completed. Agreement from MEL & BNE Airport to install RTT into BHS Offshore <ul style="list-style-type: none"> Offshore image transfer specifications and requirements finalised with proof of concept partners 	Jul – Jan – Mar 2022 <ul style="list-style-type: none"> Onshore <ul style="list-style-type: none"> Project planning completed Implementation Planning Completed Offshore <ul style="list-style-type: none"> Smiths Detection IT hardware installed and trial NZ outbound image transfer via iCMore-completed. 	Apr – June 2022 <ul style="list-style-type: none"> Onshore <ul style="list-style-type: none"> RTT installation into Australian international BHS completed. Commence baggage screening trial. Offshore <ul style="list-style-type: none"> Commence baggage screening trial. Mid-flight and onshore operational trials of segregating risk baggage
Biosecurity Algorithms, Software and Networking Working in partnership with New Zealand Ministry for Primary Industries (NZMPI) and Rapiscan Systems, this research and development program focuses on biosecurity algorithms, software and networking for 2D and 3D x-ray deployment.	Quarter 1 – 30 Sept 2021 <ul style="list-style-type: none"> 3D x-ray <ul style="list-style-type: none"> Biosecurity Algorithm Version 5.0 deployed ScanOS deployed at MEL airport unit 2D x-ray <ul style="list-style-type: none"> Biosecurity 2D Algorithm Program & Image Sharing Commencement 	Quarter 2 – 30 Dec 2021 <ul style="list-style-type: none"> 3D x-ray <ul style="list-style-type: none"> Remote screening/package tracking testing at MGF completed. ScanOS deployed at SGF/MGF 2D x-ray <ul style="list-style-type: none"> Data collection & algorithm Development Procurement & configuration of hardware 	Quarter 3 – 30 Mar 2022 <ul style="list-style-type: none"> 3D x-ray <ul style="list-style-type: none"> Deliver ScanOS dashboard functionality & deploy to units Cyber Security Risk Assessment completed 2D x-ray <ul style="list-style-type: none"> Algorithm deployment & validation recommendations Detailed design for onshore image/data sharing and cloud network completed 	Quarter 4 – 30 Jun 2022 <ul style="list-style-type: none"> 3D x-ray <ul style="list-style-type: none"> Biosecurity Algorithm Version 6.0 deployed Real time image visualization and algorithms Closure & Recommendations Report 2D x-ray <ul style="list-style-type: none"> Recommendations report
Seed Detection This three phase innovation project explores alternative technologies using low energy, high resolution x-rays. Phase 1 and 2 are complete, Phase 3 is soon to commence.	Jul – Sept 2021 <ul style="list-style-type: none"> Validation testing complete. Rapiscan report completed. 	Oct – Dec 2021 <ul style="list-style-type: none"> Rapiscan proposal for materials handling/integration specialist completed. Phase 3 contract commenced. 	Jan – Jun 2022 <ul style="list-style-type: none"> Mail facility feasibility surveys, R&D and design for in-line or bespoke solutions complete. Recommendations report to inform budget and implementation technology into facility completed. 	

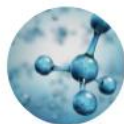
Attachment B – Innovation Initiatives

Other initiatives underway...



High-throughput sequencing (HTS)

Implementing HTS will expand diagnostic capability and deliver faster, more accurate results. This has the potential to phase out over 100 inefficient, targeted molecular tests for plant viruses.



RingIR

RingIR technology can quickly measure and identify the molecules in the atmosphere and identify the specific chemical present in that environment. It can detect fumigants and we're now exploring if it can detect hitchhiker pests.



BMSB App

Partnering with CSIRO, we're developing a species identification tool for use on mobile phones. It uses AI to provide fast, accurate recognition of Brown Marmorated Stink Bugs and will be extended to include high-risk pest bees.



eDNA

Molecular screening using environmental DNA (eDNA) technology: eDNA is an exciting and innovative technology capable of detecting a pest from a single drop of water or speck of soil in as little as 20 minutes.



Using AI to identify live fish

AI algorithms have been developed to identify fish species in bags of water to improve detection accuracy of non-permitted species in import consignments.

Other initiatives being explored...

We are always on the lookout for new and innovative ways to improve how we manage biosecurity risk. A number of new or emerging technologies and approaches are being scoped in collaboration with external stakeholders, innovators, entrepreneurs, research entities and the private sector to identify bold new ideas, build an innovation culture and encourage creative thinking and action.



Underwater Remotely Operated Vehicles for biofouling inspection



Spot robot for monitoring and inspection activities



Virtual and augmented reality to train biosecurity officers



Partnering with Charles Sturt University and XRC to develop new approaches to training and communicate biosecurity



Co-designing a container packing app with FTA to support risk-based decisions



Hades 5 robot for used cars and machinery inspection (partnering with New Zealand)



Behavioural and cognitive traits for successful detector dogs



DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 4.1c

Simplified Trade System Reform

PURPOSE

This is an information only paper for DCCC members to note the progress of initiatives and activities relating to the Australian Government's Simplified Trade System (STS) reform agenda.

KEY POINTS

The STS reform agenda seeks to simplify Australia's international trade regulations and to reduce costs and administrative burden of cross-border trade.

The STS reform agenda:

- contributes to the Government's Deregulation Agenda and Digital Technology Strategy
- complements existing reform and investment programs across Government, including the Commonwealth Biosecurity 2030 roadmap and Busting Congestion for Agricultural Exporters.
- will contribute to the delivery of a simplified, tell-us-once digital model for Government-business interaction on Australian import and export movements, and reduce unnecessary costs for business.

The department has been actively engaging with the STS Taskforce to progress deliverables and key initiatives under the reform agenda.

STS Taskforce deliverables

- **Mapping the end-user experience end-to-end trade journey process for imports and exports**
These have been developed in consultation with industry including importers, exporters and third-party providers. Previous journey mapping conducted by the department was provided to the Taskforce to assist them in this activity.

Research interviews with businesses that import and/or export were conducted by the STS Taskforce in September-October. Representatives of both the department and the Australian Border Force were invited to attend as observers.

The department has been provided with the highlights of these research interviews for consideration and validation.

The Taskforce's journey maps will also be shared with the department for input and validation early December 2021.

This work will be informed by the review of cross-border trade regulations to help identify pain points and opportunities to be considered under the STS agenda.

The department is also working to ensure its own reform initiatives align with the STS agenda.

- **Mapping of IT systems involved in cross-border trade**
The STS Taskforce has prepared a draft ICT scoping study on the strength of the research insights. Early research of this study reveals there is significant opportunity to improve outcomes for both businesses and agencies. The department is providing input into this research which is still underway.

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- **Review of cross-border trade regulations**

The department is also considering a draft regulatory process map prepared by the STS Taskforce, based on public facing material and information provided by industry.

The department is providing input to this mapping, with the expectation this will be used by the STS Taskforce in their deliberations.

Proposed New Cargo Intervention Model

The department is working closely with the ABF to develop a streamlined cargo intervention model that will improve the screening of containerised air and sea cargo and increase the detection of non-compliant goods at the border. This work is also looking to remove duplication between the department and DAWE where possible.

Initial industry consultation on the model was undertaken by the ABF and the department in October 2021. Consultation is continuing and is being used to inform the future intervention model and development of a trial with industry.

This work will be used form a proposal for government to consider, and if supported, both departments will engage with industry in both the air and sea cargo environment.

This work complements existing initiatives and trials underway to test new screening and detection technology.

BACKGROUND

STS was announced by the Australian Government in the second half of 2020 as a significant micro economic reform package, seeking to modernise and streamline legislation and regulation for cross border trade; harmonise systems; ensure better harnessing of data; use of new, emerging and better technology; and enhancing our economic resilience.

A separate Taskforce was established operating under Austrade to deliver the reform agenda.

At the previous DCCC meeting in August 2021, the STS Taskforce provided an update on the overview of the taskforce's objectives, and key deliverables for the next 12 months, including:

- Providing government with some options to deliver and design a tell-us-once digital service for exporters and importers.
- Undertaking a comprehensive review of all cross-border trade regulations to look at opportunities to streamline and simplify, drawing on work already done in this space, noting DAWE has done a number of reviews that can be leveraged.
- Mapping the end-to-end trade journey process for imports and exporters.
- Looking at mapping all the IT systems that are involved in cross-border trade.

CLEARED BY

Leanne Herrick, Principal Director, Industry Partnerships and Engagement



DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 4.2a

BMSB response

PURPOSE

This is an information only paper for DCCC members to note the status of the 2021-22 Brown marmorated stink bug (BMSB) Season.

KEY POINTS

BMSB detections are currently on par with last season. However, we have not seen the live detections in the air cargo pathway that we have seen in the past two BMSB seasons.

The live detection we have this season was in the mail pathway, on non-target risk goods from Hungary.

Detections of dead BMSB remain similar. We have had two detections in cargo and 16 in vessels. Early vessel detections appear to be from previous voyages as BMSB were long dead, however more recent detections were of recently dead BMSB.

		20/21 Season Until 9 Nov 20	21/22 Season Until 9 Nov 21
Detection Point	Condition	Number of detections	
Biosecurity Intervention Point	Alive	0	1
	Dead	16	18
Post Biosecurity	Alive	2	0
	Dead	1	0
Total Detections		19	19

Non-compliant consignments

- We have directed seven consignments for export due to arriving untreated or treated but exported greater than 120hrs post treatment. The breakdown is as follows:
 - Four break bulk consignments (including flat rack and OT containers) have arrived untreated
 - Two consignments shipped from Western United States of America missed 120hr post treatment export.
 - One consignment shipped from Europe missed 120hr post treatment export requirement.

Safeguarding

- The department has approved 14 entities onto the Safeguarding Arrangement this season. That is double the number approved for the 2020-21 BMSB season.

CLEARED BY

Barbara Cooper, Assistant Secretary, Pathway Policy – Cargo and Conveyances

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DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 4.2b

Khapra beetle response

PURPOSE

This is an information only paper for DCCC members to note the status of the implementation of the urgent actions to address the risk of khapra beetle (*Trogoderma granarium*) entering Australia.

KEY POINTS

We are implementing urgent actions to address the risk of khapra beetle entering Australia. The urgent actions are being implemented in phases and will result in changes to import conditions for plant products and sea containers. The urgent actions are being supported by a \$14.5 million investment to safeguard Australia against this significant pest.

We have implemented:

- Phase 1 (September 2020): a ban on high-risk plant products (a host of khapra beetle) within unaccompanied personal effects and low value freight.
- Phase 2 (October 2020): a ban on high-risk plant products within accompanied baggage, via international travellers or mail articles.
- Phase 6A (April and July 2021): mandatory offshore treatment for sea containers packed with:
 - high-risk plant products in a khapra beetle target risk country
 - all types of goods in a khapra beetle target risk country that will be unpacked in a rural grain growing area of Australia.
- Phase 3 (September 2021): mandatory offshore treatment and phytosanitary certification for high-risk plant products exported from a khapra beetle target risk country and phytosanitary certification for high-risk plant products exported from all other countries.

As of October 2021:

- 2,201 consignments have been subject to Phase 6A measures
 - 179 processed through Automatic Entry Processing for Commodities (AEPComm).
- 97% of treatments have been conducted using methyl bromide.
- 83% of entries processed by the department are compliant (increase from 77% in reported to the DCC in August).
 - Common non-compliance continues to include:
 - Sea container not treated (for example, goods treated but not the container)
 - Sea container treated incorrectly (incorrect treatment rate or fumigation not performed under sheet).
 - Non-compliant documentation (treatment certificates missing information).
- 61% of treatments have been conducted by either Australian Fumigation Accreditation Scheme (AFAS) or Offshore Brown Marmorated Stink Bug (BMSB) Treatment Providers
 - 85% of treatments conducted by registered providers are compliant
 - 40% of treatments conducted by unregistered provider are compliant.

On 15 December 2021, additional measures under Phase 6A will commence. We are planning on extending the mandatory offshore treatment requirements to sea containers packed with all types of goods in a khapra beetle target risk country that will be unpacked in a rural nut growing area of Australia. The postcodes for rural nut growing areas of Australia are: 4569, 4517, 4518, 4858 and 4560. For split postcodes, measures will apply to the rural areas of the postcode only.

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In early 2022, we are planning on implementing the next phase of the sea container urgent actions under Phase 6B, subject to access to the required data. This will introduce measures to a broader range of containers (all high-risk containers). The department will consult with the DCCC members on implementation options (including timeframes) prior to implementing 6B measures.

We are also planning on implementing Phase 4 and 5 of the urgent actions in early 2022. Phase 4 will introduce revised phytosanitary certification requirements for other-risk plant products exported from all countries and arriving via certain pathways. Phase 5 will introduce phytosanitary certification requirements for seeds for sowing exported from all countries and arriving via all arrival modes.

Further information on the urgent actions is available on our website:

<https://www.awe.gov.au/biosecurity-trade/pests-diseases-weeds/plant/khapra-beetle/urgent-actions>

We would appreciate your assistance communicating the khapra beetle requirements with your contacts/stakeholders and encouraging:

- importers to use registered treatment providers where possible
- unregistered treatment providers to contact us at offshoretreatments@awe.gov.au.

BACKGROUND

- Changing global demands, growing passenger and trade volumes, increasing imports from a growing number of countries, population expansion and climate change mean that biosecurity risk is growing.
- Australia has a robust biosecurity system that reduces the risks posed by exotic pests and diseases, as well as established procedures to manage interceptions when they do occur.
 - o Biosecurity threats are effectively managed using a risk-based approach.
 - o Biosecurity risks are managed offshore, at the border, and within Australia at the point where intervention is most effective.
- Khapra beetle is Australia's number two National Priority Plant Pest (2019).
 - o Khapra beetle is not present in Australia and poses a major threat to Australia's grains, rice and nut industries as a serious storage pest and potential impacts on international trade.
 - o If khapra beetle was to establish in Australia it would have significant economic consequences. An incursion could cost Australia \$15.5 billion over 20 years through revenue losses arising from damaged grain in storage and exports.
- We are undertaking further analysis of global trade patterns to gain a better understanding as to why these interceptions are taking place.
- Australia has committed \$96.9 million over 4 years (2021 to 2024) towards the Hitchhiker Pest Program which will build a stronger biosecurity system to protect Australia from hitchhiker pests in sea containers and goods. A key deliverable of this project amongst other things is enhanced data capture, modelling, and analytics to accurately profile and target imported sea containers and cargoes that pose a risk of hitchhikers including khapra beetle.
 - o The Hitchhiker Pest Program will schedule a separate meeting with DCCC members to discuss progress of work under this program.

CLEARED BY

Sarah Bruce, Principal Director, Hitchhiker Working Group

ATTACHMENTS

[Khapra beetle urgent actions phases \(PDF\)](#)



Australian Government

awe.gov.au/khapra-urgent-actions
 Australian Biosecurity

KHAPRA BEETLE URGENT ACTIONS

3 Sept 2020

Phase 1

Ban on high-risk plant products, e.g. rice, within unaccompanied personal effects & low value freight.



15 Oct 2020

Phase 2

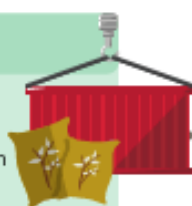
Ban on high-risk plant products, e.g. rice, being brought in with international travellers or in mail parcels and packages.



12 Apr 2021

Phase 6A

Offshore treatment of containers carrying high-risk plant products, e.g. rice, packed into a container in a country that has khapra beetle.



12 July 2021

Phase 6A (continued)

Offshore treatment of containers carrying products other than high-risk plant products, packed into a container in a country that has khapra beetle & then unpacked in a rural grain growing area in Australia.



30 Sept 2021

Phase 3

Offshore treatment and phytosanitary certificate requirements for commercial imports of high-risk plant products, e.g. rice.



15 December 2021

Phase 6A (extended)

Offshore treatment of containers carrying products other than high-risk plant products, packed into a container in a country that has khapra beetle & then unpacked in a rural nut growing area in Australia.



Early 2022

Phase 4

Revised phytosanitary certificate requirements for imports of other risk plant products, e.g. spices.



Early 2022

Phase 5

Introduction of phytosanitary certificates for imports of seeds that are to be used for sowing.



Early 2022

Phase 6B

New requirements for containers that have held high-risk plant products.



Early 2022

End

These changes will help keep Australia khapra beetle free!



awe.gov.au/khapra-urgent-actions



DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 4.3a

Compliance Activities Snapshot

PURPOSE

This is an information only paper for DCCC members to note the Compliance Activities Snapshot for Quarter 1 of the 2021-2022 financial year.

KEY POINTS

The Compliance Activities Snapshot (**Attachment A**) provides an overview of activities and assessments conducted by the department from 1 July 2021 to 30 September 2021.

CLEARED BY

Anna Brezzo, Assistant Secretary, Enforcement, Compliance and Enforcement

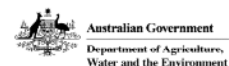
ATTACHMENTS

Compliance Activities Snapshot – First Quarter Statistics - Financial Year 2021 – 2022

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Attachment - Compliance Activities Snapshot – First Quarter Statistics - Financial Year 2021 – 2022

Compliance Activities Snapshot – First Quarter Statistics - Financial Year 2021-2022



Legend: Live plants; Plant products; Live animals; Animal products; Biosecurity risk; Non-commodity; Whole unprocessed seeds; Meat and meat products (non-retorted); Fresh vegetables; Fresh leaves; Fresh fruit; Fresh herbs

Investigations Commenced During Quarter		Air Cargo		Sea Cargo		Mail		Export		Other	
		Quarter	FYTD	Quarter	FYTD	Quarter	FYTD	Quarter	FYTD	Quarter	FYTD
	Biosecurity Act	3	3			1	1				
	Biosecurity Act & Criminal Code	1	1								
	Biosecurity Act			1	1						
	Criminal Code			1	1					1	1
	Biosecurity Act & Imported Food	1	1	1	1						
	Biosecurity Act	1	1	2	2						
	Biosecurity Act			1	1						
	Biosecurity Act			1	1						
	Biosecurity Act & Criminal Code			1	1						

Infringement Notices	Quarter	FYTD
Biosecurity Act		
Category 1 goods (12 penalty units = \$2,664)	16	
	22	39
	1	
Category 2 goods (6 penalty units = \$1,332)	7	23
	16	
Other goods (2 penalty units = \$444)	69	69
Imported Food Control Act (Company 60 penalty units = \$13,320)	1	1
Biosecurity Act (Company 60 penalty units = \$13,320)	1	1

Court outcomes – Financial Year To Date (FYTD)

Date	Entity type	Offence(s)	Outcome
24 Sept 2021	Individual	s 136.1 Criminal Code Act 1995 (Cth) (Criminal Code) – false or misleading statements in an application	No conviction recorded. Good behaviour bond of \$1,000 for 12 months
	Individual	2 counts s 145.1(1) Criminal Code – using forged documents with intent	Pleaded guilty –
	Individual	5 counts s 135.1(7) Criminal Code – dishonestly intending to influence a Commonwealth public official	Convicted and sentenced to 11 months imprisonment. Sentence wholly suspended. Good behaviour order for 2 years 15 months and complete 200 hours of community service within 12 months commencing 2 July 2021
2 July 2021	Individual	2 counts s 145.1(1) Criminal Code – using forged documents with intent	Pleaded guilty –
	Individual	3 counts s 135.1(7) Criminal Code – dishonestly intending to influence a Commonwealth public official	Good behaviour order for 15 months and complete 100 hours community service

Fit and Proper Persons assessments

	Imports	Exports	Waste	Total	Adverse Decisions
Quarter	148	489	32	669	1 (import)
FYTD	148	489	32	669	1 (import)

Approved Arrangements

	Suspended	Revoked	Corrective Actions
Quarter	0	0	Issued 412, Resolved 0
FYTD	0	0	Issued 412, Resolved 0

Visas

	Quarter	FYTD
Cancellations	0	0



DCCC paper suitable for sharing

DCCC Meeting 90 – 25 November 2021

Agenda Item 4.3b

Legislative Amendments

PURPOSE

This is an information only paper for DCCC members to note legislative amendments.

KEY POINTS

The attached document provides an update on legislative amendments that have been made to civil and regulatory sanctions.

CLEARED BY

Anna Brezzo, Assistant Secretary, Enforcement, Compliance and Enforcement

ATTACHMENTS

Legislative Amendments 2021: Civil and Regulatory Sanctions

Civil and Regulatory Sanctions: Legislative Amendments 2021

as at 15 November
2021

Biosecurity (2021 Infringement Notices) Determination 2020

From 1 January 2021, biosecurity officers may issue a higher value infringement notice when travellers knowingly fail to declare high risk goods on arrival into Australia. The *Biosecurity (2021 Infringement Notices) Determination 2020* lists the classes of goods that are subject to 6 and 12 penalty unit infringement notices:

- **Category 1 goods – 12 penalty units (\$2,664)** – live plants, whole unprocessed seeds, meat and meat products (except retorted meat), raw or partially raw prawns, live animals (and remains of animals that have died in transit), bird or reptile eggs for hatching, and/or veterinary vaccines.
- **Category 2 goods – 6 penalty units (\$1,332)** – fresh fruit, fresh vegetables, fresh fungi, fresh leaves and/or fresh herbs.
- If a traveller fails to declare goods not listed in the new determination, the infringement notice amount is **2 penalty units (\$444)**.



Biosecurity Amendment (Strengthening Penalties) Act 2021

- From 30 June 2021, the penalties that a court may impose under 28 civil penalty provisions and criminal offences under the *Biosecurity Act 2015* have been significantly increased.
- In some cases, they are more than eight times the current penalty to reflect the potential gains someone might obtain, or seek to obtain, by not complying with the law.

The Biosecurity Amendment (Enhanced Risk Management) Bill 2021

- This Bill is due to be debated by the House of Representatives at the end of November 2021.
- The Bill proposes increasing the penalties for 30 criminal offence and civil penalty provisions under Chapter 3 of the *Biosecurity Act 2015* that were not covered by the *Biosecurity Amendment (Strengthening Penalties) Act 2021*.

Visa Cancellations:

From 1 January 2021, the biosecurity-related visa cancellation ground in the *Migration Regulations 1994* applies to 18 subclasses of visa, including international students and holders of temporary work visas. Initially it only applied to 5 subclasses of visitor/transit visas.

Australian Border Force have cancelled 14 visas under this ground since 1 October 2019, 10 of the decisions relate to failure to declare pork or pork products.