Australian Government
Department of Agriculture, Water and the Environment

BIOSECURITY REFORM AND OPERATIONS UPDATE

Andrew Patterson, Assistant Secretary,
Cargo Operations Pathway (NSW, QLD, NT, ACT) and Regulatory Assurance

FTA CDP Conference - May 2022

Biosecurity Reform

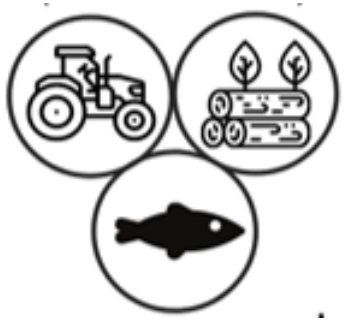
Why biosecurity is important

It protects our valuable assets, industries and access to markets

Recent studies show Australia's biosecurity system is worth $314 billion over 50 years (in present value)

$78.4 billion

in gross value agricultural, forestry and fisheries production (2021-22 forecast)



$65.5 billion

in agricultural, forestry and fisheries exports (2021-22 forecast)

1.6 million

jobs across the agricultural supply chain

$5.7 trillion

value in benefits from assets vulnerable to biosecurity hazards (modelled over 50 years in present value)

$32 billion

direct tourism contribution to Australia's GDP (2020-21)

Why we need change

Trade patterns are evolving and generating additional risk

- Trade patterns are dynamic and the centre for global trade continues to shift towards, and within, Asia.
- Interacting geopolitical and geophysical changes are increasing Australia's biosecurity challenges.
- Managing risk is becoming more complicated as there is an increase in pest and disease pressure and it's moving closer to us.

How we need to respond to this “new reality”

Adapt our business model to meet challenges

We need to:

- Maintain Australia’s participation in global economic and trading systems while preserving the integrity of Australia’s biosphere.
- Understand and be able to respond to existing and emerging threats.
- Assume we will have a major pest or disease incursion this decade and look to ensure our preparedness, response and recovery systems are strong.

While biosecurity is paramount, we are also conscious of the impact of trade regulation and border management on business, broader economic recovery and resilience

What we are doing

Investing to build a more robust, future ready biosecurity system

Government support through additional funding for the 2021-22 budget totalling $504.2 million over four years

$84.1 million
for frontline, on-the-ground measures to better manage the risk of pests and diseases entering Australia

$80.9 million
to modernise and improve Australia's biosecurity technology, information systems and analytical capabilities

$235.1 million
to improve our ability to detect and manage threats offshore by boosting our intelligence capabilities, collaborations with industry, other border agencies, and neighbours

to help manage the risk posed by hitchhiker pests

To strengthen our overall national preparedness

$104.1 million
to support specific initiatives including biosecurity portal

to explore digital solutions to increase uptake of existing arrangements and lead to a simplified integrated biosecurity management system for cargo

to better manage fruit fly and support the establishment of national horse traceability arrangements

To reduce the economic and environmental burden of established pest animals and weeds

Measures related to biosecurity in the 2022-23 budget include:

$61.1m To strengthen our northern biosecurity frontline and target high biosecurity regions of growth, with an early focus on lumpy skin disease

$19.4m To continue whole of government reforms to streamline trade processes

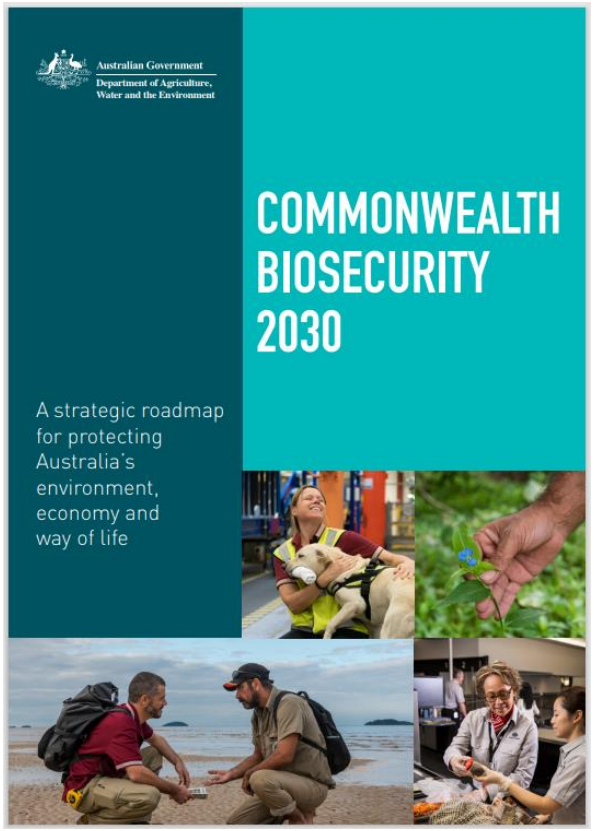
$20.1m To support producers and industry to uplift their on-farm biosecurity and traceability outcomes through grants

$10m To support the agriculture response to Japanese encephalitis

What we are doing

Setting a roadmap for change and delivery of action

Commonwealth Biosecurity 2030



> Aim is to build a risk-based biosecurity system that effectively, efficiently and sustainably protects Australia's health, economic, environmental and national security interests against the threats of today and tomorrow, consistent with our Appropriate Level of Protection

National Biosecurity Strategy

The Australian, state and territory governments, through the National Biosecurity Committee, are developing a national biosecurity strategy with key partners to provide a strategic direction for Australia's biosecurity system.

What we are doing

Areas of focus

	**PEOPLE** A workforce that has the capacity, skills and flexibility to prepare for and respond to emerging biosecurity risks, challenges and opportunities
	**COLLABORATION** A strong, ongoing commitment by governments, industry and the community to carry out their evolving roles and responsibilities as part of the biosecurity system
	**REGULATION** A regulatory environment that supports us to respond to current and future biosecurity challenges and opportunities
	**TECHNOLOGY** An integrated, secure, data-driven and technology-enabled biosecurity system overseas, at our border and within Australia
	**FUNDING** A funding and investment model that is sustainable for the long-term

What we are doing

Improving the capability of our workforce

- **Ensuring Regulatory Uplift**
  - Equipping our biosecurity officers with the necessary skills and decision support material to make lawful, transparent, consistent and accountable regulatory decisions.

- **Trialling Virtual and Augmented Reality (AR) technology**
  - Embedding VR and AR experiences into training environments and instructional material if trials are successful.

- **Establishing a Dedicated Biosecurity Training Centre**
  - Partnering with Charles Sturt University (Wagga Campus) to deliver specialised training programs for biosecurity staff from a central hub and nationally networked facilities around the country.

What we are doing

Partnering with industry to trial alternate risk management models

- **Proof of concept trial with importers** to test using *their* assurance systems to manage biosecurity risk across *their* supply chains.
- A simplified inspection process for arriving vehicles and agricultural machinery; trial led by the **Port of Melbourne**.
- A new Class 14.4 approved arrangement that will enable accredited biosecurity industry participants to conduct certain **rural tailgate inspections**.
- Screening of arriving shipping containers in real time using **cameras on cranes** to enable decisions to be made remotely on the need for further intervention.

What we are doing

Working across government and with other regulators

- With the Government's **Simplified Trade System Taskforce** and other agencies to simplify Australia's international trade regulations, modernise outdated ICT systems, and align business processes where appropriate.
- With the **Australian Border Force** on developing and trialling a joint cargo screening intervention model, aligning trade-related Fit and Proper Person (FPP) assessment processes, and on staff exchange opportunities
- With our **near neighbours** to improve their capability to identify and mitigate biosecurity risks.
- With **CSIRO** to develop a species identification tool for use on mobile phones.
- With **New Zealand** on aligning biosecurity risk controls/systems where appropriate; developing a 3D image library of biosecurity risk items to support detection algorithms, and trialling the Hades 5 robot for used cars and machinery inspection.

What we are doing

Maturing our regulatory model

- **Reviewing Imported Food Legislation**
  - To ensure Australia's food import control system is forward looking and fit-for-purpose.
- **Incorporating imported food requirements into BICON**
  - To provide importers, brokers and overseas countries with a single source of information for both food and biosecurity import requirements; expected to be completed early 2024.
- **Promoting our new compliance policy**
  - Outlines strategies and tools for managing compliance, including how we will work with regulated entities to achieve better compliance and regulatory outcomes.
- **Updating the Goods Determination**
  - Amending the Biosecurity (Conditionally Non-Prohibited Goods) Determination 2021 to ensure import conditions are clear and consistent, are commensurate with biosecurity risk, and facilitate trade.

Short/Medium Term Reform

Short to medium term reform

Document Assessment Automation

Why Automate?

- **Efficiency**
  - Elements of our processes are digital and rules based – ideal for automation
  - Can process high volumes of data
  - BOTS can work 24/7
- **Effectiveness**
  - Review detail with high level of consistency
  - Allows officers to focus on high risk activity
  - Supports officers to make the right decision to manage biosecurity risk

What have we done

- **Created internal capability to leverage these opportunities – our Automation Centre of Excellence**
- **Used a wide variety of cutting edge technology to automate 6 processes – with more on the way!**

Short to medium term reform

Automation – Min Docs current state

Min Docs current state video

Short to medium term initiatives

Automation – Min Docs future state

Summary View

FID AEMHCW77H

Lodgement Type	NEW_LODGEMENT	**Review Status**	Ready
Commodity			

Overview ☑ All

Invoice	7 of 7 required fields	Consignment link found	☑
BoL	13 of 13 required fields	Consignment link found	☑
Phytosanitary	13 of 31 required fields	Consignment link found	☑

- Container Number: Pages 1; 3; 5; 6; 4

CertificateNumber1234567890000
GoodsDescription
BotanicalNameAllium cepa
DistinguishingMarksN/M
PlaceofOriginSHANDONG,CHINA
TreatmentType***
TreatmentDuration
TreatmentConcentration
TreatmentDuration
TreatmentDate
DateofIssue03 Aug.,2021
Packages

Document: 1 - Page: 1

Document View

中华人民共和国出入境检验检疫
ENTRY-EXIT INSPECTION AND QUARANTINE OF THE PEOPLE'S REPUBLIC OF CHINA

正 本
ORIGINAL

共1页，第1页 Page 1 of 1

植 物 检 疫 证 书
PHYTOSANITARY CERTIFICATE

编号 No.: 1234567890000

发货人名称及地址
Name and Address of Consignor: Onions R Us Pty Ltd, FUYONG STREET, BAOAN DISTRICT, SHENZHEN, GUANGDONG, CHINA

收货人名称及地址
Name and Address of Consignee: John Smith, 27 Pickle St, Melbourne VIC 3000

品名
Name of Produce: PEELED ONION

植物学名
Botanical Name of Plants: *Allium cepa*

报检数量
Quantity Declared: **22000KGS

标记及号码
Mark & No.: N/M

包装种类及数量
Number and Type of Packages: **2200CTNS

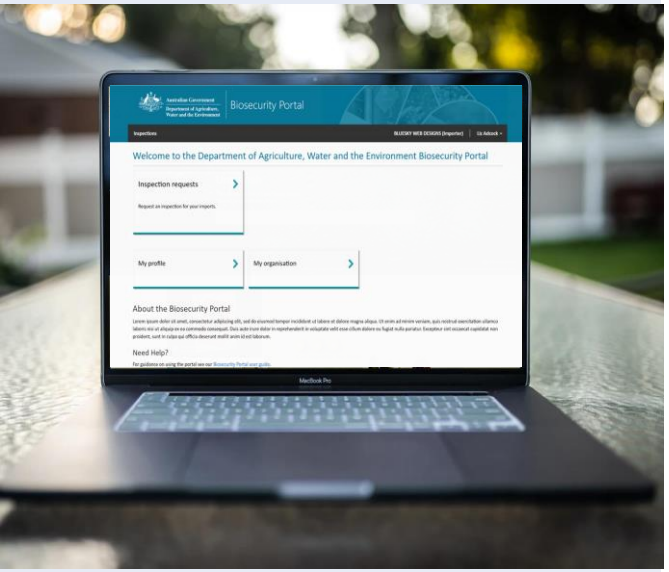
产地
Place of Origin: SHANDONG,CHINA

到达口岸

Short to medium term reform

Biosecurity Portal

Book online – All your inspection bookings in one place



Making booking inspections simpler, faster and clearer

Benefits

- **Time saving**: All inspection information can be submitted through the Portal - no need for emails, attaching forms, or file management
- **A single location:** All inspection requests can be viewed in a single location, with progress updates.
- **Personal accounts:** Personal accounts that are linked to all your organisation's bookings
- **Additional self-service functionality:** AIMS directions can be viewed and treatment results lodged online; open portal to broker software; more to come…

Short to medium term reform

Proof of concept Trial for Imported Cargo – Biosecurity "green lane" trial

Pilot participants

- Kmart Australia P/L
  (retail, household products)
- FTA Food Solutions P/L
  (raw and processed food products)
- Becton Dickinson A-NZ
  (pharmaceuticals, medical equipment)
- Stora Enso (Wood Products) P/L
  (milled timber)
- John Deere Ltd
  (agricultural machinery/equipment)
- Ball Australia P/L
  (plant products)
- Amazon Commercial Services P/L
  (retail, household products)

The trial aims to test:

- Importer capacity to manage biosecurity risks across their supply chains and that equal or better regulatory outcomes can be achieved
- Scalability of the approach - that arrangements can be extended across the importer's business, or adopted/transferred to other importers of similar commodity type/sector
- Capacity for greater business-government data exchange.

Involves seven pilots with separate importers across different supply chains. Three pilots have concluded with the remaining four to finish over the coming months.

The trial pilots have shown that entities with mature supply chain assurance arrangements in place can actively manage biosecurity risks using those controls, establishing the case for a `trust-based' biosecurity risk management scheme (green lane arrangements)

Short to medium term reform

New Approved Arrangement – Class 14.4

The project aims to enable industry to perform certain rural tailgate inspections, clean/wash and release containers from biosecurity control without departmental intervention (unless insects, animals are detected).

Core Elements

- Targets dry box, open top, ISO tanker and reefer containers requiring only rural tailgate inspection.
- Inspections to be performed at class 1 sea and air cargo AA sites (as normal).

Phased approach

- To be trialled initially with an identified participant while system enhancements are progressed
- Expansion of trial participants before widespread implementation

Whole of government objective

- Streamline biosecurity clearance of low risk containers destined for rural areas while maintaining system integrity
- Allow redeployment of government resources to areas of greater risk.

Short to medium term reform

Exploring new screening technologies

Biosecurity Algorithms Software & Networking - trialling next generation 3D x-ray technology and auto-detection algorithms in a biosecurity environment.

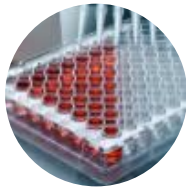
3D X-ray Pre-Screening of Passenger Baggage - a multi-stream proof-of-concept that will use new 3D x-ray technology images and biosecurity algorithms to screen aircraft passengers' bags prior to their collection on arrival.

Low Energy X-ray for Seeds - testing low energy, high resolution x-ray, in combination with computer algorithms, to automatically detect the presence of seeds in the mail pathway.

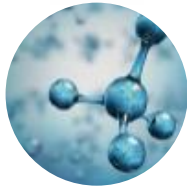
Wildlife Automatic Detection Algorithm - developing and implementing automated detection algorithms to combat the illegal wildlife trade.

Short to medium term reform

Exploring other innovation/technologies



High-throughput sequencing (HTS) to expand diagnostic capability and deliver faster, more accurate results



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

Container packing app with FTA to support risk-based decisions

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

Spot robot for monitoring and inspection activities

Research into behavioural and cognitive traits for successful detector dogs

Cargo Operations Pathway – snapshot 1 July 2021 – 31 March 2022

Cargo Volumes

69.4M total cargo
- 3.3M FID/SCL
- 66.1 M SAC

Assessments

2.9 million SAC screening

600.7K total assessments
- 277.3K FID/SCL
- 323.4K SAC

Documentation Compliance

Top 3 document types not meeting requirements
1. Manufacturers dec
2. Fumigation cert
3. Health cert

Inspections

253.7K total inspections
- 118.3K FID/SCL
- 135.4K SAC

Inspection Compliance

13.8% non-compliance rate

Phone calls

142.1K calls received
- 11% direction clarification
- 7% direction re-issues
- 5% processing time queries
- 5% nominate/change AA

Resourcing

Recruitment
- 66 new recruits
- 39 external labour hire
- 51 APS 4 non-ongoing from 16 May and additional from July.

Overtime
- 15,800 hrs. to assist in the management of workload in Assessments and Bookings

BMSB and khapra beetle response measures

Barbara Cooper, Assistant Secretary
Pathway Policy, Cargo and Conveyances

BMSB 2021-22 Season

The Good

BMSB Detections

		20-21 Season Until 11 Mar 2021	21-22 Season Until 11 Mar 2022
Detection Point	Condition	Number of detections	
Biosecurity Intervention Point	Alive	15	13
	Dead	139	94
Post Biosecurity	Alive	13	6
	Dead	9	6
Total Detections		176	119

- **Offshore Treatments**
  - 66,122 offshore treatment certificates lodged through our Sea Pest system allowing us to whitelist 55,811 containers and break bulk units.
- **Automatic Entry Processing for Commodities (AEPCOMM)**
  - 11,888 BMSB consignments lodged through AEPCOMM
- **Safeguarding**
  - 14 entities approved for Safeguarding

BMSB 2021-22 Season

The Bad

- **Non-Compliance**
  - The department directed 55 consignments for export due to arriving non-compliant to import conditions regarding mandatory offshore treatment requirements
    - 33 break bulk (including flat rack and open top container) consignments arrived untreated
    - 22 break bulk (including flat rack and open top container) consignments arrived after being exported outside the 120hr window
- **Consignments managed onshore**
  - 27,462 consignments of containerised goods were directed for onshore treatment and not lodged through AEPCOMM

BMSB 2021-22 Season

China

- **Intervention on goods ex China**
  - A significant post border detection of BMSB occurred in a consignment of five containers of masonry

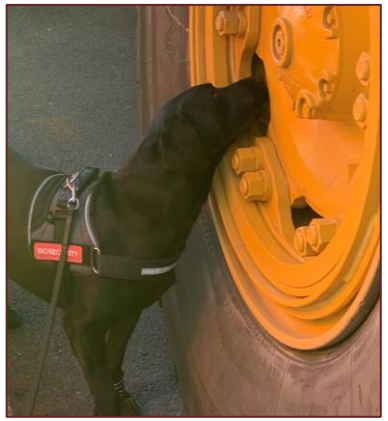



  - Each season we have a number of detections of live BMSB from native range countries including China usually in low numbers of bugs
  - We have conducted 51 verification inspections and found no BMSB
  - On our current findings through increased intervention the Department is unlikely to implement mandatory BMSB treatment requirements on goods from China for the 2022-23 BMSB season

BMSB 2021-22 Season

2022-23 BMSB Season

- **2022-23 BMSB Season considerations**
  - Main policy settings will not change
  - The intelligence we have received so far has not led us to add any additional countries as yet – the next period of significant intelligence will be during Northern Hemisphere summer
  - There are no plans on changing target risk goods lists at this time
  - Review the 120hr post treatment requirement
  - Review/clarify NUFT requirements including possible extension of BMSB NUFT to other tariff chapters
  - Verification inspection regime to move from Seals-intact inspections to Inspect (unpack) when conducted at an AA

Khapra beetle

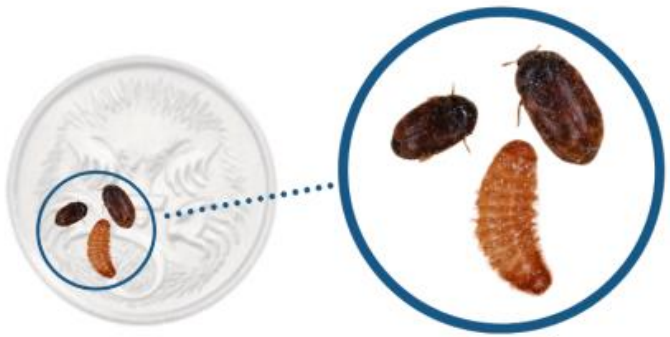
The risk of khapra beetle

Serious agricultural pest, posing a major threat to grains industry

Second on Australia's most unwanted plant pest list

Poses a health risk, causing stomach, breathing and skin irritation issues

An outbreak could cost $15.5 billion over 20 years



Khapra beetle adults and larva in comparison to an Australian 5 cent coin

Both the adults (1.6-3mm) and larvae (1.6-4.5mm) are very small making detection difficult

Increases in detections, with it being detected on a range of plant products and as a hitchhiker in sea containers

Can survive as a hitchhiker pest in sea containers for several years

Khapra beetle

Urgent actions

Start

3 Sept 2020

Phase 1

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

15 Oct 2020

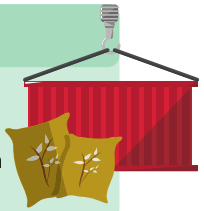
Phase 2

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.

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.

30 Sept 2021

Phase 3

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

28 April 2022

Phase 4

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

28 April 2022

Phase 5

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

late 2022

Phase 6B

New requirements for a broader range of containers.

Keep

khapra beetle free

Khapra beetle

Phase 6A requirements

WHAT ARE TARGET RISK CONTAINERS?

FCL/FCX containers carrying high-risk plant products loaded in a khapra beetle target risk country

FCL/FCX containers shipped from a khapra beetle target risk country and will be unpacked in a rural khapra risk postcode in Australia

WHAT ARE THE MEASURES?

Target risk containers must undergo mandatory offshore treatment prior to arrival in Australia

CONTAINER TREATMENT OPTIONS

1. HEAT TREATMENT
2. METHYL BROMIDE FUMIGATION
3. INSECTICIDE SPRAY

ISO Tanks, reefers, flat racks, LCL/FAK and empty containers are excluded.

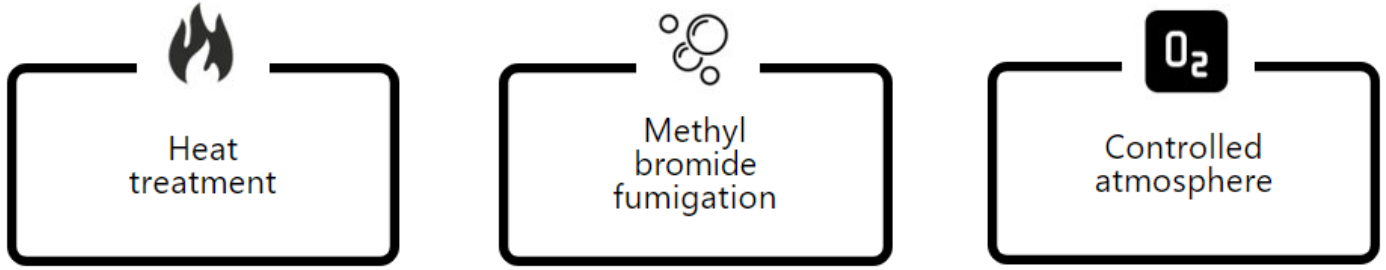
Khapra beetle

Phase 3: High-risk plant products

From 30 September 2021, new import conditions commenced for high-risk plant products imported via all commercial pathways.

Country of export	Product requirements
Khapra beetle target risk country **Note:** If the products are to be packed into an FCL/FCX sea container, the sea container itself must also be treated.	Treated offshore **AND** Inspected by government official of exporting country **AND** Certified on phytosanitary certificate.
All other countries	Inspected offshore by government official of exporting country. **AND** Certified on phytosanitary certificate.

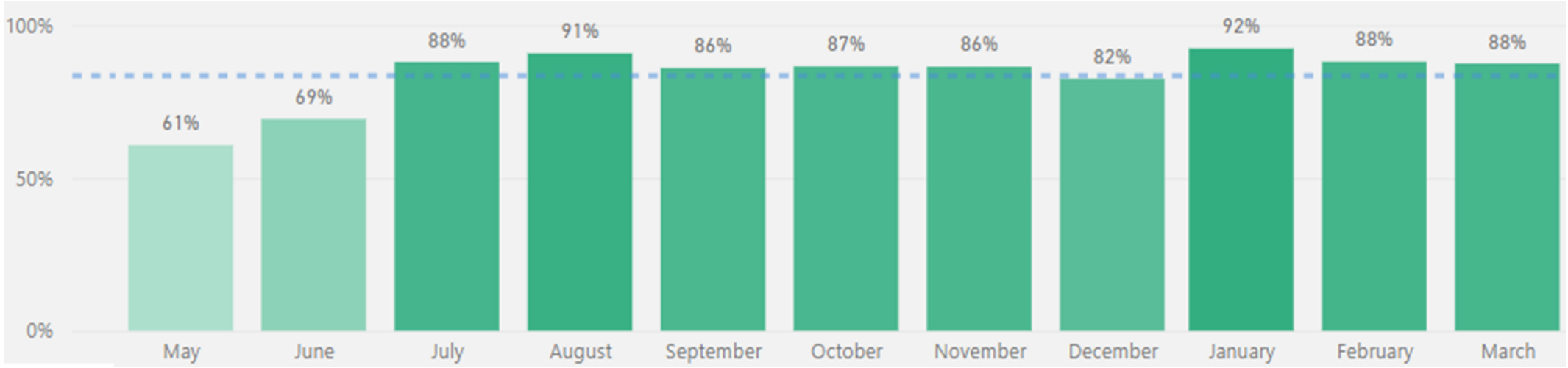
Treatment options



Khapra beetle

Phase 6a and Phase 3 Compliance

As of start of April 2022:
Total number of consignments captured **5318**
Overall compliance **85%**
Initial compliance was low, quickly improved and is holding between **82-92%**

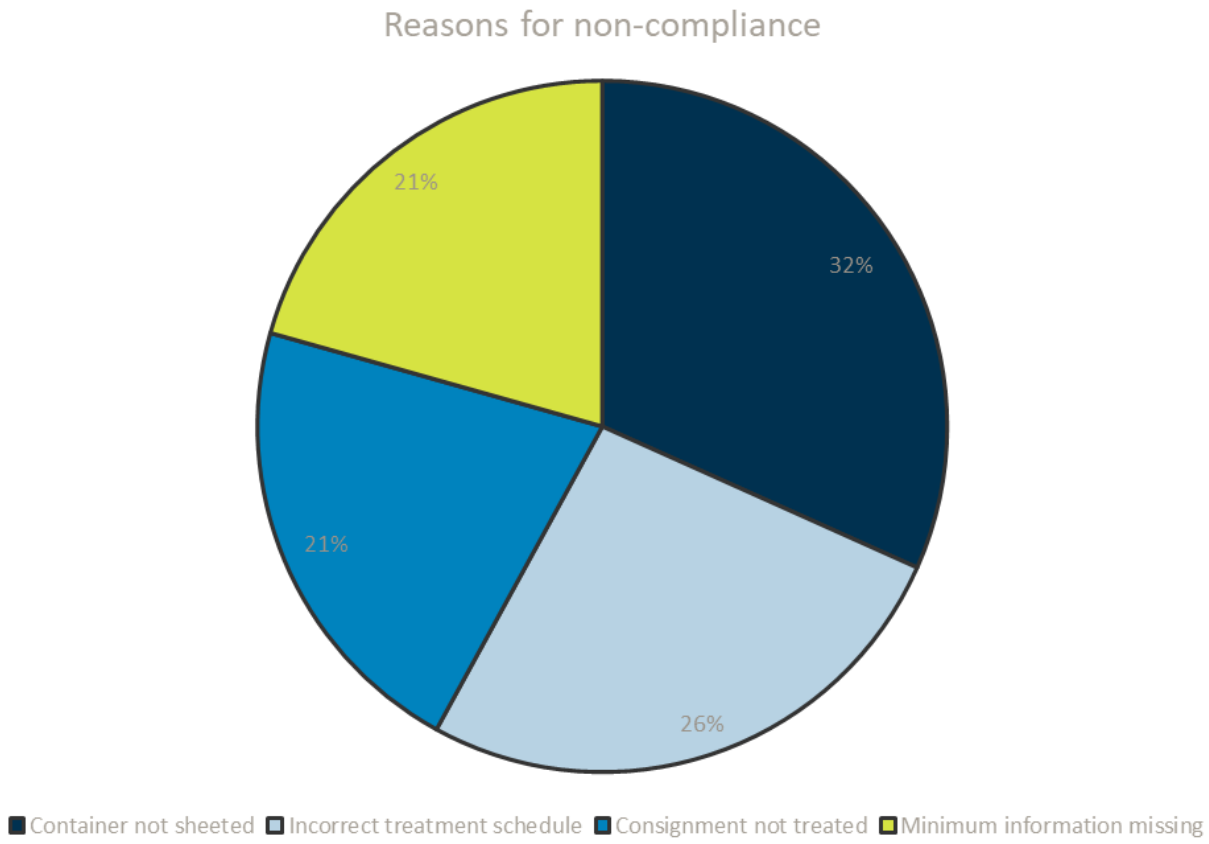


Khapra beetle

Phase 6a and Phase 3 Compliance cont'd

The majority of non-compliances identified relate to:

- **Container not sheeted** – For Phase 6a only. Container not placed under a sheet for treatment.
- **Incorrect treatment schedule** – Incorrect treatment rate, temperature or time applied. Also includes unacceptable treatments (eg phosphine).
- **Consignment not treated** – No treatment applied to the consignment. Also includes treatments applied prior to 21 days before export.
- **Minimum information missing** – Treatment certificate missing required information.



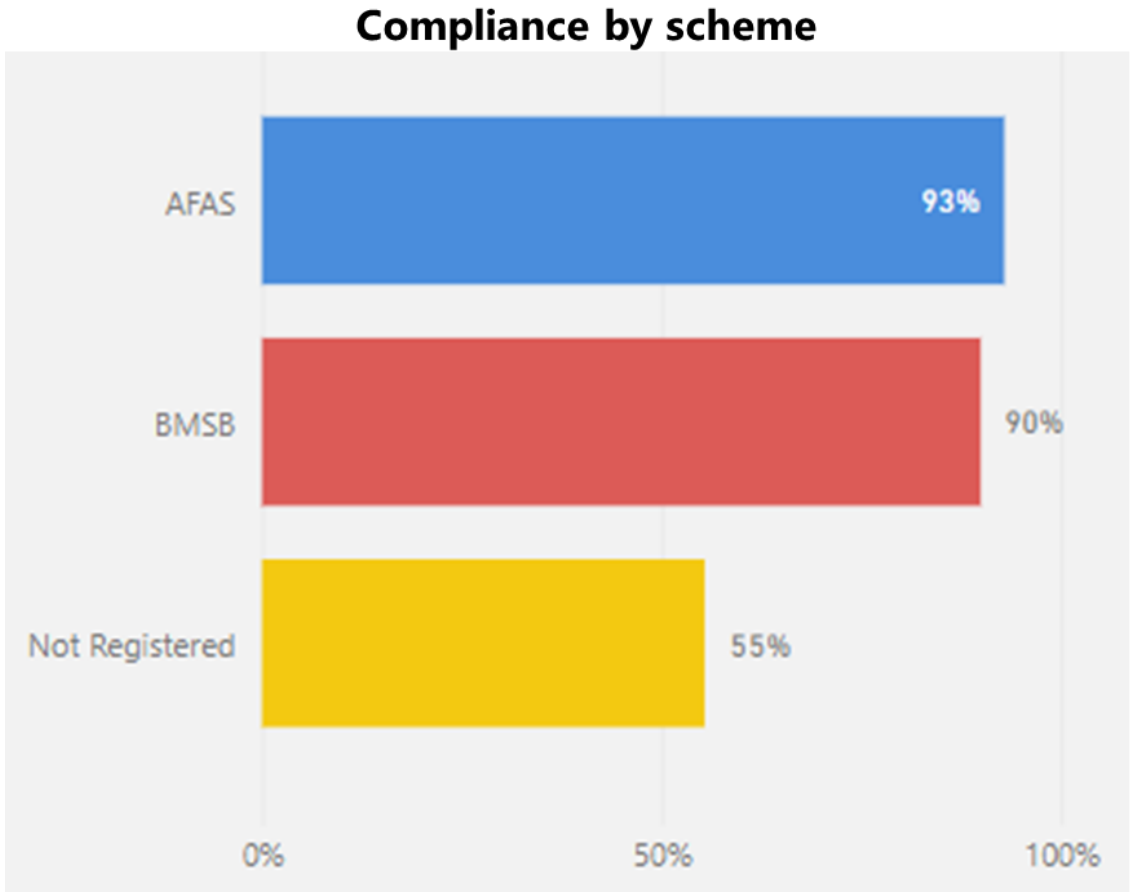
Khapra beetle

Phase 6a and Phase 3 Compliance cont'd

Australian Fumigation Accreditation Scheme (AFAS) and Offshore Brown Marmorated Stink Bug (BMSB) Treatment Provider Scheme treatment providers are **highly compliant**.

The department continues to encourage supply chains to engage providers approved under these schemes.

Extra care should be given to ensuring compliance with Australian import conditions when using providers operating outside of these schemes.



Khapra beetle

Phase 6a Compliance (continued)

- Includes mandatory offshore treatment for FCL/FCX containers packed with goods other than high risk plant material in a khapra beetle target risk country and will be unpacked in a rural khapra risk postcode in Australia.
- There has been a level of non-compliance identified along this pathway.
- In the month of March 2022, 42% of consignments subject to phase 6Aii that had treatment certificates did not input an AEI.

Class 19.1 NCCC requirements

If you are operating under an approved arrangement, you must report and manage khapra beetle risk (for non-commodity) by:

• Assessing documentation for target risk containers packed in a khapra beetle target risk country that will be unpacked in a rural khapra risk postcode in Australia

• Ensuring target risk containers are accompanied by appropriate certification and the AEI is reported to address khapra beetle risk

• Reporting if a container subject to khapra beetle measures does not meet requirements, through the khapra concern type (KPRA).

Khapra beetle

Phase 4 and 5 requirements

Applies to other risk plant products and seeds for sowing exported from all countries on or after 28 April 2022

Does not apply to goods imported for research purposes or seeds that will be sown in an AA site or Mickleham PEQ

Must be inspected offshore by the government official of the exporting country

Must be certified as being free from any listed species of Trogoderma (whether live, dead or exuviae) in Australia's list of Trogoderma species of biosecurity concern

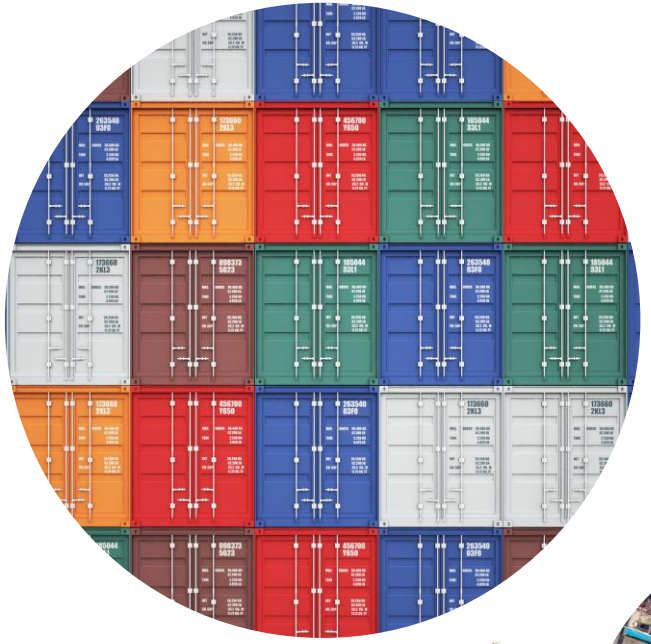
Failure to comply with these requirements may result in the export of the container and/or the goods on arrival in Australia.

Khapra beetle

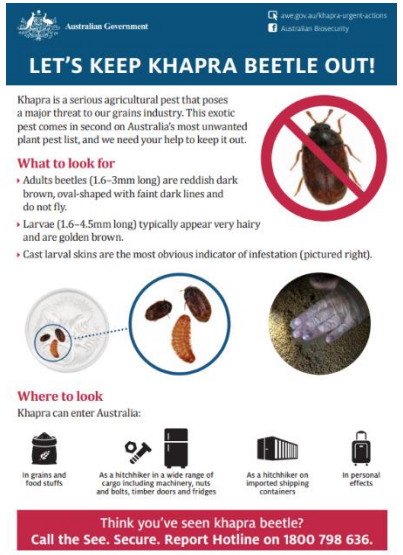
Phase 6B requirements

Phase 6B is expected to commence in late 2022.

Under Phase 6B, measures will be introduced for a broader range of containers.

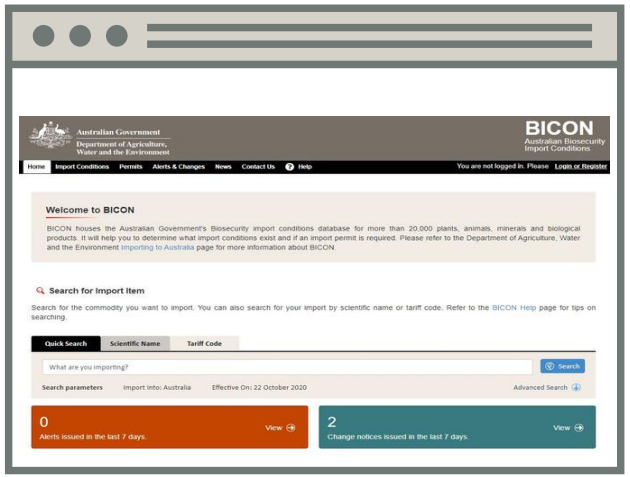


Khapra beetle – more information

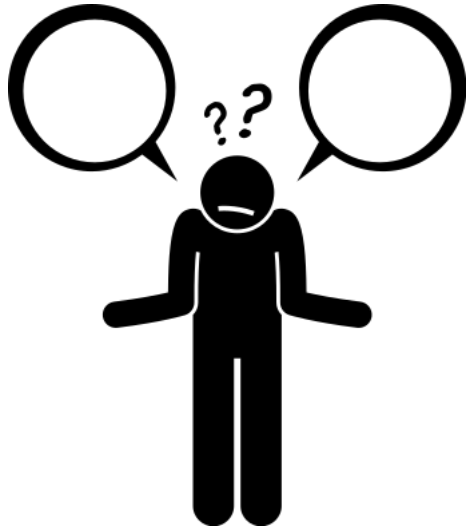


Further information on the urgent actions can be found on our website:

AWE.GOV.AU/KHAPRA-URGENT-ACTIONS



Register to receive BICON alerts



1800 900 090 or via email imports@agriculture.gov.au (please title the subject line of the email with 'Plant Tier 2 – Khapra urgent actions').

Questions