**Recording**

0:10
Good morning everyone and thank you for attending our Hitchhiker Pest Awareness webinar.

0:15
My name is Joel Freeman and I'm a director in the Hitchhiker Pest Working Group in DAF.

0:20
I'm joining you today from Nunnawal Country, also known as Canberra, a place I've lived and worked for most of my life, a place that is the traditional land of the Nunnawal people.

0:31
We're here today to talk about bio security, which is all about protecting our unique country from pests and diseases.

0:37
Caring for and protecting country is something Aboriginal and Torres Strait Islander people have done for thousands of years.

0:45
So with this connection in mind, I wish to acknowledge and respect the continuing culture and the contribution the Nunawal people make to the life of this city in the region.

0:54
I pay my respects to the Elders past and present.

0:58
I'd also like to acknowledge and welcome any Aboriginal and Torres Strait Islander people attending today's event.

1:06
Today's webinar is a series of presentations about hitchhiker pests.

1:10
You'll be provided with interesting information on the biology of these pests, the risks they pose to our country, the work we're doing to manage them, and the role you can play in spotting and reporting them to the department.

1:23
At the end of the presentations, we've allocated some time for questions, so please post any questions about hitchhiker pests in the chat and we'll get through as many as we can at the end.

1:36
Before diving into the topic of hitchhiker pests, I just wanted to provide a brief overview of our bio security system and explain why your role in it is so crucial.

1:46
Bio security is about managing the risk of exotic pests and diseases entering, establishing and spreading in our country.

1:53
Our bio security system is essential for protecting the quality of life of all Australians, our economy and our environment.

2:01
Our bio security system is extensive and complex, involving multiple layers of protection.

2:07
These layers include pre border controls which are measures undertaken overseas to prevent pests and diseases from reaching our shores.

2:16
It also includes undertaking scientific risk assessments to inform the development of fit for purpose policy and regulations.

2:24
Then we have our at border controls.

2:26
These controls include the assessment, inspection and management of goods and conveyancers arriving at our border.

2:33
We then verify and assure our controls through monitoring, auditing and applying actions to address non compliance.

2:41
The general public and industry also play a vital role in bio security by being vigilant for pests and diseases and reporting anything unusual to our department.

2:51
This is especially important for those of you in industries that work with shipping containers and imported goods.

2:57
Your frequent interaction with imports makes you some of the most likely individuals to encounter hitchhiker pests.

3:04
By being alert and reporting suspect pests, you can help stop them before they become a major problem.

3:10
So with that overview, I'll now hand over to Doctor Brian Garms to explain more about hitchhiker pests.

3:17
Over to you, Brian.

3:19
Thanks Joel.

3:20
Hi everyone.

3:21
I'm Brian Garms.

3:22
I'm the director of the grains, contaminants, bio control seeds and weeds team in plant sciences risk assessment.

3:28
And, and one of the things my team does is review hitchhiker pest risks and trying to understand where these tests may be coming from, what, what tests we need to be worried about and, and where we may need to be looking for them.

3:39
So I'd like to just give you a bit of an overview of the, of the biology and, and, and what we're dealing with hitchhikers.

3:45
Thanks.

3:46
So as an overview here, one thing about hitchhiking pests, these are pests that can hitch a ride to Australia in what we call anatomic goods, containers, machinery, other things, things that aren't plants, things that aren't alive and, and they're coming on these pathways that we often don't think of.

4:04
You know, often we worry about fruit or plants.

4:06
But but here we're talking about things that are hitchhiking on on anatomic goods.

4:11
And one thing about these types of pests is we've seen a real increase over the last few years and the numbers that we're finding at our borders and not just Australia, but but globally.

4:20
And we think some of that, there's a number of factors.

4:23
There's probably no one single reason, but a lot of little things that add up together.

4:27
1 issue may be climate change.

4:30
And that also leads to things like the the changing agricultural practises.

4:34
We definitely are seeing different places that products are being made and factories now may be near fields where they used to be in cities or, or things like that.

4:42
And that changes the kinds of tests we might find on the goods.

4:45
And we're definitely seeing these changes in trade patterns.

4:49
So on the next slide, I've got a just an image, Sorry, next slide.

4:56
Thank you.

4:56
On the next slide, here is just an image of the of the global trade patterns that we're we're seeing and, and I'm sure many of you are aware that that we get goods from all over the world.

5:05
One of the things though that we're also seeing with this, this global network of trade is that pests are moving around not just to Australia, but they're moving from one location to another and becoming an issue there before and and that changes our profile.

5:20
So for example, brown marmorated stink bug is, is a, is an insect that was originally found in, in Asia, it's moved to the United States and to Europe and, and the places we mostly find brown marmorated stink bug now are in Europe and North America are goods coming from those countries or those areas.

5:36
So I guess the, the key message here is the, the risk profile for hitchhikers is changing.

5:41
So what, what has been true in the past is not necessarily true now.

5:44
And we're definitely seeing some real changes in the in those profiles.

5:49
So in the next slide, yeah, yeah, I just wanted to go through some of the some of the biological traits.

5:55
So, so hitchhikers are a little special.

5:58
They've got a few key traits that that that make them special as past.

6:03
The first thing about hitchhikers, of course, it has to somehow get into the into the goods, right.

6:08
So we're talking about inanimate goods.

6:10
So they're not there looking necessarily for food, for something to eat always, but they're, they're there for other reasons.

6:16
So obviously insects that over winter they may be looking for cracks and crevices to crawl into in the autumn, you know, some place nice to hide.

6:25
And that can be, you know, a lot of a lot of goods, a lot of packing material can be attracted to them for that.

6:30
We definitely see things like egg masses.

6:32
And sometimes that might be due to lights on at night and, and certain kinds of insects will fly in and be attracted to the lights and, and they may, they may crawl into the goods themselves or they may lay eggs on the goods.

6:43
And then we have things like snails and so on that are just looking for maybe a nice shady cool spot to hide on.

6:50
And so they crawl underneath of something and they kind of stick on there.

6:53
And, and that's how they get associated with these goods.

6:55
So there's something about them that that associates with the goods.

6:58
Then there's something about them that lets them survive the trip.

7:01
So they've got to go, especially by sea.

7:03
They've got to go a month or so without eating anything, without having maybe any water to drink or anything like that.

7:09
They've got to be able to survive that.

7:10
So obviously for overwhurning insects, they, they're, they're prepared to go months just sitting there.

7:17
So, so they've got a, a store for the, for themselves to survive on insects that make nests like bees and ants.

7:23
They share food with themselves in their nests and they may have a food store there.

7:27
Snails are often adapted to spend months in the hot summer months waiting for the, for the cooler rains to come.

7:33
So they're, they're able to survive months as well without moving, without feeding.

7:37
And then of course, once they arrive, they've got to be able to distribute and establish and get off and, and, and find something, you know, find a place in Australia to settle into.

7:46
So, so most of these creatures can of course do that.

7:50
So if you go to the next slide, we have been thinking about these pests like that, like how they will be with those goods, how they, how they can survive and so on.

7:59
And we think there's literally thousands of species that could be hitchhikers.

8:05
And it is probably just far too many to really list 1 by 1.

8:09
But we, we are trying to create groups of hitchhikers to understand where we might see those sorts of pests or when we might see them and how we can understand how they're getting here.

8:17
So we've got sort of five big groups that we talked about.

8:21
One is the overwintering pest.

8:23
Like I mentioned before, these are the insects that are looking for shelter.

8:26
We see them start to arrive at certain times of year.

8:28
You know, when it's a lot of the goods are from North America and, and so when the North American autumn starts, just like the BMSB season is starting now, this is when these hitchhikers start to arrive.

8:39
Egg laying.

8:40
You know, there are certain kinds of goods that, that, that are susceptible to having insects come and lay eggs on them and, and certain parts of the world.

8:46
So, so we have an eye out for those nesting, of course, the bees and the ants especially can can survive on these trips, the snails, the sheltering.

8:55
And then another really important group of pests actually what we call internal here, we're talking about pests that can survive inside of containers for an extended period of time.

9:05
And Kafra beetle's really one of the key pests there that, that we're finding that, that even if the goods aren't, aren't something that Kafra beetle itself would be in that if there's a little bit of grain or something spilled in a container, Kafra can survive in there for a really extended period of time.

9:20
And I, I think you'll be hearing more about that later today.

9:24
So on the, on the, on my next slide, I think this is my last slide.

9:27
Yeah.

9:27
I just want to really emphasise that these, these hitchhiker pests have real impacts that, you know, we're not just, it's not just that they're, they're not here already, but that if they got here, they would cause a lot of damage.

9:38
So many of you may have heard about the invasive fire Ant that, that we're struggling with to trying to eradicate and other invasive Ant species in total could have over $10 billion of damage over a 23 year.

9:49
CAFRA beetle alone is estimated to cause nearly a billion dollars of damage a year, over 20 years to our grains industry.

9:57
It's a, it's a pest of stored grains and, and it's a very serious pest for us.

10:01
And, and of course, a lot of these pests, the, the, the damage is measured in the billions.

10:06
So it is something that we're very, it's very important that we try to keep these pests out of Australia.

10:12
And I think that is the that concludes my part of the talk.

10:15
Thank you very much.

10:16
And, and I guess we'll pass back to Joel.

10:19
Thank you.

10:30
I think you're a mute, Joel.

10:33
All right.

10:34
Thanks, Brian.

10:35
So given the increasing risk of hitchhiker pests, the Hitchhiker Pests programme was stood up by the department in 2021.

10:43
Our programme aims to address the risk of hitchhiker pests that can be carried by sea containers, their cargoes and associated packaging.

10:51
Due to the significant volume of sea containers arriving in Australia each year, it's not feasible for the department to inspect all containers when they arrive or require that they're all treated offshore before they arrive.

11:03
So instead, we're adopting a systematic approach to comprehensively manage this risk across the whole sea container pathway.

11:11
So the programme includes 26 individual pro projects that are categorised in the three focus areas as shown on the screen.

11:19
The first focus area is expanding our use of offshore controls to prevent hitchhiker pests reaching our borders.

11:25
Some of you might have heard of our sea container hygiene system, so we're actively trying to expand that into new ports across across the globe.

11:35
The second focus area is targeted onshore intervention and surveillance.

11:41
So this is all about being data driven and using our limited resources in the most effective way.

11:46
For example, we're developing a new policy and approved arrangements that will allow industry to inspect sea containers arriving from lower risk pathways and this will free up our officers to focus on the highest risk pathways.

12:00
The third area involves partnerships with industry, government and researchers.

12:05
We're partnering with these groups to tackle the hitchhiker problem on a number of fronts.

12:10
This includes a project that we have with Murdoch University to identify C container design improvements.

12:16
So these improvements are looking to address some of those catch points and and voids where hitchhiker pests and contaminants can can accumulate on containers.

12:28
We're also trialling innovative detection technologies such as environmental DNA and using hyperspectral camera systems.

12:36
Our Hitchhiker pest awareness campaign is also part of this broader programme.

12:41
I'll now hand over to Monica to provide you with more information about the campaign.

12:45
Thanks, Mon.

12:48
Thanks, Joel, and good morning, everyone.

12:50
As Joel mentioned, my name is Monica and I'm an Assistant Director within our stakeholder engagement team in the department.

12:57
So my portion of the presentation today will cover our Hitchhiker pest awareness campaign that we'll be delivering over the next couple of months.

13:07
So as part of this campaign, we'll be releasing a range of communication products to help raise awareness of the risk of hitchhiker pests in imported goods and shipping containers and to also explain how to report suspected detections of pests to our Department C secure report hotline and our online reporting form.

13:27
So you might see some of these products come out over the next couple of months.

13:31
It will include our firstly sponsored ads on social media, as well as sponsorship of the Ports Australia Biennial conference that's happening in October, where we'll be sharing a range of awareness videos.

13:45
Secondly, we'll be distributing merchandise branded with bio security messaging, such as hats, pens, post posters and coffee cups.

13:55
And lastly, we'll be delivering a range of supporting activities such as sharing digital information kits and holding webinars like this one that we're in today.

14:06
So the sponsored social media component of this campaign actually started this week and will continue throughout September and into early October.

14:15
It will include posts like the ones that you see on the screen here on platforms such as Facebook, Instagram and LinkedIn.

14:23
And as mentioned by Joel at the start of this presentation, our key message behind these posts is that if you handle shipping containers or imported goods, then you're in the business of bio security.

14:34
And that's because you're some of the most likely individuals to encounter hitchhiker pests in these particular settings.

14:40
So by being alert for and reporting them, or even just signs of them to our Csecure report hotline, you could help stop them before they become a really major problem for Australia.

14:51
So in addition to these posts appearing as ads, we'll also be posting them on our department's own social media channels.

14:58
And we encourage you to follow us to catch them on Facebook and Instagram by following at dafgov as shown in the top right hand corner of this screen, or on LinkedIn by just searching for our department's name.

15:14
So the social media component of this will also include some videos.

15:17
And as some of you might be aware, videos on these kinds of platforms need to be extremely short, 15 seconds or less.

15:25
So I'll now play some of the videos.

15:27
They should come through with sound.

15:29
However, if they don't, there's also subtitles on them.

15:32
So feel free to follow along that way if that's the case.

15:36
If you unpack or store imported goods at your workplace, then you're in the bio security business.

15:41
Look out for pests and report anything unusual to our C Secure Report hotline on 1/8 hundred 798636 authorised by the Australian Government, Canberra.

15:53
If you work around sea containers or imported goods then you're in the bio security business.

15:58
Look out for pests and report anything unusual to our Sea Secure Report hotline on 1/8 hundred 798636 authorised by the Australian Government Canberra.

16:11
So this next slide shows some examples of our merchandise products.

16:15
So all of these products include promotion of our C secure report hotline or online reporting form to encourage reporting of pests to our department.

16:25
So as you can see, we've got a range of things such as hats, pens, coffee cups, air fresheners for hanging in vehicles, and we've also got some fact sheets and posters which aren't shown on the screen.

16:35
So these products are being delivered to our operational staff in regional offices across Australia for them to then distribute to industry members who they interact with.

16:46
And they're also being sent to industry participants who were quick to complete our online request form earlier this year.

16:53
Now, our current stock of this merchandise is already fully allocated, but we understand that these products are very popular and that there's strong demand for them amongst industry.

17:03
So recognising that we will be endeavouring to repeat this activity in the future and distribute more products, we've also updated our website to include an extensive range of resources, including digital information kits that we hope you might consider using and sharing on your own channels.

17:23
So those kits include items such as social media tiles, MS Teams backgrounds, fact sheets, posters and email signature blogs.

17:32
So you can download these by scanning the QR code on this screen right now or by visiting agriculture.gov dot AU/ hitchhiker dash pests.

17:45
That's all from me today.

17:46
Thanks very much for your time.

17:48
I'll now hand over to Gunther.

17:53
Thanks, Monica.

17:54
Good morning.

17:55
Thanks for joining us today.

17:57
My name is Gunter Rabbit and I'm the Director of the Bio Security Reports and Response section.

18:02
My section heads up the department's post bio security response teams.

18:05
These teams were established to respond to bio security risk that's been detected beyond the bio security border and we have a team in every state.

18:13
Things they respond to can be as simple as detections of soil contamination on machinery or in shipping containers, through to boras, on timber pallets or in timber pallets, live animals in containers or hitchhiking pests that could severely damage our agricultural industries.

18:28
Capra beetle is high on our list of priorities and we've had a number of Capra detections and goods that are not normally associated with Capra beetle.

18:36
On each occasion we've been able to determine that this was a case of container contamination and the container having likely being contaminated when it previously carried Capra food source products from Capra countries.

18:50
One of these cases, on the 2nd of August 2020, a member of the public submitted a report to the department that he had concerns with insects he'd found in the packaging of a new refrigerator purchase from a retailer in Canberra.

19:02
The Bio security officer attended the customer's address the next day and collected samples that were visually identified as suspect Capra beetle.

19:09
This was later confirmed through molecular diagnostics.

19:13
The fridge was traced back to A-15 container consignment from Thailand and narrowed down to one container.

19:19
Complete movement history for that container revealed that nine months earlier it had carried ground like kernels from Sudan to China and it's suspected that this was where the container became contaminated with Capra beetle.

19:31
A total of 76 fridges were imported in that container and were unloaded in a warehouse in Casula in NSW and were distributed at 24 commercial locations and then on sold to 41 private permanent residences.

19:45
Our staff visited and inspected all commercial and private premises, inspected all known vehicles used in the transport of the fridges and managed the treatment of the fridges, premises and vehicles.

19:57
The management of identified infection points included removal of index refrigerators and any associated packaging, inspection and removal of high risk broad food products and sweeping and vacuuming of sites and chemical treatment.

20:12
In all, 152 commercial and residential sites and vehicles were chemically treated by licenced pest controllers.

20:19
And DAF staff, including bio security officers and entomologists spent 4890, eight, 4890 hours managing this response at a cost to the department of around quarter of $1,000,000.

20:33
Trapping and ongoing surveillance was conducted by state and territory jurisdictions after DAF had completed their activities.

20:42
Next slide, please.

20:44
And 2020 continued to keep us busy with another Keppra detection and this time in a consignment of high chairs.

20:53
On 20 October 2020, a member of the public reported insects in the packaging of a new high chair.

20:59
This was purchased from a baby products retailer and it was imported from Italy by security.

21:04
Officers again attended the premises, inspected the chair and collected samples as before and the samples were visually identified as Keppra again and later confirmed by molecular diagnostics.

21:16
Trace bank was conducted and it was confirmed that the high chair came from a consignment of high chairs from Italy in a single container into Melbourne in August 2020.

21:26
The container movement and commodity history were attained again as per the previous consignment and it was found to previously carry drive whole Chile from India in April 2019 and groundnut kernels from Sudan in November 2019.

21:43
We're often asked if Capra because Capra is a stored product test wider Capra infest packaging.

21:49
Cardboard packages are often put together using starch glues and the volatiles given off by these glues is attractive to Capra beetle which will move out of the cracks and crevices in the container and into the packaging to get into the start into the starch in the cardboard, hence the infestation in the in the packaging.

22:08
So 2 distribution centres received fire chairs from the affected consignment.

22:12
They were distributed to 57 retail stores nationally and all of these premises were inspected by bio security officers.

22:20
Both distribution centres and 23 stores had positive detections to Capra Bagel.

22:26
All 57 stores that received fire chairs from the affected container were treated with residual insecticides and insect price regulators, and over 17,000 products within A5 metre radius of the indexed goods at all sites were fumigated.

22:40
324 residential infection points were identified as points that potentially had contact with indexed goods, including private residences, workplaces and vehicles across every state.

22:52
The total of 349 possible infection points were identified and were chemically treated by pest control operators from Reticule and Flick.

23:01
Impacts for the department included 17,930 hours and a cost of almost $900,000 for this detection.

23:11
That concludes my presentation.

23:13
So thank you for listening.

23:14
I'll now hand over to James.

23:18
Thank you, Gota, for the warm welcome and hello to everyone out there.

23:21
My name is James Pickering and I'm the Cargo Operations Manager for the Port of Brisbane.

23:27
I deal predominantly with containerized cargo and new vehicles arriving via sea.

23:33
I joined the department in 2007 and have spent the majority of my career detecting and managing bio security risk associated with imported sea cargo.

23:43
I spent a few years as a vessel inspector which provided a lot of insight into how vessels themselves can also become carriers of hitchhiker pests.

23:52
I'm also an imported food inspector and I've spent several years conducting food inspections at non approved sites across the greater Brisbane region.

24:01
My time spent working at both approved arrangement sites at the border and non approved arrangements further away from the border has shown me that there is a strong desire across all of industry to protect our supply chain from becoming vectors of bio security risk and I find this really encouraging.

24:22
You're most likely to find hitchhiker pests in or around items that have recently arrived in Australia from overseas.

24:29
But Australia is full of native bees, snails and ants.

24:33
So how can you tell if what you've found is a hitchhiker pest?

24:37
Well, it's all about where you find the pest or the evidence and if it's unusual to see it there.

24:44
You are all experts in determining if something looks out of place with your consignment.

24:49
Pay attention to the following shipping containers and that includes both the internal and external services.

24:56
Timber pallets used to transport goods.

24:59
Timber pallets can not only provide hiding spaces for hitchhikers, but they can be buried into by borers.

25:06
Cardboard boxes carrying imported goods.

25:09
As you have just heard, some species can actually feed on cardboard in the absence of more palatable food sources.

25:15
Packaging that comes in boxes or crates, such as loose fill packaging, bone, plastic, stretch film, or even sticky tape holding cartoons together.

25:25
Recently imported brake bolt cargo, and large machinery such as tractors and mining equipment.

25:31
Large, bulky items that do not fit into shipping containers or crates may be lacking.

25:36
An outer layer of packaging which provides easy access for hitchhikers to find a nice crevice to hide.

25:42
In warehouses or retail stores containing imported goods, you may notice insects that recently emerged from the goods they travelled in.

25:52
Be mindful of floor spaces surrounding imported cargo for hitchhikers or even on nearby domestic cargo.

25:58
Our case studies have shown that even homes containing recently imported goods can have hitchhiker activity.

26:09
Where's a look?

26:10
Well, the first part of your consignment you are likely to see is the shipping container it arrives in.

26:15
Take a look at its external surfaces.

26:19
Shipping containers can easily become contaminated.

26:22
The images here have a container that was contaminated on all six sides.

26:26
This one was an absolute disaster.

26:29
You'll notice the grain contamination is so heavy it's actually falling off of the container.

26:36
The bottom right image shows the time slot.

26:38
That's where the forklift time slides in under the container to pick it up.

26:43
This time slot is absolutely chockers with grain contamination.

26:47
Have a look in the twist lock pockets or corner castings.

26:50
These areas along with the time slots provide a great area for hitchhikers not only to harbour in, but they can easily hold contamination.

26:58
Note the side rails you'll see here in the bottom left image a lot of contamination stuck on the side rail and wedged in between the corrugations.

27:07
If possible you could have a look at the roof containers.

27:10
Drop contamination onto containers below and you can imagine this container was probably contaminating the containers that were below it.

27:19
Heavy plant contamination such as this can support a variety of pests and may not be the only risk factor.

27:25
I would imagine in such bulk contamination there would be several species hiding away and thriving in this kind of contamination.

27:33
And note, the bottom right image here has a fluoro sticker placed on the container.

27:38
This was done shortly after arrival into Australia and it demonstrates a prime example of how industry has an opportunity to see and report hitchhikers along the supply chain.

27:51
We have to look inside a shipping container.

27:54
The moment a container is open for the first time after weeks in transit, the sudden influx of light and oxygen may disturb insects near the door.

28:03
Use these first few moments to look around and observe any movement.

28:07
Flying insects will fly up and towards the roof and door to escape.

28:12
After the container is open, take a look at the floor.

28:16
Container floors are not smooth and can become damaged or worn out.

28:21
Cracks and crevices not only provide a great place for hitchhikers to hide, but they can also store a potential food source.

28:27
This allows hitchhikers to survive long periods within the container.

28:32
Pay attention to the rubber door seals which can also hold contamination, often grain and plant material.

28:38
Look into the far corners and behind the tie down rings as these are harder to sweep out and are often missed when cleaning.

28:46
So the top three images there show a lot of contamination in those cracks and crevices.

28:51
It's enough there to feed hitchhikers for quite a while, and the bottom 2 images show where you can see typical contamination that isn't swept out properly in the corners and near the door as well.

29:07
So what to look for?

29:09
Hitchhiker pests are great at hiding, so you might only come across the evidence of them.

29:14
This could be frass, which resembles sawdust, insect droppings or insect skins, small holes in timber, plastic or cardboard.

29:24
Timber is highly susceptible to boras and any holes or damage deserves a closer look.

29:30
Piles of frass below or surrounding a hole is a clear sign of recent insect activity.

29:36
The top left image shows a light coloured frass that remained after a timber pallet of goods was removed, a clear giveaway of recent bore activity.

29:45
The bottom left image shows dead brown marmorated stink bugs lying next to the goods.

29:50
This is another strong indicator that the goods have become infested.

29:54
Mud, smears, dirt and soil.

29:56
Note the bottom right image and the termite mud tunnelling found underneath the container.

30:01
Shipping containers might be made from steel but they have timber floors that can become infested.

30:07
So if we look at that top left image you'll note the product is compressed coir bricks and some of the product dust and fragments you can see on the floor.

30:17
But what is alarming is the light coloured powder you can see in the middle.

30:22
I would expect that the kind of timber damage would be typical of what you see in the top, middle and top right image there with the timber.

30:29
And you note the top right image has some light coloured sawdust around the holes.

30:35
That's for us and that's a clear indicator.

30:37
But we have recent Bora activity.

30:42
Other evidence includes insect eggs and in egg masses, nests such as those from ants or bees, and the pests themselves, insects, reptiles, spiders and snails.

30:54
We do see bee Combs on containers and goods, and the top middle image shows a comb detected underneath the container only just last week.

31:03
Remember not to disturb bee swarms, simply take photos and report immediately to bio security.

31:09
If possible, keep someone posted to observe the swarm in case they take flight.

31:15
Large snails such as in the top right image can be obvious but the eggs and juveniles are much smaller and may be confused with small packing foam beads.

31:25
It's worth checking if you notice some small imperfections on the container or goods as you may have just found juvenile snails or eggs.

31:35
I mentioned fresh earlier and whilst it is usually a very fine powder, it does come in multiple forms depending on the species that produced it.

31:44
Termites for example, produce a very granular shaped frass with larger particles.

31:50
Anything that looks like sawdust should be examined closer.

31:54
You can place a sheet of paper or plastic below a hole and observe over a period of time to see if a pile of frass builds up on the paper.

32:03
This would indicate that the boras are active.

32:07
Dead insects or skins are also great evidence that prolonged insect activity has been taking place.

32:13
These can be collected to assist in the species identification.

32:17
The image on the right shows dead Capra beetles and skins, even dead insects such as these.

32:23
They may not seem important, but this kind of evidence could be critical in detecting a major pest.

32:31
Keep in mind that hitchhikers can be highly mobile, some can fly, and others can quickly spread from their original consignment.

32:39
Be mindful that the areas around imported goods or where imported goods were recently stored may have become infested.

32:47
It is important to remember that any suspicious activity near or around imported goods could be an important clue to hitchhiker activity.

32:57
Predatory hitchhiker species such as spiders and geckos may indicate that there are other hitchhikers present as a possible food source that has sustained them throughout the voyage.

33:08
You may remember past delays with importing new vehicles.

33:12
The image in the top middle shows one of the culprits responsible, an exotic snail.

33:17
New cars are increasingly becoming infested with snails that make their way onto the vehicles whilst they await loading overseas.

33:26
OK, so we've seen where to look and what to look out for, but how do you secure it?

33:32
Well, it doesn't need to be fancy.

33:34
A lot of everyday items can be used to secure a pest.

33:38
In a lot of cases the goods will still be in a shipping container, so simply shut the doors, place a sign or tape on the door to remind others not to open.

33:49
Goods that come out of a shipping container can be placed back inside.

33:54
They could be placed into another empty shipping container or they can be plastic wrapped.

33:59
Plastic wrapping cartoons or small items is great for short term containment.

34:05
Plastic bags can be used, but remember double bag specimens bugs will chew their way through plastic in time, so use a sturdy container if possible.

34:14
Plastic tubs or buckets with closeable lids are also very useful.

34:20
It might be handy to keep a small plastic container on your forklift or in the unpacked location in case insects are spotted.

34:28
Cardboard boxes can be used to secure live mammals, birds, or reptiles.

34:33
Remember, only capture a live animal if safe to do so.

34:36
Use gloves and keep the box in a quiet location away from Dex Direct Sun.

34:43
Whatever you use, make sure you label it with consignment information and the name of the person who found it.

34:49
Sometimes a lot of hard work goes into grabbing a sample only for the important information to be lost along the way.

34:56
My experience has shown quickly securing a specimen using whatever is nearby is far better than not securing at all.

35:08
If containment is not possible, place the consignment away from breezeways and wind and use knockdown spray to contain.

35:17
You can use the insecticide insecticide spray to stop insects from escaping.

35:22
You can use the spray to create a barrier around container doors to stop crawling insects.

35:28
Remember though, don't use a spray on honeybee swarms as this will disturb the swarm and the queen may escape.

35:35
Whenever you find something, take lots of photos and include a ruler or pen wherever possible to provide scale.

35:43
These images will greatly assist our entomologists in identifying the specimen.

35:49
So how would you report?

35:51
Well, saying something unusual?

35:53
Secure and report it.

35:54
Even if you're not sure.

35:56
Your familiarity with your goods will help in determining if something isn't right.

36:01
Even a small amount of evidence can be a big tip off for a hitchhiker.

36:06
So secure the pest, shut the container door or secure the goods and take photos.

36:11
Report the pest to our C Secure Report hotline on the number on screen.

36:17
You could go ahead and save that into your phone now while it's there or online at agriculture.gov dot AU slash report.

36:25
When calling the hotline, keep the consignment details handy as you may need to refer information to the officer and the officer on the phone can also complete the online form for you.

36:35
Our officers investigate all reports related to imported items and will guide you through the next steps.

36:44
We have plenty of information online, so check out these links or call the hotline if you feel unsure.

36:51
And that's it from me.

36:52
So I'll pass back to Joel and we'll be happy to answer any questions.

36:59
Thanks James.

37:03
That was a really informative insights from an experienced inspector.

37:09
So I think it really helps people understand how to see, secure and report.

37:14
So we'll now open to questions.

37:16
You can ask a question by typing it in the Q&A chat function.

37:20
Our team will be moderating questions and we'll publish those relevant to each other pests.

37:28
We'll also publish AQ and a document on our website to provide written responses to the questions that we receive, including any that we don't get to answering today.

37:39
So let me just jump in.

37:41
I can see one on it that's from you Mon.

37:46
So yeah, don't be shy.

37:48
No questions are too silly.

37:49
So we've got the team here standing by for for responses.

38:08
I'm sensing our information was probably so comprehensive that we haven't generated any questions.

38:17
Just give everyone a minute to to come up with any and if, if everyone's cobwebs, a concern might pass that one to you, Brian.

38:36
Yeah, sure.

38:37
Look, I think, I think they can be a concern in the sense that there are some species of spiders that aren't, you know, Australia has some species, of course, but there are others that are exotic and then can come in from overseas.

38:51
And we definitely don't necessarily want those to establish.

38:56
There's a there's a species that's recently arrived in the United States.

38:58
It's called the Joro spider.

39:00
It's it's originally from Asia and it's, it's a very large spider that that is now spreading across the US and we think that probably did arrive there as a hitchhiker as well.

39:10
So, yeah, so I think, I think if, if you don't see the spider itself, you know, and I think that that's something to consider.

39:17
But, but I think if you do see a spider and you think that spider came from overseas, that that would definitely be of concern.

39:22
But, but Cobweb may be a a case to have a bit of a closer look.

39:28
So hopefully that answered the question.

39:29
Thank you.

39:32
Thanks, Brian.

39:33
James, do you have any insights about, you know, previous experience with cobwebs and what that might indicate?

39:42
Usually when we find spiders, if you look deeper, you'll find other insects as well.

39:46
Live spider needs to eat something.

39:48
So, you know, there will be something in there that they've been praying upon.

39:53
And we do find contamination in spider webs as well.

39:55
So we do find dead insects or even plant material caught up, such as windblown seeds.

40:01
In spider web, So if you see webs, yeah, I'd have a deeper look.

40:05
You might find other things as well, James.

40:10
Now we've got a question from Chris.

40:13
With hitchhiker pests and arrival of cargo such as offshore modules remaining offshore, will these commodities be subject to inspections?

40:21
Said cargo could be up to 400 kilometres offshore and not destined for land.

40:31
I probably don't have the answer to that off the top of my head.

40:34
We don't, we typically are inspecting goods, landed goods, no James, if you have any insights to to offshore modules, well, we assess those on an independent basis.

40:51
So every time a consignment is referred to us, we have to assess it on its own merit.

40:56
So we'd have to see the specifics on that one.

40:59
Yeah, Yeah.

41:00
We'll come back with a written response to that.

41:02
Chris, our cell, will the slides be shared?

41:09
I might pass that one to you, Mon.

41:14
Yes, definitely.

41:15
We'll share these slides on our Hitchhiker Pest website, which is the top website you see on the screen here.

41:23
So you can visit that by scanning that QR code or visiting that hyperlink.

41:30
Thanks, Mom.

41:32
We've got a question about Capra beetle and will there be any changes and to treatments in the short future.

41:40
So since those spike in detections in 2020-2021, the department actually introduced a range of urgent actions to to prevent the arrival of Capra beetle.

41:53
So we've now implemented those conditions across high risk plant products but also on C containers.

42:03
Those conditions have now been implemented and they have seen a reduction in the arrival of Capra beetle, including those associated with C containers.

42:13
And at the moment there are no further plans for any additional treatments or requirements.

42:18
But we are monitoring closely the Capra beetle situation.

42:22
So that that's pleasing to see.

42:30
Yes, we'll share the slides.

42:32
So that will happen.

42:36
Do you get weeds seeds via containers?

42:41
So I think James's slide we do see grain contamination internal and external on containers.

42:50
We also have high priority weed seeds blowing onto containers and other exposed cargo.

42:59
So the container pathway is definitely a potential pathway for the introduction of exotic weeds as well as break bulk cargo.

43:11
James, I don't know if you have any experiences or examples that you can share.

43:16
Shipping containers get placed in all sorts of areas.

43:18
Some of them get placed into paddocks.

43:19
Some are on, you know, hard soil areas, some are on concrete.

43:24
So depending on where the container has been placed or loaded, you could see any kind of contamination caught up underneath or along the sides.

43:32
So yeah, we do see seed contamination on containers.

43:37
Thank you.

43:40
Gunther, we have a question about who has to carry the costs when pests are found in a container at the destination.

43:47
I assume this relates to implications of reporting detections.

43:53
So who would pay for fumigation and delayed container return etcetera.

43:57
I don't know if you have any information you can share there.

44:01
It depends very much on the situation where it's been found and whether it's actually cross borders.

44:11
There are there are cost sharing deeds in place if it is a an actual post border detection.

44:17
But in the majority of cases when we find it and it's still associated with the goods in the container, it generally falls to the importer who in many cases ends up claiming against the the supplier overseas if it's been a failure due to the import.

44:37
We have a question about what would you do if you find live animals, James, I don't know if you can sort of go back over the how to approach the detection of a live animal again.

44:52
Well, it depends on the animal and some of them might not be safe to try and capture.

44:56
Ultimately if it wasn't a shipping container, I would just close the doors and contact by security if it had escaped from the shipping container or it was you know running around a warehouse or just try and safely try and coerce into a corner and maybe throw a blanket or a box over it.

45:13
Ultimately you don't want it scratching or biting anyone and you don't want anyone to interact with it more than is necessary.

45:19
So simply keeping it cornered until by security officer can come and collect would be the way to handle it.

45:25
We have seen snakes and things emerge from containers.

45:29
Obviously we don't want anyone approaching a snake, so basically keeping an eye on it and waiting for the bio security officer to come and collect it was the main idea.

45:41
Thanks, James.

45:44
Question from Misha, how to report suspicious insects when on the street or road and there's no way to secure it at that moment?

45:58
Have an experience with with that, James?

46:03
Yeah.

46:03
I mean, someone threw a jumper onto a stink bug one day and then brought it in wrapped up in a stink bug.

46:08
So whatever's at hand or simply taking a photo and reporting it, you could stand there whilst report it online.

46:16
If it's safe to do so, even that could be enough so that someone later on could come and attend the area and we could perform our own surveillance of that area.

46:27
So if you can't collect it, that's fine, but certainly report it, take photos as well.

46:35
Yeah, it's James.

46:37
And I think that kind of answers the next question about how can we know if plastic can be used to contain the pests, if they're able to escape or not.

46:45
I think it's, again, just do the best you can and collect as much information and report as quickly as you can.

46:56
Yeah, this provides plastic.

46:58
That's fine.

46:59
Yeah, it's short term because Capra Beetle will chew its way through plastic eventually.

47:04
So if you manage to wrap something in plastic, then you could have some time to maybe go find a plastic container to put it in.

47:11
It could be a lunch box, a bucket, something of that nature.

47:14
So it really doesn't have to be fancy.

47:17
You've just got to try and contain it until an officer can be notified and we can come and collect it.

47:26
Thanks.

47:26
James.

47:29
Have a request for providing some examples of the most unsuspecting locations where hitchhiker pests can be found in a shipment container or package.

47:38
I think we've provided some of the typical areas on a container and goods.

47:44
I don't know if you have any unusual examples that you could provide there, James.

47:53
One thing I found surprising was Capra infestation within the cardboard box itself.

48:00
So you might look at a cardboard carton and for most intents and purposes, it might look fine.

48:06
But then if you look deeper, when there's some frass or some damage to the carton where you started peeling open the cardboard layers and inside was insect damage.

48:16
So yeah, a few years ago, cardboard boxes were seen as low risk, and now we're starting to look at them as a potential food source for Capra.

48:24
So that's pretty crazy.

48:26
And the other thing would be probably container floors themselves.

48:30
We are seeing container floors.

48:33
And I remind you of those images that we saw earlier of all the rice and grain stuck in the cracks and crevices.

48:40
All this contamination is leading to containers themselves becoming, you know, vectors of bio security risk.

48:47
So yeah, you used to think of a container as fairly benign, but now they're becoming vectors for incursions with Capra beetle.

48:59
Thanks, James.

49:03
Question from Michael.

49:04
Is this fighting a losing battle?

49:07
If we found exposure like the examples in 2020, there might have been others that haven't been detected.

49:13
I think sometimes it feels a bit like that, Michael, but certainly that's why we're here today to try and spread the word.

49:20
And I guess those examples highlight the importance of community reporting.

49:26
We can't screen everything and inspect everything at the border.

49:30
So a strong bio security system is that shared responsibility across community and industry.

49:37
And what that actually did is triggered action by the department to to respond and to implement stronger measures based on the learnings of those those 2020 detections.

49:49
So we, I guess we had a little bit of an insight to the potential for shipping containers to be vectors for capravital spread.

49:59
But it wasn't until we we had those spark in detections in 2020 that we really better understood the risk and put measures in place to address that question from Greg container traceability is great in theory and would solve a lot of issues.

50:18
Unfortunately, shipping lines are very reluctant to divulge.

50:21
Will the department help and assist pushing shipping lines to comply?

50:26
Some more informative choice of empty containers at origin?

50:30
See, a container data is something that we've been exploring and understanding the history of containers to identify their risk and access to that data is certainly an issue.

50:43
And that's something that's being tackled globally with the World Shipping Council through our work in the international FORA.

50:52
But yeah, sharing of that information is certainly something that's being discussed in those forums and ultimately that would benefit by security if people had access to knowing where a container had been and what it had carried.

51:06
So it's it's a challenge Greg and I think it's a bit of a watch for this space, but thanks for that question.

51:15
Question from Alicia, what are the hitchhiker pest risks between ocean going vessels and transfer vessels?

51:21
What are possible mitigants?

51:25
Brian, I don't know if you've got any insights on the on hitchhikers and I guess like yeah, sure.

51:32
I mean, I think what we're finding is that those, it depends, I guess on the, on the nature of the cargo.

51:38
If it, if it's, if we're talking about containers, obviously the inside of the containers, the things will move with those containers until they arrive at their destination.

51:46
Things like snails, we're pretty sure we've seen evidence of snails that have stayed with a container for quite some time as it's moved through different countries because the country the container came from is not a country where that snail is known to occur.

51:59
Those, those surface contaminants.

52:00
I mean, if there's any way to to to to inspect for that while there's a transfer happening and remove that, that that's fantastic.

52:07
That would be extremely helpful.

52:10
Yeah, I think those are the main things I can think of though that if if there's any way to to keep an eye on those external contaminants, weed seeds and so on.

52:18
But they can stay with those containers definitely even if if they're being transferred that it, that is a possible risk.

52:26
Thanks.

52:27
Thanks, Brian.

52:30
Question about what steps does the department take or require shipping lines to take to mitigate or compensate when the contaminants were identified as present in the container in past chains.

52:47
Certainly the there's some work happening internationally around the concept of each party in the supply chain that receives a container has a responsibility for checking the container for contaminants and playing their part in maintaining the hygiene of the container.

53:08
I don't think it's compensation for previous voyages is something that the department has considered is exploring, but we are certainly pushing for the parties that have that are packing a container, unpacking a container, transporting a container, all play a role in maintaining container hygiene.

53:31
So I think that's probably our focus at the moment because the voyage coming into Australia we can obviously have import conditions, but globally we need solutions to ensure that all voyages are ensuring clean goods going in and clean containers prior to packing.

53:53
So that's that's sort of our focus at the moment.

53:59
Good question about mould.

54:01
What do you do about mould inside a container?

54:08
I don't know, James, I might start with you about any experiences about mould and maybe Brian, if you can have a think about any risks associated with mould.

54:18
It depends on the percentage of the goods that are covered.

54:21
So we would consider something that's more than 30% surface area affected with mould would certainly be something we're interested in.

54:29
A few spots of mould or a patch of mould isn't a huge concern by itself.

54:34
Obviously, if you have multiple colours or multiple strains of mould, well then that's more serious and heavily contaminated products or goods packing, whatever.

54:45
With mould, it's not so much the mould that can be an issue.

54:48
It can be that the mould is feeding other species.

54:51
So we do get some pests feed upon mould directly.

54:55
And so if we have a lot of mouldy pallets, you could see a lot of other insects if you were to look closer at the mould or at the timber packaging that's that's affected.

55:06
Thanks, James.

55:07
Anything to add, Brian?

55:09
Yeah, I think that's, that's spot on for me.

55:12
I I'd agree the mould itself is probably not the specific concern.

55:16
It's the fact that why is it mouldy and what else is going on there and, and what could be eating the mould or what could the mould be hiding?

55:23
And it would depend on the extent of how, how mouldy things were, I suppose.

55:27
Yes, thanks.

55:31
Thank you.

55:33
Question from Greg, how close are we to industry inspection?

55:38
Good question, Greg.

55:39
So one of as I mentioned, one of the projects under our programme is trying to expand arrangements to enable industry to conduct more container inspections.

55:50
The ultimate goal of that arrangement is for industry to take up inspections of the what we're calling a medium and lower risk pathways focusing on external container inspections.

56:02
We have a dependency on the new IT systems to enable that that inspection.

56:10
So I think we're, we're hoping to, to have a bit more clarity about time frames, but you know, within the next 12 to 24 months we'd be looking to roll out broader industry inspections of C containers.

56:26
We've got a have your say survey at the moment with some information about those inspection arrangements.

56:31
So I'd encourage anyone that's interested to jump onto our website and if you are involved in the import supply chain and handle C containers to have a look at that survey and provide a response.

56:46
There isn't any class that's been created that's the 14.4 external container inspection and tailgate inspection as well.

56:53
So the low risk commodities or importers for containerized goods, if it's not going to a rural area, there is a class that now industry can start performing inspections of these containers.

57:07
We have a few of our industry partners at the Port of Brisbane who have taken up this initiative and they seem to be, yeah, enjoying the the benefit of being able to inspect the low risk containers.

57:20
And I guess the idea is once they come across live insects or seeds, that is when they refer to us.

57:31
Thanks Joe.

57:31
Are there any rules on fumigating containers between shipments to prevent transportation of live insects in the 1st place?

57:41
We certainly have requirements for fumigating sea containers for Capra beetle that may that may have had a previous infestation.

57:53
So we have requirements to fumigate sea containers that will be delivered that were arrived from a Capra beetle high risk country and that will be delivered to a rural destination at Capra risk post code.

58:10
We also have requirements to fumigate containers that will be packed with high risk Capra beetle plant products in a Capra beetle country just to address any previous infestation in those containers that may be drawn out during transit.

58:32
I don't think we have any other fumigation requirements to address residual infestation between shipments, but we certainly have other fumigation requirements for things like the containers carrying BMSB risk goods during the season.

58:51
Question from Rahul, do we use, do we use present and or emerging technologies to detect hitchhiker pests like X ray?

59:01
Do we report technology used for the detection to analyse efficacy of the detection method?

59:07
So we have been trialling some new methods to better detect hitchhiker pests.

59:12
So as James mentioned, they they're often hard to detect and they can be hiding, particularly Capra betal.

59:20
So we have had a project partnering with the University of Canberra to trial environmental DNA and and RNA testing of C containers.

59:31
So the idea was we did a trial where we vacuum sampled the internal surfaces of recently imported containers and then tested those dust samples for Capra beta Edna and erna to explore whether that could be an indicator of Capra beetle having been established in those under 4 surfaces.

59:55
And we had some encouraging results.

59:57
So there's more work under way with with the University of Canberra and a network of laboratories to further develop that technology.

1:00:06
But it's certainly looking promising where where pests are difficult to detect by inspection.

1:00:16
We also have trialled a number of camera technologies, so we had a project looking at installing cameras on key cranes in the Port of Brisbane to try and detect contaminants and tests as containers were being unloaded.

1:00:31
That was a challenging project.

1:00:34
Capturing good images of containers as they're being unloaded proved difficult to capture quality images to run through AI algorithms.

1:00:45
And we did have some good results, but there would be a lot more work required to to improve the image capture of a system like that before it could be operationalized.

1:00:55
And then we had a handheld device that we trialled with another company.

1:00:58
It was a hyperspectral device.

1:01:00
And the idea was that that camera coupled with an AI algorithm could be used in the field to to assist in the detection of contaminants and tests, including in settings like container inspections.

1:01:14
And again, the hyperspectral technology is quite new and it was quite challenging to get good images, particularly in a mobile setting, but there were some good results coming out of that.

1:01:29
Question from Suzanne.

1:01:30
Will we see fumigation of C freight extended to be all year round?

1:01:36
I'm wondering if that's in reference to BMSB, Brian.

1:01:42
Yeah, I'm not sure.

1:01:44
I, I guess in reference to BMSB specifically.

1:01:48
No, we have, we have the, the seasonal pattern that's an overwintering pest.

1:01:53
And there's a, there's a very clear pattern that insect follows in terms of when we find it in, in, in goods, which is through that autumn and winter period in the Northern Hemisphere.

1:02:02
So we don't need to, we really don't need to fumigate sea freight for that, for that pest during the summer months.

1:02:10
Essentially the, I suppose that, you know, as I said in the beginning of my presentation, the world is changing and you know, we can't guarantee we will never ever get to some point.

1:02:21
But there would it would have to be for a specific reason.

1:02:23
And at the moment I don't think we're aware of a specific reason why we would fumigate all year round.

1:02:28
So yeah, hopefully that answers that question.

1:02:33
Would the use of pest detector dogs be considered?

1:02:38
I know that we're there was some work training at dogs to detect BMSBI.

1:02:43
Don't know if anyone has any additional information that could be shared there.

1:02:49
I can add a little bit there.

1:02:51
So the detector dogs do, they are trained, they, they're sent trained to detect BMSB.

1:02:59
And we have used detector dogs on a number of post bio security responses and post border responses to assist in the detection of, of BMSB.

1:03:10
And we've used them with success in, in a number of cases where the dogs are able to, to identify where the where the bugs were and which helped us greatly in, in speeding up the, the response and, and having a more successful response.

1:03:32
Thanks, Kutzan.

1:03:37
Thinking about those case studies, both issues originated from Sudan.

1:03:41
How far away are we from insisting that containers that have been used in previous journeys to hotspot countries from needing to be fumigated?

1:03:50
So this was certainly our original goal about being able to target the requirement for Capra beetle for container treatments based on what they'd previously carried.

1:04:03
For example, if we knew a container had previously carried high risk plant products from the Capra country, that would be a container we definitely want fumigated before it was loaded with goods.

1:04:14
For Australia, getting the data to enable that has been challenging.

1:04:24
Shipping lines, Duke Duke collect and store that information, but there's no single repository at this point.

1:04:34
So getting access to enable industry to know what a container had previously carried is also challenging.

1:04:43
So at this point that that goal is on hold, but there are discussions happening internationally about whether the provision of container history, cargo and movement data is something that we could ultimately work towards.

1:05:02
But at this point it's not a short term likelihood.

1:05:08
Question from Philip, how far away is the release on RNADNA container testing devices?

1:05:15
Is there any intention to mandate the use of these for BMSB?

1:05:22
So the University of Canberra has a project underway looking at in container sampling devices, automated sampling devices.

1:05:30
It's just a trial of proof of concept to see if these devices could be placed in containers to detect hitchhiker pest target, hitchhiker pest RNA or DNA during a voyage.

1:05:44
That project's still underway.

1:05:45
So yeah, until we had the results of that, I can't really say how far away a product like that is from being used.

1:05:56
But yes, so at this point there's there's certainly no intention to mandate the use as an alternative measure for hitchhiker pests including the MSB.

1:06:05
So we have been using EDNAERNA at the border and including in some response situations to help inform understanding, but it's certainly not something we're looking to roll out in the short term.

1:06:21
But I guess it's a watch, watch this space.

1:06:30
Looks like we've got to the end of the questions.

1:06:38
So I might take this opportunity to wrap up the webinar.

1:06:42
And thank you for your interest in attending and thank you for all the questions.

1:06:48
Just a reminder that we will be publishing AQ and a document on our website to provide written responses to the questions.

1:06:55
We will be publishing the slide deck.

1:06:58
And we do encourage you to go away and engage either with your workers, your members and you know spread the message about the importance of being vigilant for Chaka pests and sharing the information that we we've provided you today.

1:07:17
So with that, a final thank you and enjoy the rest of your day.