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Submission on the effectiveness of biosecurity measures to manage the risk of brown marmorated stink bugs (BMSB) entering Australia

Executive summary

- There are significant gaps in present regulation that pose a major risk to Australia's agricultural sector.
- There is an urgent need to change regulations to prevent BMSB from being shipped in cargo destined for Australia and New Zealand.
- The Department of Agriculture and Water Resources (DAWR) needs to identify clearly all countries where BMSB are present as high risk and apply consistent regulation to all of them.
- Without consistent regulation, it is difficult for carriers to enforce effective treatment procedures when loading cargo at ports in those countries.
- Biosecurity regulation needs to be consistent between Australia and New Zealand.
- At-border inspections of cargo on board all vessels is needed, so that the authorities do not rely solely on carriers to report any findings.
- When BMSB are found, clear and workable onshore and offshore treatment solutions are needed in Australia and New Zealand so they can be implemented consistently.
- Cargo delayed during the past year includes agricultural and mining machinery, infrastructure and motor vehicles.
- Dysfunctional regulation has a significant effect on the Australian economy, with delays to essential imports disrupting critical industries and costs running into many millions of dollars.
- The responsibility for regulatory compliance and for providing clean cargo needs to rest specifically with cargo owners, in line with international practice.

Wallenius Wilhelmsen Ocean's commitment to biosecurity

- Wallenius Wilhelmsen Ocean is committed to maintaining the highest standards of biosecurity, takes great care to inform customers about the regulations and, where treatment is required, only accepts cargo that is certified as treated.
- The Australian government recognised Wallenius Wilhelmsen's efforts to stop BMSB from entering Australia and New Zealand by presenting it with the Australian Biosecurity Award 2016.
- Wallenius Wilhelmsen Ocean's team operating in Port Kembla, New South Wales, was presented with a Biosecurity Certificate of Commendation by DAWR for biosecurity awareness in December 2017.

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Effectiveness of BMSB offshore management measures

- Wallenius Wilhelmsen Ocean believes the effectiveness of current Australian BMSB offshore management measures are deficient.
- It is clear, despite regulations and clean cargo requirements, that contaminated cargo is still being presented for shipment, thereby placing all stakeholders at risk.

Countries with BMSB not classified as 'high-risk'

- A primary reason why regulation is inadequate is that many countries are not identified as high risk despite being known BMSB sources. These include numerous countries in Europe; for example, although France and Germany are categorised as high risk, Belgium is not. China, which genetic analysis indicates was the source of the introduction of BMSB into the USA, is not considered 'high risk'. But stink bugs do not respect borders.
- The industry wants consistent regulation that identifies all countries where BMSB are present as high risk. This will enable the industry to reduce BMSB contamination at the source and enforce appropriate treatment for cargo before shipping. This will also increase confidence that cargo will be discharged at the destination port.
- Existing regulation does not reflect the complexity of supply chains, as components, units during assembly and cargo may spend significant time in BMSB-infected areas, despite the country of origin not being considered high risk.

Lack of regulation impedes carriers' abilities to enforce safety procedures

- While shipments on vessels from countries deemed 'high risk' must undergo mandatory treatment prior to loading, if DAWR has not specified that a country is high risk the carrier cannot enforce additional treatment by the cargo owner. Cargo owners are emphatic that they will not bear the cost of treatment that is not a requirement of the Australian government.
- Gaps in regulation are placing the onus on carriers to explain, justify and advocate regulatory requirements to cargo owners in Europe. While major European exporters are aware of the BMSB threat to Australia and New Zealand, many exporters are unaware of the BMSB risk and further education is necessary.
- Cargo from high risk countries presented for loading without a valid treatment certificate is not accepted for shipment by carriers.
- Regulation needs to ensure that cargo is safe to transport when the point of origin is not considered high risk and is in a different country to the port of loading. Although certification may clear cargo for loading, if stink bugs are discovered during the voyage there is no certainty the cargo will be discharged at the destination port.

Australian and New Zealand regulation needs alignment

- Australian and New Zealand regulations need to be aligned to increase protection against BMSB. For example, currently New Zealand classifies 16 countries high risk, while Australia classifies 10. The heat requirements for air temperature and fumigation concentration levels needed for pre-treatment of cargo are different for the two countries.
- Most vessels carry cargo for both countries and when cargo owners re-route cargo it needs to be re-treated for the next country. Alignment will reduce the risk of errors and of cross contamination between treated and untreated cargo from the same country.

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- Australia's and New Zealand's distance from other markets means that from a carrier's perspective, the two countries represent a common trading area. This is particularly important for roll-on roll-off (RoRo) cargo, which unlike container cargo is not considered as individual units.

Self-reporting inadequate

- The industry believes at-border inspections of cargo on board all vessels should be mandatory so that the authorities do not rely solely on carriers to report any findings. Given the potential impacts of finding BMSB, there is a clear risk of under-reporting, undermining the effectiveness of the regulation.
- Monitoring should also be applied consistently across transport modes, as cargo entering Australia by air freight is just as likely to contain stink bugs.
- Cargo owners can request to have their outbound supply chain approved as a "secure pathway", which exempts them from treating cargo even if it comes from or travels through BMSB high-risk countries. Given the long distances and storage periods involved for most cargo, as well as the migratory behaviour of BMSB, the industry considers the risk of breakdowns in such pathways high.

BMSB profiling, assessment, inspection and treatment

Need for clear and workable solutions

- Once stink bugs are discovered, the industry requires agreement on clear and workable solutions which can be implemented onshore and while at sea. There is considerable uncertainty about solutions that will enable vessels to discharge cargo.
- Shipping companies have proactively taken additional measures such as repeated cargo inspection and fogging of vessels at the last load port to reduce the likelihood of live stink bugs being found prior to their arrival in Australia and New Zealand. Fogging involves spraying a chemical in and around all cargo on board. The chemical is an irritant that will bring live stink bugs out of hibernation prior to arrival in Australian waters
- Need for onshore treatment facilities
- The industry believes that when a vessel has complied with all biosecurity regulations and contamination has been found, onshore treatment should be allowed for the cargo, and the treatment should match the evidence of infestation. This would recognise the good faith of carriers reporting BMSB findings, instead of punishing them.
- Currently, if treatment cannot be administered at sea the vessel must be redirected to the nearest facility. For vessels unable to be treated in Australian and New Zealand ports, the nearest facility is in Indonesia, which is a time-consuming and lengthy process with indirect and direct costs that can total millions of dollars.
- Should vessels be redirected, the carrier relies on cargo owners to meet the additional costs, with the financial risk being borne by the carrier.

Need for consistent industry compliance procedures - certification and responsibilities of carrier and cargo owners

- The industry is concerned that regulation change could have the effect of transferring risk – as well as cost – to the carrier for cargo presented free of BMSB, which the industry believes would be

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unworkable. In Australia, it is the responsibility of the cargo owner to ensure that any cargo to be imported into Australia meets all relevant legislative requirements, including those specified in the Biosecurity Act 2015.

- These requirements are enforced by the regulator whose role it is to manage any biosecurity threats to plant, animal and human health in Australia.
- The responsibility placed on importers of cargo is reinforced by provisions in the relevant Hague Rules legislation which govern the sea carriage of cargo to and from Australia on all vessels, including break bulk and RoRo.
- Specifically, Article 4 of the Rules provides that the ship operator who enters into a contract of carriage with a cargo owner shall not be responsible for loss or damage arising or resulting from quarantine restrictions or any acts or omissions by the cargo owner or any other cause arising 'without the actual fault or privity of the carrier'.

Limitations of treatment measures

- When BMSB are found, regulators may specify that treatment by heat, methyl bromide or sulfuryl fluoride must be conducted. These treatments are toxic to insects but are difficult, if not impossible, to administer when the vessel is at sea, as they can cause damage to cargo and the health of the crew. These risks mean that a range of treatments may need to be used, crew disembarked and cargo unloaded.
- Treatment may also be ineffective or impossible to use. For example, some cargo may not be suitable for heat treatment, and treatment by methyl bromide can damage automobile interiors. Gas treatments may not spread through cargo at sufficient concentrations to ensure BMSB mortality.
- Use of methyl bromide and sulfuryl fluoride are not permitted in many countries. Methyl bromide is not approved in the EU and is being phased out in the US. Sulfuryl flouride is not approved within the borders of New Zealand and is banned in NSW. There is a need for additional approved fumigation treatments that eliminate the risk of BMSB.
- Accreditation should be provided to a greater number of treatment providers, allowing on-vessel treatment at the berth on a 24x7 basis.
- It is noted that the MPI in New Zealand have accepted multiple fogging as a biosecurity management plan and where no live stink bugs were reported, the vessels have been allowed to proceed with a controlled discharge of cargo.
- The industry has encouraged change and is now calling on the government to act decisively to develop clear processes and workable solutions for when BMSB are found. These are needed to manage an industry that is loading hundreds of ships per month on a 24x7 basis with cargo bound for Australia and New Zealand.

Disproportionate focus on carriers

- The industry notes that BMSB are a known risk in other means of transport including mail, personnel movements and air cargo which have not attracted the same focus as shipping. This has the effect of increasing shipping costs and delays disproportionately, even though BMSB could enter Australia through other transport pathways.

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Accreditation of offshore and onshore treatment providers

- If new countries are added to Australia's list of BMSB 'high risk' countries, new treatment centres will need to be approved and built. As lead times to develop treatment centres take several months, an early decision is recommended to avoid a shortage of offshore treatment providers in the 2019-20 BMSB season which will begin in September 2019.
- The industry also calls for the DAWR to approve accredited onshore treatment firms in Australia.

Engagement with industry

- While DAWR provides services during business hours, the shipping industry operates 24x7. The industry requires inspectors to be available on a 24-hour basis which will enable faster turnaround and inspection times and reduce delays in cargo movement. A normal vessel turnaround time is around 12-16 hours and delays due to unavailability of inspectors can easily treble that time.
- DAWR requires inspection on berthing but the demands from the terminal, which need the vessel to be fully ready for discharge on berthing, are contradictory. If vessel unloading is delayed by the need for an inspection, the stevedore may replace the vessel at the berth.
- Also, while stevedores require labour to be booked by 1400 hrs on the previous working day (or on Friday if over a weekend), there are long delays as vessels have to wait for the outcomes of DAWR inspections. Many stakeholders need to co-ordinate to begin vessel operations, and delays have resulted in significant industry costs.
- The shipping industry notes that inspectors at the wharf may be unable to distinguish BMSB from other bugs that may be present in cargo. The need to consult entomologists either locally or in Canberra (who may be available only during their business hours) is also the cause of significant delays.
- The industry calls on DAWR to develop a comprehensive training system that enables inspectors to recognise BMSB at inspection; and empowers them to provide a decision or further direction on completion of inspection.
- As DAWR may on occasion be short-staffed, it would be helpful if a number of DAWR's tasks could be outsourced to other accredited parties.
- Where vessels have cargoes with certified mandatory treatments, fogging en-route, and only dead or no stink bugs reported, these cargoes should be considered low risk. This would allow routine inspection instead of the more detailed 'seasonal' inspection, reducing focus on low risk cargoes and enabling DAWR inspections to begin on arrival.
- The current questionnaire on the vessel pre-arrival report asks if there are any insects on board – which is highly likely as many insects at ports (not BMSB which are seeking a place to hibernate) are attracted by light in terminals and on vessels. Once insects are reported, a vessel automatically becomes 'high risk'. The industry suggests that a revision of useful risk management information is required.
- Direct costs borne by customers of the shipping companies can be significant. The indirect costs of delivery delays to customers in the agricultural, automotive, resources and other industries having to pay for labour and capital that cannot be used is believed to run to millions of dollars.
- The economic impact of additional costs can ripple across an entire supply chain. Delays from stink bug findings and remedial treatment processes can have a significant knock-on effect to subsequent ports and voyages and disrupt exports and global shipping.

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Recommended solutions

Issues	Solutions	Practicalities
Inconsistent BMSB requirements in Europe	Identify all European countries as high risk	New legislation needs to be timely to allow for treatment facilities to be set up and approved, and to educate cargo owners in target countries
Inconsistent BMSB requirements in Asia	Identify China, Japan and Korea as high risk	New legislation needs to be timely to allow for treatment facilities to be set up and approved, and to educate cargo owners in target countries
Different requirements for Australia and New Zealand	DAWR to align biosecurity regulation with MPI New Zealand	Need to increase inspections and add further countries as 'high risk'
Risk that self-reporting could lead to under-reporting	At-border inspections of cargo on board for all vessels	Need to increase DAWR pool of trained inspectors or otherwise secure inspection competency
Delays to turnaround vessel inspections	Extend working hours of inspectors and entomologists to 24x7	Increase pool of DAWR resources and skilled staff; or subcontract inspection
Inconsistent monitoring across transport modes	Cargo from high risk countries to be treated equally across transport modes	Time to implement for other transport modes
Lack of clear and consistent evaluation of vessels during inspection	Consistent processes reducing variation of outcomes from inspection results	Detailed processes provided for industry with clear outcomes based on observed facts
Lack of onshore treatment where a vessel has complied with all DAWR requirements but BMSB are confirmed to exist	Onshore treatment facilities or extension of treatment solutions	Need for DAWR approval of facilities/additional approved treatment methods and availability of funding
Lack of onboard treatment advice to manage risk, cargo sections or individual units	DAWR to approve onboard solution to manage localised risk	Need to enable local risks to be treated on board or in isolation onshore, rather than requiring treatment for the entire vessel
Inconsistent industry compliance procedures	Regulation to ensure the responsibility for presenting clean cargo rests with cargo owners	Ensure regulators are aware of repercussions of regulation

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Lack of DAWR engagement with the market to ensure cargo owner awareness	DAWR engagement with trade commissioners and Austrade	DAWR marketing resources

Note:
Throughout this document, the term 'cargo owner' refers to the importer, exporter, or owner of the cargo being transported. The carrier is the shipping line or vessel operator.

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