



Exports process instruction

Inspection of forest products for export

Direction to staff

This is official instructional material of the Department of Agriculture, Fisheries and Forestry (the department). Failure to comply with it may result in a breach of relevant legislation and/or the code of conduct under section 13(5) of the *Public Service Act 1999*.

Direction to authorised officers

Authorised officers must exercise powers and perform functions in accordance with any lawful directions or instructions issued by the department.

Direction to industry

This document outlines the requirements for the inspection of forest products for export. All parties with roles and responsibilities explicit in this document and legislation must comply with it.

Purpose of this document

This document details the policy and process for the inspection of prescribed forest products for export certification. It includes the following commodities:

- woodchips
- logs
- processed forest products.

This document is to be read in conjunction with the Exports Work Instruction: [Inspecting forest products for export](#) which provides instructions on sampling and inspection procedures for prescribed forest products.

Summary of main points

The main points of this document includes:

- pre-inspection requirements
- inspection requirements
- sampling requirements
- pest identification and tolerances
- pass and failure principles
- treatment requirements
- post-inspection requirements.

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Work health and safety

- Clients and operators of registered establishments should comply with the WHS policies of their organisation during the packing, treatment and movement of goods.
- AOs must:
 - read and be familiar with the Reference: [Work health and safety in the plant export environment](#)
 - not enter work sites unless it is safe, they are wearing the required personal protective equipment (PPE) and have considered any work health and safety (WHS) hazards
 - discontinue their inspection if at any time they consider there is a risk to their safety
 - comply with applicable Commonwealth, state and territory WHS legislation
 - comply with site-specific requirements, unless they assess the requirements as placing them at risk, in which case they must take reasonable action to ensure their safety
 - continually assess the possible risks while performing their duties.

Authorised Officer Job Functions

The inspection of forest products is covered by the following Authorised Officer (AO) job function appointments:

- FOP3001:1 Inspection of Woodchips (Packaged)
- FOP3001:2 Inspection of Woodchips (Bulk into Container)
- FOP3001:3 Inspection of Woodchips (Bulk into Vessel)
- FOP3002:1 Inspection of Logs (Bulk into Container)
- FOP3002:2 Inspection of Logs (Bulk into Vessel)
- FOP3003:1 Inspection of Processed Forest Products (Packaged)
- FOP3003:2 Inspection of Processed Forest Products (Bulk into Container)*
- FOP3003:3 Inspection of Processed Forest Products (Bulk into Vessel)*

*Bulk processed forest products include consignments presented in packs, bundles and pieces.

Conduct Pre-Inspection Tasks

This section outlines the overarching principles relating to the phytosanitary sampling, inspection and export certification of forest products. Requirements for preparation, sampling and inspection may vary according to the commodity for export and importing country requirements.

In summary, all prescribed forest products must meet the following requirements:

- Be prepared in a registered establishment – establishment hygiene requirements must be met.
- Have a valid notice of intention to export (NOI/RFP).
- Be sampled, inspected and pass the inspection.

Export licence for unprocessed wood

Forest products may require an export licence for the export of unprocessed wood. Export licences are issued by the Department of Agriculture, Fisheries and Forestry - Forestry Branch and may be required for the export of 2 tonnes or more of unprocessed wood products sourced from certain areas. It is the exporter's responsibility to determine whether an export licence is required and to obtain a licence prior to export. Export licences are not required to be presented to AOs prior to export, however AOs must at the time of booking remind exporters of the possible requirement to obtain an export licence.

Further information on export licences for unprocessed wood can be found on the [department's website](#) or by contacting the [Forestry Branch](#).

Recording Inspection Results

Inspection details are recorded in PEMS, or on the manual inspection record. AOs must use one inspection record for each inspection conducted. It is mandatory for AOs to use the approved forms. AOs may need to attach additional pages to the inspection record.

Where logs are containerised, all containers that comprise the consignment/inspection lot must be recorded in PEMS or on the manual inspection record with a result recorded against each container.

Inspection Equipment Checklist

- Waste bin and lid supplied by establishment for disposing of unwanted material found during inspection.
- Torch capable of being focused to a spot.
- Sieves (large and pocket) for separating insects and contaminants from the samples.
- Mallet and chisel for removal of bark.
- Knife and scraper suitable for cutting and removing residue from places difficult to access.
- A pair of tweezers suitable for collecting larger species.
- Hand lens x10 magnification or more for pest, weed seeds and contamination identification.
- Small paint brush for separating objects of quarantine concern and collecting small insects from the samples being inspected.
- Vials/tubes filled with methylated spirits or 80% ethyl alcohol (ethanol) for collecting arthropod specimens.
- Sealable plastic bags for larger specimens collected during inspection.
- Labels for specimens.
- Access to PEMS or manual inspection forms.
- Pencils for labelling tubes (pens aren't suitable as alcohol dissolves most ink) and pen for completing various forms.
- Trier for inspection of bagged product.

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- Personal protective equipment (PPE) such as safety vest, helmet, steel cap boots, hand gloves, apron, face mask, goggles, communication equipment and hearing protection.
- Calculator or mobile phone with a scientific calculator.

Empty Container or Bulk Vessel Approval

Inspection of empty containers and bulk vessels ensures requirements have been complied with in the transportation of prescribed goods and no infestation or cross contamination issues exist with loading prescribed goods into inspected empty containers or bulk vessels. An AO must ensure that a valid container approval or bulk vessel approval has been issued.

Packaging material inspections

Materials to be used as packaging for forest products, such as bagged products or processed products, and other materials applied to forest products at the time of packaging must be:

- new, or if previously used and intended for repeated use, must be cleaned and reconditioned to the satisfaction of an AO, that is, materials are unlikely to infest or contaminate goods and are free of holes, rips and tears
- used in a manner that is unlikely to place the acceptability of the prescribed goods at risk
- sufficiently strong enough to withstand the handling incurred by the materials during transit
- otherwise appropriate for the goods
- free from any contaminants that could cross-contaminate the goods

If a trade description is attached, it should be accurate and unambiguous. Further information can be found in the [Trade Description](#) section.

Conduct Flowpath Inspection Tasks

Inspection Area

The AO must ensure the area to be used for the phytosanitary inspection is clean, well lit, free from sources of cross-infestation, cross-infection, cross-contamination, and clear of fumigant gases.

The inspection equipment must be clean, adequate and fit for purpose.

The AO must ensure there is adequate access to all goods to allow sampling in a safe manner from the entire lot/consignment.

Commodity Flowpath

The commodity flowpath is deemed to be from the point of sampling to the point of loading and must be inspected prior to loading to ensure it is fit-for-purpose and free of sources of cross contamination. In circumstances where the flow path fails inspection, the AO must be advised when the issue has been rectified and the flowpath is ready for re-inspection.

Assess the consignment

The content of the entire lot or consignment to be inspected should match the details on the NOI/RFP. It may be necessary to count packages if exact quantity is not known.

The AO should only request a break-down into the pallet if in doubt or access to particular samples is needed.

Do not proceed with the inspection if the lot/consignment presented does not match the NOI/RFP.

Trade Description

The trade description must be accurate and unambiguous and meet the requirements of the Export Control Act and the Plant Rules.

Trade description requirements are met through the provisions of accurate and unambiguous (true and correct) information relating to the consignment when lodging the RFP into EXDOC.

A trade description applied to goods is taken to be accurate and unambiguous if it:

- contains sufficient information to enable the goods to be readily identified and not confused with any other product
- is clear, set out in prominent and legible characters and not obscured in any way
- has been securely attached to the packaging
- satisfies the requirements of the importing country.

Where an AO is concerned that a false trade description has been applied to prescribed goods, the AO needs to contact the Regional Plant Export Manager. In the interim, AOs must withhold export documentation and require exporters to produce documentary evidence to support the description given. These may include declarations by the exporters/processors of the goods or certificates of analysis from accredited laboratories for various parameters required by the importing countries.

Conduct Commodity Inspection tasks

Sampling and Inspection Procedures

Sampling and inspection procedures for prescribed forest product must be carried out in accordance with Exports work Instruction: [Inspecting forest products for export, Appendix D](#) and [Appendix E](#) also outline updated sampling and inspection requirements.

Note: If containerised log RFPs are split into multiple RFPs following inspection, all RFPs/consignments will require re-inspection by an AO to ensure sufficient containers have been subject to inspection.








Inspection Tolerances

Where visual signs of infestation and or contamination are found during inspection, the AO will undertake a more detailed inspection to determine that no live pests are present. Visual signs of termite and borer pest infestation may include emergence holes, frass and exterior runways in the forest product.







[Table 1](#) lists forest product pests present in Australia which, other than those specified by the importing country, require rejection if detected during inspection for export certification. Tolerance levels imposed by the importing country take precedence over tolerances listed in Table 1. Additionally, on re-inspection following fumigation (containerised goods), if live pests are found (injurious or non-injurious) or the phytosanitary status has changed, then goods must be rejected and treated appropriately.

The [Pest and Disease Image Library \(PaDIL\)](#) may be used for further information on various pests including pest identification. Where uncertainty exists regarding identification, the AO must inform the exporter of their responsibility to seek professional identification. AOs are not expected to be able to identify all pests, diseases or contaminants.







Table 1: List of pests with a nil tolerance in prescribed forest products.

Common names	Scientific names	Comments
BORERS		
Powderpost beetles:		
Lyctine borer  <i>PaDIL</i>	<i>Lyctus discedens</i> , <i>Minthea rugicollis</i>	These dry timber borers are primarily limited to the sapwood of certain hardwoods, such as some eucalypts, oak and meranti.
Powderpost beetle  <i>PaDIL</i>	<i>Lyctodon bostrychoides</i> , <i>Lyctus brunneus</i> , <i>Lyctus parallelocollis</i> , <i>Minthea acanthacollis</i> , <i>Tristaria grouvellei</i> , <i>Trogoxylon ypsilon</i>	Lyctids attack the sapwood of hardwoods generally less than 10 years old. Lumber, manufactured and structural timbers are attacked (Walker 2006; Walker 2007).
Powderpost beetle  <i>PaDIL</i>	<i>Xylobosca canina</i>	A native Australian species (McCaffrey 2012) which breeds in old, dead or dying trees (Bashford 1991).
Anobiid Borers:		
Common furniture beetle  <i>PaDIL</i>	<i>Anobium punctatum</i>	These borers attack furniture, structural timbers, flooring and decorative woodwork and prefer to feed on well-seasoned timber, especially softwoods such as Baltic pine or New Zealand white pine. However, they attack some hardwoods, especially blackwood and imported English oak (CSIRO 2012).
Queensland pine beetle  <i>DAFF QLD</i>	<i>Calymmaderus incisus</i>	These borers commonly attack softwood timbers such as Hoop pine and to a lesser extent Bunya pine and New Zealand white pine (CSIRO 2012).
Longicorn Beetles:		
Fig longicorns beetle  <i>PaDIL</i>	<i>Acalolepta vastator</i>	This native Australian beetle and its larvae live inside tree trunks, in particular the rubber tree <i>Ficus elastic</i> (Walker 2006).
Longicorn beetle  <i>CSIRO Entomology</i>	<i>Hesthesis cingulata</i>	<i>Hesthesis cingulatas</i> damages trees by severing stems or branches completely. <i>Hesthesis cingulata</i> also severs the stems of Eucalyptus saplings just before ground level (Elliott <i>et al.</i> 1998).










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Common names	Scientific names	Comments
Longicorn beetle  <i>CSIRO Entomology</i>	<i>Piesarthrus marginellus</i>	The larvae of <i>Piesarthrus marginellus</i> bore into the wood of trees and shrubs, feeding on the soft tissue of living, dead or dying plants (CSIRO 2012).
Longicorn beetle  <i>PaDIL</i>	<i>Phorocantha</i> spp.	<i>Phorocantha</i> species feed and breed on timber (Walker 2006). Its attack is mainly observed on stressed living trees (Ivory 1977; Farrow 1996; Paine and Millar 2002).
Bark Beetles:		
Cyprus bark beetle 	<i>Phloeosinus cupressi</i>	Species in this genus range from 1.5 to 4.1mm in length and are 1.8 to 2.1 times as long as wide. Their colour ranges from brown to black, usually with lighter elytra, which can be reddish brown to brown. The pronotum is usually wider than long and unarmed. The scutellum is large. Crenulations are present in the anterior margin of the elytra. The declivity is convex with one or more interstriae, usually number 3, armed by pointed tubercles. The vestiture consists of hair-like setae, except for scale-like setae in a few species. The anterior margin of the compound eye is emarginate. The scape is longer than the 5-segmented funicle. The ovate club is asymmetrical and has 3 straight sutures. The procoxae are separated (PaDIL website at https://www.padil.gov.au/ (Accessed 13 February 2024).
European bark beetle  <i>PaDIL</i>	<i>Hylurgus ligniperda</i>	It utilises thick-barked logs of large diameter that are in contact with the ground or stumps and dead trees with thick bark at ground level (Boomsma and Adams 1943).
Five spined bark beetle  <i>PaDIL</i>	<i>Ips grandicollis</i>	Both adults and larvae feed on bark mainly of declining or dead trees and occasionally of freshly harvested logs. The infestation may sometimes result in the loss of wood over extensive areas. The most common mode of introduction to new areas is through the movement of unseasoned infested sawn wood and wood packaging material containing bark (EPPO 1998).
Pine bark beetle  <i>PaDIL</i>	<i>Hylastes ater</i>	The beetle breeds in the inner bark and cambium of pine roots and tree stumps, bases of dying trees, or in logs on the ground. The immature beetles feed on bark and inner bark from pine seedlings at ground level and can kill the seeding (Walker 2006).






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Common names	Scientific names	Comments
Small European elm bark beetle  PaDIL	<i>Scolytus multistriatus</i>	It is a vector of <i>Ohiosostoma ulmi</i> and <i>Ophiostoma novo-ulmi</i> .
False powderpost beetle/ Auger Beetle:		
European house longhorn beetle  PaDIL	<i>Hylotrupes bajulus</i>	It is one of the most serious pests of dry seasoned coniferous timbers such as pines, firs and spruces (Walker 2005).
False powderpost beetle, Lesser auger beetle  PaDIL	<i>Heterobostrychus aequalis</i>	<i>Heterobostrychus aequalis</i> is a serious pest of timber. They tunnel along the wood grain, depositing eggs. The larval feeding reduces the wood starch to soft powder (Walker 2005).
Powderpost beetle Particoloured auger beetle  PaDIL	<i>Mesoxylion collaris</i>	It attacks recently felled logs and green timber (only the sapwood of hardwood). The larvae feed along the grain of the wood and generally the damage is superficial. The larvae produce a fine powdery frass (Walker 2006).
Powderpost beetle; Auger beetle  PaDIL	<i>Sinoxylon anale</i>	It is an agricultural, forestry and forest pest of economic importance. It is a primary borer in the sapwood of logs, and timbers used in house building, boxes, and packing (Walker 2005).
Powderpost beetle  PaDIL	<i>Xylobosca binosa</i> , <i>Xylion cylindricus</i> , <i>Xylothrips religiosus</i> , <i>Xylotillus lindi</i> , <i>Xylodeleis obsipa</i> , <i>Xylopsocus gibbicollis</i> , <i>Xylopsocus rubidus</i>	The beetles mainly feed and breed on bamboo, timber, rattan, stored grain and products made from timber (Chu and Zhang 1997). The infestation results in numerous entry and exit holes ranging from 3 to 9 mm on the surface of wood. They attack mainly freshly felled logs and unseasoned sawn timber (Peters <i>et al.</i> 1996; Elliott <i>et al.</i> 1998). The infested wood contains tunnels filled with frass.

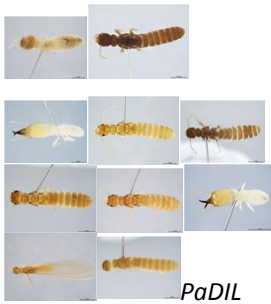





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Common names	Scientific names	Comments
Other borer pests:		
Ambrosia beetle  PaDIL	<i>Amasa truncata</i>	Attacks live wounded trees or trees in poor condition and may not be on the pathway for commercial grade timber intended for export (Kliejunas <i>et al.</i> 2006). The only living trees it is known to attack are eucalypts particularly <i>E. globulus</i> (Walker 2011).
Ambrosia beetle  PaDIL	<i>Ambrosiodmus compressus</i>	It has been recorded attacking dead trees, fallen logs and freshly sawn timber records (Bain 1976).
Bark Borer  PaDIL	<i>Ernobius mollis</i>	Its damage is confined to unbarked softwoods with no structural damage. The larvae may burrow long distances in the bark and wood and in the process may damage other materials such as leather and plastic in contact with the wood (Peters <i>et al.</i> 1996).
Australian Jewel Beetle (wood borer) 	<i>Agrilus australasiae</i>	Its distribution is restricted to eastern and southern Australia (NSW and SA). The main larval hosts are the Acacia spp. (Turner and Hawkeswood 1996).
Jewel beetle  DPIW Tasmania	<i>Castiarina (Stigmodera) insculpta</i> , <i>Julodimorpha bakewelli</i> , <i>Stigmodera roei</i> ,	While most adults are nectar feeders especially on Eucalyptus blossoms or leaf feeders, the larvae are wood borers, feeding on the sapwood under the bark of native trees and shrubs.
Island pinhole borer 	<i>Xyleborus perforans</i>	Members of <i>Xyleborus</i> feed and breed on a variety of trees, shrubs. They may be found on small branches, seedlings and large logs (CABI 2012).
Queensland pine beetle  DAFF QLD	<i>Calymmaderus incisus</i>	<i>Calymmaderus incisus</i> attacks softwood timber such as Hoop pine. The larvae burrow long tunnels in susceptible hoop pine and rarely attack other timber (Peters <i>et al.</i> 1996).
Stem borer 	<i>Crossotarsus externedentatus</i>	Attacks almost any tree of suitable size, found in Africa, South and South-East Asia and the Oceania region. (PaDIL website at https://www.padil.gov.au/ (Accessed 13 February 2024).
Wood boring weevil  PaDIL	<i>Pentamimus australis</i>	It is an Australian native species and breeds in dead or dying <i>Acacia dealbata</i> trees (Bashford 1991).





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Common names	Scientific names	Comments
TERMITES		
<i>Bifiditermes:</i>		
Dampwood termite  PaDIL	<i>Bifiditermes improbus</i> , <i>B. condonensis</i>	It is often present in scars and branches wounds and ultimately finds its way into sound wood. It has been found in Eucalyptus stumps and poles (Hadlington 1987). They are native Australian species and can cause damage in power poles (Walker 2006).
<i>Ceratokaloterme:</i>		
Dampwood Ceratokaloterme termite  PaDIL	<i>Ceratokaloterme spoliator</i>	It is a native Australian species (Walker 2006). This is pest of dead tissues of living trees. It degrades the timber by entering into the heartwood of living trees (Hadlington 1996).
<i>Coptotermes:</i>		
Coptotermes termite  PaDIL	<i>Coptotermes acinaciformis</i> , <i>C. brunneus</i> , <i>C. dreghorni</i> , <i>C. formosanus</i> , <i>C. frenchi</i> , <i>C. lacteus</i> , <i>C. michaelsoni</i>	This is one of the world's most destructive termites with no signs of its infestation until the collapse of timber (Hadlington 1987). They attack living trees, lumber and buildings (Walker 2006) and inflict considerable damage on logs for timber (Hadlington 1996). In severe infestations, it hollows out woods leaving a paper-thin surface (Su and Scheffrahn 2010).
<i>Cryptotermes:</i>		
Drywood termites  PaDIL	<i>Cryptotermes brevis</i> , <i>C. primus Minor</i> , <i>C. austrinus</i> , <i>C. cynocephalus</i> , <i>C. domesticus</i> , <i>C. gearyi</i> , <i>C. hilli</i> , <i>C. queenslandis</i> , <i>C. secundus</i> , <i>C. simulatus</i> , <i>C. tropicalis</i>	<i>Cryptotermes</i> are known to attack structural timber as well as decay-affected buttress rots of trees, dead logs on ground and in decaying stumps (Hadlington 1987; Walker 2006). The infestation of some species goes un-noticed until the infested timber collapses. They attack woods including living trees, building materials, etc. (Walker 2006).
<i>Glyptotermes:</i>		
Dampwood termite  PaDIL	<i>Glyptotermes barrette</i> , <i>G. brevicornis</i> , <i>G. tuberculatus</i>	Glyptotermes species including <i>G. tuberculatus</i> form colonies in dead, decaying wood adjacent to sound wood of living trees, particularly Eucalyptus. This genus contains some species that have been found attacking sound wood from affected sapwood and are considered as serious pests of transmission poles in some areas (Crefield 1996).

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Common names	Scientific names	Comments
Heterotermes:		
Subterranean Heterotermes termite  PaDIL	<i>Heterotermes</i> spp.	Most <i>Heterotermes</i> attacks occur in fences, decking, posts and poles where weathering and decay are common. However, some superficial damage to floor timber has been observed in extreme cases (Hadlington 1987).
Incisitermes:		
Drywood termites  PaDIL	<i>Incisitermes barrettii</i> , <i>I. repandus</i>	They are native Australian species and nest in dead scars, stumps and sawn timber (McCaffrey 2010; Walker 2011).
Kalotermes:		
Kalotermes termite  PaDIL	<i>Kalotermes aemulus</i> , <i>K. atratus</i> , <i>K. aemulus</i>	They are native Australian species (McCaffrey and Walker 2012; Walker 2010). Species of <i>Kalotermes</i> are normally found in trees having scars and dead branches. This genus inflicts minor timber damage and is of little economic significance (Hadlington 1996).
Mastotermes:		
Giant northern termite  PaDIL	<i>Mastotermes darwiniensis</i>	It is an Australian native species and is very destructive and economically significant pest in northern Australia. It attacks wood including living trees, building materials and some agricultural crops such as sugarcane (Walker 2006).
Nasutitermes:		
Subterranean termite Nasutitermes termite  PaDIL	<i>Nasutitermes cormiger</i> , <i>N. dixonii</i> , <i>N. exitiosus</i> , <i>N. fumigatus</i> , <i>N. graveolus</i> , <i>N. walkeri</i>	This genus causes damage to sound wood in service. Some of its species attack only weathered and decayed wood (Hadlington 1987).
Neotermes:		
Ringant termite  PaDIL	<i>Neotermes insularis</i>	It is Australian native species (Walker 2006) and is a serious pest of forest as it degrades commercial logs (Hadlington 1987).

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Common names	Scientific names	Comments
Parrhinotermes		
Termite  PaDIL	<i>Parrhinotermes queenslandicus</i>	It is an Australian native species of low economic importance (McCaffrey and Walker 2012).
Porotermes:		
Termopsid termite  PaDIL	<i>Porotermes adamsoni</i>	It is a native Australian species (Walker 2010) and attacks dead and living trees mainly <i>Eucalyptus</i> species (Pearson <i>et al.</i> 2010).
Procryptotermes:		
Drywood Procryptotermes termite  PaDIL	<i>Procryptotermes australiensis</i> , <i>P. inopinatus</i>	They are native Australian species of low economic importance (McCaffrey and Walker 2012; Walker 2010).
Schedorhinotermes:		
Subterranean termite  PaDIL	<i>Schedorhinotermes actuosus</i> , <i>S. breinli</i> , <i>S. derosus</i>	They are native Australian species and are considered as an economic pest. They attack timber in service, some of them nest in fences and feed primarily on logs (Walker 2006; Walker 2010).

Miscellaneous forest product pests:		
Common names	Scientific names	Comments
Larger auger beetle  PaDIL	<i>Bostrychopsis jesuita</i>	It is a native Australian species and attacks a range of plants and trees such as <i>Eucalyptus</i> and grape vine wood and canes (Walker 2006).
Giant wood moth  DAFF QLD	<i>Endoxyla cinereus</i>	Its attack weakens the trees and causes significant reduction in the quality of harvested logs (House 2011).
Sirex Wood wasp  House (2011)	<i>Sirex noctilio</i>	The trees normally die as a result of toxic mucus and fungus introduced by wasps (House 2011).

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[Table 2](#) lists the general tolerances for contaminants detected during inspection of prescribed forest products. Only contaminants listed in Table 2 require tolerances to be applied if detected during inspection for export certification.

Tolerance levels imposed by the importing country takes precedence over any tolerances listed in this manual.

Table 2: General tolerances for contaminants detected in prescribed forest products

Contaminant	Tolerance level
Soil	Nil*
Rodents	Nil

* Upon detection of small visible quantities of soil, the goods do not require rejection if the exporter removes the contaminants from the goods during inspection. Soil tolerance does not apply to consignments of soil based potting mix.

Contaminants

The following principles should be used for contaminants found in forest product samples during inspection:

- For contaminants for which a nil tolerance applies, cleaning or treatment of the relevant goods must be carried out to remove the contaminating material if the goods are to be resubmitted for export.
- For contaminants for which a numerical tolerance applies, treatment, cleaning or blending to below the permitted tolerance may be carried out.
- If contamination has occurred on the outside of packages, such contamination may be removed by brushing or other mechanical means.
- Establishment occupiers must ensure all areas of the registered establishment where prescribed goods are stored, transported, handled, packed, treated or inspected, are maintained in a hygienic condition to control and prevent pooling water and/or cross-contamination by mud or other substances.
- The establishment occupier must maintain the premises to ensure it is free draining and does not sustain pooling water and cause buildup of mud.
- If the surface material becomes or is likely to become soft or muddy after rain, it is unsuitable and must be overlaid/replaced with compacted gravel or similar material.
- Establishment occupiers must ensure equipment and procedures are in place for washing logs set out on the ground for inspection if logs for inspection are not placed on bearers or a layer of bark.

Log Stockpiles

- Establishments must ensure log stockpiles on unsealed surfaces (surfaces that are not concrete or bitumen) are placed on 2 'bearers' to raise them away from soil and reduce the risk of soil transfer and contamination during loading.
- Bearer logs placed on soil surfaces are not to be included as part of the lot presented for inspection.
- Any bearer logs in contact with unsealed surfaces must not be exported.
- Log stockpiles must be spaced apart by at least 1.5 metres and not excessively high, to allow AO access to undertake full inspection of the ends of all logs in each stockpile.

Rejection Principles

If any pests or contaminants are found in excess of tolerances (including nil) the prescribed forest products must be rejected. If any live pests/insects are found post fumigation (injurious or otherwise), it indicates that the treatment has failed, or phytosanitary status has changed, and the consignment has been subject to re-infestation post treatment – and must be subject to re-treatment (and re-inspection). Upon rejection the AO must clearly identify the rejected prescribed forest products, record the details of the rejection in PEMS or on the manual inspection record and notify the responsible person that the goods have been rejected.

The exporter must ensure that the rejected goods are identified and isolated from goods which remain eligible for export. The AO will ensure that the inspection of other goods in the area which remain eligible for export will not commence until the rejected goods have been identified and a satisfactory hygiene inspection has been completed of all cross-infestation areas.

The AO will record the method used by the exporter to rectify the cause of rejection in PEMS or on the manual inspection record for all re-inspected goods.

Rejection of the source

Detection of live pests and pests of quarantine concern to the importing country requires rejection of the source. The source is deemed to be considered the inspection 'lot' (logs, processed forest products and packaged forest products) or the stockpile point at which the goods are being loaded onto the conveyor system for bulk woodchips.

If the woodchip stockpile is less than 200 tonnes the entire stockpile must be rejected from the stockpile point. In the case of stockpiles larger than 200 tonnes, 200 tonnes of the goods from the stockpile point are to be rejected. Upon rejection the AO will inform the exporter of their responsibility to isolate and clearly distinguish the rejected source from the remaining goods in the stockpile eligible for export.

Inspection of Resubmitted Goods after Treatment

Treatment of rejected goods

If goods are rejected, the goods must not be presented for re-inspection unless the reason for the rejection has been rectified. Rejected goods can be resubmitted for inspection following treatment. The choice of treatment is the responsibility of the exporter, and the AO must not recommend a specific treatment. The treatment applied must be safe and effective and must meet importing country requirements. If there is no suitable method of treating the goods, the goods must not be re-presented for inspection. Only logs rejected for live insect infestation may be loaded in containers or vessel holds to undergo fumigation treatment. Samples must be drawn from the containers or vessel holds and re-inspected.

Resubmitted goods must be inspected in accordance with the Exports work Instruction: [Inspecting forest products for export](#) and rejected if any live pests and contaminants above the tolerance levels are detected.

Treatment using pesticides and fumigants

If a pesticide and/or fumigant is used, the client must ensure the use meets Australian legislation and standards, meets label requirements and the importing country's requirements.

Rejected consignments, treated with a pesticide, must not be resubmitted for inspection until after any safety period has passed and precautions specified on the registered label are met.

If a fumigant is applied, the client must also provide a gas free certificate, issued by an accredited/licensed fumigator, to ensure it is safe before the reinspection of the goods.

Fumigation requirements and responsibilities of the fumigators and establishment occupiers

- Fumigators treating logs to China (including those providing in bulk vessel hold fumigation) must be listed on the [Grain and Seeds Export Program](#) (GSEP) approved fumigator list (approved for China); for further detail refer to [Appendix G](#).
- All log fumigation must be performed as per the [Department of Agriculture, Fisheries and Forestry's methyl bromide fumigation methodology](#) or the [Sulfuryl fluoride fumigation methodology](#), with additional requirements outlined below and in the Micor case for all logs to China.
- Logs with bark for export to China are subject to mandatory fumigation (and subject to level 2 re-inspection for containerised logs; re-inspection as per initial stockpile inspection requirements if still in stockpile; or vessel hold re-inspection if loaded into bulk vessel holds).
- Logs with bark for export (to all countries other than China) that fail the initial inspection must be fumigated and then subject to level 1 re-inspection for containerised logs; re-inspection as per initial stockpile inspection requirements if still in stockpile; or vessel hold re-inspection if loaded into bulk vessel holds.
- Logs without bark for export (to all countries) that fail inspection must be fumigated (same as for logs with bark) and then subject to level 1 re-inspection for containerised logs; re-inspection as per initial stockpile inspection requirements if still in stockpile; or vessel hold re-inspection if loaded into bulk vessel holds.
- In addition to the requirements of the methyl bromide/sulfuryl fluoride fumigation methodology, fumigators must also measure the temperature of logs to be fumigated.
 - The temperature of the logs **and** the minimum ambient temperature must **both** be at or above the minimum allowable for fumigation to commence.
 - The temperature in the enclosure must be kept above the minimum allowable through the duration of fumigation
 - fumigation must not commence if the temperature of the enclosure is expected to fall below (or the commodity is below) the specified minimum allowable for the fumigant during the exposure period.
 - Log temperature must be measured in logs sampled from across the consignment, according to the sampling rates in [Table 3](#).
 - Records of temperature readings, including photos of the readings, must be kept and made available for audit.

Table 3: Temperature measurement sampling rates for all log fumigations

Fumigation set-up	Number of logs selected for temperature measurement
Log stockpile (including stockpiles to be loaded into bulk vessel holds)	At least 5 per stockpile (taken from throughout the stockpile)
1 container under tarp—door(s) open	At least 3
2 containers under tarp—door(s) open	At least 4, with at least 2 per container
3-5 containers under tarp—door(s) open	At least 5, with at least 1 per container
6 or more containers under tarp—door(s) open	At least 1 per container

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- To measure temperature:
 - logs of different sizes must be selected for drilling
 - the logs must be drilled to 50 mm deep
 - after waiting 10 minutes, a thermometer must be inserted into the drilled holes
 - the thermometer reading must stabilize before reading temperature.
- Actual log temperatures must be recorded, not averages.
- The fumigation dosage must be based on the lowest temperature reading measured.
- Fumigations must be monitored. [Table 4](#) outlines the number of monitoring lines required.

Table 4: Number of fumigant monitoring lines required for all log fumigations

Fumigation set-up	Number of monitoring lines
Log stockpile under tarp	At least 3 lines per stockpile, plus 1 per 12 metres of stockpile length. Monitoring lines must be placed as close as practicable to the bottom, middle and top away from the gas injection point. Example: if a stockpile is 60 metres long, it requires 3 monitoring lines plus 1 line per 12 metres (5 in total for this stockpile), which means 8 monitoring lines in total.
Containerised logs under tarp	At least 3 lines per tarped enclosure, including at least 1 per container. Monitoring lines must be placed as near as practicable to the middle of the consignment, at the top. Examples: <ul style="list-style-type: none"> ● If 2 containers are being fumigated under 1 tarp, 3 monitoring lines are required, as the minimum number of lines is 3. ● If 4 containers are being fumigated under 1 tarp, 4 monitoring lines are required, as at least 1 line is required per container.
Logs in bulk vessel hold	At least 3 lines per hold. Monitoring lines must be placed as close as practicable to the bottom, middle and top, away from the gas injection point.

- Concentration readings for fumigation of logs to China must be taken 4 times in total including at the start of fumigation (once equilibrium is reached), then at 2 hours, 16 hours and at 24 hours (the end point of fumigation). Monitoring of log fumigation (for countries other than China) must be taken 3 times in total including at the start of fumigation (once equilibrium is reached), then at 12 hours and at 24 hours (the end point of fumigation)
Note: Alternatively, continuous monitoring technology approved by the department can be used to record the concentration readings.
- Concentration readings must be recorded on the fumigation certificate. For further detail on recording readings refer below and to [Micor](#).
- Records of concentration readings, including photos of the readings, must be kept and made available for audit.
- In addition to the requirements in Micor and in the Guideline: [Supporting documents for plant exports](#), the fumigation certificate must also detail the below information:
 - location of the fumigation activity, including the registered establishment number if fumigation did not take place in a bulk vessel hold
 - the licence number of the fumigator(s) who performed fumigation

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- container number(s) (if shipping containers are involved), cubic volume (m³) of the enclosure/s
- concentration level for all monitoring lines
- time and date of each monitor reading
- measured log temperatures, and forecast minimum ambient temperature
- the fumigator/monitor's name, signature and contact details
- serial number (or equivalent) of the gas cylinder/s and amount injected into the container/fumigation enclosure (including any top ups) on the certificate.
- The department may, at any time, request that fumigators provide advance notice of fumigations.
- All relevant instructional material/[Micor](#) conditions regarding treatments must be met.

Requirements for fumigation of logs prior to shipment

- All log fumigations, except fumigations done in bulk vessel holds, must be completed in tarped fumigation enclosures. Fumigation enclosures must be 'gas tight'. Shipping containers fumigated under tarp must be entirely within the tarped enclosure. The enclosures must be able to retain the fumigant for the duration of the exposure period and maintain the concentrations at or above the requirements (to ensure an effective treatment). Records of all gas tightness tests (leak tests), including photos of readings, must be kept and available for audit.
- Leak testing is required for all tarped fumigations.
- Permanent fumigation chambers used for treating logs must be pressure tested every 6 months or whenever alterations have been made to the chambers, whichever comes first.
- All log stockpile/container fumigations must be undertaken on a flat and level surface, which is either sealed (impervious) or sheeted. Logs to China must be fumigated on the specific surface approved by the Grain and Seed Exports Program.
 - Compacted surfaces of large-sized gravel that will likely puncture a tarp/sheet, and soft/muddy surfaces (or surfaces that will become soft or muddy after rain), are not suitable.
 - Establishment occupiers are responsible for providing the impervious surface or gas-proof (ground) sheet.
 - Fumigators can either choose to inspect the ground sheet in-situ immediately prior to fumigation (and photograph its condition themselves) or, alternatively, establishment occupiers with unsealed fumigation surfaces must provide photographic evidence and a signed declaration to fumigators attesting that there are no holes or other damage in the gas-proof ground sheet. These documents must be kept by fumigators and made available at audit.

Requirements for fumigation of logs in bulk vessel holds

Fumigation of logs in bulk vessel holds must be approved by the Grain and Seed Exports Program **prior** to the commencement of loading the holds and each fumigation event.

Note: Consignments for which loading and fumigation commenced prior to approval of fumigation plans will not be authorised.

The fumigator must provide a fumigation plan to Grain.Export@aff.gov.au containing the following for the Grain and Seed Exports Program's consideration:

- permit issued by the APVMA allowing use of fumigant in-hold
- confirmation of relevant approvals including State EPA, Australian Maritime Safety Authority and port approvals
- crew minimisation and emergency response plan

- fumigation plan including delivery/re-circulation method and layout plan for monitoring lines (separate to delivery lines) and their locations
 - at least 3 monitoring lines are required per vessel hold, with at least one located at each of the top, middle and bottom of each hold
 - monitoring lines should be spaced across front and back of each hold—the highest monitoring line towards the front and away from the fumigant introduction point, and bottom monitoring line towards the back
- method of sealing holds during fumigation
- method of clearing the fumigant from the hold/consignment
- method used to provide gas free certification
- treatment draft certificate from the licensed fumigator containing
 - dosage (g/m³), temperature (°C), and duration of treatment (hours/days) in accordance with China's import conditions and the [logs to China Micor case](#)
 - vessel name and IMO, destination (China) and holds to be treated
 - commodity and quantity
 - signature by a licensed fumigator including contact details.

Note: The completed certificate must be uploaded into PEMS prior to re-inspection of the logs.

Export validity period

Prescribed goods that pass inspection remain valid for 28 days. In exceptional circumstances, the validity period can be extended beyond the 28 days.

To extend a validity period, an exporter must apply to the department's [Grain and Seed Exports Program](#) in writing no later than three business days before the validity period ends. The exporter must supply:

- details of the exceptional circumstances for which an extension is required
- a justifiable period of extension
- information that gives assurance that the condition of the goods has not changed since inspection and that there has been no compromise of the phytosanitary status of the goods, including the security.

Once a decision is made, the Grain and Seed Exports Program will inform the exporter of the decision in writing and the Assessment Services Exports group will be informed to make a record of the additional approved period.

Reinspection of consignments where export is delayed

Reinspection of prescribed goods is necessary if:

- the time between inspection and export exceeds the (validity) period during which the prescribed goods are passed for export
- the maximum time between inspection and export permitted by the importing country is exceeded.

When an importing country's requirement is not 28 days, the importing country's requirement takes precedence over the 28-day period. Exporters must request reinspection if any of the above conditions have occurred.

Audit requirements

Audits of operations will be conducted in accordance with the Export process instruction: [Audit of plant export registered establishments.](#)

With the introduction of the updated sampling and inspection requirements (December 2020) - an increased (heightened) rate of demonstration audits is required for all log exporters. This includes more unannounced audits and audits including review of fumigation practices is required.

On re-opening trade to China - a mandatory demonstration audit will be required for companies specifically listed as non-compliant. These companies will need to show compliance with new processes prior to providing any certification for China. Updated sampling and inspection requirements are detailed in [Appendix D](#) and [E](#).

Requirements for re-export

Re-export phytosanitary certificates must be issued for imported prescribed goods re-exported from Australia if phytosanitary certification is required by the importing country authority, and the:

- goods are accompanied by a phytosanitary certificate issued by the country of origin, or a certified true copy of the phytosanitary certificate issued by the country of origin

Important: AOs must validate the original or certified copy of the phytosanitary certificate from the importing country(ies) at the time of inspection.

- identity of the goods can be established
- consignment has not been exposed to infestation or contamination while in Australia
- goods have been inspected by an AO in accordance with the Exports work Instruction: [Inspecting forest products for export](#).
- goods comply with the requirements of the importing country authority
- goods in the consignment have not been grown or processed to change their nature in Australia.

Record keeping

Where documents are not available in PEMS; clients, exporters, registered establishment operators and AOs must retain documentation in relation to receivals, inspections, audits, registration, accreditation and export certification for a period of at least 2 years.

Related material

The following related material is available on the department's website:

- *Export Control Act 2020 (Act)*
- Export Control (Plant and Plant Products) Rules 2021 (Plant Rules)
- Pest and Disease Image Library: www.padil.gov.au
- Manual of Importing Country Requirements ([Micor](#))
- [Methyl bromide fumigation methodology](#)
- [Sulfuryl fluoride fumigation methodology](#)
- [Plant Export Operations Manual](#)
 - Guideline: *Audit of export registered establishments*
 - Exports work instruction: *Inspecting forest products for export*
 - Reference: *Inspection technique guide – logs bulk in containers*
 - Reference: *Inspection technique guide – logs bulk in vessels*
 - Reference: *Inspection technique guide – logs bulk in stockpiles*
 - Exports reference: *Work health and safety in the plant export environment*

Related WHS instructional material is available on the [IML](#) for departmental AOs.

Contact information

- Authorised Officer national helpline: 1800 851 305
- Authorised Officer Program: PlantExportTraining@aff.gov.au
- Assessment and Client Contact Group: PlantExportsNDH@aff.gov.au
- Grain and Seed Exports Program: Grain.Export@aff.gov.au
- Grain and Seed Exports Program hotline: 02 6272 3229
- Forestry Branch: wood.export@aff.gov.au
- Micor Administrator: Micorplants@aff.gov.au.

Document information

The following table contains administrative metadata.

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Instructional material owner	Director, Grain and Seed Exports
Review period	Due for review within three years of the most recent approved date.

Version history

The following table details the published date and amendment details for this document.

Version	Date published	Date last approved	Review type	Summary of review
1.0	28/03/2021	28/03/2021	New document	First publication of this guideline to reflect the commencement of the <i>Export Control Act 2020</i> and associated Plant Rules.
2.0	29/01/2024	29/01/2024	Major change	Included information regarding log stockpiles as well as establishment and fumigator responsibilities and requirements.
3	29/02/2024	29/02/2024	Major change	Updated information regarding logs to China, establishment and fumigator requirements.
4	5/04/2024	5/04/2024	Major change	Updates to Appendices – sample numbers & email subject line

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Appendix A: Definitions

The following table defines terms (and their abbreviations) used in this document.

Term	Definition
APVMA	Australian Pesticides and Veterinary Medicines Authority or its successor organisation.
Authorised officer (AO)	<p>A person authorised under section 291 of the <i>Export Control Act 2020</i> to be an authorised officer. The authorised officer may exercise powers and functions conferred on them through an instrument of appointment.</p> <p>Note: An authorised officer may be a Commonwealth, State or Territory government officer or third-party individual. Examples of third-party individuals include, but are not limited to:</p> <ul style="list-style-type: none"> • employees of registered establishments • employees of an exporter • self-employed individuals/sole traders.
Bark	The layer of a woody trunk, branch or root outside the cambium.
Bulk goods/bulk commodities	Unpackaged goods, that are generally sold or traded in large quantities, and are loaded directly into a shipping container or vessel hold.
Bulk into ship hold inspection record	<p>The approved form for an AO to record the findings and result of an inspection of bulk prescribed grain and plant products for export in or on a bulk vessel.</p> <p>Note: The bulk into ship hold inspection record includes PEMS or the equivalent manual record available on the PEOM.</p>
Bulk vessel	A vessel that is designed to be used to transport prescribed plants or plant products in bulk from Australia to an overseas destination.
Bulk vessel approval	<p>An approval of the bulk vessel for loading, that is in force (has not expired or been revoked) under part 5 of Chapter 9 of the <i>Export Control (Plants and Plant Products) Rules 2021</i>.</p> <p>Note: The bulk vessel approval is documented through a bulk vessel inspection record.</p>
Bulk vessel inspection record	<p>The approved form on which an AO records bulk vessel inspection details and results, including whether a cargo space (such as a hold) in or on a bulk vessel, is approved for loading, or has failed inspection.</p> <p>Note: The bulk vessel inspection record includes PEMS or the equivalent manual record available on the PEOM.</p>
Bulk vessel loading running record	<p>The approved form on which an AO records inspection activity or issues as they arise (hold changes, stoppages, weed seeds, AO changes and the like) during loading of a bulk vessel.</p> <p>Note: The bulk vessel loading running record is available on the PEOM.</p>

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Term	Definition
Certification	<p>Means a government certificate issued under Chapter 2 of the <i>Export Control Act 2020</i> in relation to goods that are to be, or that have been, exported this may include:</p> <p>Official certificates, electronic or manual, issued by the department to endorse that plants and plant products for export are compliant with the <i>Export Control Act 2020</i> and/or the importing country's requirements.</p>
Client	The exporter, exporter's representative or person responsible for prescribed goods intended for export.
Commodity	<p>A type of plant or plant product being moved for trade or other purpose.</p> <p>Note: 'Product' and 'goods' are also used interchangeably with the term commodity.</p>
Consignment	<p>The quantity of plants or plant products identified on the notice of intention to export (NOI), or request for permit (RFP), for export to a particular importing country.</p> <p>Can be composed of one or more commodities. May be presented in lots and may not be presented all at the same time.</p>
Container	A container for prescribed goods that is designed for use as a unit of cargo handling equipment in the export of the goods by aircraft or ship, including a shipping container and air cargo container.
Container approval	<p>An approval of the empty container that is in force (has not expired or been revoked) under part 6 of Chapter 9 of the Export Control (Plant and Plant Product) Rules 2021.</p> <p>Note: The container approval is documented through a passed result recorded on the container inspection record.</p>
Contaminant	Any foreign matter, whether organic or inorganic, that is included in, on, or with prescribed goods. This can include but is not limited to sand/soil, stems and leaves and other extraneous material.
Country of origin	The country where the plants or plant products were grown, produced, or exposed to infestation by pests or contaminants.
Department	Department of Agriculture, Fisheries and Forestry. The department is the Australian Government's nominated National Plant Protection Organisation (NPPO).
Departmental requirements	Requirements for the export of prescribed plants and plant products stipulated by the department under the <i>Export Control Act 2020</i> and its subordinate legislation.

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Term	Definition
Empty container inspection record	The approved form on which an AO records container inspection details and results, including whether a container is approved for loading, or failed inspection. Note: The empty container inspection record includes PEMS or the manual equivalent available on the PEOM.
Export documentation system (EXDOC)	The department's electronic export documentation system in which export certification is produced. This includes export permits and phytosanitary certificates.
Exporter	The entity identified as the exporter in a Notice of Intention/Request for Permit to export.
Export permit	A permit issued by the department under Chapter 7 of the <i>Export Control Act 2020</i> and required under the Export Control (Plants and Plant Product) Rules 2021 for the lawful export of prescribed plants and plant products.
Flowpath	The point of sampling to the point of loading. The flowpath includes the inspection area and commodity conveyance systems and anything along the pathway that the product comes into contact with, or which presents a direct risk for the product to become contaminated after inspection and during loading. For non-bulk commodities, this may include the receipt, storage (when storing passed goods, or ECGS storages), treatment, inspection, conveyor systems and despatch areas.
Fumigation	Treatment with a chemical agent that reaches the commodity wholly or primarily in a gaseous state.
Grade/type	A quantity of goods of a single type, identifiable by its homogeneity of composition and origin, forming part of a consignment.
Grain and plant products inspection record	The approved form for an AO to record the findings and result of an inspection of prescribed grain and plant products (including forest products) for export. Note: The grain and plant products inspection record includes PEMS and the equivalent manual record available on the PEOM.
Hold	Internal compartment where cargo can be stowed and carried. Generally referred to as a 'ship's hold'.
Import permit	A document issued by a national government authorising the importation of certain goods into its territory.
Infestation	Presence of a living pest of the plant or plant product concerned. Note: Infestation includes infection.
Infestible residue or infestible material	Any residue or material that is susceptible to infestation by pests or could harbour pests.

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Term	Definition
Inspection authorised officer (AO)	<p>An AO approved to inspect plants, plant products, empty containers or empty bulk vessels for export.</p> <p>Note: This role can be performed by departmental and State/Territory government officer or third-party AOs.</p>
Inspection record	<p>The approved form for an AO to record the findings and result of an inspection of plants and plant products for export and transport units used for the export of plants and plant products.</p> <p>See:</p> <ul style="list-style-type: none"> • Grain and plant products inspection record • Empty container inspection record • Bulk into ship hold inspection record • Bulk vessel loading running record.
Log	Usually large, unsawn section of a trunk or limb of a fallen or felled tree.
Lot	Units of a single commodity identifiable by its homogeneity of composition and origin. The consignment may be presented in 'lots' and might not be presented all at the same time. Where the entire consignment is not presented at the time of inspection, liaise with client and identify appropriate lots. Amounts presented can be less than, but not more in total than what is on the RFP.
Manual of Importing Country Requirements (Micor)	A database maintained by the department that outlines importing country requirements for a range of plants and plant products for export.
National Plant Protection Organisation (NPPO)	<p>Official service established by a government to discharge the functions specified by the International Plant Protection Convention.</p> <p>The department is the Australian Government's nominated NPPO.</p>
Notice of Intention (NOI)	<p>The approved form submitted by an exporter to the department containing information about goods they intend to export.</p> <p>Note: For contingency purposes a manual NOI, called an EX28, can be used. An electronic NOI is called a Request for Permit (RFP) and is submitted through the department's electronic documentation system, EXDOC.</p>
Package	The outermost box/bag that a commodity is packed into. For example, a tray, carton, bulka bag or bag, as presented at inspection. Any covering in which plants or plant products are packed and are intended to be exported.
Plant Exports Management System (PEMS)	The department's electronic system which contains records of the findings and results of phytosanitary inspections of plants and plant products, empty containers and ship holds used for export.

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Term	Definition
Plant Export Operations Manual (PEOM)	A webpage maintained by the department that outlines the policy and processes for exporting plants and plant products from Australia. It also lists instructional material, forms and user guides related to the export certification process.
Pest	Any species, strain, or biotype of plant, animal or pathogenic agent, that may be injurious to plants or plant products. Examples of pests may include but is not limited to live animals and live insects.
Phytosanitary	Relates to the health of plants or plant products, especially with respect to the requirements of international trade.
Phytosanitary status	Goods having passed AO inspection and certification requirements are considered to be 'passed as export compliant'—and have attained a phytosanitary status recognised by the department. Attaining phytosanitary status confirms compliance with phytosanitary requirements of the department and/or the importing country.
Prescribed goods (goods)	<p>Goods that are listed in the Export Control Rules to be prescribed goods for the purposes of the <i>Export Control Act 2020</i>. This includes:</p> <ul style="list-style-type: none"> • prescribed grains • hay and straw • fresh fruit • fresh vegetables • other plants or plant products for which a phytosanitary certificate or any other official certificate is required by an importing country authority.
Registered establishment	An establishment that is registered under Chapter 4 of the <i>Export Control Act 2020</i> for a kind of export operations in relation to a kind of prescribed plants or plant products.
Sealed surface	Solid surface of concrete or bitumen, that is impervious to fumigants, and free of holes or cracks
Source	The storage where the products in the consignment are held prior to inspection and loading (storage may be a log stack, stockpile and the like).
Supporting documents	Documents provided by the client as evidence that goods are compliant with departmental and importing country requirements. For example, area freedom statements and treatment certificates.
Stockpiles	Logs stored in stacks usually as a long row/s usually 'bookended' (on at least one end) and used as storage and as basis for initial sampling and inspection at the registered establishment.
Total ship load	The total tonnage expected to be loaded onto the ship (as per all RFP/s).

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Term	Definition
Treatment	Official procedure for the killing, inactivation or removal of pests, or for rendering pests infertile or for devitalisation.
Unit	An individual item that is considered to represent a single item of the good for the purposes of sampling and inspection.
Woodchips	Wood fragments broken or shredded from any wood.

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Appendix B: Legislation and related policy frameworks

Consideration must be given to the following legislation before goods are exported. AOs and industry representatives involved in the export process must ensure that the legislation is adhered to throughout the exporting process:

- *Export Control Act 2020 (Act)*
- *Export Control (Plant and Plant Products) Rules 2021 (Plant Rules)*
- *Export Control (Fees) Rules 2021*
- *Privacy Act 1988*
- *Public Service Act 1999*
- *Work Health and Safety (Transitional and Consequential Provisions) Act 2011*

The legislations listed above are all accessible via the Federal Register of Legislation at:

<http://www.legislation.gov.au>.

Appendix C: Safe operating procedure—inspection of forest products for export (logs)

Hazard/Risk	Moving logs, logs falling from stack, track and wheeled machinery, malfunctioning equipment, excessive noise, slip or trip, unsafe log stacks, unfavourable environmental conditions, lack of physical and/or psychological fitness.
Personal Protective Equipment (PPE)	Safety glasses, hard hat, steel cap boots, hearing protection, sun and eye protection, safety vest, communication equipment, gloves (if required).

General Site Safety

Preparation for inspection

The AO must:

- Notify their regional Plant Export Manager if they have any concerns about their ability to complete the task safely.
- Undertake pre-operational checks on equipment including personal safety equipment and tools. Mallets and chisels that are blunt or have loose heads are not to be used.
- Ensure that specimen kit is carried.
- Confirm that an experienced establishment representative is available to accompany the AO on the inspection.

Safe Operating Procedures

Instructions

- Receive site induction from the establishment safety officer or other authorised establishment delegate.
- An establishment representative must accompany the AO at all times during the inspection.
- Ensure there is communication with persons operating vehicles working in the yard. Communication equipment is normally provided by an establishment delegate. If communication cannot be maintained, then vehicles must stop work during the inspection process, alternatively working vehicles must remain in excess of 50m from the inspection site lot/row of logs, or across a minimum three rows/stacks distant.
Note: The establishment representative must remain with the inspecting officer so communication can be maintained throughout the inspection.
- Designate an appropriate safe area to carry out the log inspection. Inspection should not be carried out in any area where there is a risk of injury should the log stack collapse or from vehicles working in the area. Stack should be prepared with a 'well' near the end of the stack as shown in attached sketch (Figure. 1).
- Logs are to be prepared for inspection by the client. Logs must be on the ground with sufficient space between them for the AO to work. Any turning or moving of logs must be carried out by the client's representative.
- A gap of approximately 2 metres should be maintained between the end of the log stack and inspection logs.

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Note: Logs presented on a smooth surface may need to be chocked to prevent movement during inspection. Take care in wet conditions as logs can become slippery when wet.

- The AO must position themselves and the log to ensure that no injury can result during removal of bark.
- Under no circumstances is the AO to
 - sit on logs in the stack
 - turn the logs for inspection purposes
 - smoke within the establishment confines
 - knock or attempt to move logs in the stack
 - remove or not use defined PPE
 - be under the influence of alcohol or a drug while working in the yard
 - walk on logs, stacks or woodchip piles.
- Complete the necessary paperwork in the site office or other safe area away from the inspection area.

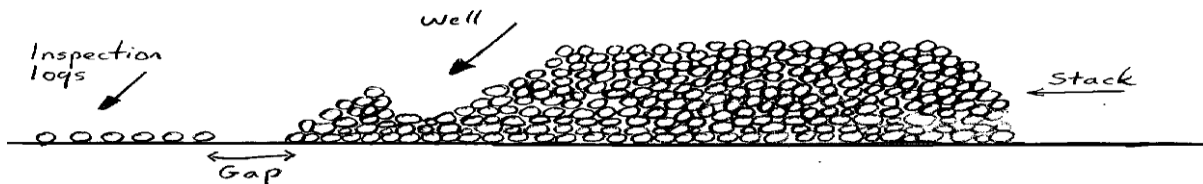


Figure 1. Typical log stack with 'tailed off' end and layout of logs for inspection.

Emergencies


- Always take directions from the client's representative.
- Contact rescue provider by radio or other appropriate means.
- Advise emergency response provider of the nature of emergency, location, condition of the worker, and rescue conditions.
- Provide emergency first aid assistance (if possible).

Things to Remember

The AO must:

- not undertake inspection without a client's representative present.
- ensure there is sufficient light to undertake inspection.
- always adhere to good WHS practices.
- withdraw from the inspection site and contact their supervisor if they believe there is an immediate risk to their health and safety.



The following table illustrates and describes safe operating procedure and relevant instructions to follow when inspecting forest products (logs) for export.

What does this look like	Description
<p data-bbox="204 286 550 315">Safe use of mallet and Chisel</p> 	<p data-bbox="774 286 1085 315">Using a Mallet and Chisel</p> <ul data-bbox="790 342 1375 750" style="list-style-type: none"> • Always chisel away from the body. • Never run your hand along blade of chisel. • Wear safety glasses at all times when using a mallet and chisel. • Use sharpened chisel at all times. • Do not wear gloves when using a mallet and chisel as chisel can slip from gloves. • Lift bark using chisel facing away from your body. • Take a firm grip of the chisel.

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What does this look like	Description
	<p>Log rows and how they are set out</p> <ul style="list-style-type: none"> • Note the rows on the right have a tapered end at approximately 30 degrees. This set up makes it difficult for the logs to roll. • Row on the left has the wall stile end—this will only be on one end of the rows. • Always walk a minimum of 2 metres from the end of a row when coming to the end of the row. • Do not walk under logs that are laying in a dangerous manner. • Notify the establishment site manager if logs are not set out properly. • Row ends with logs sitting as above can roll, so do not climb or walk in front of them. • Do not walk around the end of a row with logs protruding as those on the left. • Do not walk under logs sticking out from rows. • You should advise the client about the log/s sticking out as when they are loading this could be a problem.

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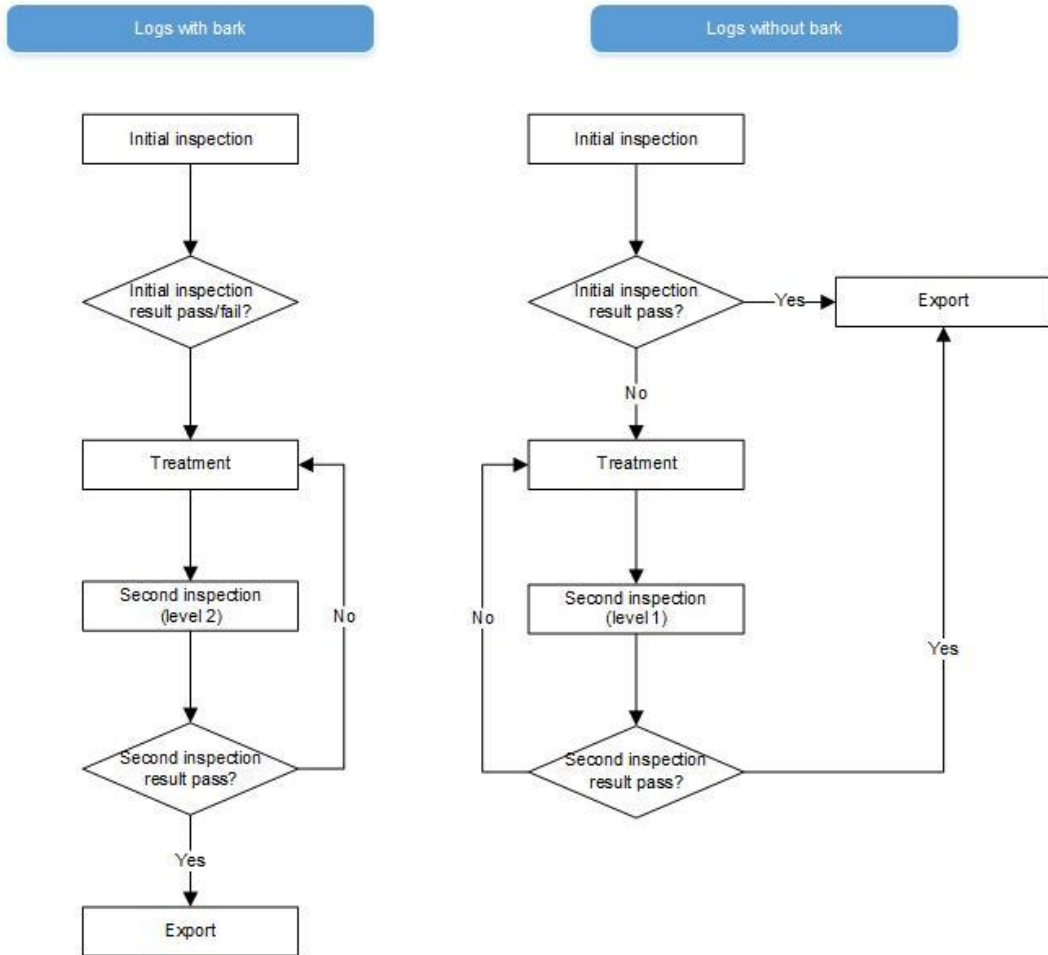
What does this look like	Description
	<p>A representative sample of logs for inspection taken from the end of each row, laid out at the end of each stack or designated inspection area. This will be 40–60 logs depending on stockpile size.</p>
	<p>Ships Holds</p> <ul style="list-style-type: none"> • A full hold of logs after fumigation and venting • A bundle of logs which were found to have insects are lifted from the hold that was fumigated. • Note how the sling is holding the logs in a safe manner. • To inspect the logs using a mallet and chisel, stand at the ends of the logs and remove sufficient samples to satisfy yourself that an effective fumigation was carried out. • Repeat this for all holds that had been fumigated.

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Appendix D: Sampling and inspection requirements for the log export – China

Export log inspections – China

Inspection of logs in stacks (initial inspection)
 <2000 logs inspect 40 logs >2000 logs inspect 60 logs
 Inspect 20% of each log



Level 1 re-inspection
 1 – 20 containers – sample and inspect 50%
 21 containers and above – sample and inspect 25%

Level 2 re-inspection
 1 – 20 containers – sample and inspect 100%
 21 containers and above – sample and inspect 50%

Sample rate per container
 <300mm – sample 10 logs
 300mm to 500mm – sample 5 logs
 >500mm – sample 3 logs

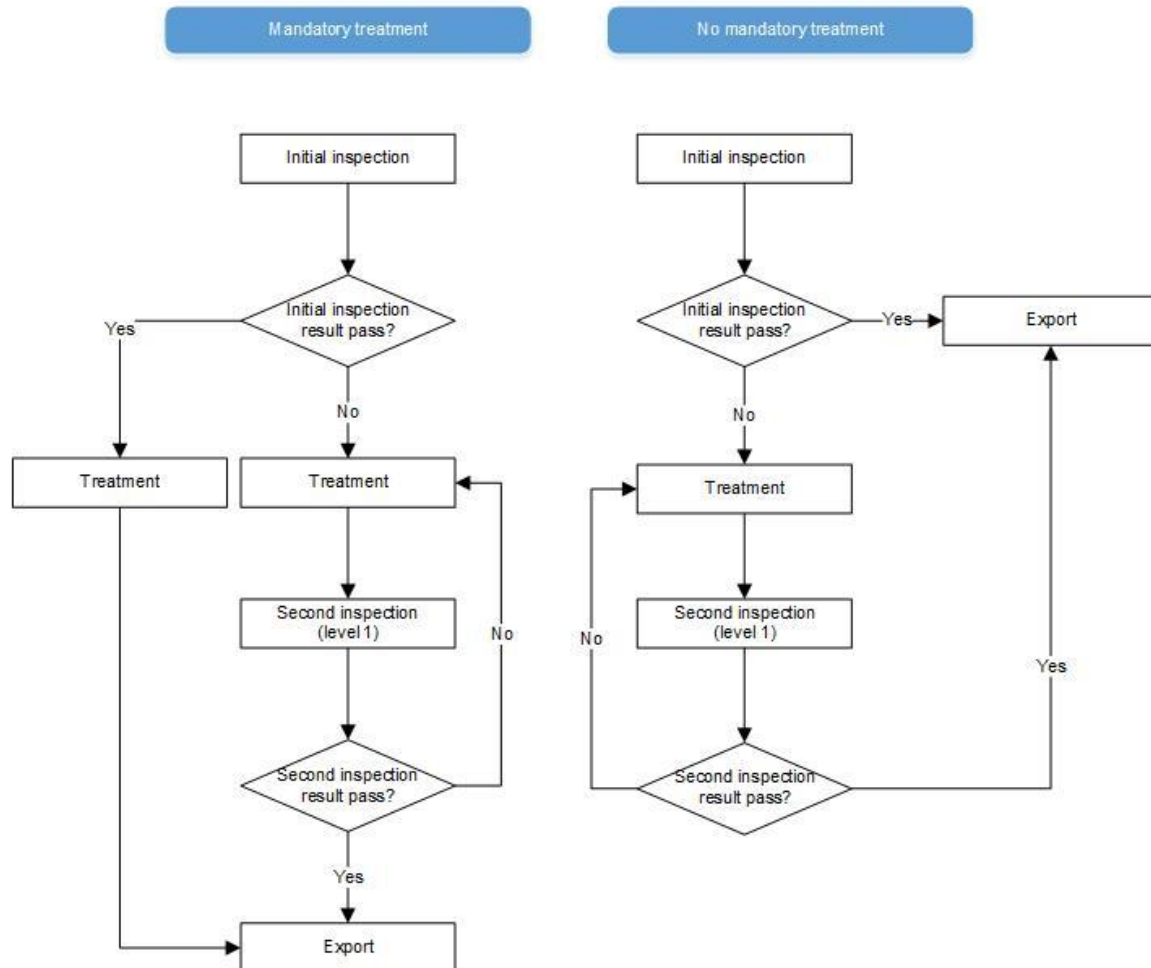
Sample rate per vessel hold
 Sample two (2) slings (1 forward and 1 aft of each hold) 20-30 logs per sling

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Appendix E: Sampling and inspection requirements for the log export – other countries (excluding China)

Export log inspections – other countries (excluding China)

Inspection of logs in stacks (initial inspection)
 <2000 logs inspect 40 logs >2000 logs inspect 60 logs
 Inspect 20% of each log



Level 1 re-inspection
 1– 20 containers – sample and inspect 50%
 21 containers and above – sample and inspect 25%

Sample rate per container
 <300mm – sample 10 logs
 300mm to 500mm – sample 5 logs
 >500mm – sample 3 logs

Sample rate per vessel hold
 Sample two (2) slings (1 forward and 1 aft of each hold) 20-30 logs per sling

Appendix F: Export log inspection requirements for China and all other countries

The following table outlines the activities and inspection requirements related to the export of logs to China and all other countries.

ACTIVITY	FOR CHINA All logs	OTHER COUNTRIES All logs (with and without bark)
Initial inspection	Stack inspection: inspect 40 logs for stacks up to 2000 logs, or 60 logs for stacks greater than 2000 logs	Stack inspection: inspect 40 logs for stacks up to 2000 logs, or 60 logs for stacks greater than 2000 logs
	All containerised log inspections to be done during daylight hours	All containerised log inspections to be done during daylight hours
Fumigation	<p>Must follow methyl bromide fumigation methodology and additional requirements outlined in this document.</p> <p>Fumigation requirements/heat treatment as listed in instructional material/Micor.</p> <p>Fumigator to note serial number of gas cylinder on fumigation certificate and amount injected into the container.</p>	<p>Must follow methyl bromide fumigation methodology and additional requirements outlined in this document.</p> <p>Same process as now for countries that require mandatory treatment and logs that failed initial inspection/assessment</p> <p>Fumigator to note serial number of gas cylinder on fumigation certificate and amount injected into the container</p>
	Fumigant concentration to be more frequently monitored (as per Micor) to ensure minimum CT (concentration/time) values maintained throughout fumigation period. This applies to all log exports.	Fumigant concentration to be more frequently monitored to ensure minimum CT (concentration/time) values maintained throughout fumigation period. This applies to all log exports.
	Fumigator continue to monitor and record results.	Fumigator continue to monitor and record results.
	<p>Establishments where the initial inspection and fumigation takes place is approved by GSEP and has appropriate registered function GLGCN and country code CNLG.</p> <p>Establishments where fumigation takes places must also have the GFUMI registered function.</p> <p>Temperature of the logs must be at or above the minimum allowable for fumigation to commence.</p> <p>Fumigation is not permitted if the ambient temperature is expected to fall below (or commodity is below) the specified minimum temperature allowable (for the fumigant) during the exposure period.</p>	<p>Temperature of the logs must be at or above the minimum allowable for fumigation to commence.</p> <p>Fumigation is not permitted if the ambient temperature is expected to fall below (or commodity is below) the specified minimum temperature allowable (for the fumigant) during the exposure period.</p>

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ACTIVITY	FOR CHINA All logs	OTHER COUNTRIES All logs (with and without bark)
Second inspection (re-inspection)	<p>If reinspecting from stack, sampling and inspection must be done following the initial stack inspection requirements.</p> <p>Level 2 re-inspection (for containerised logs).</p> <p>For the first 1–20 containers, sample 100 % of containers.</p> <p>For the remainder of the consignment, sample 50 % of containers.</p> <p>For example, consignment of 30 containers; the first 20 containers are sampled at 100 % and the remaining 10 containers are sampled at 50 % for a total of 25 containers to be sampled.</p> <p>Log selection per inspected container (based on smallest log in each container):</p> <p><300 mm, sample 10 logs; 300–500 mm, sample 5 logs; >500 mm, sample 3 logs.</p> <p>Inspection of 20 % of each log is required.</p> <p>Vessel holds: sample 2 slings, 20–30 logs per sling ‘fore and aft’ of each hold.</p>	<p>If reinspecting from stack, sampling and inspection must be done following the initial stack inspection requirements.</p> <p>Level 1 re-inspection (re-inspection only if fail stack inspection)</p> <p>For first 1–20 containers, sample 50 % of containers.</p> <p>For the remainder of the consignment, sample 25 % of containers.</p> <p>For example, consignment of 30 containers; the first 20 containers are sampled at 50 % and the remaining 10 containers are sampled at 25 % (rounded up) for a total of 13 containers to be sampled.</p> <p>Log selection per inspected container (based on smallest log in each container):</p> <p><300 mm, sample 10 logs; 300 – 500 mm, sample 5 logs; >500 mm, sample 3 logs.</p> <p>Inspection of 20% of each log is required.</p> <p>Vessel holds: sample 2 slings, 20–30 logs per sling ‘fore and aft’ of each hold.</p>
Compliance Activity	<p>Demonstration audits for all log establishments wanting to export to China and prior to commencing exports. Unannounced follow-up audits within 6 months will also be undertaken.</p> <p>Mandatory demonstration audit for companies previously listed as non-compliant to show compliance with new processes prior to gaining GSEP and country approval providing any certification for China (on recommencement of trade).</p> <p>Following audits demonstrating acceptable compliance, the audit schedule may revert to risk-based auditing.</p>	

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Appendix G: Fumigation of logs for China

Fumigation requirements and responsibilities of the fumigators

- Inspection and fumigation of logs for export to China must be undertaken at an establishment with the relevant overseas country code CNLG.
 - Establishments where inspection and fumigation are being undertaken require the registered function GLGCN (inspection of logs for China) and the fumigation registered function (GFUMI), unless the fumigation occurs in a bulk vessel hold.
 - Where fumigation will be performed in a bulk vessel hold, the initial inspection establishment must have the registered function GLGCN (inspection of logs for China).
- If exporters are planning in-vessel hold fumigation of logs, please also refer to section below on vessel fumigation requirements.
- The establishment must engage a fumigator who holds the relevant state fumigation licence. Fumigators (including those providing in bulk vessel hold fumigation) must be listed on the [Grain and Seeds Exports Program](#) (GSEP) approved fumigator list.
 - Fumigator applicants must have completed department-approved training for the application of methyl bromide or the sulfuryl fluoride stewardship program. Evidence attesting to completion must be provided as part of the application.
 - Fumigators registered as a Biosecurity approved arrangement Class 12.1 and 12.2 are considered to have met the training requirements. [Sites operating under an approved arrangement - DAFF \(agriculture.gov.au\)](#)
 - The fumigator/establishment must have and use fumigation monitoring equipment, including sampling tubes and temperature probes.
 - For 24-hour fumigations readings are to be taken at the start (when equilibrium has been reached), at 2 hours after equilibrium, at 16 hours after equilibrium and at 24 hours (end of fumigation).

Please note: This overrules the monitoring requirements outlined in the [Methyl Bromide Fumigation Methodology](#).
 - As per normal fumigation requirements, if gas readings are below requirements at monitoring times, topping up of gas is required as per methyl bromide methodology.
- Fumigators must notify GSEP of each fumigation event (giving a minimum of 24 hours' notice) prior to fumigation commencement. Notifications must be sent to GSEPtreatments@agriculture.gov.au using the following email subject format:

China log fumigation – [establishment number] – [dd-mm-yyyy to dd-mm-yyyy (dates for duration of fumigation) RFP, fumigation start time and number of containers.

]

Prerequisite and Application requirements for Log exports to China

- Registered establishment operators must submit an application to the [Grain and Seed Exports Program \(GSEP\)](#) detailing how they will meet all requirements for log exports to China.
- Establishment operators must advise GSEP when they intend to start exporting.
- Establishment operators will then be scheduled for an audit. Once an establishment has passed audit and can meet all requirements, GSEP will have the country code and registered operation/s added to the establishment details.

References

- Bain, J. (1976) Notes on *Xyleborus compressus* (Coleoptera: Scolytidae) in New Zealand. *The New Zealand Entomologist* 6: 182-184.
- Bashford, R. (1991) Wood-boring Coleoptera and associated insects reared from *Acacia dealbata* Link in Tasmania. *Australian Entomology Magazine* 18: 103-110.
- Boomsma, C.D., Adams AJS (1943) The pine bark beetle (*Hylastes ater*) at Mount Burr, South Australia. *Australian Forestry* 7: 33-37.
- Browne, F.G. (1968) Pests and Diseases of Forest Plantation Trees: An annotated list of the principal species occurring in the British Commonwealth. Clarendon Press, Oxford.
- Chu, D. and Zhang, W. (1997) The catalogue of Bostrichidae in China. *Plant Quarantine* 11: 105-109.
- CSIRO (2004) Australian National Insect Collection. CSIRO. <http://www.ces.csiro.au/> Accessed 11 December 2012.
- CSIRO (2012) Insects and their Allies. CSIRO. <http://www.ento.csiro.au/> Accessed 14 December 2012.
- DPIW (2008) Native Plants and Animals: Miena Jewel Beetle. Department of Primary Industries, Parks, Water and Environment. www.dpiw.tas.gov.au/inter.nsf/WebPages/LJEM-5ZC58M?open Accessed 7 January 2012.
- Elliott HJ, Ohmart CP, Wylie F.R. (1998) Insect pests of Australian forests: Ecology and Management. Inkata Press, Melbourne, Sydney, Singapore. pp. 214.
- EPPO (1998) Data sheets on Quarantine Pest – *Ips grandicollis*. EPPO. www.eppo.int/QUARANTINE/insects/Ips_grandicollis/IPSXGR_ds.pdf Accessed 13 December 2012.
- Farrow, R.A. (1996) Insect pests of eucalypts on farmland and in plantations in south-eastern Australia. Australia: CSIRO. pp. 60.
- Hadlington, P. (1987) Australian termites and other common timber pests. New South Wales Press.
- Hadlington, P. (1996) Australian Termites: And Other common Timber Pest. University of New South Wales Press Limited.
- House, S. (2011) Giant wood moth. QLD DAFF. http://www.daff.qld.gov.au/29_12386.htm Accessed 03 December 2012.
- Ivory, M.H. (1977) Preliminary investigations of the pests of exotic forest trees in Zambia. *Commonwealth Forestry Review* 56:47-56.
- McCaffrey, S. (2010) Nasutitermes Termite. PaDIL. <http://www.padil.gov.au> Accessed 10 December 2012.
- McCaffrey, S. (2012) Powderpost beetle - *Xylobosca canina*. PaDIL. www.padil.gov.au Accessed 10 December 2012.
- McCaffrey, S. and Walker, K. (2012) Kaloterme termite. PaDIL. www.padil.gov.au Accessed 11 December 2012.
- Paine, T.D. and Millar, J.G. (2002) Insect pests of eucalypts in California: implications of managing invasive species. *Bulletin of Entomological Research* 92:147-151.
- Pearson, H.G., Bennett, S.J., Philip, B.A. and Jones, D.C. (2010) The Australian dampwood termite, *Porotermes adamsoni*, in New Zealand. *New Zealand Plant Protection* 63: 241-247.
- Peters, B.C., King, J. and Wylie, F.R. (1996) *Pests of Timber in Queensland*. Queensland Forestry Research Institute, Department of Primary Industries, Brisbane. pp175.

Kliejunas, J.T., Burdsall Jr., H.B., DeNitto, G.A., Eglitis, A., Haugen, D.A., Haverty, M.I. and Micales, J.A. (2006) Pest Risk Assessment of importation into the United States of Unprocessed Pinus logs and Chips from Australia. USDA.

<http://www.fs.fed.us/foresthealth/publications/PinusImportationRiskAssessment.pdf> Accessed 10 December 2012.

Su, N.Y. and Scheffrahn, R.H. (2010) Formosan subterranean termite. University of Florida.

http://entnemdept.ufl.edu/creatures/urban/termites/formosan_termite.htm Accessed 12 December 2012.

Walker, K. (2005) Auger Beetle. PaDIL. <http://www.padil.gov.au/> Accessed 11 December 2012.

Walker, K. (2006) Drywood Termite. PaDIL. <http://www.padil.gov.au/> Accessed 10 December 2012.

Walker, K. (2010) Subterranean Termite. PaDIL. <http://www.padil.gov.au/> Accessed 10 December 2012.

Walker, K. (2011) Subterranean Termite. PaDIL. <http://www.padil.gov.au/> Accessed 10 December 2012.