REGIONAL STANDARD

FOR PHYTOSANITARY MEASURES

DRAFT

Option 1: *MINIMISING PEST MOVEMENT BY CONTAINERS SHIPPED BY ROAD, RAIL OR WATER*

Option 2: *MINIMIZING PEST RISK ASSOCIATED WITH CONTAINERS*

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INTRODUCTION

Scope

This APPPC and PPPO joint standard for phytosanitary measures (RSPM) provides National Plant Protection Organizations (NPPO) with a framework for minimizing the risks of contamination, including contaminating pests, associated with the regional movement of containers with and without cargo, as well as those that are transhipped into and through countries in the region.

References

The standard refers to ISPMs. ISPMs are available on the International Phytosanitary Portal (IPP) at www.ippc.int/core-activities/standards-setting/ispms.

BIC (Bureau International des Containers), COA (Container Owners Association), IICL (Institute of International Container Lessors), and WSC (World Shipping Council). 2024. *Joint Industry Guidelines for Cleaning of Containers: Prevention of Pest Contamination of Containers*. https://www.bic-code.org/wp-content/uploads/2024/04/Joint-Industry-Guidelines-for-Cleaning-of-Containers-March-2024.pdf.

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IPPC. 2018. *Guidance on sea container cleanliness*. Rome, IPPC Secretariat, FAO. 2pp. http://www.fao.org/documents/card/en/c/I8960EN

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IPPC Secretariat. 2020c. *Sea containers surveys – Guidelines for national plant protection organizations (NPPOs)*. vi + 6 pp. https://www.ippc.int/en/publications/88382/

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Definitions

Definitions of phytosanitary terms used in this standard can be found in ISPM 5 (*Glossary of phytosanitary terms*). For the purposes of this RSPM, the following key ISPM 5 definitions apply:

Contaminating pest	A pest that is carried by a commodity, packaging, conveyance or **container**, or present in a storage place and that, in the case of plants and plant products, does not infest them (ISPM 5 *Glossary of Phytosanitary terms*).

	[In the context of this RSPM a **contaminating pest** may pose a risk to plant, animal, human, or environmental health and may be considered a **regulated article**.]
Contamination	Presence of a **contaminating pest** or unintended presence of a **regulated article** in or on a commodity, packaging, conveyance, container or storage place (ISPM 5). [The term **contamination** includes **contaminating pests** throughout this RSPM, except where reference to **contaminating pests** is needed.]
Regulated article	Any plant, plant product, storage place, packaging, conveyance, **container**, soil and any other organism, object or material capable of harbouring or spreading pests, deemed to require phytosanitary measures, particularly where international transportation is involved (ISPM 5).

In addition to the definitions in ISPM 5, in this standard the following definitions apply:

Clean (as it relates to **inbound** and **outbound containers**)	Visibly and practically free from **contamination**, including **contaminating pests**, organic material or any residues or conditions that could harbour or support pests, with a focus on regulated pest-risk material.
Container	All types of multimodal, steel freight container as defined in the containerized cargo transport units (CTUs) code (IMO, ILO & UNECE, 2014) that can be transported by road rail or water. [A **container** does not include carrying vehicles or conveyances, or packaging]
Container logistics	The coordinated processes, systems and entities involved in the movement of **containers** and their cargoes.
Inbound container	A **container** that is imported, or transhipped via road, rail or water.
Non-compliance	Failure to comply with the phytosanitary import requirements.
Non-conformity (as it relates to **NPPO-recognized entities**)	When the **recognized entity** does not meet the requirements of the NPPO recognition programme.
Non-regulatory components	Any part of the framework established by an NPPO for minimizing **contamination** associated with **containers** that provides guidance, best practices, tools, and recommendations, but are not enforced by the NPPO.

Commented [JC1]: Comment 1: ASF supports the objective of ensuring containers are free from contamination that poses a biosecurity risk. However, the current definition is broad and may be interpreted inconsistently, particularly in relation to 'organic material' and 'conditions that could harbour pests'.

ASF recommends clarifying that the focus is on *regulated pest risk material*, and that guidance distinguishes between actionable risk and non-risk contamination. This will improve consistency of implementation and reduce unnecessary intervention where no meaningful biosecurity risk exists.

NPPO-recognized entity (as it relates to containers)	An entity that has been officially authorized or accredited or approved by an NPPO to perform a function related to the movement of **containers**.
Outbound container	A container that is exported, or transhipped via road, rail, or water.
Regulatory components	Any part of the framework established by an NPPO for minimizing **contamination** associated with **containers** that is enforced by an NPPO to manage compliance.
Sites handling containers	Locations where **containers** are received, stored, inspected, cleaned, loaded, unloaded or otherwise managed as part of **container logistics**.
Verification of compliance (as it relates to **container**s)	The process of examining and confirming that **containers**, or a sample of **containers**, meet import requirements (e.g. cleanliness and free from **contamination**).

Outline of requirements

This standard outlines the requirements for establishing a framework for minimizing contamination associated with containers with or without cargo. It describes the roles and responsibilities of national plant protection organizations (NPPOs) involved in the management of contamination and verification procedures that confirm that contamination and pest risks are minimized.

This RSPM also outlines the factors that can contribute to contamination of containers. It provides examples of measures that may be applied to reduce contamination and minimize the risk of introducing contaminating pests.

BACKGROUND

The international movement of contaminated containers is a recognized pathway for the introduction of plant pests of concern. If introduced, these and other pests may pose a risk, and potentially cause unacceptable impacts to animal, environmental and human health in importing countries or countries of transit. Containers can become contaminated at different points of container logistics operations, and actions may be taken to minimize this contamination to allow for containers to be moved in trade without introducing pests.

Container logistics are complex and easily disrupted by delays. Even minor delays can have costly impacts on international container logistics that affect businesses and consumers. It is essential to minimize contamination risk while also considering the impact this has on container logistics.

PRINCIPLES OF RELEVANCE TO THIS RSPM

The basic principles for the protection of plants and the objectives of the international plant protection convention (IPPC) set out in ISPM 1 (*Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade*) apply to the movement of containers. The key principles of necessity, managed risk, minimal impact,

technical justification and equivalence of phytosanitary measures should be taken into account when setting requirements.

REQUIREMENTS

National plant protection organizations should have a framework for minimizing the risk of contamination associated with containers that may include regulatory and non-regulatory components. Any regulatory components should provide requirements that:

- ensure containers are compliant with importing country requirements at export; and
- allow for verification of compliance and management of contamination on-arrival at import.

Any non-regulatory components should include activities that support or complement the regulatory components of the framework and may be undertaken by entities other than NPPOs. Because some contaminants found on containers are not plant pests, NPPOs may need to work with other relevant government and non-government agencies to manage the risk.

National plant protection organizations should regularly review and assess the effectiveness of the components of the framework (e.g. at least annually). This involves working collaboratively with all relevant entities and NPPOs to review:

- practices and standard operating procedures;
- compliance with regulatory requirements;
- corrective actions for non-compliance and non-conformity;
- feedback from auditors or inspectors and stakeholders on the effectiveness of processes;
- best practices and technological advancements that can be used to improve risk management of containers.

1 Regulatory components of the framework

National plant protection organizations should have (or work towards having) appropriate regulatory components in place to minimize the risk of contamination associated with containers, and activities associated with containers. The regulatory components are those that are enforceable by an NPPO to ensure compliance. Responsibilities should be clearly allocated across exporters, importers, shipping lines and container owners or leasing companies, and should align with the level of operational control each party has over container condition and prior use. The regulatory components may include, as needed, having the legal authority to:

Commented [JC2]: Comment 2: Container cleanliness is influenced by multiple factors. Exporters often have limited visibility or control over container history and prior use.

Responsibilities should align with actual operational control to avoid disproportionate burden on exporters.

Importing NPPOs

- establish and publish import requirements based on pest risk analysis or other comparable risk-based evaluation of scientific information that apply to containers;
- collect, record and store data on contamination and report significant non-compliances to exporting NPPOs or the company that shipped the container;
- verify compliance with importing requirements;
- take actions to manage non-compliances;
- recognize entities to perform specific actions in relation to the import of containers (e.g. site hygiene, cleaning, visual examination and treatments);
- coordinate with relevant authorities and entities to facilitate the development of infrastructure that supports risk mitigation activities at ports, and sites handling containers;

– conduct surveillance activities around ports and other facilities receiving, storing and transporting containers.

Exporting NPPOs

– develop and maintain a system for complying with the requirements of the importing NPPO for containers;
– responsibilities placed on exporters should be limited to factors within their control, and should not extend to container condition or history prior to receipt;
– recognize entities to perform specific actions in relation to the export of containers (e.g. site hygiene, cleaning, treatments, visual examination and certification);
– have procedures or a system in place (e.g. NPPO-recognition) to verify compliance with importing country requirements;
– manage non-conformities;
– require documentation and record-keeping for all activities relating to minimizing contamination of containers (e.g. site hygiene, cleaning, treatments, visual examination and certification);

1.1 Import requirements for containers

Importing NPPOs should assess the risk of contamination associated with containers to ensure that the measures applied to them are proportionate to the risk. Assessments may be carried out jointly or shared between NPPOs and other agencies, and the validity of the assessments checked for relevance to the importing country. Measures should be applied using a risk-based approach that explicitly differentiates between commodity types, including consideration of packaging, origin, and the likelihood of contact with container surfaces. Commodities such as seed for sowing, which are typically cleaned, processed and handled within controlled systems, often with packaging that limits direct contact with container surfaces, should be recognised as presenting a lower risk of contamination from container surfaces.

Implementation should consider practical limitations, including limited or incomplete visibility of container routing, prior use, and handling across complex logistics pathways.

ISPM 11 (*Pest risk analysis for quarantine pests*) provides guidance for assessing risks associated with containers. Surveillance and historical data may be used to identify high-risk routes or points of origin and different types of contamination. Requirements that rely on full traceability of container history may not be operationally feasible.

Appendix 1 provides guidance on the factors that influence contamination of containers and the categories of contamination associated with containers to assist with risk analysis.

The conclusions from pest risk assessment should be used to decide whether risk management is required and the strength of measures to be used (ISPM 11). Appendix 3 provides examples of options for measures for minimizing contamination when used alone or when integrated with other measures. The risk management option or options selected provide the basis of importing requirements.

1.2 Verifying compliance

National plant protection organizations of exporting countries should develop procedures for verifying that containers are clean and free from contamination prior to export if required by the importing country. Verification procedures should be proportionate to the level of risk associated with the commodity and packaging.

Commented [JC3]: See **Comment 2**

Commented [JC4]: **Comment 3:** Not all commodities present the same level of risk. Seed for sowing is typically cleaned, processed and handled within controlled systems, often with packaging that limits direct contact with container surfaces.

These factors significantly reduce the likelihood of contamination arising from the container itself. Measures should reflect these differences to ensure proportionality. It is also important to distinguish between contamination arising from the container itself and that associated with the goods being transported.

Commented [JC5]: **Comment 4:** Full supply chain visibility is not always available. Requirements must reflect real-world logistics constraints to ensure effective and consistent implementation.

Commented [JC6]: See **Comment 4**

Commented [JC7]: See **Comment 3**

National plant protection organizations of importing countries should have procedures in place to verify that containers are free from contamination, if needed.

The IPPC Secretariat (2020c) provides guidance on how to select samples, inspect and record contamination details when undertaking container surveys.

1.3 Managing non-compliance

Containers that do not meet import requirements when confirmed by a compliance procedure are non-compliant. Non-compliances maybe related to documentation or the detection of contamination, including regulated pests on, or in, a container. The corrective actions taken should be proportionate with the risk posed, including consideration of whether contamination is associated with the container structure, external contamination, or the consignment.

Significant instances of non-compliance, and emergency actions applied to the corresponding container, should be notified to the NPPO of the country where compliance documentation was issued, and in accordance with ISPM 13 (*Guidelines for the notification of non-compliance and emergency action*). In cases involving empty containers or complex transit routes, the NPPO of the last country of handling prior to export, or the company that shipped the container, may be considered the appropriate contact point for notification.

1.4 Recognizing entities

Entities recognized by NPPOs may carry out specific actions in the country of export or import to meet NPPO requirements. In recognising entities, NPPOs may monitor them and apply controls that are appropriate and proportionate to the nature and scope of the actions performed. Where an NPPO chooses to authorise entities to perform phytosanitary actions, this should be implemented in accordance with ISPM 45 (*Requirements for national plant protection organization is authorizing entities to perform phytosanitary actions*).

The NPPOs may consider the information in the IMO *et al. Code of practice for packing of cargo transport units* (2014) and BIC *et al. Joint Industry Guidelines for Cleaning of Containers: Prevention of Pest Contamination of Containers* (2024) to be performed by entities. The activities that entities can be recognized to perform may include cleaning of containers, site hygiene and treatments (refer to Appendix 2).

1.5 Auditing

National plant protection organizations should, where appropriate and in accordance with ISPM 47 (*Audit in the phytosanitary context*), establish an audit programme for auditing NPPO-recognized entities involved with the inbound and outbound movement of containers within their territory.

1.6 Measures to minimize contamination

National plant protection organizations of importing countries should, as needed, select and require appropriate measures to minimize contamination associated with containers. When selecting measures, NPPOs should consider any impacts on container logistics and related operational processes to avoid unnecessary disruption. Measures should be implemented in a manner that minimises unnecessary disruption to trade, including avoiding delays, duplication of inspections and excessive cleaning requirements where the level of biosecurity risk is assessed as low.

Commented [JC8]: Comment 5: A distinction between container-related, external, and cargo-related contamination is important to ensure appropriate and proportionate responses. This reduces the risk of misdirected measures and unnecessary disruption.

Commented [JC9]: Comment 6: Explicit linkage to operational impacts ensures that biosecurity measures remain practical and proportionate, particularly in complex container logistics systems.

Measures for minimizing contamination may include cleaning and treatment. Examples of these measures are provided in Appendix 3.

Where contamination is found and collected on inbound containers, secure disposal may include one or more of the options outlined in section 5 of IPPC CPM recommendation R-06 (2017) as permitted by local regulations.

1.7 Minimum infrastructure requirements

National plant protection organizations should coordinate with relevant authorities and entities to ensure that facilities or sites handling and storing containers (e.g. seaports, depots, packing and unpacking sites where feasible) have a hard stand area (e.g. concrete, compacted gravel) available for containers. Facilities or sites handling containers may also include a suitable visual examination area (e.g. stand or platform) and wash bay for cleaning. In addition, the following site hygiene practices should be in place:

- a pest control programme, including habitat management;
- segregation of clean and unclean containers, where feasible; and
- a waste management system to safely dispose of contaminants, and treat contaminating pests, where applicable.

1.8 Monitoring programme

National plant protection organizations or NPPO-recognized entities should monitor for pests, where appropriate, in and around facilities or sites where containers are handled and stored. Monitoring may be used to:

- gather data on pests, pest movements, and infestation patterns;
- monitor compliance with minimum infrastructure requirements to adjust strategies and measures when needed; and
- guide risk-based decisions and what measures should be taken to manage the risks of contamination.

1.9 Documenting compliance

Based on importing requirements and agreement between the importing NPPO and exporting NPPOs, appropriate documentation should be issued if needed confirming that outbound containers are clean and free from visible contamination. This documentation can be issued by the exporting NPPO, or by an NPPO-recognized entity, with the following minimum information:

- container number;
- vessel name;
- voyage number or numbers;
- statement of cleanliness (either at the time of packing or unpacking)
- type of packaging material used (if applicable)

Appendix 4 provides options for documentation that may be provided to confirm the compliance of containers with requirements. Attachment 1 provides a model container cleanliness declaration (for containers with cargo). Where possible, existing phytosanitary certification and assurance systems should be utilised.

Commented [JC10]: Comment 7: The seed sector operates within established phytosanitary certification frameworks.

Introducing standalone certification requirements for containers would represent a significant expansion of regulatory scope, creating duplication, increased costs and operational complexity without clear additional biosecurity benefit.

Existing systems should be leveraged wherever possible.

1.10 Record keeping

The following records should be kept:

- pest monitoring (e.g. when, by whom, method and the results);
- a list of NPPO-recognized entities and the activities they are recognized to perform, if applicable;
- documents issued by the NPPO or NPPO-recognized entities, if applicable;
- audit outcomes of NPPO-recognized entities;
- non-compliances, non-conformities and corrective actions.

2 Non-regulatory components of the framework

National plant protection organizations should consider including non-regulatory components into the framework for minimizing the risk of contamination associated with containers. Non-regulatory and industry-led approaches should be prioritised where they achieve equivalent biosecurity outcomes, and NPPOs should engage with industry stakeholders to recognise existing best practices and voluntary compliance systems. The non-regulatory components may include, as needed:

Commented [JC11]: Comment 8: Industry-led approaches provide flexible, practical mechanisms to achieve biosecurity outcomes while avoiding unnecessary regulatory burden. Alignment with existing practices supports uptake and effectiveness.

- IPPC and industry best practices guidelines;
- an awareness and communication programme;
- a programme to educate and train personnel on container cleanliness, pest monitoring and control, and site hygiene;
- collaborative arrangements (e.g. compliance agreements or agreed processes) with entities involved in container logistics for monitoring and managing the pest risks associated with containers (e.g. shipping companies, shippers, port authorities, customs, border regulatory agencies and authorities having responsibility for managing animal and human health);

2.1 Best practice guidelines

National plant protection organizations may develop in conjunction with entities involved in container logistics, guidelines or procedures relevant to site hygiene, pest monitoring and control, waste management, and the cleaning, visual examination and treatment of containers. NPPOs may also use existing recommended guidelines to determine interchange or critical control points and the measures that can be applied (e.g. IMO *et al.* 2014, BIC *et al.* 2024).

2.2 Awareness and communication programme

National plant protection organizations may develop in conjunction with entities involved in container logistics, an ongoing awareness programme that supports minimizing the introduction of pests associated with containers. The awareness programme may include information on:

- the risks of contamination associated with containers;
- detecting pest contamination on containers;
- practices that prevent, reduce and manage the risk of contamination on containers and at their handling and storage facilities;
- pest and non-compliance reporting requirements of entities to the NPPO (i.e. what, when and how to report).

Alternatively, NPPOs may use existing IPPC awareness and communication materials (e.g. IPPC 2018, IPPC Secretariat 2020a, b).

2.3 Education and training

National plant protection organizations, in conjunction with entities involved in container logistics, may develop and implement training programmes for inspectors, auditors, and relevant entities to ensure they understand:

- the requirements for the movement of containers to minimize pest introduction;
- the contamination associated with containers;
- requirements for identifying and reporting contamination and contaminating pest interceptions;
- best, and safe practices for cleaning, treating and examining containers; and
- activities that support the effective implementation of measures;
- minimum infrastructure requirements at container storage and handling facilities.

APPENDIX 1: Contamination associated with containers

A factsheet developed by the IPPC provides useful information and guidance on reducing the spread of invasive species by sea containers (IPPC 2018).

1. Factors influencing contamination of containers

The movement of containers is complex and can involve multiple destinations and operators. This complexity can make it difficult to conduct standard risk analyses. However, analyses can focus on factors that influence the type and amount of contamination on containers (Table 1.1) to determine appropriate measures. These factors may also be relevant for developing verification procedures.

Table 1.1: Factors influencing contamination of containers

Factor	Examples of contamination risk
1. Origin	– Containers arriving from regions with high pest prevalence or specific environmental conditions can increase the risk of contamination.
2. Storage conditions	– Containers stored in areas with high pest activity, such as near forests, agricultural fields, or waste disposal sites, increase the risk of containers becoming infested. – Poorly maintained storage facilities, such as allowing weeds to grow, can contribute to increases in pest populations. – Containers left uncovered or open, exposed to the environmental conditions, or stored on permeable surfaces may accumulate organic debris, such as soil or plant material, which can carry or attract pests.
3. Transport route (e.g. across land or sea, with or without transhipment stops)	– Containers passing through regions with high humidity or warm climates can cause condensation, attract pests and create favourable conditions for their survival. – Longer journeys with multiple transit stops provide opportunities for pests to infest containers. – Containers transported across land through rural, forested or agricultural areas (e.g. on unpaved roads) can be exposed to contamination by soil or plant material. – Containers transported by sea can be exposed to external contamination by non-containerized cargoes, insects, and animal droppings.
4. Structural type (e.g. general purpose, flat rack, open top, tunnel, insulated or thermal, refrigerated, ISO tank, half height,)	**General purpose container**: – Poor maintenance, such as cracks or gaps, can allow pests to enter and contaminate. If containers have wooden floors, then these can be infested by wood-infesting pests. **Flat rack and open-top containers**: – Containers with open sides, tops, and ends are susceptible to contamination and pest infestation, especially during storage or transit in pest-prone areas. – These containers have removable tarpaulin covers instead of solid roofs. If covers do not seal correctly, the risk of pests or debris entering, particularly in outdoor storage is increased. **Tunnel containers**: – Containers with doors on both ends provide additional access points, which, if not properly sealed, can increase pest risks. **Insulated or thermal containers**: – These containers are less likely to attract pests internally, but external contamination can occur if the insulation or seals are damaged. **Refrigerated containers (reefers)**: – Condensation from cooling systems can attract pests if not managed properly. The machinery compartments can provide pest habitats (e.g. ants and nesting birds). **ISO tank containers (tanktainers)**: – These containers are less prone to internal pest infestation than other container types, but external surfaces can become contaminated. **Half-height containers**:

Factor	Examples of contamination risk
	– The open design of half-height containers can make them vulnerable to contamination.
5. Type of cargo and loading conditions	– products like timber, waste materials, agricultural goods, or soil are prone to pest contamination because these materials can attract pests. – Loading of cargo into containers near pest-prone areas, over a long period of time, or under certain types of lighting can increase pest risk.
6. Container condition	– Structural degradation, damage and accumulation of organic debris associated with poorly maintained containers can increase pest risk.

2. Categories of contamination associated with containers

The following are categories and examples of contamination associated with containers (Table 1.2). Some contaminants can fall into more than one contamination category.

References to contaminants other than plant pests are included for operational context and do not extend the responsibilities of NPPOs. Where appropriate, NPPOs may need to work in cooperation with other relevant government and non-government agencies to effectively manage these risks.

Table 1.2: Categories and examples of contamination associated with containers

Contamination categories	Examples of contaminants intercepted on containers
Plant pest: Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (ISPM 5).	Beetles Flies Plant pathogens Stink bugs Snails Vectors of pathogens (e.g. soil)
Animal health pest: Any organism that poses a threat to animal health and well-being by transmitting diseases, causing physical harm, or negatively impacting productivity.	Fleas Flies Mites Mosquitoes Ticks Vectors of pathogens
Environmental pest: Any organism that can negatively impact natural ecosystems or biodiversity and cause ecological harm.	Amphibians Invasive ant species Snails Snakes Weeds
Human health pest: Any organism that can pose a threat to human health and well-being by transmitting diseases, causing allergic reactions, or inflicting physical harm.	Cockroaches Invasive ant species Mosquitoes Rodents Spiders Ticks
Stored product pest: Any organism that can infest, damage and cause economic loss to stored goods (such as grains, seeds, processed foods, and other commodities) by contamination and reducing quality.	Beetles Moths Pathogens Rodents Weeds
Structural pest: Any organism that infests and damages buildings and other structures, compromising their integrity and safety through feeding on, or nesting within, them.	Beetles Carpenter ants Fungi Termites Wood boring beetles
Nuisance pest: Any organism that can affect quality of life by invading homes, workplaces, and recreational areas, causing discomfort, annoyance, and damage.	Ants Beetles Flies Hymenoptera (bees, hornets and wasps)

Contamination categories	Examples of contaminants intercepted on containers
	Rodents Spiders Stink bugs
Vector: Any organism or [non-living] regulated article that facilitates the transmission or spread of pests regardless of whether it directly causes damage itself.	Animal droppings Food waste/recycling Insects and insect egg masses Nematodes Snails Soil Waste materials (e.g. solid waste) Water
Cargo spill: Any accidental release of organic matter or other substance from a container during transport or handling that may harbour or vector pests.	Animal products Plant products

APPENDIX 2: Activities that entities may be recognized to perform with respect to containers

The activities that NPPO-recognized entities involved in container logistics may undertake are in Table 2.1.

Table 2.1: Activities that NPPO-recognized entities can undertake

Entities involved in container logistics	NPPO-recognized activities
Exporters/packers	Pest monitoring and control Container cleaning (all container surfaces) Container examination (all container surfaces)
Shipping companies	Pest monitoring and control Container cleaning (exterior container surfaces) Vessel surveillance
Port authorities	Pest monitoring and control
Importers	Container cleaning (post-devanning; all container surfaces)
Container depot operators	Pest monitoring and control Visual risk-based examination of containers Container cleaning (all container surfaces) Issuing compliance documentation
Transporters (land, water)	Pest monitoring and control (container and yards)
Rail yard operators	Pest monitoring and control
Transhipment terminal operators	Visual risk-based examination (exterior container surfaces)
Storage facility operators	Visual risk-based examination (all container surfaces) Container risk management Issuing compliance documentation
Devanning facility operators	Visual risk-based examination (all container surfaces) Container cleaning Issuing compliance documentation
Treatment facility operators	Container treatments Issuing treatment documentation

APPENDIX 3: Examples of measures to minimize contamination on containers

The examples for measures and practices included in this appendix may be effective at minimizing contamination when used alone or when integrated with other options. NPPOs are encouraged to consider relevant IPPC guidance (IPPC 2018, IPPC Secretariat 2020a, b, c) and the IPPC CPM recommendation R-06 (2017), to assess the level of risk to be managed and apply appropriate measures.

1. Industry-led and NPPO-led visual examination of containers

Visual examination of containers does not directly manage pest risk but may be used to:

- determine the need for further measures to remove contamination;
- verify that measures have been effective in minimizing contamination; and
- support assurances of container cleanliness provided to importing NPPOs.

IPPC Secretariat (2020c) provides guidelines on procedures for inspecting containers. If visual examination determines that further measures are needed, then options for these measures are provided below along with guidance for the type of contamination that the measure minimizes.

2. Cleaning

Cleaning involves removing contamination.

Loose debris, soil, gravel, plant material and other contaminants can be removed by:

- brushing, sweeping or vacuuming interior and exterior walls of containers; or
- high-pressure washing to dislodge contamination from areas that are difficult to inspect.

Washing water may include detergents or disinfecting solutions. Local environmental regulations need to be considered when managing wastewater.

3. Treatments

Options for treatments may include but are not limited to:

- pesticide sprays;
- chemical fumigants and fogs (e.g. ethyl formate + CO_2, formaldehyde, methyl bromide, sulphuryl fluoride, peracetic acid);
- disinfectants (e.g. sodium hypochlorite, didecyl dimethyl ammonium chloride); and
- temperature treatments.

When selecting a suitable option, consider:

- the container type (e.g. food grade or non-food grade containers);
- the pest species detected;
- their cargoes or intended cargoes (e.g. sensitive cargoes to prevent damage);
- the requirements of the NPPO of the importing country; and
- the environmental impacts of the option and procedures that may minimize these impacts.

APPENDIX 4: Examples for documentation to confirm compliance of containers

Documentation may be issued by exporting NPPOs and NPPO-recognized entities to accompany outbound containers to confirm compliance by indicating that the container is clean and free from contamination. Examples include:

a. A certificate or other documented evidence stating that:
   - all surfaces of the container have been visually examined and is clean;
   - the container complies with importing requirements;
   - a treatment has been applied effectively;
   - all surfaces of the container has been cleaned (e.g. cleaning records).

   A model container cleanliness declaration for containers with cargo is provided in Attachment 1.

b. If applicable, for a container transporting a cargo of plant or plant products, then a phytosanitary certificate may be used to certify that both the container (as the regulated article carrying the plant or plant products) and its cargo are free from regulated pests specified by the importing country. Standalone phytosanitary certification requirements for shipping containers are not recommended.

   NPPOs may provide appropriate additional information attesting to container cleanliness. Information can be included in the:

   - "*Additional declaration*" section under "*Additional official phytosanitary information*"; or
   - "*Disinfestation and/or disinfection treatment*" section under "*Additional information*" noting that the treatment was applied to the container.

Commented [JC12]: See **Comment 7**

ATTACHMENT 1: Model container cleanliness declaration (for containers with cargo)

Company letterhead

(Declaration to be issued by the packer of the goods and include the company name and address)

CONTAINER CLEANLINESS DECLARATION

Vessel name:_____ Voyage number: _____

Consignment identifier(s) or numerical link(s) _____

Container cleanliness statement

The container(s) covered by this document has/have been cleaned and is/are free from material of animal and/or plant origin and soil.

Signed: _____ Printed name: _____

(Company Employee) (Employee Name)

Date of issue: _____

(DD/MM/YYYY)

Note: Container cleanliness statements are acceptable on the following documents:

- cleanliness declaration (as an individual document)
- packing declarations
- packing list
- invoice