

Informal meeting on Code of Practice for Packing of Cargo Transport Units at the request of the United Nations Economic Commission for Europe Working Party on Intermodal Transport and Logistics

Geneva and virtual, 29-30 March 2023

Recommendation: Inclusion of a brief general section on minimizing pest risks associated with the sea container pathway

Submitted by Chair, IPPC Focus Group's subgroup on revisions to the CTU Code

Introduction

This document proposes in part 1 a general section which could be included in the revised CTU Code between Chapters 3 and 4.

In part 2, it provides initial comments on existing chapters in the CTU Code.

Part 1: Background

There is international consensus among competent authorities that containers and their cargoes can carry and facilitate the introduction and spread of pests that may pose a serious risk to agriculture, forestry and natural resources. The packing of containers with cargo is the most likely stage in the international container supply chains at which pest contamination¹ can occur. Shippers and packers, acting on behalf of shippers, should implement measures to minimise pest contamination during packing. Others in the international container supply chains should also implement measures to reduce the risk of pest contamination while the container is in their control. Such measures, or best practices, should be in accordance with the parties' roles and responsibilities in the supply chains and should take into consideration all safety and operational constraints.

Minimizing pest contamination of containers and their cargoes is a shared responsibility and by applying best practices these parties can keep containers and their cargoes clean. This will help to prevent the introduction and spread of pests through international commerce. Containers are also likely to move through ports and reach their final destinations faster and with less expense if they are clean.

IPPC guidance clarifies that in order for a container to be deemed to be "clean"², the empty container's exterior and interior and, for reefer containers, also the ventilation inlet grilles and floor drain holes, should, at the time of dispatch from a container depot, have no visible presence of any of the following:

¹ Editorial note: The existing definition of "pest contamination" in the CTU Code should be retained, i.e. pest contamination" means "visible forms of animals, insects or other invertebrates (alive or dead, in any life stage, including egg casings or rafts), or any organic material of animal origin (including blood, bones, hair, flesh, secretions, excretions); viable or non-viable plants or plant products (including fruit, seeds, leaves, twigs, roots, bark, intact or broken wood packing material, including dunnage); or other organic material, including fungi; or soil, or water; where such products are not the manifested cargo within the container".

² Editorial note: The current definition in the CTU Code of "clean CTU" should be amended accordingly, specifically by replacing the last two bullet points in that definition with the above clarification of "clean" in the IPPC guidance.

- Soil
- Plants/plant products/plant debris
- Seeds
- Moths, wasps, bees, beetles
- Snails, slugs, ants, spiders
- Mould and fungi
- Insect and bird droppings or waste
- Egg masses
- Animals, animal parts/ blood/excreta and reproductive components or parts thereof
- Other contamination that shows visible signs of harbouring pests³.

IPPC' guidance also identifies several measures that a shipper or packer can take to ensure the cleanliness of a container and its cargo and prevent their contamination while in the staging and packing areas. Such measures may include:

- Visually inspecting the outside and inside of the container for the presence of contaminants such as plants, seeds, insects, egg masses, snails, and soil.
- Where required, sweep, vacuum, or wash containers before packing to remove potential contaminants.
- Ensure cargo packed into the container is clean and free of visible contaminants. Regulated articles may require Phytosanitary Certificates that confirm compliance with applicable import requirements.
- Clear and clean the cargo staging and packing area to ensure that it is free from contaminants.
- Without compromising safe working conditions, do not keep containers under bright lights, which may attract flying insects, such as moths, to the cargo staging area and increase the likelihood of contamination. If containers must be kept under bright lights, check them regularly for signs of contamination by insects or egg masses and clean containers as needed to remove these contaminants.
- Where appropriate, use baits, traps, or barriers to keep pests out of the cargo staging and packing area. For example, a salt barrier may be used to prevent snail infestations.

Container Custodians' responsibilities

All parties involved in the container supply chains should ensure that they exercise due diligence when executing their custodial responsibility to verify that containers are free of visible pest contamination before they are transferred into the custody of the next responsible party in the chain. Similarly, cargoes to be packed into containers should be free from visible pest contamination.

Parties having custodial responsibilities include but are not limited to: container depots, consignors, shippers, packers, transportation service providers, consignees, and terminals. Enhancing handover inspection procedures at points of interchange and dealing with pest contamination if and when found will ensure that movement of pests in/on containers in the supply chain is minimised.

A diagram with a description of various parties' custodial responsibilities can be found [HERE](#)

Empty containers

Empty containers can also be contaminated by pests. A main contributor to such contamination is incomplete unpacking and cleaning. Therefore, consignees should completely unpack and clean containers prior to their next usage or vessel

³ Editorial note: The CTU Code should include a definition of "visible", i.e. "'Visible' means detectable by the human eye without the aid of any supporting instruments or aids such as magnifying glasses and microscopes".

loading. Container depots also have an important role as they often act as the start and end points for empty containers. Inspection and, when required, cleaning of any contamination of an empty container done at a container depot may cause the least interruption of container logistics.

Visual examination for contamination of containers and their cargoes

The interior and exterior of all six sides of sea containers (i.e., where accessible, the roof, underside, side walls and end walls, including doors) and their cargoes should be visually examined for potential contamination. The exterior and interior of empty containers should also be inspected for contamination. In addition, for refrigerated containers, the ventilation inlet grilles and floor drain holes should be inspected.

The IPPC has developed more detailed information on areas where contamination can be found as well as guidance on how to undertake container inspections in a safe manner, including of the underside and roof of the container (*see below*).

Methods to remove contamination

If contamination is found, removal methods⁴ may include:

- Removal of debris and contaminants such as soil, plant parts or organisms
- Sweeping or vacuum cleaning the interior of the sea container
- Use of blowers
- Washing, scraping or other physical means to clean the interior of the sea container
- Using high pressure washers
- Removal of contaminants from ventilation inlet grilles and floor drain holes

Under certain circumstances, treatments may be necessary to address contamination. National Plant Protection Organisations (NPPOs) may have requirements and guidance on the use of treatments.

Recipients of containers and their cargoes that have moved internationally should seek guidance on appropriate risk management actions and disposal of contamination, including wash water, from their respective National Plant Protection Organization if contamination is detected on or in imported containers, including empty containers.

Methods for the safe disposal of contamination should be sufficient to prevent spread of pests and may include:

- bagging
- incineration
- deep burial
- containment

IPPC guidance regarding minimizing pest risks in the sea container pathway

The IPPC on its website maintains and updates information and guidance regarding minimizing pest risks in the sea container pathway . All parties in the international containerized supply chains are encouraged to regularly consult the IPPC website and to follow the advice provided there.

Also, a poster with key messages regarding pest contamination in containers and their cargoes has been produced by the IPPC, and is reproduced below:

⁴ Any required health and safety obligations must be complied with.



Look out for contaminating pests and contaminants in sea containers and their cargoes

Contaminating pests and contaminants* can travel on or in sea containers. The goods in the container can also contain such pests, regardless of the type of the goods being carried. They can cause serious damage to agricultural industries, the environment and economy.

* Plant and animal material, weeds, seeds, insects and soil. Soil can carry serious diseases such as foot-and-mouth disease.

Before using a sea container, make sure it is clean and free of pests and contaminants.

Areas contaminating pests are commonly found:



- bottom rails
- forklift pockets and twist lock fittings
- tops and cross members.



Inspections should only be conducted where it is safe to do so. See this link for guidance: fao.org/3/ca7740en/CA7740EN.pdf



Shared responsibility

Everyone along the supply chain has a responsibility to keep containers and their cargoes clean.

Detections

If pests or contaminants are detected:

- Before vessel loading: take the appropriate action to remove them and ensure container is clean.
- After vessel discharge: seek guidance from your National Plant Protection Organisation

Examples of contaminating pests of concern

<p>Khapra beetle</p> <p>Look for piles of yellowish skins in joins between floors and walls, joins between floor panels and under floors.</p>	<p>Adults 1.6–3mm long</p>	<p>larvae 1.6–4.5 mm long</p>	<p>Skins in cross rail</p>
<p>Invasive snails</p> <p>Look for snails in a variety of colours, sizes and forms attached to sea containers.</p>	<p>Giant African snail (<i>Lissachatina fulica</i>) 80-300mm long</p>	<p>Chocolate-band snail (<i>Mastysiaa vermiculata</i>) 22-32mm long</p>	<p>Snail on external surface</p>
<p>Spongy moth</p> <p>Look for egg masses covered in yellowish scales on external sea container surfaces.</p>	<p>Adult female (40–70mm wingspan)</p>	<p>Egg masses (40 x 20mm in size)</p>	<p>Egg mass on external surfaces</p>
<p>Nesting pests</p> <p>Look for groups or nests in joins, gaps and spaces at ground level in and on sea containers.</p>	<p>Asian honey bee comb (<i>Apis cerana</i>)</p>	<p>African big headed ant (<i>Pheidole megalcephala</i>)</p>	<p>Yellow crazy ant (<i>Anoplolepis gracilipes</i>)</p>
<p>Spotted lanternfly</p> <p>Look for egg masses on external sea container surfaces. They look like mud smears.</p>	<p>Adults are 27mm long</p>	<p>Egg mass on tree</p>	<p>Egg mass on external surfaces</p>

Part 2:

The following comments are proposed:

CTU Code clause:	Comment:
<p>Chapter 2, Definitions: Clean CTU: A CTU free from:</p> <ul style="list-style-type: none"> • Any previous cargo residues; • Any securing materials used from previous consignments; • Any marks, placards or signs associated with previous consignments; • Any detritus (waste) that may have accumulated in the CTU; • Visible pests and other living or dead organisms, including any part, gametes, seeds, eggs or propagules of such species that may survive and subsequently reproduce; soil; organic matter; • All other items covered by contamination, infestation and invasive alien species that can be discovered upon visible inspection. 	<p>Should be revisited. It is suggested to amend the last two bullet points in accordance with the language in the proposed inclusion of a brief general section on minimizing pest risks associated with the sea container pathway. An alternative could be to include a separate description on when a container is deemed clean from a phytosanitary perspective.</p> <p>As a precursor for other below suggested amendments and edits, several phytosanitary definitions (such as infestation, invasive alien species, quarantine pest etc.) used throughout the document may be unnecessary or may be too technical for the intended audience. However, retention of the current definition of 'contamination' is deemed important as it includes all types of risks that the IPPC is concerned about – contaminating pests, other pests, and contaminants.</p>
<p>Chapter 2, Definitions: Infestation: Presence in a package or CTU of a visible living pest that may cause harm to the recipient environment. Infestation includes pathogens, (virus, bacterium, prion or fungus) that may cause infection of plants and/or animals and which can be discovered upon visible inspection.</p>	<p>This definition seems redundant and could be deleted. Besides, pathogens may likely not be detectable by visual inspection.</p>
<p>Chapter 2, Definitions: Invasive alien species: An alien (non-native) species whose introduction and/or spread threatens biological diversity. "Alien species" refers to a species, subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce. It includes pests and quarantine pests of non-native origin. Invasive alien species may be carried within and on a wide range of substrates, both organic and inorganic.</p>	<p>The continued need for this definition should be considered. It might be more appropriate to include instead a definition of "contaminating pests" or "contaminants".</p>
<p>Chapter 2, Definitions: Pest: Any visible species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products.</p>	<p>It should be clarified that this definition is taken from IPSPM 5, and that the above definition of "contamination" has a broader meaning - which in turn raises the question whether the definition here of "pest" should be retained (see also above under "invasive alien species").</p>
<p>Chapter 2, Definitions: Quarantine pest: A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially approved.</p>	<p>ISPM 5 should be listed as the source for this definition. Consideration should be given whether to include definitions of "regulated articles" and/or "regulated pests" pursuant to ISPM 5.</p>
<p>Chapter 2, Definitions:</p>	

<p>Recontamination: The result of pests and other living organisms (including their nests, eggs, egg sacks, and body parts) being found in or on a clean CTU.</p>	<p>This definition needs to be revisited and amended as, by definition, visible pest contamination on a clean container is not to be considered "recontamination".</p>
<p>Chapter 3, Key requirements</p>	<p>General comments: Requirements regarding minimization of visible pest contamination should be added.</p>
<p>Chapter 3, Key requirements 3.7 Unpacking, bullet 2: <ul style="list-style-type: none"> Do check the exterior of the CTU for signs of leakage or infestation. </p>	<p>This should be changed to "visible pest contamination" but it is not deemed sufficient that this concern is only addressed under "Unpacking" - it should be included in all the above relevant steps/processes.</p>
<p>Chapter 4, Chains of responsibility and information</p>	<p>Because this Chapter 4 has been identified for possible revisions and amendments, it would be appropriate to comment, as needed, once a draft revised Chapter 4 has been made available.</p>
<p>Chapter 8, Arrival, checking and positioning of CTUs 8.2.2.9: 8.2.2.9 When undertaking the exterior checks, the CTU should be checked for any signs of recontamination particularly: and 8.2.3 Interior checks, and 8.2.4.4</p>	<p>Per earlier comment, "recontamination" is not the correct term; "contamination" is. There should also be a general reference to the recommended inclusion of a brief general section on minimizing pest risks associated with the sea container pathway.</p>
<p>Chapter 9, Packing cargo into CTUs</p>	<p>Additional language needs to be included regarding steps to be taken to ensure that only cargo that is not showing visible signs pest contamination is packed into the container. Also, there should be language included to advice to protect against pest contamination of the cargo and the container during the packing process, e.g. lighting, traps etc. A reference to the proposed Inclusion of a brief general section on minimizing pest risks associated with the sea container pathway should also be considered.</p>
<p>Chapter 12, Advice on receipt and unpacking of CTUs 12.2.6: 12.2.6 When any damage to the cargo is detected during the unloading of the CTU, this should be documented and notified to the carrier and/or CTU operator and shipper, as appropriate. If a package containing dangerous goods is found to be so damaged that the contents leak out, the immediate area should be evacuated until the hazard potential has been assessed. When possible, a safety data sheet (SDS) should be requested from the consignor, to determine appropriate measures and necessary personal protection equipment.</p>	<p>The unpacked cargo should also be inspected for visible pest contamination and, if it is, suitable steps be taken to address this. There should also be a general reference to the proposed Inclusion of a brief general section on minimizing pest risks associated with the sea container pathway.</p>
<p>Chapter 12, Advice on receipt and unpacking of CTUs 12.3.1:</p>	<p>Plants and plant products are included in the "visible pests" language. The language should be</p>

<p>12.3.1 Upon unpacking the CTU, it may in agreement with the CTU operator either be returned to the CTU operators' facility or transported to a new consignee/packer/shipper. Under either scenario, unless otherwise agreed, the consignee is responsible for ensuring that the CTU is completely clean, free of cargo residues, noxious materials, plants, plant products and visible pests.</p>	<p>amended to talk about "free from visible pest contamination" both on the exterior and interior of the container.</p>
<p>Chapter 12, Advice on receipt and unpacking of CTUs 12.3.2: 12.3.2 When disposing of cargo residues and cargo associated waste, the applicable environmental regulations should be considered. Wherever practicable, dunnage bags and other securing materials should be recycled. When wood quarantine requirements apply, timber bracings and packing/securing material of natural wood, not bearing the appropriate IPPC marking, (see annex 7, section 1.14) should be disposed of as required by national or local plant protection regulations.</p>	<p>And cargo and container associated pest contamination. Please also see comments immediately above.</p>
<p>Chapter 13, Training in packing CTUs</p>	<p>General comment: Appropriate language regarding training in avoiding and minimizing visible pest contamination of the cargoes and the container should be included.</p>
<p>Annex 5 Receiving CTUs 1.2.2 1.2.2 Inspect the seal, if fitted. Inspecting a seal requires visual check for signs of tampering, comparison of the seal's identification number with the cargo documentation, and noting the inspection in the appropriate documentation. If the seal is missing, or shows signs of tampering, or shows a different identification number than the cargo documentation, then a number of actions are necessary:</p>	<p>Language should be added to the effect that the consignee should inspect the exterior of the container for visible pest contamination and - upon entry in to the container - the interior of the container and the cargoes packed in to the container.</p>
<p>Annex 5 Receiving CTUs 8, Returning the CTU 8.1.2, second bullet:</p> <ul style="list-style-type: none"> Completely empty and clean. A clean CTU should be free of all cargo residues, plants, plant products, visible signs of pests, packing, lashing and securing materials marks, signs and placards associated with packing the CTU or the cargo, and any other debris removed. This includes fumigant materials or other noxious substances (see definitions in chapter 2 of this Code). Personal protective equipment should be provided for such work; 	<p>In this context, it is not necessary to call out plants and plant products as they are included in the pest definition.</p>
<p>Annex 5 Receiving CTUs 8, Returning the CTU 8.2.3, third bullet:</p> <ul style="list-style-type: none"> Visible forms of animals, insects or other invertebrates (alive or dead, in any lifecycle stage, including egg casings or rafts), or any organic material of animal origin (including blood, bones, hair, flesh, secretions, excretions); viable or non-viable plants or plant products (including fruit, seeds, leaves, twigs, roots, bark); or other organic material, including fungi; or soil, or water; where such products are not the manifested cargo within the CTU. 	<p>This can and should be shortened to "visible pest contamination" and to what constitutes a "clean container" per the proposed Inclusion of a brief general section on minimizing pest risks associated with the sea container pathway.</p>
<p>Annex 6, Minimizing the risk of recontamination 1.1 The delivery of a clean CTU to the packer is of little use if the CTU becomes recontaminated during its movement within the supply chain. Appropriate measures should be taken to ensure recontamination does not occur. This should include:</p> <ul style="list-style-type: none"> Storing the CTU an appropriate distance away from pest habitats or resident pest populations (the distance will depend on the pest); Storing the clean CTU in areas free of risk from recontamination by vegetation, soil, free standing water or unclean CTUs; <p>3 Pests, insects, animals etc. that can cause recontamination</p> <p>3.1.2 Recontamination of the CTU will generally result from positioning the CTU on mud, or a soft surface. Care should be taken to prevent the CTU from scraping across the ground surface.</p> <p>4.2 If a CTU is found to have a minor recontamination, cleaning can be effected using one of the following methods:</p>	<p>Replace with "pest contamination". Please also see previous comments as well as the proposed Inclusion of a brief general section on minimizing pest risks associated with the sea container pathway.</p>