



Agriculture is the largest business sector



Contaminants found in all conveyances

(all modes / all types of cargo - 352 pests discovered daily by CBP)



Contaminants harbor pests and diseases



Threaten this industry



We know that ... and so do terrorists



Objective – Destroy our Economic Viability

New Category

Invasive species cause over \$138B annually in economic and environmental losses. Eliminating contamination in conveyances and cargo may decrease holds, delays, and commodity returns and treatments.





Bioterrorism (intentional)

- Bioterrorism is a threat not only to our health and safety, but also to U.S. economic security.
- In the aftermath of September 11, 2001, Congress passed the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 ("The Bioterrorism Act"), which specified **Protecting the Safety and Security of Food** and Drug Supply as one of the five designated titles.
- A 2012 report by the FBI emphasized that terrorists consider America's agriculture and food production to be targets. In particular, food supply is among the most vulnerable and least protected target.
- A terrorist attack on the food and agriculture industries would likely involve contaminating resources. To mitigate this threat, government and the private sector must improve collaboration on resources, expertise, and initiatives to achieve shared security and emergency preparedness objectives.



Contamination (incidental)

- Like bioterrorism, contamination poses a threat to our health and safety, and to U.S. economic security.
- Agriculture is the largest industry and employment sector in the United States, and one of the greatest risks to the success of this industry are foreign contaminants and pests.
- Contaminants like soil, manure, seeds, plant and animal material may harbor invasive pests and diseases, and invasive species have caused over \$138 billion annually in economic and environmental losses in the U.S.
- Conveyance contamination is found in all pathways: sea, air, land and rail; additionally, contamination is found on regulated agricultural commodities and general cargo, not just perishable agricultural commodities. Eliminating contaminants will decrease conveyance and cargo holds, delays, and commodity returns or treatments.



Insects & Snails	Plant Material & Seeds	Garbage & Organic Material
Snails	Cogon Grass	Manure
Grasshoppers	Spilled seed on trailer floor	Animal Blood
Asian Gypsy moth egg masses	Weed seeds stuck to WPM	Soil Contamination
Khapra Beetle Larvae	Cottonseed in rail car springs	Garbage contamination on rail



		What is it?	What is the risk?
Insects & Insect Eggs	\$	Visible forms of animals, insects – notably gypsy moths – or other invertebrates (alive or dead, in any lifecycle stage, including egg casings or rafts)	 Can cause damage to shipment May infest local vegetation Can harbor diseases harmful to the local population
Plant Material & Seeds	Ø	Viable or non-viable plants or plant products (including fruit, seeds, leaves, twigs, roots, bark)	 Can carry plant pathogens and/or harbor insect pests Many foreign weed seeds are considered Federal Noxious Weeds in the United States
Soil	P	Organic material, including fungi; or soil, or water	 Can harbor insect pests and weed seeds May harbor nematodes (microscopic worms), which can be harmful to plants and are exceedingly difficult to eradicate Soil is a vector for foreign animal diseases
Snails	0	Visible forms of animals, insects or other invertebrates (alive or dead, in any lifecycle stage, including egg casings or rafts)	 Many snails are destructive agricultural pests Snails are very difficult to eradicate if they become established Snails are vectors for both human and animal diseases
Garbage & Organic Material	స్టో	Organic material of animal origin (including blood, bones, hair, flesh, secretions, excretions)	 Can harbor and spread foreign animal diseases May contain prohibited plant material infested with pests and plant diseases



New Category: Eliminating contaminants from the supply chain leads to decreases in CBP cargo holds, delays in cargo arriving at its destination, and the need for commodities to be re-exported or treated (fumigated).

Section 8 of the MSC – 1 Criterion Only – Core

Other MSC requirements related to AG security in other criteria categories.

- 8.1 Written procedures to prevent pest contamination to include compliance with WPM Regulations.
 - All pest contamination
 - IMO Definition of Pest Contamination: Visible
 - WPM Highlighted



Pest Contamination Definition – From International Maritime Organization

Pest contamination is defined as **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 instruments of international traffic (i.e. containers, unit load devices, etc.)."

Visible = No specialized equipment needed for inspections.



Wood Packaging Materials – WPM – Definition

Wood or wood products (excluding paper products) used in supporting, protecting, or carrying a commodity. **WPM includes items such as pallets, crates, boxes, reels, and dunnage.** Frequently, these items are made of raw wood that may not have undergone sufficient processing or treatment to remove or kill pests, and therefore remain a pathway for the introduction and spread of pests. Dunnage in particular has been shown to present a high risk of introduction and spread of pests.

WPM does not include: Products exempt from the ISPM 15 are made from alternative materials, like paper, metal, plastic or wood panel products (i.e. oriented strand board, hardboard, and plywood).



Wood Packaging Materials – IPPC - ISPM 15 and 7 CFR 319.40

Meet the International Plant Protection Convention's (IPPC) International Standards for Phytosanitary Measures No. 15 (ISPM 15).

IPPC - Treaty overseen by the United Nation's Food and Agriculture Organization.

ISPM 15 - Internationally accepted measures requiring that:

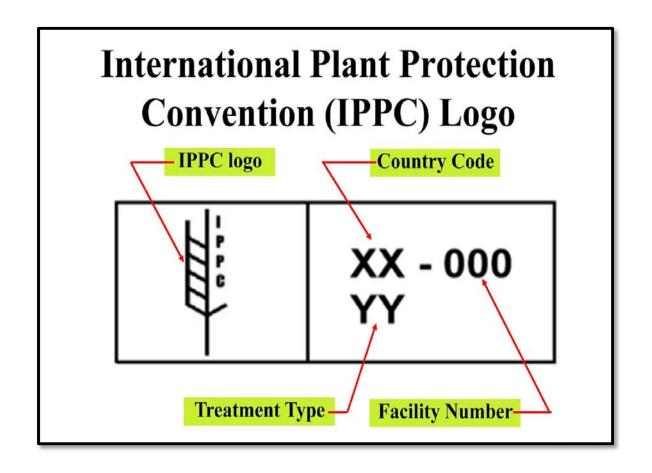
- ✓ WPM be debarked and then heat treated or fumigated with methyl bromide;
- ✓ Stamped or branded with the IPPC mark of compliance (wheat stamp)



Make sure:

- Your WPM provider is accredited ISPM 15 compliant
- You educate your supply chain partners on the ISPM 15 requirements
- You are aware of alternatives to WPM Cost benefit analysis





Each full sized piece of wood must be stamped.

MSC Categories – Agricultural Security CTPAT VOUR SUPPLY CHAIN'S STRONGEST LINK.



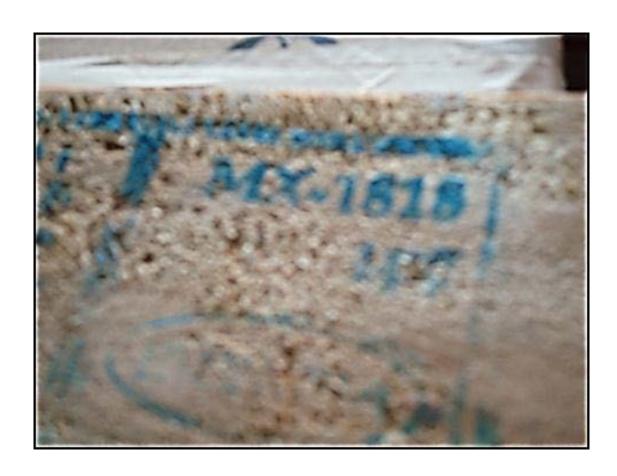




Correct IPPC Logos

MSC Categories – Agricultural Security CTPAT VOUR SUPPLY CHAIN'S STRONGEST LINK.



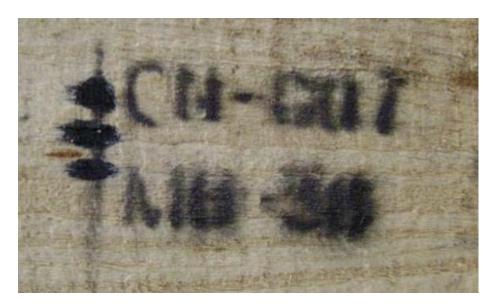




Non-Compliant IPPC Logos

MSC Categories – Agricultural Security CTPAT CTPAT









Non-Compliant IPPC Logos Inappropriately Marked

MSC Categories – Agricultural Security CTPAT VOUR SUPPLY CHAIN'S STRONGEST LINK.



Pest Presence Indicators

Condition of WPM

Bark

Evidence of Pest activity

- ✓ Frass
- ✓ Holes
- ✓ Hitch hikers







Not Pest Presence Indicators

Nail holes

- ✓ May have rust from nail
- ✓ Perfectly round or consistent shape





High Risk Countries for WPM Pests

- Mexico
- China
- Italy
- India
- Turkey
- Russia

Top High Risk Commodities

- Manifested WPM
- Machinery (including Auto Parts)
 - Metal Products
- Stone Products (including tile)
 - Electronics
 - Finished Wood Products
- Plants products and foodstuffs



Non-Compliant WPM

WPM Without the ISPM 15 stamp – Re-Exported

WPM with ISPM 15 stamp but contains a wood boring insect – Re Exported

WPM with the IPSM 15 stamp but found with a hitchhiking pest (non-wood boring)
 MAY be fumigated by APHIS/PPQ



USDA Sources of ISPM 15 – Compliant WPM

In the United States – Four Options

- Purchase heat-treated or fumigated wood packing material that bears the American Lumber Standard Committee (ALSC) Accredited Agency Quality Mark – alsc.org
- 2. Purchase and use ALSC accredited heat-treated grade mark lumber to construct wood packing material
- 3. Use a registered heat treatment facility or fumigation facility to treat wood packing material
- 4. Become an ISPM 15-compliant WPM manufacturer

Other Countries - Use materials from registered and accredited manufacturer that has been heat treated or fumigated according to the International Plant Protection Convention (IPPC) regulations. Importers should contact the National Plant Protection Organization of the shipment's country of origin for more information. A list of country contacts is available on the IPPC Web site: https://www.ippc.int/en/countries/all/contactpoints/



Conveyance and IIT Security

- 5.2 Inspection process must have written procedures for AG inspections
- 5.3 Prior to loading must conduct AG and Security Inspections
- 5.7 If contamination found, clean IIT / SIN = Secure, Isolate, Notify
- 5.9 AGM pre departure certificates (Sea Carriers only)
- 5.10 AG and security inspections for Air Carriers



Procedural Security

- 7.2 Cargo staging areas must be inspected Free of pest contamination
- 7.11 Garbage must be properly stored and disposed Sea Carriers only
- 7.12 Driver must dispose or declare personal garbage Highway Carriers; 3PLS

Education, Training, and Awareness

- 12.2 AG Inspections training
- 12.7 Training on prevention of AG Contamination



The mitigation techniques listed below are best practices in protecting against contaminants, but **do not fully guarantee that shipments**, **containers**, **and cargo will remain free from contaminants**. It is up to **each and every entity group** to ensure that there are adhering to agricultural pest and contamination requirements.



5.3 - Conduct a CTPAT Agricultural Inspection of Instruments of International Traffic (IIT)/Conveyances



Vacuum wood seeds from Wood Packaging



Ensure conveyance is clean before loading/stuffing



Properly store and cover Instruments of International Traffic (pallets, dunnage, crates, etc.)



Keep vegetation near facilities mowed, as these areas can harbor insects and rodents



Spray off contaminated Instruments of International Traffic



Sweep, vacuum, wash, steam clean, and/or pressure wash Instruments of International Traffic (containers, "cookie sheets," trailers, etc.) prior to loading/stuffing



Store trailers away from natural areas and/or avoid placing trailers over soil or vegetation



Avoid loading when insects are swarming



Bright lights attract insects, especially at night. Keep doors closed when cargo is not being loaded

MSC Categories – Agricultural Security CTPAT CTPAT



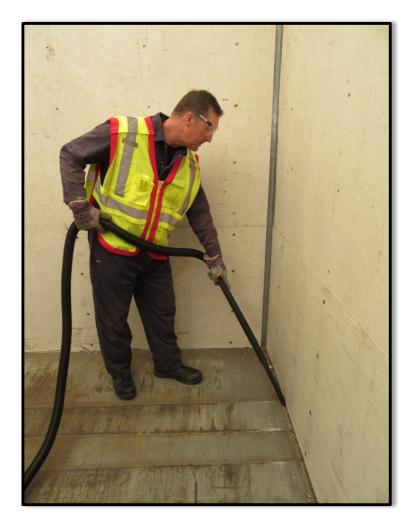




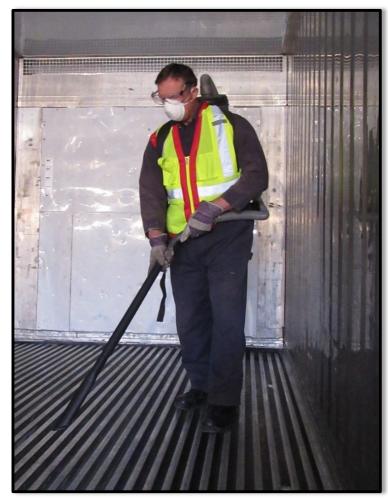
Spilled Seed on Trailer Floor











Eliminating Contaminants - Vacuum, Broom, Blower

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Start With Clean Trailer Prior to Loading

Utilize Paved Lots to Avoid Contamination



Consequences of Non- Compliance

Cargo is Re-Exported

Cargo Needs to be Fumigated



MSC Categories – Agricultural Security CTPAT VOUR SUPPLY CHAIN'S STRONGEST LINK.



USDA - Wood Packaging Materials Frequently Asked Questions https://www.aphis.usda.gov/aphis/ourf ocus/planthealth/sa_export/sa_wood_ packaging/ct_wpm_faqs



Weevils Curculionidae







Wood Boring Insects Found in Wood Packaging Material

Carpenter Moths

Cossidae







Ambrosia Beetles

Platypodidae Ambrosia Beetle Xyleborus spp.

Ambrosia Beetle





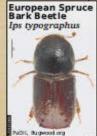




Bark Beetles

Scolytidae







Woodwasps Siricidae



Clearwing Moths

Sesiidae Ash Borer



Clearwing Moth

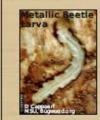
Peach tree Borer



Metallic Beetles

Buprestidae



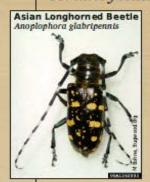






Longhorned Beetles

Cerambycidae











U.S. Customs and Border Protection

Contact CBP Agriculture at _____



Get the Bugs Out! Help Protect America from Invasive and Destructive Pests

Galleries

Galleries are tunnels or passageways made by insects. Usually found under the bark, galleries may also be found throughout the wood.



Bark

A typical place to find insects is under the bark. Bark is prohibited on wood packaging material.



Frass

Frass or insect waste is a sign of insect activity. It varies in color from pale to almost black and may be fine and powdery, coarse like wood shavings or any texture in between.



Exit/Entrance Holes



Insect entrance or exit holes may look like nail holes. Nail holes typically have some rust.





Insects

Presence of possible foreign insects poses a risk. Adults and larvae can both be destructive.













U.S. Customs and **Border Protection**

Contact CBP Agriculture at





8.1 HC/LH/3PL/IMP/EXP/SEA/AIR/RAIL/FM/CON

- CTPAT Members MUST have written procedures designed to prevent visible pest contamination to include compliance with Wood Packaging Materials (WPM) regulations.
- Measures regarding WPM MUST meet the International Plant Protection Convention's (IPPC) International Standards for Phytosanitary Measures No. 15 (ISPM 15).
- Visible pest prevention measures MUST be adhered to throughout the supply chain.

Agriculture Security



8.1 Implementation Guidance

- WPM is defined as wood or wood products (excluding paper products) used in supporting, protecting, or carrying a commodity. WPM includes items such as pallets, crates, boxes, reels, and dunnage. Frequently, these items are made of raw wood that may not have undergone sufficient processing or treatment to remove or kill pests, and therefore remain a pathway for the introduction and spread of pests. Dunnage in particular has been shown to present a high risk of introduction and spread of pests.
- The IPPC is a multilateral treaty overseen by the United Nation's Food and Agriculture Organization that aims
 to secure coordinated, effective action to prevent and to control the introduction and spread of pests and
 contaminants.
- ISPM 15 includes internationally accepted measures that may be applied to WPM to reduce significantly the risk of introduction and spread of most pests that may be associated with WPM. ISPM 15 affects all wood packaging material requiring that they be debarked and then heat treated or fumigated with methyl bromide and stamped or branded with the IPPC mark of compliance. This mark of compliance is colloquially known as the "wheat stamp". Products exempt from the ISPM 15 are made from alternative materials, like paper, metal, plastic or wood panel products (i.e. oriented strand board, hardboard, and plywood).



Questions/Discussion





