

# Preventing the Spread of Pests and Diseases

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# Introduction

This chapter gives directions for preventing the spread of pests or diseases when those pests or diseases are found on or with any conveyance, stores, baggage, mail, or importation, or when contamination with disease agents is possible. When selecting a method to kill pests or to apply safeguards, always choose the least severe method. The most common methods, in ascending order of severity, are as follows:

- Quarantine
- ◆ Safeguarding (measures such a sealing or stopping the off-loading of cargo)
- Cleaning and disinfecting
- **♦** Treatment
- Return to shipping point (interstate movement)
- Reexport
- Seizure and destruction



Do not use reexport or seizure and destruction methods to kill pests or apply safeguards unless there is no less severe alternative that will prevent the dissemination of the pest.

# **Emergency Procedures**

# **Taking Action Based on the Pest at Hand**

After a pest is submitted to the USDA APHIS Plant Inspection Station with a PPQ Form 309A, you are notified if the pest is actionable or not. Determine the action to take based on the pest at hand. Go to Table 6-1-1.

TABLE 6-1-1: Determine Action to take Based on Pest at Hand

If the pest is:	Then:	
Actionable	SAFEGUARD the shipment; collect the paperwork; prepare an EAN	
Nonactionable	Emergency measures are unnecessary	

# Safeguarding Cargo and Giving the Importer an Opportunity to Voluntarily Treat Cargo Pending Issuance of Emergency Order

When a pest is found in a perishable commodity shipment, it may not be feasible to wait 1-3 days for final pest identification. In this situation, treatment can be authorized prior to final pest identification. Prevent any chance of the pests escaping after the inspection and before the cargo is fumigated. Submit the interception as URGENT.

TABLE 6-1-2: Procedures for Voluntary Treatment of Cargo Pending Issuance of Emergency Action Order

If the importer or the importer's agent:	And the pest's identity is confirmed as:	Then:
Wants to have the cargo treated prior to having the pest's identity confirmed	-	ALLOW the cargo to be treated prior to confirmation and continue to <i>Issuing an Emergency Action Notification</i> on page <b>6-1-3</b> <sup>1</sup>
Is willing to wait to have the pest's identity confirmed	Actionable	REQUIRE that the cargo be treated     CONTINUE to <i>Issuing an Emergency Action Notification</i> on page 6-1-3
	Nonactionable	RELEASE the cargo

<sup>1</sup> In block 12 of the Emergency Action Notification, enter the statement "Possible quarantine pest."

# **Issuing an Emergency Action Notification**

Fill out PPQ Form 523, Emergency Action Notification (EAN). See **Table A-1-34** on **page A-1-110** for instructions on completing this form.

Give the importer 24 hours from the time you issue the order to have the cargo treated. You may shorten the deadline, but only if there is an imminent risk of pest escape or dispersal, or if the shipment is presented at a border and it is more practical to rex-export the shipment immediately. If 24 hours presents a hardship, and it is safe to do so, you may extend the deadline another 24 hours. Only a supervisor or chief may grant an extension beyond 48 hours. If the importer does not meet the deadline you set, initiate violation procedures. Prevent further dissemination of the pest by applying appropriate measures.

Issue PPQ Form 523, Emergency Action Notification, to the importer or the importer's agent. Make sure an authorized official prints his/her name, signs the form to acknowledge receipt, and includes his/her position (i.e. warehouse manager, truck driver, ship captain, broker, etc). Hold the original of this form for later revocation. Continue to *Deciding if Commodity Has to Be Treated*.

# **Deciding if Commodity Has to Be Treated**

Cargo that Has Been Discharged Treat with an approved treatment all identical commodities from the same shipper that were from the same port and that were on the same carrier (consider as a unit for purposes of inspection and fumigation).

Cargo Remaining in the Ship's Hold In general, treat all cargo in the ship's hold where the infestation was discovered with an approved treatment. Because of the pest's association with the infested material, there is sufficient reason to believe the pest is present throughout the hold. Your authority to require fumigation of all associated cargo is 7CFR 330.106(d).

Experienced CBP Agriculture Specialists, based on their professional judgment, may make exceptions to fumigating all the cargo in the hold. Factors in allowing such exceptions include the following:

- ◆ Character of the cargo (containerized or bulk)
- ♦ Degree of infestation
- ◆ Location of the infested cargo in the hold
- ◆ Practicability of a thorough inspection

If you are hesitant about deciding what to treat, check with your CBP Agriculture Supervisor. Continue to *Preventing Damage to Commodities Being Treated*.

# **Preventing Damage to Commodities Being Treated**



Identifiers/PIS will prescribe a treatment that will do the least damage to the commodity and still kill the pest. When treating a cargo hold, allow the removal of articles that maybe harmed by the pesticide (fumigant). Before allowing the removal of any article, ensure that the following conditions are met.

Articles that may be harmed by the pesticide (fumigant) may be removed only if the following conditions are met:

- ♦ The article must **not** be infested or show signs of contamination
- ◆ The article's removal must **not** contribute to the spread of the pest
- ◆ The owner or the owner's agent must be willing to remove the articles immediately
- ◆ The owner or the owner's agent must agree to follow directions from the CBP Agriculture Specialist or USDA-APHIS-PPQ Officer



Foam rubber and possibly other parts of an automobile may be harmed by methyl bromide. If all the bulleted conditions described immediately above are met, the officer may allow the removal of the automobile from the hold that is being fumigated.

# Revoking the Emergency Action Notification After Cargo Is Treated

Transfer the cargo that requires treatment to PPQ to supervise the treatment. A CBP Form AI-523A (Chain of Custody) must be used to transfer the shipment. The agency taking final action on the shipment is responsible for closing the EAN. If a shipment has been transferred to PPQ for treatment, a CBP Agriculture Specialist may not close that EAN unless instructed to do so by a CBP AI manager. If an EAN remains open questions regarding the status should be directed up the chain of command to a PPQ manager.

#### **Remedial Measures Policy and Procedures**

See *PPQ Form 301-R*, *Remedial Measures Billing (Statement of Services)* on page A-1-87 for further information.

# **Cleaning and Disinfecting**

# **Articles That Require Cleaning and Disinfection**

If any article or surface is contaminated with animal material, then the article or surface **must** be cleaned and disinfected. If you encounter an importation of prohibited or restricted animal products, and the packaging or containers holding those products have leaked—then the contaminated pallets, machinery used in handling, dock or warehouse areas used for storage, or trucks or railroad cars used for transporting the products **must** be cleaned and disinfected before they are reused.



Spills of regulated garbage where food is prepared or handled should be cleaned and sanitized by the caterer using the caterer's product. The disinfectant used by the caterer should be approved by the Environmental Protection Agency for use around food or on food contact surfaces.



CBP is responsible for safeguarding aircraft contaminated with animal waste such as manure and straw. Notify APHIS Veterinary Services (VS) of the aircraft arrival. VS or their designated representative is responsible for the cleaning and disinfection of these aircraft in accordance with 9 CFR 95.26. Please contact the local Area Veterinarian In Charge as listed in Appendix H of the Animal Products Manual (APM).

#### **Materials for Disinfectant Kit**

Collect the following materials for a ready-to-use disinfectant kit:

- ◆ Gallon plastic container filled with water
- ◆ Insulated box, such as an ice chest, for holding the equipment used to disinfect; label the box "Disinfectant Kit" and type and affix directions for its use inside the lid
- ◆ Leakproof, double plastic bags to hold collected material
- ◆ Material Safety Data Sheets (MSDS) for Virkon® S, sodium hypochlorite, and sodium carbonate
- Pint spray bottle
- ◆ Roll of paper towels
- Scrub brush and a scraping tool
- ♦ Whisk broom and dust pan

# **Protective Clothing and Safety Materials**

Assemble the following protective clothing and safety materials for use while disinfecting:

- ◆ Disposable, plastic shoe covers
- ◆ Pair of rubber gloves or disposable, plastic gloves
- ♦ Coveralls (if you are using a solution of 3% sodium hypochlorite)
- ◆ Rubber apron (if you are using Virkon® S)

# **Instructions for Cleaning and Disinfecting**

Follow the steps listed below for cleaning and disinfecting.

#### Step 1

Classify the article, using Table 6-1-3 on page 6-1-6.

**TABLE 6-1-3: Classify the Article** 

If the article is:	Then:
Empty semen container	Disinfect with a solution of water that contains 4 percent sodium carbonate with 0.1 percent sodium silicate (see <b>Table 6-1-4</b> on <b>page 6-1-7</b> )
Aircraft	GO to <b>Cleaning and Disinfecting</b> on <b>page 3-2-5</b> in the <b>Clearing Aircraft</b> section of <b>Examining Carriers</b>
Footwear	GO to <i>Disinfecting Footwear</i> on page <b>4-1-13</b> in the chapter <i>Clearing Passengers, Crew, and Baggage</i>
<b>Other than</b> empty semen container, aircraft, or footwear <sup>1</sup>	Disinfect with a solution of water that contains sodium hypochlorite or Virkon®S (see <b>Table 6-1-4</b> on <b>page 6-1-7</b> )

<sup>1</sup> For example, storage area, farm machinery, pallet, fork lift, pier, stall, or railroad car.

#### Step 2

Use **Table 6-1-4** on **page 6-1-7** for formulas and instructions for mixing disinfectants.

### **Preparing the Disinfectant**

Mix the disinfectant using **Table 6-1-4** for formulas and instructions. Prepare fresh batches of disinfectant as practicable.



Never use the disinfectants listed in **Table 6-1-4** around food or in areas where food is handled or prepared. When disinfecting such areas, allow the use of a sanitizer that is normally used around foods. The sanitizer must be one approved by the EPA.

TABLE 6-1-4: Formulas and Instructions for Mixing Disinfectants

If you need a solution of:	Then:			
4 percent sodium carbonate (common name: soda ash)	This solution is only mildly caustic but can dull painted and varnished surfaces.			
	<ol> <li>ADD 5.33 ounces of the sodium carbonate to each gallon of water (or 1 pound to 3 gallons of water or 15 pounds to 45 gallons of water)</li> <li>MIX thoroughly</li> </ol>			
4 percent sodium carbonate with 0.1 percent sodium silicate	ADD 5.33 ounces of the sodium carbonate to each gallon of water     ADD 4 mL of sodium silicate solution to each gallon of water     MIX thoroughly			
1 percent Virkon®S	Powder is corrosive. Causes skin burns and irreversible eye damage. Harmful if swallowed, absorbed through skin, or inhaled. <b>Do not</b> get in eyes, on skin, or on clothing. Wear protective clothing and rubber gloves. Avoid breathing dust. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Corrosive statement refers to powder only, not solution.			
	When mixing powder:			
	PUT on rubber gloves, rubber apron, mask (N95 or better) and face shield			
	2. ADD 1.3 ounces <b>or</b> 8 teaspoons <b>or</b> 37 grams of Virkon®S concentrate to 1 gallon of water			
	STIR gently; do <b>not</b> stir vigorously (the solution should be yellow in color and will have a slight citrus odor)			
	<ul> <li>4. RESEAL the container holding the Virkon®S powder</li> <li>5. POUR the Virkon®S solution (using a plastic funnel) into a 1, 2.5, or 5 gallon plastic container</li> <li>6. CLOSE the container tightly.</li> </ul>			
	7. DISPOSE of solution after 7 days or when yellow color fades, whichever comes first			
	8. WASH hands and any other areas where the solution may have come in contact with the skin			
	9. CLEAN the mixing area			
	<b>Do not</b> soak metal objects in Virkon®S for long periods; 10 minutes is the maximum necessary contact time. One gallon of solution is sufficient to treat 135 ft².			

**TABLE 6-1-4: Formulas and Instructions for Mixing Disinfectants (continued)** 

If you need a solution of:	Then:	
Sodium hypochlorite (household bleach)	CAUTION	This solution will discolor clothing. Therefore, as a precaution, dry the disinfected item or put it in a plastic bag. Wear gloves, eye protection, and an apron when applying bleach.
	GO to <b>Table 6-1-5</b>	



Formulas and instructions for mixing sodium hypochlorite are for practical use. Calculations are approximate.

TABLE 6-1-5: Formulas and Instructions for Mixing Sodium Hypochlorite

If you need a:	And the concentration of available chlorine <sup>1</sup> is:	Then:
0.1 percent solution of the disinfectant <sup>2</sup>	5.25%	ADD 5 tablespoons (2.5 ounces) of bleach to     gallon of water (or 1 gallon of bleach to 50 gallons of water)      MIX thoroughly
	6%	ADD 4 tablespoons and 1 teaspoon (2.3 ounces or 65 ml) of bleach to 1 gallon of water (or 13 cups of bleach to 50 gallons of water)     MIX thoroughly
1.0 percent solution of the disinfectant <sup>3</sup>	5.25%	ADD 4 cups (32 ounces) of bleach to 1 gallon of water     MIX thoroughly
	6%	ADD 3.2 cups (26 ounces) of bleach to 1 gallon of water     MIX thoroughly
3.0 percent solution of the disinfectant <sup>4</sup>	5.25%	Use personal protective equipment (PPE), i.e. gloves and goggles when applying at this concentration.
		<ol> <li>ADD 1.3 gallons (170 ounces) of bleach to 1 gallon of water (or 4 parts bleach to 3 parts water)</li> <li>MIX thoroughly</li> </ol>
	6%	Use personal protective equipment (PPE), i.e. gloves and goggles when applying at this concentration.
		ADD 1 gallon of bleach to 1 gallon of water     MIX thoroughly

- 1 Determine the percent of available chlorine by checking the container's label. Sodium hypochlorite or "bleach" comes in two concentrations: 5.25 or 6 percent available chlorine.
- 2 This is the strength to use in baggage or passenger areas.
- 3 This is the strength necessary for moderately contaminated areas.
- 4 This is the strength necessary for **heavily** contaminated areas.

# **Removing Excess Contaminant**

Sweep up or scrape off as much of the contaminant as possible. Put the sweepings or scrapings into a leakproof, double plastic bag for incineration later. Free surfaces from dirt and grease if applicable.

# **Scrubbing Contaminated Area**

Scrub the contaminated area or the area where the spillage occurred with a good detergent solution.



If the area is **not** effectively scrubbed first, then any viruses protected by the organic material remain untouched and the disinfectant is **not** effective.

# **Flushing Scrubbed Surfaces**

Flush the scrubbed surfaces with clean water. Flushing is important because the detergent may react with the disinfectant and reduce its activity.

# **Applying Disinfectant**

If using a premixed solution of disinfectant, agitate it thoroughly. If the temperature is below freezing, delay the application of the disinfectant until the temperature is above freezing. Apply the disinfectant.

# **Incinerating Refuse**

Incinerate all refuse that was swept up or scraped off.