

Pest-free Shipping and FDA's Sanitary Transportation Rule

By Pamela Peckman, Regulatory, Compliance and Technical Services, IFC

Food processors work hard to ensure the safety of food products throughout the supply chain. However, that supply chain can involve great distances ingredients or finished food must travel, not to mention lots of hand-offs along the way that can pose unique challenges for those tasked with ensuring safe and pest-free food. The final rule on Sanitary Transportation of Human and Animal Food was first published June 6, 2016 by the Food and Drug Administration (FDA) as one of many rules to ensure compliance with the Food Safety Modernization Act (FSMA). With the introductory period over, covered shippers, receivers, loaders and carriers of human and animal food need to be in full compliance with FDA's Sanitary Transportation rules.

HOW DOES THE SANITARY TRANSPORTATION RULE APPLY TO PEST MANAGEMENT?

FDA's transportation rules can be found at 21 CFR 1.900-934. These rules cover all parties involved with the transportation process, including shippers, receivers, loaders and carriers. Some of these requirements may be new to carriers. Written agreements, procedures and training records must be in place and available for inspection by the FDA. The following sections of the rule apply specifically to pest management:

21 CFR 1.902 (a)¹ "The criteria and definitions of this subpart apply in determining whether food is adulterated within the meaning of section 402(i) of the Federal Food, Drug, and Cosmetic Act in that the food has been transported or offered for transport by a shipper, carrier by motor vehicle or rail vehicle, loader, or receiver engaged in transportation operations under conditions that are not in compliance with this subpart." (see also 21 CFR 342 (a) Adulterated food).

For more information, visit www.indfumco.com or call 800-477-4432



One Focus.
Food Industry
Pest Management.™

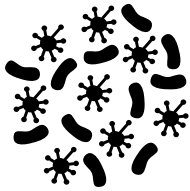


Pest-free Shipping and FDA's Sanitary Transportation Rule

21 CFR 1.904² “Pest means any objectionable animals or insects including birds, rodents, flies, and larvae.”

21 CFR 1.906 (a)³ “Vehicles and transportation equipment used in transportation operations must be so designed and of such material and workmanship as to be suitable and adequately cleanable for their intended use to prevent the food they transport from becoming unsafe i.e., adulterated within the meaning of section 402 (a) (1), (2), and (4) of the Federal Food, Drug and Cosmetic Act during transportation operations.”

...**and (d)⁴** “Vehicles and transportation equipment must be stored in a manner that prevents it from harboring pests or becoming contaminated in any other manner that could result in food for which it will be used becoming unsafe during transportation operations.”



WHAT ARE POTENTIAL PEST PROBLEMS DURING SHIPPING?

The three biggest food safety concerns food processors face during transportation are 1) Microbial contamination, 2) Physical/foreign material contamination and 3) Chemical contamination. It is interesting to note that pests such as birds, rodents and arthropods (insects, spiders, mites) can potentially contribute to all three of these top concerns.

Microbes can easily be translocated by any of these pests and physical contamination is possible simply by pest presence in or near ingredients or finished food product. Chemical contamination due to improper loading and comingling of food with chemicals is always a concern, especially for bulk product transportation. Also of concern is proper handling of pesticide products that may be used to treat a trailer, railcar or other transport unit. As with any chemical, pesticide products need to be reviewed and approved for use by facility management. Is the use site listed on the pesticide label? Any pesticide application should be completed by a State Certified/Licensed individual who is specially trained to use pesticides in the food industry. Product labeling directions must be understood and followed. Pesticide products must also be registered for use in the state where applied.

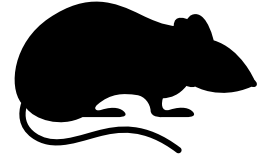


Pest-free Shipping and FDA's Sanitary Transportation Rule

COMMON PESTS THAT MAY BE FOUND DURING TRANSPORTATION OPERATIONS

Birds can enter a trailer through an open door without warning and leave droppings or feathers in unexpected areas. Ensure transport units are not left open unnecessarily.

- **Attend to the most critical food safety risks.** Exclude the bird from entering the most critical processing areas where products are exposed. Be prepared to cover critical lines and equipment quickly.



Rodents can readily nest in pallets and become easily introduced into the shipping chain.

Stored Product Insects (SPI) are attracted to and readily feed on sound food product and typically spend most of their life cycle within food items. These types of pests are considered of primary concern because they can contaminate food at any point in the food chain; starting with raw commodities or crops still in the field, on to contamination of ingredients and all the way to infestations present in finished food that has been packaged.

- **Dermestid beetles** present themselves in packaged ingredients which have been in storage for an extended period of time and are being shipped to a new warehouse. Are products being properly rotated on a first in, first out basis?
- **Cigarette beetle** activity has been noted inside a trailer load of grain-based product. Was the trailer and product inspected prior to loading? Were proper holding practices followed for food products awaiting shipment?

Scavenger Pests are attracted to food storage areas by food residues, spillage or otherwise out-of-condition product to feed on molds and fungi.

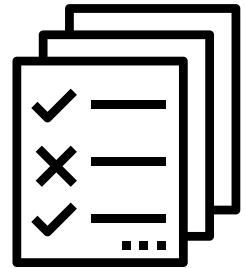
- **Ants** may nest near trailer holding areas and later be discovered in a trailer due to food residues left behind from a previous load.
- **Phorid fly** larvae and pupae could be present on pallets of imported seafood. Were the pallets dirty prior to loading or did product damage occur due to improper refrigeration during shipment?

Occasional Invader Pests that happen to be found present near food:

- **Wood roaches** are attracted to lights, not the finished food product itself. Were out-of-condition pallets harboring the wood roaches used to transport the food or were trailer doors left open near exterior lights prior to unloading?



WHAT YOU CAN DO TO MANAGE FOOD SAFETY TRANSPORTATION CONCERNS DUE TO PESTS



To avoid major pest issues and preserve product integrity during the shipping process, there are a few steps every food processor should take:

- **Be aware of the regulations.** Read FDA rules thoroughly to know what needs to be done in your individual facility. Be aware of new or updated regulations you need to be familiar with.
- **Keep your staff in the know.** It's crucial to communicate regularly with staff to ensure they are up to date on the latest standards and regulations. They are key protectors against violations and product mishandling.
- **Assess the quality of incoming materials and transportation equipment.** Examine all shipments carefully before shipping or accepting shipments to ensure compliance.
- **Evaluate contractors and other partners.** Once the products leave your care, are the next handlers taking compliance as seriously as you are? Make a checklist for partners to follow so that all parties understand what needs to be done. Have written party agreements in place as required by FDA's Sanitary Transportation rule.
- **Create efficient processes.** This includes everything from sanitization to documentation. Make sure there is a process in place for regularly cleaning floors, trailers and equipment. When are employee's trained and by who? Empower management to document conditions and suggest improvements. Once effective processes are in place, the guesswork of maintaining compliance is diminished.
- **Work with a competent pest management professional (PMP) to manage pest prevention programs.** Enlisting a PMP to help with pest prevention can help fortify your processes and lighten the burden of maintaining compliance.

Pest-free Shipping and FDA's Sanitary Transportation Rule

WHAT IFC CAN DO TO HELP!

IFC has the experience and knowledge to bolster pest management programs in your facility. Our focus is strictly on pest management in the food and commodity industry and has been since 1937. We are experts at understanding the unique needs of our food industry clients and listening to their concerns. We can provide:

- **Knowledgeable technicians** to assist with facility assessments, design of site specific Integrated Pest Management programs, on-going inspection and monitoring programs and specific services to help prevent and manage pests, including specialty services such as trailer fumigations and microbial decontamination treatments.
- **Expert staff entomologists** to assist with accurate pest identifications.
- **On-site training** that help satisfies the carrier training requirements of 21 CFR 1.910.

Managing the safe transportation of food can be complicated, but ensuring compliance and keeping pests away doesn't have to be. Following the right steps and working closely with a PMP can ensure that your business operates seamlessly and is compliant.

Pamela Peckman, MS Entomology, is a Staff Entomologist serving a broad range of technical and regulatory service needs for IFC's clients. For the past 25 years, Pamela's career has focused on stored product pest management programs, government/legislative affairs and regulatory compliance programs. For more information, visit www.indfumco.com or call 800-477-4432.

¹⁻⁴FDA "Final Rule – Sanitary Transportation of Human and Animal Food", April 6, 2016, 21 CFR 1.900-934, (www.federalregister.gov/documents/2016/04/06/2016-07330/sanitary-transportation-of-human-and-animal-food).

