

THE MONITOR

BECAUSE PEST PREVENTION MATTERS TO FOOD SAFETY

WINTER 2015



PESTS DON'T ALWAYS ENTER FROM OUTSIDE

Prevent Pests from Hitchhiking in on Supplies

With their abundance of food and water, processing facilities provide ideal harborage for pests. Some of these pests are attracted to your plant from the outside. But, this is not the only way that pests get in. Just as many can be carried into the plant with raw materials, ingredients, and supplies that are brought in through your dock doors.

The best way to prevent these pests from getting into your facility is to implement inspection procedures for the receiving of all supplies, particularly those from suppliers with whom you are working for the first time.

Pests in a food or beverage processing facility can lead to an FDA Warning Letter, fines, and even shutdown. Protect your plant from infested deliveries by performing thorough inspections on each and every trailer that comes into your lot. To do so, implement the Best Practices for the Inspection of Incoming Goods in your plant.

Pest Inspection and Signs

To conduct a thorough inspection for pests, you should have a good flashlight, sample collection bags, broom and dust pan. If trained in pest identification, a hand lens and pest ID guide is also beneficial.

The most common pests that come in with supplies and the signs to look for are:

PEST:	SIGNS:	WHERE TO FIND:
Rodents	Droppings, urine stains, chewed packaging, live activity, odor from dead rodents	On, in and around the product
Stored product pests	Cast skins, live beetles or moths, dead adults and larva, foul odor from their secretions, holes in packaging	Primarily on the packaging, between bags, in folds of bags, inside boxes and on the floor of the trailer or car
Cockroaches	Live and dead insects, eggs, cast skins and droppings	Trapped inside shrink wrap, moving around the trailer and pallets
Other pests	Live and dead insects, cast skins, droppings	Found on packages, inside stretch wrap and on the trailer floor

(SEE PAGE 2)

PREVENT PESTS FROM HITCHHIKING IN ON SUPPLIES

CONTINUED FROM COVER >>>

7 Best Practices for Inspection of Incoming Goods

The following provides guidelines for pest inspections of deliveries:

- ① If this is a first shipment from a new supplier or trucking company, open the trailer doors away from the dock. Then do a quick visual overview looking for signs of activity. A visual inspection should also be conducted for trusted suppliers, but this can generally be done at the dock.
- ② If it passes inspection, go ahead and back the truck into the dock, and begin to gradually unload the pallets:
 - Remove the first 8 to 12 feet of pallets – or about 1/3. Place them on the dock and conduct a complete inspection of the pallets, material, and emptied area of the trailer floor.
 - If there is no evidence of pests, remove the next third, and conduct the same inspection of these; then remove the final third in the same manner.
- ③ Once the trailer is emptied, sweep the floor and inspect the contents of the swept materials for any evidence of pests.
- ④ If, at any point in your inspection of a trailer or supplies, damaged product, odors or pest evidence is detected, stop unloading immediately, pull the trailer away from the dock, and call QA for a ruling on whether to accept or reject the load.
- ⑤ Bulk rail cars can be more challenging to inspect, but, at a minimum, you should conduct a visual review of the top of the product and, if possible, sift some of the product to check for pest activity.
- ⑥ If pallets are stacked outside and reused, always conduct a visual inspection before bringing them into the building. Additionally the pallets should either be washed, or if that is not possible, a high pressure air blower can be used to remove outside contaminants.
- ⑦ Trailers used for storage should undergo this same inspection process as above (See 1-4). Additionally,
 - Thoroughly clean and inspect the trailer for holes before using for storage. One way to check for holes is to step inside during the day and close the doors. Any light coming in from the outside signifies a hole.
 - During storage on the lot, trailer doors should be kept closed; when opened, they should be manned.



PEST OF THE QUARTER

MOISTURE-RELATED PESTS

Psocids and Fungus Beetles: Keep Dry Products Dry to Thwart Infestation

It may seem contradictory to say that dry ingredients will attract mold- and fungus-feeding stored product pests, such as psocids (or “booklice”) and fungus beetles, but that can be exactly the situation for plastic-wrapped dry products. Products and pallets enclosed in stretch wrap will build up moisture in which microscopic mold can grow. Although these moisture related pests do not directly damage the food, they will live and feed between the product packaging and stretch wrap, and can cause your shipment to be rejected.

Psocids and fungus beetles feed on the mold, mildew and fungus that grow in moist, humid conditions (such as that between the dry food packaging and the enclosing plastic wrap). Thus, these insects are very common on these bags and pallets of dry products and ingredients such as flour, starches, dog food and dry milk. Infestations can become abundant in areas with high humidity, poor ventilation, leaks, or other moisture issues; then when the weather warms, populations can explode even further.

Controlling the Environment

Moisture is the root cause of psocid and fungus beetle problems; thus, controlling the warehouse environment is key to controlling this pest and thwarting infestations.

Whether you want to prevent an infestation or need to exterminate psocids or fungus beetles that have

been found on or around product, the key is reducing the potential of mold and creating and maintaining a cool, dry environment.

To do so:

- Inspect for and correct any moisture issues, including ventilation, leaks, roof or foundation cracks/gaps, etc.
- Seal all cracks and crevices in the structure to keep weather (and other pests) out and maintain a consistent environment within.
- Reduce and maintain relative humidity to levels below 50% – the lower the better as humidity below 33% and warmth will dry out and kill the psocids and fungus beetles.
- If needed, install a dehumidifier or air conditioner to maintain consistent environmental conditions in the area.
- Once existing psocids and/or fungus beetles are exterminated, vacuum up the dead insects and dispose of any moldy items or those which were badly infested.

Maintaining regular good storage practices – including First In/First Out rotation, maintaining space between racks and walls, and elevating shelving off the warehouse floor – will also help to keep your product safe from stored product pests, as well as other insects and rodents.



PSOCID

Since the turn of the century, the tiny psocid has significantly increased in global severity as a stored product pest.



FUNGUS BEETLE

As their name indicates, fungus beetles are very small scavenger insects that feed on fungus and molds. *(There are many varieties of fungus beetles. This photo is of a Hairy Fungus Beetle.)*

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Did You Know...

- Many psocids (booklice) species only have females. Reproduction occurs through the laying of unfertilized eggs. (Ohio State University Ohioline)
- If a cockroach loses its head, it can continue to live for about a week - until it dies of dehydration because it has no mouth with which to drink water. (NPMA)
- USDA's Agricultural Research Service has developed a monitoring device that detects insects by the sounds they make when they wriggle, crawl, or scrape. The software then analyzes the signals to create a profile and enable identification of the insect. (USDA)

The Monitor is published by Ecolab to provide general information on pest prevention in Food and Beverage facilities.

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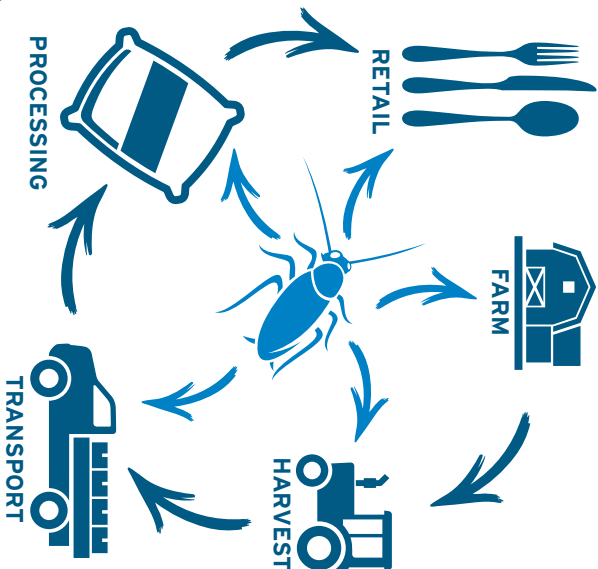
FSMA Furthers the Value of Pest Management Partnership

With the attraction that food production plants hold for pests, partnering with your pest management professional has always been critical in maintaining the quality and safety of your food products. And the new rules of FSMA are further increasing the value of – and the critical need for – this partnership.

FSMA has increased FDA's authority and oversight, with the Agency already taking action against plants that violate the new (or existing) regulations. Thus, being proactive in food safety initiatives, including pest management, is essential to regulatory compliance as well as protection of your brand.

One aspect of FSMA of which food production managers may not be aware is that compliance requires that the pest management professional be an integrated member of the food safety team. Thus, the lack of an effective pest management program can now become a serious pitfall for food and beverage manufacturing facilities, potentially resulting in fines, product recall, production shutdown—or closure, along with public scrutiny of your brand and a tarnished reputation.

There are ample opportunities for pests to integrate themselves into the life cycle of food, but you can break this cycle by partnering with a pest management professional to develop and implement a proactive plan to prevent pests and help maintain the quality and safety of your food products. *Contact Ecolab Pest Elimination for more information.*



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