

# More than drugs and tobacco: Drugstore and cigarette beetles

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While their names may imply a life of drugs and tobacco, these small beetles can feed and survive on a number of products that we all have in our homes. Entomologists call these types of beetles “stored product pests” and they feed on food or non-food items, of both plant and animal derived products.

## What do they look like?

Both cigarette beetles and drugstore beetles are small, reddish-brown, oval-shaped beetles. They are approximately 1/8" long and from the top, their heads are not visible. With some magnification, fine hairs can be seen on their wing covers. Drugstore beetles have rows of pits on their wing covers and a 3-segmented antennal club. Cigarette beetles have smooth wing covers and serrated antennae. Despite these slight physical differences, their pest status is similar as both are distributed worldwide and have the ability to cause great damage and huge economic loss. They usually go unnoticed until they are found in high numbers either flying throughout the house or gathered around windows.



Drugstore adult beetles on a penny (approximate size).

## How did they get into my home?

Adult beetles are active fliers and can get into storage facilities via gaps, open doors, unscreened windows, infested transport vehicles, bulk bins and containers. With an adequate food source and a temperature-controlled environment, insects can thrive, breed and feed. Adult beetles lay their eggs in food and their grub-like larvae hatch and damage commodities with their chewing mouthparts. In processing facilities, storage warehouses, grocery stores and home pantries, infestations can be transferred among products.

Stored product beetles like cigarette beetles and drugstore beetles cause damage by leaving their filth in the foods they infest. Beetles contaminate food by leaving insect fragments, exoskeletons and fecal matter. Though they are not harmful or medically important, insect bodies in food stuff may cause off-flavors in high enough numbers.

## Where do I look for them?

Cigarette and drugstore beetles feed on a wide variety of products. As their name suggests cigarette beetles feed on cigars, cigarettes and chewing tobacco, and drugstore beetles feed on multivitamins and other types of pharmaceuticals. Beetles enter packaging through cracks in cardboard boxes, compromised containers and by chewing through plastic or foil packaging.



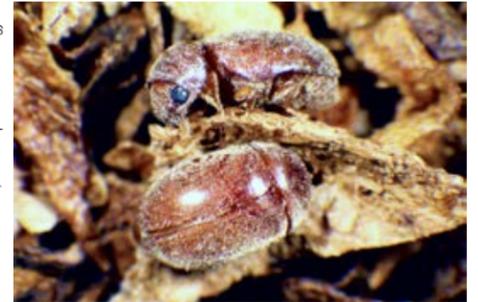
Drugstore beetle larvae and adults (highly magnified)

Potential food sources include flours, dry cake mixes, dried fruits, cereals, cocoa, coffee beans, nuts, herbs, spices (especially paprika and cayenne), rice, biscuits, condiments, teas and beans. As mentioned, these beetles infest things non-food (for human consumption) items such as dry dog and pet food, fish meal, rodent bait, bird and animal nests, grass seed, floral arrangements, potpourri, decorative wreaths, pinned insects, furniture stuffing, bookbinding, leather and hair.

## How do I stop them?

Prevention and sanitation are the best protections against stored product pests. Here are some ways to prevent infestations in the home, minimize wasted food and save money:

- Before purchase, inspect food products and look for expiration dates, examine packaging for damage, webbing, holes, rips or tears.
- Avoid buying in bulk and storing large



Cigarette beetles (highly magnified)

quantities of food products in the pantry.

- Place spices or dry ingredients in the freezer (32°F for 7 days kills all life stages) prior to storing in pantry or shelves.
- Store products in air-tight, transparent, glass or plastic, insect-proof containers.
- Use the oldest products first to ensure freshness and proper stock rotation.
- Sweep, vacuum or clean up spills and crumbs to prevent attracting pests.

Treatment strategies for stored product pests DO NOT include insecticide use inside the home. An integrated approach to pest management is recommended, which includes locating the sources of the infestation and eliminating contaminated products in an outdoor trash receptacle. Most people overlook prepackaged and prepared foods, unopened packages and non-food items, but a variety of products are vulnerable.

# Now's the time to get birdhouses ready for spring

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February is a terrific time to get birdhouses built and ready for the spring breeding season. Birds will begin looking for nesting sites in March so houses should be placed outdoors in the next few weeks.

You can attract birds by building an inexpensive, simple, six-sided box. “Backyard Wildlife: Birdhouses and Shelves” from Nebraska Extension has plans and nesting requirements for eighteen species of birds found in the state. Contact your local extension office for a copy of this publication or go to <https://go.unl.edu/birdhouses>.

## Constructing a birdhouse

Wood is the best material to use for birdhouses and shelves. Do not use tin cans, milk cartons, or metal for nest boxes. Commercial martin houses made of aluminum are the only exception. When using wood, choose untreated and unpainted wood. According to the Cornell Lab of Ornithology, cedar, pine and cypress are good options.

### NUISANCE BIRDS

The smallest hole an English house sparrow can enter is 1-1/4". The smallest hole a European starling can enter is 1-9/16". To avoid these birds, make the entrance holes to birdhouses smaller. Or, be persistent and remove their nests regularly. Eventually the birds will give up. European starlings and English house sparrows are not protected by state or federal laws. You can remove their nests, eggs and young at any time.



Before putting your birdhouse together, roughen the inside portion of the hole just below the entrance so young birds can climb out of the house easily. You can use coarse sandpaper, cut grooves or punch dents in the wood with a screwdriver.

CDX exterior-grade plywood is a good choice for larger birdhouses. Do not use pressure-treated lumber. Wood sold as 1" thick provides proper insulation for birdhouses.

The roof of a birdhouse helps keep out rain. When properly constructed, it also makes it harder for predators to reach into the box from above. The roof should overhang the front at least 2"-4", and hang over the sides of the birdhouse by 2".

The sides of the house should enclose the floor to keep rain from seeping into the house and nest. Recess the floor 1/4" up from the bottom to further prevent rotting caused by moisture.

Birds are picky about the size of entrance holes on a birdhouse. Before making an entrance hole, learn about the birds you want to attract so you know what size entrance hole your birdhouse needs. Keep in mind non-native species like English house sparrows and European starlings will also take advantage of



This tree swallow's nest is less vulnerable to predators because it is mounted on a sturdy metal pole. If tree swallows are nesting in your blue bird boxes, leave them alone. They are beneficial insect-eating birds. Instead, erect pairs of nest boxes 25 feet apart to reduce competition with blue birds.

birdhouses. If you don't want these birds using your birdhouse, make the entrance hole smaller than 1-3/8".

Before attaching the front of the birdhouse to the rest of the structure, rough up the inside under the entrance hole with sandpaper. This helps fledging birds get

a grip when they are ready to leave the nest. Birdhouses for swallows or bluebirds should have grooves under the entrance hole on the inside of the box. The grooves serve as a ladder for fledgling birds.

Drainage and ventilation are also important for the birdhouse. Drill at least four 3/8"-1/2" diameter drain holes in the floor of the house. Drill two 5/8" ventilation holes near the top of each side of the house.

## Putting together a birdhouse

Galvanized screws should be used instead of nails. Screws will provide a tighter seal and make it easier to clean the birdhouse or make repairs. Nails loosen over time and can allow rain to seep in. Using rust-proof hinges, add a hinged side or hinged roof to your bird house so it is easier to clean. Did you know raccoons can open a hook and eye clasp on bird houses? Consider another type of latch to keep out these clever predators.

Just say “no” to perches. The only birds that really like to use perches are non-native European starlings and English house sparrows. If you bought a birdhouse with perches, remove the perches before putting the birdhouse outside.

Can you paint or stain a birdhouse? Extension specialist Catherine Elliot recommends paint or stain preservatives be used on the outside of the box only. Focus especially on the back. Never paint or stain the inside of the birdhouse. Creosote should not be used.

Sources:

- *Birdhouse basics* by Catherine Elliot, Extension Wildlife Specialist, University of Maine Cooperative Extension
- *Features of a Good Birdhouse*. Cornell Lab of Ornithology Nest Watch