

# Insects

## Carpet Beetles

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Carpet beetles feed on animal and plant substances such as wool, fur, feathers, hair, hides, horns, silk and bone, as well as cereals, cake mixes, red pepper, rye meal and flour. Other substances include powdered milk, dog and cat food, leather, book bindings, dead insects, cotton, and linen and rayon when stained with spilled food or animal excreta. The larvae cause the damage. They crawl from room to room and live behind baseboards and moldings and in heating system air ducts, dresser drawers, carpets, clothing and furniture. Adult beetles fly readily and may feed outdoors on flower pollen. Four species of carpet beetles are most often encountered: black carpet beetle, *Attagenus magatome* (Fabr.); varied carpet beetle, *Anthrenus verbasci* (L.); common carpet beetle, *Anthrenus scrophulariae* (L.); and furniture carpet beetle, *Anthrenus flavipes* LeConte.

### Identification

Adult black carpet beetles are oval and shiny black with brownish legs. They vary in body length from 1/8 to 3/16 inch. Larvae are golden to dark brown and are about 1/2 inch long, with the body resembling an elongated carrot or cigar with a long brush of bristles at the tail end.

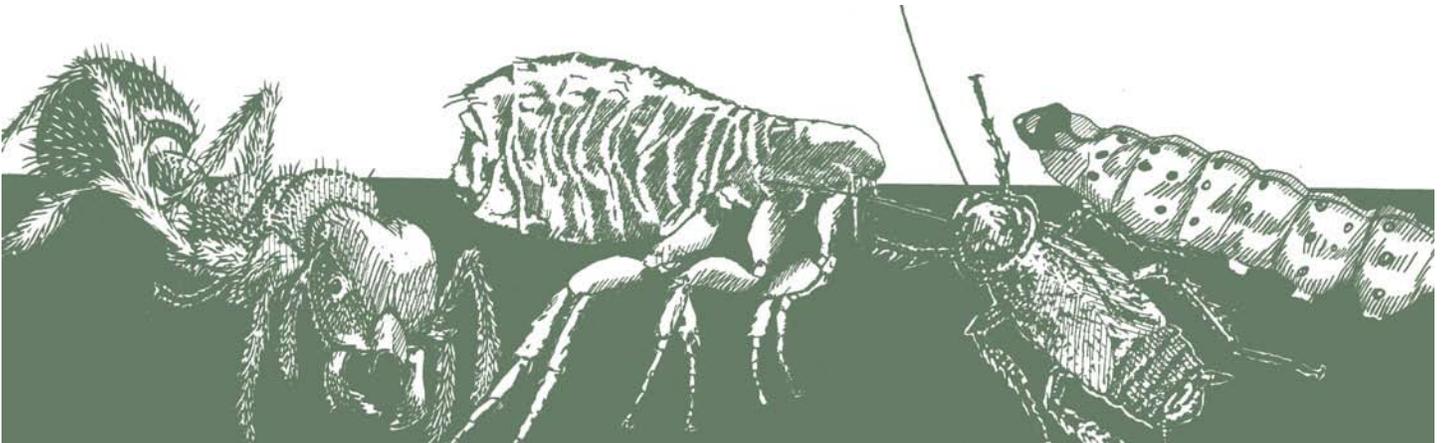
Adult varied carpet beetles are about 1/10 to 1/8 inch long and are nearly round. The top body surface is usually gray with a mixture of white, brown and yellow scales and irregular black crossbands. The bottom surface has long,

gray-yellow scales. Larvae are about 1/4 inch long and are light to dark brown. The body is wide and broader at the rear than the front.

Adult common carpet beetles are about 1/10 to 1/8 inch long, nearly round and gray to black. They have



*Black Carpet Beetle  
Adult (top) and Larva (bottom)*





*Varied Carpet Beetle*  
Adult (top) and Larva (bottom)

minute, whitish scales and a band of orange-red scales down the middle of the back and around the eyes. Larvae are elongated, oval, reddish-brown, about 1/4 inch long and covered with many brownish-black hairs.

Adult furniture carpet beetles are about 1/16 to 1/8 inch long, nearly round and whitish, checkered with black spots, each outlined with yellowish-orange scales. The bottom surface of the body is white and the legs have yellow scales. Larvae are about 1/4 inch, elongated, oval and covered thickly with brownish hair.

### Life Cycle and Habits

All carpet beetles pass through the egg, larval, pupal and adult stages. Adults fly readily and, during warm, sunny days, feed outdoors on the flower pollen of spirea, crepe myrtle and buckwheat. Depending on the species, each female can lay up to 100 or more white eggs, which hatch in eight to 15 days. Eggs laid indoors occur in lint accumulations near the food source, in air ducts, under heavy furniture, underneath baseboards, etc. After hatching, larvae begin their destructive feeding, avoiding light and molting several times as they develop. Depending on food and temperature, the larvae may spend sixty days to a year feeding. Their life cycle is shorter in warm rooms than in an unheated portion of the house during the winter. In the spring, the pupae develop into new adults. Usually there are three to four generations per year, except for the black or varied carpet beetle, which may only have one generation per year.

### Control Measures

**Inspections:** Locate the source of the infestation before treatment. If possible, remove the source of infestation, place it in a sealable plastic bag and discard it in an outdoor garbage pail. Carpet beetle larvae prefer to feed in dark, protected places. Use a flashlight and nail file to check lint under baseboards, in and under upholstered furniture, air ducts, stuffed animals, stored cereals, bird nests under eaves, wasp nests in attics, woolens, clothes closets, furs, etc. Cast skins, which are shed during molting, may be more abundant than larvae. Adult beetles flying around windows may help in locating the infestations. To help prevent carpet beetles from establishing themselves in homes, remove adult carpet beetles from flowers before the flowers are brought into the house.

**Prevention:** Good housekeeping is critical. Use a strong suction vacuum cleaner with proper attachments. Periodically brush, air outside or dry-clean furs, woolens, blankets, etc. Keep rugs, carpets, draperies, furniture, baseboards, air vents, molding and other hard-to-reach places clean. Destroy untreated, worthless animal skins, valueless insect collections, old woolen rags and old clothing. Typically, cedar-lined closets do not seal sufficiently to retain cedar oil and are not very effective in controlling carpet beetles. Cedar chests may be slightly more effective because they seal better; but, the oil of cedar still evaporates. Any box or bag that is tight and can be sealed is a good storage container. Layer garments in storage containers with effective moth balls or flakes that have been placed between sheets of white paper. The paper is added in an attempt to prevent clothing from being damaged by direct contact with these products. Naphthalene and paradichlorobenzene (PDB), although thought of as “repellents,” do not repel carpet beetles and under proper conditions have a mild fumigant action. Never combine naphthalene and PDB in the same container. Avoid exposure to these products and read the label directions very carefully regarding use and safety. Do not use dry cleaning bags, garbage bags or other containers that will allow vapors to leak into the occupied room. Plastic storage containers should be made of polyolefins such as polyethylene and polypropylene, to prevent reaction with these products. Be sure that all cloth goods are dry cleaned, washed, pressed with a hot iron, sunned or brushed prior to storage. Fur storage in cold vaults is effective.

**Insecticides:** After thoroughly cleaning under heavy furniture, rugs, rug pads and carpets, especially around the edges, spray under these items with an insecticide labelled for such use. But, heed the warning about insecticides staining carpet! Spraying other areas where insects crawl or hide, such as in cracks and crevices, may also be effective. Before using insecticides, read the label and follow directions. Heavy and hard-to-reach infestations are best

controlled by a licensed or certified pest control applicator. For specific pesticide suggestions, see UT Extension PB1690 Insect and Plant Disease Control Manual at <http://eppserver.ag.utk.edu/redbook/sections/structural.htm>.

Vikane, which contains the fumigant sulfuryl flouride, may not kill eggs and a second treatment may be necessary in a few months. Upholstered furniture and pillows

may require fumigation because surface sprays will not be effective. Only certified applicators working under the direction of a licensed operator may apply fumigants. Alternative methods of fumigating using nontoxic gases are currently being explored. Check with a professional pest control operator to determine whether this option is available.

### **Caution: Carpets Can Be Discolored by Insecticides**

Exercise caution to prevent carpet discoloration following the use of insecticides on carpets. Spot test a small inconspicuous location to ensure this does not happen. See the pesticide label for further precautions pertaining to pesticide use.

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### **Precautionary Statement**

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store, or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

### **Disclaimer**

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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