



Carpet Beetles¹

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Carpet beetles can damage fabrics, furnishings and clothing that contain natural animal fibers such as wool, silk, hair, bristles, fur or feathers. Synthetic items are resistant to attack, but mixtures of synthetic and natural fibers can be damaged. The natural habitats of carpet beetles are nests of birds, rodents, insects, and spiders. They then can spread into homes to damage carpets, rugs, and clothing. They also may feed on pollen and can be carried into the house on cut flowers.

The black carpet, common carpet, furniture carpet, and varied carpet beetles usually infest fabrics and carpets, and are of importance.

Life Cycle

The life cycle of carpet beetles can take from three months to two years. The adult female beetles lay up to 100 eggs which hatch into larvae in one to two weeks. The larvae can develop under a wide range of temperature and humidity conditions. They tend to avoid light and actively feed in dark cracks, crevices or folds. Most frequently they are found in the closets, drawers or inside upholstered furniture. A larva requires from nine months to as much as three years to complete its growth, depending upon climatic conditions and food. The larvae wander

considerably and may be found anywhere in a building. Adults are attracted to light and often are found on windows or around flowers. The adults are good fliers and may spread in materials infested with eggs, larvae, or pupae.

Black Carpet Beetle

Black carpet beetle adults are 1/8 to 1/4" in length, black in color with brown legs. The larva is slightly less than 3/8" in length; body is narrow carrot-shaped and covered with short hairs and has long terminal bristles. Their life cycle is 180 to 650 days.

These beetles inhabit in carpeting, clothing, furs, upholstered furniture, kid leather, books, bird nests, milk powders, and other articles containing animal products and natural fibers. It is also commonly found eating pollen, particularly that of spiraea.

Common Carpet Beetle

Common carpet beetle adults are about 1/8" in length, gray to black in color and whitish and orange scales on the back. The larva are carrot-shaped, reddish brown in color with many black to brown hairs. Their life cycle is 77 to 110 days.

1. This document is ENY-204, one of a series of the Entomology and Nematology Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: August 1991. Revised: May 1999. Please visit the EDIS Website at

<http://edis.ifas.ufl.edu>. Additional information on these organisms, including many color photographs, is available at the Entomology and Nematology Department WWW site located at <http://www.ifas.ufl.edu/~entweb/entomolo.htm>.

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Common carpet beetles inhabit in fabrics, furnishings, and clothing retaining animal products such as wool, silk, hair, bristles, fur, feathers, etc.

Furniture Carpet Beetle

Furniture carpet beetle adults are about 1/8" in length with yellow, white, and black spots dorsally and white ventrally. The larva are about 3/16" long, carrot-shaped and dark red to brown in color. Their life cycle is 149 to 422 days.

These beetles inhabit in woolen upholstery and padding such as feathers and hair as well as materials containing animal products and natural fibers.

Varied Carpet Beetle

Varied carpet beetle adults (Figure 1) are about 1/8" in length, with white brown and yellowish scales dorsally and grayish-yellow scales ventrally. The larva are about 3/16" in length, carrot-shaped, with alternating light and dark brown transverse stripes. Their life cycle is 249 to 354 days.

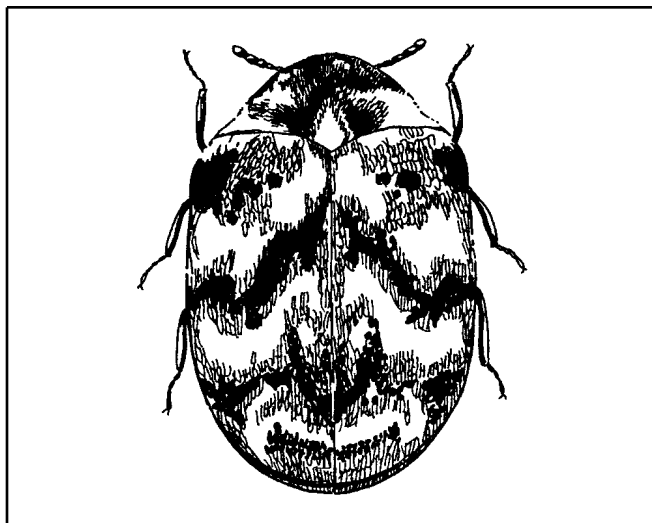


Figure 1. Varied carpet beetle.

Varied carpet beetles inhabit in carpets, woolen goods, furs, silks and other materials containing animal products and natural fibers.

Control

Prevention

Good housekeeping prevents infestations. Frequent cleaning of floors to remove dust and lint eliminates much of the available food supply, although dust and lint may collect in inaccessible areas. Clothes should be dry-cleaned regularly.

Stored materials subject to beetle damage should be thoroughly cleaned before storage. The storage area should be a chest, closet, or other container that can be tightly closed and into which moth balls or flakes can be placed at the rate of 1 lb. per 50 cubic feet of space. The initial treatment should kill the carpet beetles; however, this method should not be relied upon to protect stored fabrics over an extended period of several months or more. Stored materials should be periodically sunned and brushed. Cedar chests will not kill carpet beetles.

Inspection

Find sources of carpet beetle infestations. Although carpet beetles damage fabrics in a house, they may also be found in nests built by sparrows, starlings or pigeons on or inside the house or brought in on cut flowers. Wasp nests under eaves or in attics are also common sources of carpet beetles because the larvae will feed upon the skins and larvae of wasps. Dead insects in attics or inaccessible areas may also be an important reservoir of infestation. Also, accumulations of debris in ventilation ducts in the house may be a source.

Nonchemical Control

Adult carpet beetles can be captured on sticky fly paper baited with animal products. Cedar products can be used to protect susceptible items. Newly hatched larvae die when exposed to cedar, but older larvae and adults are not affected. The heartwood of red cedar has a vapor that is toxic to larvae, but after cedar is more than 36 months old it is useless for control.

Plastic bags and tight containers can be used to store garments. These containers prevent adult beetles from laying eggs on or near susceptible

clothing. But if the clothing is infested, the bags will confine the infestation to just a few items.

Cold storage has been long used to protect articles attacked by carpet beetles. Clothing, coats and sweaters stored at 40 to 42°F will be protected for long periods of time. Freezing has also been used to kill carpet beetles. Infested materials should be placed in plastic bags and loosely packed in a chest freezer at -20°F for three days. Reducing the air in the bag eliminates the formation of ice. Heat has also been used to kill or repel carpet beetle larvae. Exposure of infested items to 105°F for four hours is sufficient; placing infested items in the hottest rays of the sun causes larvae to abandon the fabric.

Chemical Control

Several kinds of insecticide sprays are registered for control of carpet beetles. Spot treatment with insecticides can provide effective control of carpet beetles, although more than one application may be necessary. Dusts may also be effective. When spraying or dusting rugs, closet areas, and storage areas, be sure to treat all known or suspected feeding and hiding places.

Table 1. Pesticides Available

Trade Name (Formulation)		Common Name - %		
Site(s)	Pest(s)	Re-Entry Time	Preharvest Time	Retreatment Interval
CB-38 Extra (Aerosol)		Pyrethrins - 0.30%		
Hotels/motels	Carpet Beetles	None	None	None
Hospitals, Day Care Centers, Schools, Buses/Automobiles, Railroad Cars/Box Cars/Trains, Trucks/Trailers, Vessels (Boats/Ships)	Carpet Beetles	None	None	None
Spray directly on beetles, floors, baseboards, shelves and carpets.				
Demand CS (Microcapsulated suspension)		Lambda-cyhalothrin - 9.7%		
Hotels/Motels	Carpet Beetles	Do not contact until dry	None	3 weeks
For use as a general surface spray and crack and crevice or spot treatment in, on, or around buildings and structures and their immediate surroundings.				
Ficam D (Dust)		Bendiocarb - 1.0%		
Restaurants/Commercial Kitchens	Black Carpet Beetles, Carpet Beetles	None	None	None
This product is intended to be applied with a hand or power duster to hiding and runway areas and those places where pests are found. Dust where insects are found.				
Microcare Pressurized Pyrethrum Capsule Suspension (Aerosol)		Pyrethrins + Piperonyl Butoxide + MGK264 - 0.300 + 2.200 + 0.336%		
Mobile Homes/Travel Trailers/Recreational Vehicles, Vessels (Boats/Ships)	Carpet Beetles	Do not contact until dry	None	None
Not for use on humans or animals. Thoroughly treat all furniture and similar objects that cannot be laundered or dry cleaned. Close all windows and doors. Disperse in all locations. Leave area closed for 15 minutes.				
Microcare Pressurized Pyrethrum Capsule Suspension (Formula 1) (Aerosol)		Pyrethrins + Piperonyl Butoxide + MGK264 - 0.300 + 2.200 + 0.336%		
Mobile Homes/Travel Trailers/Recreational Vehicles, Vessels (Boats/Ships)	Carpet Beetles	None	None	None
Use this product with supplied actuator and tubes. Inject this product into cracks and crevices. Spot, space, and general treatments are permitted for certain applications. To make a spot treatment release product onto surface. Make applications on and under floor coverings, under carpets and furniture and in closets or other localities where these insects are found. Treat area for 1-3 seconds. Leave unoccupied for 15 minutes.				

Table 1. Pesticides Available

Trade Name (Formulation)		Common Name - %		
Site(s)	Pest(s)	Re-Entry Time	Preharvest Time	Retreatment Interval
P.I. Contact Insecticide (Formula 1) (Aerosol)		Pyrethrins + Piperonyl Butoxide - 0.5 + 4.0%		
Hospitals	Carpet Beetles	None	None	None
Locate source of infestation. Treat nearby cracks and crevices and perform general volumetric treatment of infested area. Patients should be removed from room prior to treatment. Room should be ventilated for at least 2 hours after spraying. Do not return patients to room until after ventilation.				
Nursing Homes	Carpet Beetles	None	None	None
Locate source of infestation. Treat nearby cracks and crevices and perform general volumetric treatment of infested area. Patients should be removed from room prior to treatment. Room should be ventilated for at least 2 hours after spraying. Do not return patients to room until after ventilation.				
Pestab (Wettable/soluble powder)		Lambda-cyhalothrin - 10.0%		
Restaurants/Commercial Kitchens	Carpet Beetles	Do not contact until dry	None	3 weeks
Use as a crack and crevice or spot treatment to selective surfaces. Do not apply when facility is in operation or when foods are exposed.				
Grocery Stores/Supermarkets, Hotels/motels	Carpet Beetles	Do not contact until dry	None	3 weeks
Apply as a crack and crevice or spot treatment to selective surfaces. Do not apply when facility is in operation or food is exposed.				
Pro-Control Plus Total Release Aerosol Insecticide (Aerosol)		Pyrethrins + Cyfluthrin + Piperonyl Butoxide - 0.5 + 0.1 + 1.0%		
Hospitals, Nursing Homes	Black Carpet Beetles	2 hours	None	None
Do not apply this product in any rooms while occupied by patients, the elderly, or infirmed. Open doors, drawers, and closets. Shut off fans and air conditioning. Set fogger on stand. Immediately leave treated area. Keep area closed for at least 2 hours. Allow treated area to air for 30 minutes.				
Day Care Centers, Schools	Black Carpet Beetles	2 hours	None	None
Do not apply in classroom when in use. Open doors, drawers, and closets. Shut off fans and air conditioning. Set fogger on stand. Immediately leave treated area. Keep area closed for at least 2 hours. Allow treated area to air for 30 minutes.				
Saga WP Insecticide (Wettable/soluble powder)		Tralomethrin - 40.00%		
Aircraft	Carpet Beetles	Do not contact until dry	None	None
Do not apply when passengers or non-essential personnel are present in area to be treated.				
TKO Diazinon Capsule Suspension (Microcapsulated suspension)		Diazinon - 23.0%		
Hospitals	Carpet Beetles	Do not contact until dry	None	None

Table 1. Pesticides Available

Trade Name (Formulation)		Common Name - %		
Site(s)	Pest(s)	Re-Entry Time	Preharvest Time	Retreatment Interval
<p>This product should be diluted in water and may be sprayed on any surface which will not be damaged or stained. Do not use this product indoors as an overall surface spray or as a space spray; take care not to introduce this product into the air during application. Use only in well ventilated areas. Do not apply where children are likely to frequently contact treated surface. Remove or cover fish bowls and remove pets before application. Do not treat pets with this product. Thoroughly apply spray as a spot treatment along edges of carpet, under carpet edge, furniture, beds, throw rugs, and as a crack and crevice application in closets and other shelving where infested items are stored. Do not apply when occupants are present in the immediate area.</p>				
Nursing Homes	Carpet Beetles	Do not contact until dry	None	None
<p>This product should be diluted in water and may be sprayed on any surface which will not be damaged or stained. Do not use this product indoors as an overall surface spray or as a space spray; take care not to introduce this product into the air during application. Use only in well ventilated areas. Do not apply where children are likely to frequently contact treated surface. Remove or cover fish bowls and remove pets before application. Do not treat pets with this product. Thoroughly apply spray as a spot treatment along edges of carpet, under carpet edge, furniture, beds, throw rugs, and as a crack and crevice application in closets and other shelving where infested items are stored. Do not apply when occupants are present in the immediate area.</p>				
Day Care Centers, Schools	Carpet Beetles	Do not contact until dry	None	None
<p>This product should be diluted in water and may be sprayed on any surface which will not be damaged or stained. Do not use this product indoors as an overall surface spray or as a space spray; take care not to introduce this product into the air during application. Use only in well ventilated areas. Do not apply where children are likely to frequently contact treated surface. Remove or cover fish bowls and remove pets before application. Do not treat pets with this product. Thoroughly apply spray as a spot treatment along edges of carpet, under carpet edge, furniture, beds, throw rugs, and as a crack and crevice application in closets and other shelving where infested items are stored. Do not apply to classrooms when in use.</p>				