

## Cigarette Beetle, *Lasioderma serricorne* (Coleoptera, Anobiidae)<sup>1</sup>

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### Appearance

The adult cigarette beetle (Figure 1) is a small (1/10 inch or 2 to 3 mm), oval, stout, reddish-brown beetle. It appears dull due to a fine covering of tiny hairs on the pronotum (the body segment seen behind the head) and elytra (the hard forewings). This beetle normally tucks its head down under the pronotum when disturbed, giving it a humped-back appearance. The cigarette beetle has smooth elytra while the closely related drugstore beetle has fine grooves running lengthwise along its elytra. The larvae of the cigarette beetle are c-shaped, like a miniature grub.

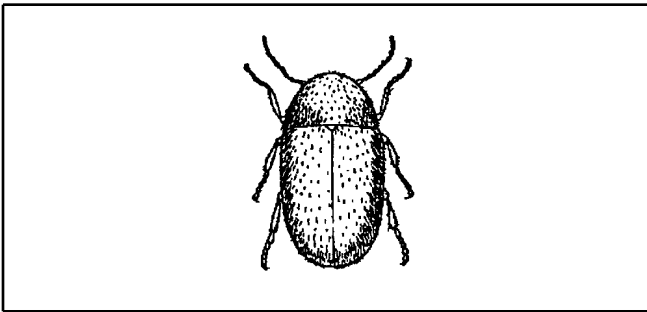


Figure 1. Cigarette beetle.

### Habits

The cigarette beetle is a serious pest of stored products. It gets its name from its habit of attacking stored bundles of tobacco and tobacco products such as cigarettes, cigars, and chewing tobacco. However, the cigarette beetle will attack virtually any product made from plant or animal material including rice, ginger, raisins, pepper, dried fish, dates, seeds, dried flowers, pyrethrum powder (an insecticide), rodenticide baits, dried or pelleted pet food, straw upholstery stuffing, cottonseed meal, books, and rodent droppings. They are dreaded destroyers of pressed plant specimens and museum workers call them the "herbarium beetle." Damage is done by both adult and larvae lifestages.

### Biology

The adult beetles can live from 3 to 4 weeks. Females lay up to 100 eggs. The eggs hatch in 6 to 10 days. The larvae feed for 5 to 10 weeks then pupate within protected cells they excavate. Pupation lasts 2 to 3 weeks. The generation time from egg to reproducing adult is about 2 to 3 months. In warm climates, there can be 5 to 6 generations per year.

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Adults are strong fliers, fly at night and are attracted to light, such as television and computer screens.

## Control

The most important control measure is to find the source of the infestation and remove or destroy the infested material. Sticky traps can be placed in the corners of the room or closet to locate the infestation site. Check materials such as pet food, spices, and boxes and bait stations containing rodent bait. Inspect all dried foods in infested drawers or cabinets. Uninfested food should be placed in sealed containers to prevent further infestations. Infestations can be prevented and limited by storing dry foods and spices in glass, metal, or plastic containers or by sealing boxes of dry foods in plastic bags. These measures prevent imported pests from spreading from one product to another and clear containers allow an infestation to be detected sooner. Good sanitation is also important to control populations. Spilled flour, pancake mix, etc., caked in cracks and crevices can be a source of re-infestation. Stores and warehouses should monitor populations with pheromone traps. Non-chemical control measures including heat (140 to 145°F for 6 hours for large spaces or 30 minutes in a 130°F oven for small quantities spread in a shallow pan), cold (36°F for 16 days, 25°F for 7 days, or deep freeze for 4 days), and UV light traps to capture flying adults. It is usually not necessary to use insecticides in home infestations, unless infestations are severe. Residual sprays should be applied to cracks and crevices where the beetles hide. Be sure to remove all food or other items before spraying. Insect growth regulators have been shown to be effective in controlling cigarette beetle populations in tobacco warehouses and herbarium plant collections.

**Table 1.** Pesticides Available for Cigarette Beetle Management

Trade Name (Formulation)		Common Name - %		
Site(s)	Pest(s)	Re-Entry Time	Preharvest Time	Retreatment Interval
<b>Conquer (Emulsifiable concentrate)</b>		<b>Esfenvalerate - 3.48%</b>		
<b>Commercial Warehouses/Industrial Buildings/Storage Buildings</b>	Cigarette Beetles	Do not contact until dry	None	14 days
Infested stored products should be removed and destroyed, fumigated or treated with other products approved for this use. Use in mechanical aerosol foggers. Keep area closed for at least 1/2 hour and ventilate thoroughly before re-entry. Do not remain in treated area.				
<b>Demand CS (Microcapsulated suspension)</b>		<b>Lambda-cyhalothrin - 9.7%</b>		
<b>Buildings/Hotels/Motels</b>	Cigarette 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.				
<b>Microcare Pressurized Pyrethrum Capsule Suspension (Formula 1) (Aerosol)</b>		<b>Pyrethrins + Piperonyl Butoxide + MGK264 - 0.300 + 2.200 + 0.336%</b>		
<b>Mobile Homes/Travel Trailers/Recreational Vehicles, Vessels (Boats/Ships)</b>	Cigarette 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 spot or crack and crevice treatments to localized areas. Treat area for 1-3 seconds. Leave unoccupied for 15 minutes.				
<b>P.I. Contact Insecticide (Formula 1) (Aerosol)</b>		<b>Pyrethrins + Piperonyl Butoxide - 0.5 + 4.0%</b>		
<b>Hospitals</b>	Cigarette Beetles	Ventilate 2 hrs.	None	None
Patients should be removed from room prior to treatment. For exposed adult and larval stages only. Contact as many insects as possible. Inject into cracks and crevices. Repeat treatment as necessary. Also apply as space treatment. Room should be ventiated for at least 2 hours after spraying. Do not return patients to room until after ventilation.				
<b>Nursing Homes</b>	Cigarette Beetles	Ventilate 2 hrs.	None	None
Patients should be removed from room prior to treatment. For exposed adult and larval stages only. Contact as many insects as possible. Inject into cracks and crevices. Repeat treatment as necessary. Also apply as space treatment. Room should be ventiated for at least 2 hours after spraying. Do not return patients to room until after ventilation.				
<b>Pestab (Wettable/soluble powder)</b>		<b>Lambda-cyhalothrin - 10.0%</b>		
<b>Restaurants/Commercial Kitchens</b>	Cigarette 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.				

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Trade Name (Formulation)		Common Name - %		
Site(s)	Pest(s)	Re-Entry Time	Preharvest Time	Retreatment Interval
<b>Grocery Stores/Supermarkets, Hotels/motels</b>	Cigarette 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.				
<b>Saga WP Insecticide (Wettable/soluble powder)</b>		<b>Tralomethrin - 40.00%</b>		
<b>Aircraft/Residential Structure/Non-Residential Structures</b>	Cigarette Beetles	Do not contact until dry	None	None
Do not apply when passengers or non-essential personnel are present in area to be treated. Remove all food and utensils from cupboards, shelving, and storage areas before spraying. Allow all treated surfaces to dry and cover shelves with clean paper prior to replacing food stuffs, utensils or other items. Treatments can be repeated as necessary.				