

# VIRGINIA COOPERATIVE EXTENSION SERVICE

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## INSECT NOTES

### CARPET BEETLES

Carpet beetles are one of the most common household insect pest submitted to the Insect Identification Laboratory. Although they can occur in houses throughout the year, these pests seem to be found most often in the fall and winter seasons. The larval stage of carpet beetles are usually found in clothes closets and dresser drawers associated with wool sweaters or furs, or they are found in the kitchen cabinets. They can feed on almost anything, and be almost anywhere in the house (like teenagers!). The recent emphasis on animal fibers in clothes and the damage carpet beetles can cause to fabric and rugs has increased the concern for controlling these insects.

*Control* of this group of insects is very difficult because they can be almost anywhere in the house, they are small and remain hidden most of the time, and general clean-up programs do not always remove all the potential food sources. Aerosol sprays can be effective, but it make take several applications. The opportunity for re-infestation is certainly great, as carpet beetles can be brought into the house with food or fabric materials, or the adults can enter from the outside during the spring and early summer.

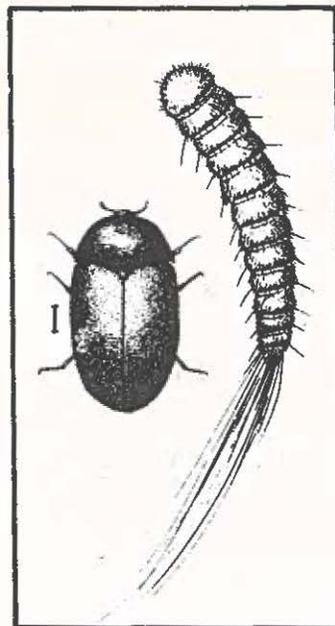
**Species and Habits.** The four most important and most common species of carpet beetles in houses are: the black carpet beetle, the varied carpet beetle, the common carpet beetle, and the furniture carpet beetle. The *adult* beetles are active during spring and summer, they feed on the pollen and nectar of several species of plants. They may be found dead at windows inside the house anytime during the year. Adult beetles can mate and lay *eggs* without feeding. Females can lay from 30 to 100 eggs, depending on the species. The eggs are usually laid in lint, behind and under baseboards, in floor cracks, and other dark and protected places. The *larvae* develop over a 3 to 36 month period, and can shed their skin from 5 to 12 times. The shed skins can be found anywhere in the house, and often make the infestation seem much worse than it is. The larval stages have chewing mouthparts and can feed on a variety of material. Their preferred food varies with the species of carpet beetle, but all carpet beetle larvae can feed on animal products such as wool, furs, hide, feathers, hair, and silk. They will also attack synthetic fabrics if the surface has been soiled with food or animal excreta. Some species of carpet beetles prefer cereals and stored grain. The *pupal* stage lasts 6 to 30 days, but the adult beetle make remain in the pupal case for several weeks before it emerges (thus protecting it from chemicals sprays!).

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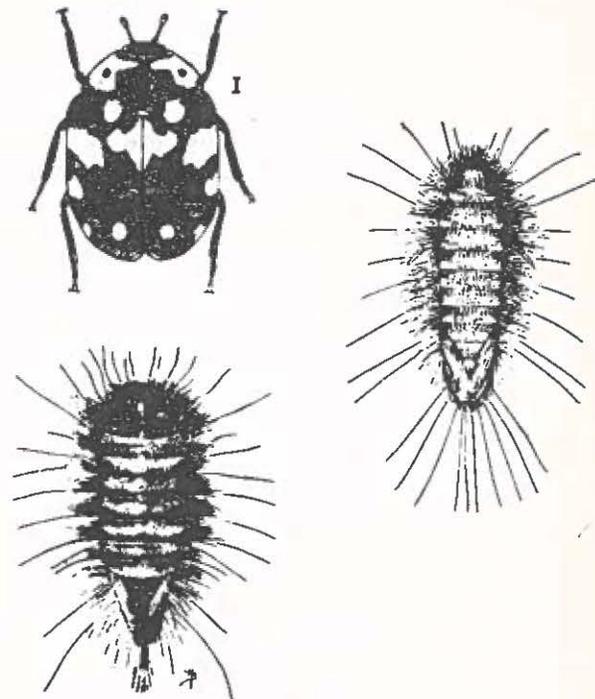
**Black Carpet Beetle.** This is a very common species of carpet beetle in houses and in grain storage and feed mills. It is most likely to be found associated with stored foods. The larvae may burrow through packaging material to obtain food, thus providing access for other species of insects (sawtoothed grain beetles, meal moths). Larvae of the black carpet beetle will also feed on leather, fur, silk, and woolen items.

The adult beetle is shiny black and dark brown, with light brown legs. The full-grown larva is brown and distinctly tapered toward the rear. The end of the body has a tuft of long hairs--giving it a carrotlike shape. The larval stage may live nearly one year and shed its skin 5 to 11 times.



**Varied Carpet Beetle.** This species attacks the usual range of household articles infested by other carpet beetles, such as furs, silk, cereals, etc. However, the favored larval food of this species seems to be dead insects and spiders. This species is commonly found in abandoned wasp nests--feeding on the dead insects and the nest material.

The adult beetle is small and oval shaped, with a varied pattern of black and white markings. The adults are not usually seen alive in houses, but are most often found dead at windows. The larva is rather short, with tufts of hair over its body.



**Furniture Carpet Beetle.** The adult beetle looks very similar to the varied carpet beetle, but this species is more round and less oval. Both species are common in houses, the furniture carpet beetle is found in drier environments. The larvae will feed on the same variety of household materials as other carpet beetles.

**Control.** Clean up and prevention can be used to control and perhaps eliminate problems with carpet beetles. Potential food for the larvae--wool, silk, leather, fur--should be inspected regularly, cleaned regularly, and stored in tight containers. Moth crystals and flakes should be used when storing materials for long periods. Do not rely on cedar chests or cedar closets to protect clothes. Infested food materials should be discarded, the kitchen cabinet vacuumed and all other foods inspected before replaced. Aerosol sprays should be directed at suspected harborage for the larvae--baseboards in closets and rooms, dresser drawers, storage cabinets.

## **QUESTIONS - 1988**

The most commonly asked questions for 1988 were:

**Can lindane or pentachlorophenol be used to control wood-infesting beetles (powderpost beetles, woodborers)--either by a homeowner or pest control operator?**

Yes, lindane and pentachlorophenol can be used to control these beetles, but these chemicals can not be used in "living spaces". They can be used in attics and crawlspaces (unless you live in those places!). The material can be applied with a brush or sprayed on exposed wood surfaces. These chemicals can provide effective, long term protection of the wood.

**Can white grubs in turf be treated and controlled with insecticides in September and October?**

Yes, the insecticides labelled for grub control can be effective when applied late in the season. However, when applied in mid- to late July these same chemicals are probably more effective. By September and October white grubs are large, probably 5 times bigger than they were in July. The insecticide rate can not be adjusted for the time of year or the size of the grub, it will be the same rate of application. It is usually easier to kill small grubs (early stage grubs) than it is large (full grown) grubs.

**Ticks are worse this year than ever before. What can I spray for the control of ticks in my yard?**

The chemical control of ticks is very difficult, the results are usually not satisfactory to homeowners. Dursban and diazinon can be used--as a liquid or granular formulation--to treat areas for ticks. But chemicals applied outdoors, exposed to sunlight and moisture do not remain effective for very long. The best measures for tick control are to keep vegetation mowed around the yard. Grass and pasture land that has been mowed very short will allow sunlight to penetrate, that discourages small and large animals (rabbits, mice and moles). Without small animals, ticks will not survive. Get out the mower, before you get out the sprayer!

**What chemical is the best for treating a house for termites?**

There are at least six termiticides on the market today! The list includes organophosphates (Dursban TC, Pryfon 6) and pyrethroids (Demon TC, Tribute, Dragnet, etc.). All of these chemicals are effective; they will all last (=remain effective) for about the same length of time (5-10 years). The real key to termite control is not the chemical, but the application. Homeowners should deal with a reputable pest control operator. Check to see whether they are members of the state (Va Pest Control Association) or national (National Pest Control Assoc.) association.

**The price for treating my house for termites seems very high--\$600 to \$900! Am I getting cheated?**

Treating a house with the modern termiticides is expensive, because the chemicals are expensive. For example, chlordane was available to professional pest control operators for about \$30/gallon. The new termiticides are sold to them for about \$100/gallon! The pest control operator has to pay considerably more for the chemical than before, and his labor and insurance costs have increased.

**A pest control operator tells me I have powderpost beetles and the only way to control them is to have the house fumigated--wrap it in a large tarp and inject gas. Is this necessary?**

In some cases of severe infestation of oldhouse borer and powderpost beetles fumigation is necessary. Of course, some homeowners prefer fumigation because it will eliminate all problems at once. In cases of limited infestation--a few joists are infested--the wood can be treated with Dursban TC. This liquid chemical will penetrate the wood and provide a chemical barrier to beetle larvae. Fumigation is not the only way to treat an infestation of wood-infesting beetles. Get a second and third opinion before you decide.

**There are small holes or mounds of soil all over my lawn? What causes this?**

Frankly, I don't know! It could be skunks digging for grubs, it could be green June beetle larvae emerging and foraging at night, could be something else!

**Carpet beetles are found in several rooms of the house, what can be sprayed to control them?**

Carpet beetles are the most commonly found insect in houses. They can be almost anywhere, and can feed on almost anything! A thorough vacuuming will certainly help eliminate many of them, along with a clean up of old sneakers, animal skins, felt, feathers, and wool scraps. Spraying for these insects is difficult--you can't spray everywhere! Any of the common aerosols sold in hardware or supermarkets will be effective.