## **Bug-Wise**



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Clothes Moths and Carpet Beetles: Spring is on its way and folks will soon be putting heavy winter clothing away for the season. A little bit of care and thought now can prevent costly disappointments next fall when these garments are needed again.

Although most people think of clothes moths when they encounter holes in a favorite sweater or wool coat, carpet beetles may also be the cause. In fact, carpet beetle infestations are more common than clothes moths. Fortunately, most of the precautions taken to prevent or control clothes moths will also work against carpet beetles.

The most commonly encountered species of clothes moths are the webbing clothes moth and the casemaking clothes moth. Both are very small, light-colored moths, approximately ¼ inch in length. Actually, the moths do not eat clothes; it is their caterpillars that cause the damage. Mature caterpillars are about ½ inch long, but they are tiny when first hatched.

Carpet beetles are so named because they were such a common problem back in the days when carpets were made of wool, hair or other animal based products. The two most common species are the varied carpet beetle (larvae pictured above) and the black carpet beetle, but there are several other species of carpet beetles. Carpet beetles and clothes moths are still important pests of 'oriental rugs' and other types of wool carpets and tapestries, but they do not feed on the synthetic carpets that are so common today. However, these pests will attack fabrics that are blends of wool and synthetics.

Clothes moths and carpet beetles feed on items containing wool, mohair, fur, hair, silk, feathers, and other keratin based animal products. This includes: wool sweaters, silk ties, felt hats, fur coats, wool suits or skirts, wool or silk tapestries or rugs, taxidermy specimens, and a variety of other items. Carpet beetles also feed on dried pet foods and dead insects, and infestations are often associated with accumulations of dead insects in light fixtures, wall voids, and similar locations. Bird nests, bee and wasp nests, and animal carcasses, such as dead rats or squirrels, are other common sources of carpet beetles. Some of the keys to protecting clothing and other items from these pests are discussed below.

- Have wool and silk clothing cleaned before placing it in storage. Clothing soiled by sweat, oil and flakes of skin is more attractive, and nutritious, to clothes-damaging pests. Valuable furs should be professionally cleaned and stored in cold storage. Thorough ironing will also control fabric pests, as will machine washing of items that are safe to wash.
- When cleaning is not possible, hang clothing items in a bright, sunny location, brush them off thoroughly (inside and out), leave them there for a few days, and brush them again before storing. Brushing dislodges many eggs and larvae, and these insects are repelled by sunlight and attempt to flee from it.
- Freezing is an effective method of controlling infestations of carpet beetles and clothes moths. Place items inside a plastic bag, force out as much air as possible--in order to minimize condensation, and place in the freezer for four to seven days. Although this will control insects, it obviously does not clean the clothing, and soiled clothing is more

prone to reinfestion. However, freezing can be a useful, cost effective, way to assure sweaters or other items are bug free before they are placed into storage. Be aware of potential moisture problems due to condensation. Remove items from the plastic bag as soon as they return to room temperature and be sure they are dry before placing in storage.

- Store clothing in 'bug tight containers'. Moths and adult carpet beetles can't lay eggs in clothing that they can't reach. Sweaters and other items can be stored is plastic boxes with tight fitting lids. Suits, skirts, and coats can be stored on hangers in specially designed storage bags or even modified garbage bags. To get the maximum protection for long-term storage, be sure that bags are sealed at both ends. However, do not make the mistake of assuming that clothing is immune from problems just because it is stored in this fashion. If clothes moths or carpet beetles do get into storage boxes or bags they thrive.
- Check stored items periodically to be sure that they are not infested, and promptly deal with infestations that are found. In addition to checking for holes in clothing, also be alert for the presence of small, light-colored moths, small oval-shaped beetles, small hairy larvae, or shed larval skins in the bottom of the container. Items that are stored for long periods of time without being used are prime candidates for damage.

What about storing items in a cedar chest or cedar lined closet? While cedar certainly smells good, its insect deterring properties are overrated. Studies show cedar does not really repel clothes moths, but high concentrations of cedar oils can cause mortality of small caterpillars. So cedar can help, but only when it is very fresh or when it has been rejuvenated by the application of cedar oil. It is also important that the storage chest provides a tight seal so the cedar volatiles can build to a toxic level. Cedar lined closets do not usually provide a sufficiently tight seal. Some dry cleaners offer to place cleaned clothing in 'moth proof' bags, which are usually impregnated with cedar oil.

What about moth balls or moth crystals? Neither napthalene nor paradichlorobenzene (PDB) will repel clothes moths or carpet beetles, but like cedar volatiles, these products will also cause mortality of young larvae when concentrations are high enough. Achieving high enough concentrations requires that the clothing items be stored in airtight containers. Because these chemicals can react with plastic items, it is important to take precautions to prevent them from directly contacting the items being stored or the container. Of course, both of these products smell bad, and items must be aired out before use.

What about 'pest strips'? Some companies market 'pest strips' that contain vapona (also known as dichlorvos or DDVP). Prozap Insect Guard Strip is one example. These are labeled for use in closets, wardrobes, and other storage spaces to protect against moths and other insects. But read the label carefully; vapona is a volatile organophosphate insecticide and should not be used in areas where people sleep or spend significant amounts of time. Vapona strips can be used to fumigate or protect items stored in closets, attics, or airtight containers. These strips are sold in various sizes, depending on the volume of the storage area to be treated. Be sure to read and follow the label carefully. Vapona pest strips should not be viewed as a substitute for the good housekeeping practices listed above, but pest strips can provide additional protection for properly cleaned and stored items.

What about using insecticide sprays? Insecticide sprays are not usually very helpful in controlling fabric pests, though they do play an important role in protecting wool carpets and wall hangings. Insecticides should never be sprayed directly on clothing. Pest control companies have access to several insecticides is one example) and growth regulators that can be used to protect wool carpets. Some of these products are also available to homeowners.

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