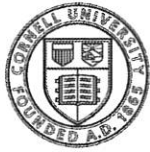


# HOME GROUNDS FACT SHEET



Cornell University  
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Nassau County



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## Clothes Moths

### Injury

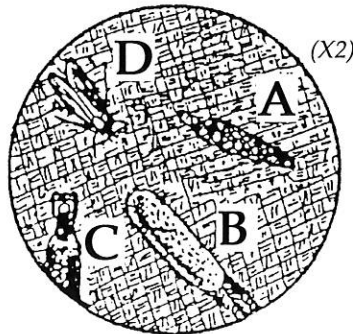
There are two species of clothes moths that commonly infest homes, the case-making clothes moth (*Tinea pellionella*) and the webbing clothes moth (*Tineola bisselliella*). It is the larvae (caterpillar) stage of these insects that does the actual feeding. Clothes moths feed on all kinds of dry materials of animal origin including woolens, mohair, hair, bristles, fur and feathers. Household items that may be attacked include clothing, blankets, comforters, rugs, carpets, drapes, pillows, hair mattresses, brushes, upholstery, furs, piano felts or other natural or synthetic fabrics mixed with wool. Silken feeding tubes or hard protective cases are often found on infested fabrics.

### Description

The adult moths of these two species look very much alike. They are yellowish-tan to buff-colored with a wingspread of about 1/2 inch. The larvae are white with brown to black heads, and are also about 1/2 inch long. The casemaking clothes moth larvae spin a protective case out of silk and material fibers, often blending in with the fabric so damage is not noticed until a bare spot or hole is produced. The webbing clothes moth spins silk over the fibers it is feeding on but does not form a case around itself.

### Damage

The holes made by clothes-moth larvae appear to be scattered about the garment and are generally small. Carpet-beetle holes, by contrast, usually seem to be concentrated in a few areas and can be quite large. (See *Home Grounds Fact Sheet B-2-9 - Carpet Beetles*.)



a. larva & silken feeding tube  
b. cocoon  
c. cocoon with cast pupal skin protruding  
d. adult

### Life History

Female clothes moths deposit soft white eggs in clothing and household furnishings. A single female may deposit from 100 to 300 eggs. Eggs hatch in one to two weeks during the summer or in heated rooms, while in unheated rooms hatching may take longer. The tiny larvae begin feeding after leaving the eggs and soon begin to spin some silk either for the case or as webbing over the fabric. The amount of time it takes for a larva to mature varies greatly, from about 40 to over 200 days. The pupa (resting

stage) also occurs in the larval feeding area. Adults emerge from the pupae, mate and begin the cycle again.

The adult clothes moths are often found in dark places. They dislike sunlight and are not attracted to artificial light, but may be seen flying lazily in darkened corners or at the edge of a circle of light. When the items on which they are resting are moved, they either run quickly for cover or fly to a darker area to conceal themselves. Infestations often start when woolens are improperly stored in dark places and left undisturbed for long periods of time.

### Integrated Pest Management (IPM)

#### Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce problems. Always use the least toxic methods first. A good mechanical control, in many instances, is to vacuum the insects and then throw the bag away. Regarding household pests, in addition to regular house-cleaning, the best preventive method is to monitor the home, i.e. note any cracks in foundations, air spaces between windows and frames, poorly-fitting doors, moisture from leaks, etc., and correct such examples/situations.

B-2-9A RB reviewed RT 1/03

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## Management

**There are several steps one can take to protect clothing and furnishing against damage by clothes moths.**

1. Good housekeeping helps keep these pests out. Clean often to prevent lint, dust or hair from accumulating. Regular vacuum cleaning of rugs, carpets, drapes, upholstered furniture, pet bedding, closets, inside and behind heaters and furnace air ducts and vents, and cracks and crevices in floors is important. Particularly susceptible areas include under furniture that is seldom moved and along baseboards where wool lint may accumulate. After using the vacuum, empty the bag because it may contain eggs or larvae. Remove animal nests (birds, rodents, bats, bees and wasps). Trap rodents (Note: poisoned mice or other rodents may die in inaccessible places - inside walls - and the carcasses can serve as a source of food for fabric pests as well as other household pests).
2. Store articles properly. Thoroughly clean garments before storage. Clothes moths are attracted to articles soiled by food, beverages, perspiration and urine, not the clean wool itself. For furs professional cleaning and cold storage is recommended. Place clean articles in tight storage containers. Cedar-lined chests and closets are effective in repelling moths but should be lightly sanded to release oils after a year or two of use. Cedar oil can kill young larvae, but may not affect older ones. Also as the wood ages the oils are not as volatile. Use storage containers with tight fitting lids and seal storage containers or cartons with a good quality tape. All seams and joints should be taped over. If garments are completely clean when placed in sealed containers they should be safe from clothes moths.
3. When making purchases, look for woolens and wool synthetic blends that have been treated by the manufacturer with a moth resistant compound.
4. If you have infested articles, you can often rid them of larvae and eggs by brushing and sunning them, or by having them dry cleaned. Vigorous brushing, particularly around cuffs, collars and other hidden places can, if done periodically, be effective in destroying clothes moths. If pillows, mattresses, or upholstered furnishings are infested, you may want to have them fumigated by a professional pest control firm, or dispose of the infested articles. Moth proofing after cleaning or sunning can help prevent future infestations.
5. Chemical pesticides are available to treat clothing. If you choose to use a chemical pesticide, contact your local Cooperative Extension office for specific recommendations. Purchase only products that are specifically labeled for treating woolens for clothes moths. Be sure to follow the manufacturer's recommendations carefully and test a small amount of the spray in an out-of-the-way place on the garment or carpet before spraying the entire piece to be sure it will not discolor or cause any other problems. Infested cabinets or closets should be vacuumed thoroughly to remove any wool lint from between boards or in corners.

Many people assume that freezing temperatures will control these insects - not always so. Clothes moths have survived for long periods in unheated attics and barns in old furniture, clothing and blankets exposed to below freezing temperatures. Although lower temperatures slow down or put a temporary halt to their activities, the clothes moths are usually not directly killed by them.

If you have a widespread infestation, it is advisable to enlist the services of a professional pest control firm.

*Prepared by: Carolyn Klass, Senior Extension Associate, Department of Entomology*

"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0340. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."