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CLOTHES MOTHS

Introduction

Clothes moths belong to a large group of small moths of the family Tineidae. The larvae of many species in this group are case bearers; some are scavengers or feed on fungi, and some feed on woolen fabrics. The three species that attack clothes and woolens are of considerable economic importance.

In general, adult clothes moths are winged, buff-colored insects about 1/2 inch long. They are weak fliers and avoid lighted areas. The female moth will lay from 100 to 300 eggs, mainly on material of animal origin. The eggs hatch into small caterpillars in about 5 days. Larvae will vary from 1/16 to 1/3 inch long, depending on their age. They commonly feed on wool, feathers, fur, hair, upholstered furniture, leather, fish meal, milk powder, lint, dust, paper, or even synthetic materials which are soiled with oils. The complete life cycle from egg to adult can take from 2 months to several years to complete.

Identification and Habits

The most common species, *Tineola bisselliella* (Hummel), is called the webbing clothes moth. The adult has a wingspread of about 1/2 inch, is straw-colored without dark spots on the wings. The larvae feed within silken burrows which they spin over the fabric surface. They are known to feed on hair fiber, woolens, silks, felt, and similar materials. They do not form movable cases but when full grown form a cocoon of fragments of their food material fastened together with silk.

The larva of the case-making clothes moth, *Tinea pellionella* (L.), forms a portable case from silk and fragments of its food material. This case is tubular and open at each end. It feeds from this silken case as it is dragged over the surface of its food. The larva must remain within the case at all times and will die if removed from it. When the caterpillar is full grown it pupates within the case and eventually emerges as the adult moth. There is usually only one generation per year in our part of the country. The adult is brownish with three dark spots on each front wing. The moths have been noted in heated structures throughout the year but larvae have never been detected during the winter months. Larvae feed on a variety of material including woolens, feathers, felts, skins, spices, drugs, and stored tobacco.

The least important clothes moth in the United States is the carpet moth *Trichophaga tapetzella* (L.), which builds long silken tubes or galleries through fabrics as it searches for food. Fragments of the cloth are woven into the silk. Where this species is found, it is quite destructive. The adult has a wingspread of 1/2 to 1 inch, and the front wings are black at the base with a white apical portion.

Control

Prevention is the best control technique to follow as even limited infestations can cause noticeable damage to expensive materials. All cloth goods should be washed or dry-cleaned before storage. Thorough vacuuming will clean dust from floors, shelves and drawers where adult moths may lay eggs. Give close attention to rugs, carpets, draperies, furniture cushions, closet corners, cracks, baseboards, moldings and hard-to-reach places. Look for sources of infestation around the home such as old clothing, woolen scraps and yarn, furs, feather pillows and piano felts. Since clothes moth larvae will feed on feather and hair in the nests of birds and rodents, these should be destroyed.

Clothing containing wool, etc. should be kept in tightly closed containers. Any box or bag that can be sealed tightly makes an adequate storage container. Even heavy wrapping paper and tape will do. Moth protectants such as paradichlorobenzene (PDB) or naphthalene between sheets of paper can be added to containers, but these materials can be dangerous. Use 1 ounce of crystals or flakes per 2 cubic feet of container space. Cedar-lined closets and cedar chests have limited value in fabric pest protection unless other measures are used. One pound of naphthalene flakes or balls, or PDB crystals per 100 cubic feet of closet space will provide adequate protection.

Rugs, carpets, and pads of wool or other animal hair can become infested with clothes moths, especially in areas where they extend under furniture, around heating ducts or other hard-to-clean areas. First, eliminate any moth infestation by cleaning or brushing both sides of the rugs and rug pads. Before replacing them, spray both floor and pad lightly with an approved insecticide. Rugs and carpet surfaces, especially around the edges and under heavy furniture, also should be sprayed. These surfaces may need retreatment at 12 to 18 month intervals. The spray treatment just described is helpful in preventing damage to new rugs and carpets of natural animal fibers prior to installation.

Other household furnishings containing wool and/or mohair such as draperies, upholstered furniture, cushions, felt backings, etc. may be sprayed with an insecticide solution to prevent or eliminate clothes moth damage. Piano felt pads are best treated by a piano technician to avoid chemical damage potential and damage to other parts of the piano. Upholstered furniture and pillows may require fumigation by a professional pest control operator because surface sprays will not control pests inside the stuffing.

Precautionary Statement

All pesticides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the labeling. Pay close attention to the directions for use and the precautionary statements. The information on pesticide labels contains both instructions and limitations. Pesticide labels are legal documents, and it is a violation of both federal and state laws to use a pesticide inconsistent with its labeling. The pesticide applicator is legally responsible for proper use. Always read and follow the label.

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