Protecting Home-Cured Meat From Insects
PROTECTING HOME-CURED MEAT FROM INSECTS

Reviewed by Roy E. Bry, SEA research entomologist

Insects that most commonly attack home-cured meat are the cheese skipper, the redlegged ham beetle, and the larder beetle. Home-cured meats are also attacked by mites.

You can reduce the danger of insect and mite infestations by carrying out preventive measures recommended under the heading “What To Do” in this bulletin.

PESTS OF HOME-CURED MEAT

The cheese skipper (fig. 1) gets its name from the jumping habit of the larvae, which bore their way through cheese and cured meat. Infested parts of meat quickly rot and become slimy. Larvae (maggots) are yellowish and about one-third inch long when full grown. Adults are two-winged flies about one-sixth inch long. They lay their eggs on meat and cheese and multiply rapidly.

Mites (fig. 2) feed on the surface of cured meat; affected parts of meat become powdery. Mites are whitish and about one-third inch long when full grown. They do not fly, but they crawl around extensively and may be carried from one place to another by insects.

The redlegged ham beetle and its larvae (fig. 3) attack cured meat. The larvae bore through the meat and cause it to dry rot. Larvae are purplish and about one-third inch long. Adults feed on the surface of the meat. They are about one-fourth inch long and are a brilliant, greenish blue; their legs and the bases of their antennae are red.

The larder beetle (fig. 4) is dark brown and has a yellowish band across its back. It is about one-third inch long. Its larvae feed on or slightly below the surface of cured meat, but their feeding does not rot the meat. Larvae are fuzzy, brownish, and about one-third inch long when full grown.

WHAT TO DO

Slaughter animals and cure meat during cold weather when insects and mites are inactive. Be sure hams are sufficiently cured to withstand storage at normal air temperatures.

See that the following preventive measures are carried out before insects and mites become active in spring.

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1 Stored Products Insects Research and Development Laboratory Savannah, Ga. 31403
Clean Your Storeroom

Sweep out your storeroom and scrub it thoroughly with hot soapy water before you store meat in it. Give special attention to cracks in shelves, walls, and floors. Insects and mites feed and breed on grease and tiny scraps of meat lodged in cracks. Seal cracks with putty or plastic wood after you clean them.

Keep Pests Out

Flies, ants, and other insects can carry mites into your storeroom through spaces around doors and windows. See that doors and windows fit tightly. Install 30-mesh screens on windows and doors.

Apply Insecticides

After you clean and seal cracks in the storeroom, apply a surface spray to the floor, walls, and other surfaces that do not come in contact with the meat. Surface sprays leave a deposit (thin layer of insecticide), which kills insects that crawl over it.

To make the spray, mix 1 pound of 50-percent methoxychlor wettable powder with each 2½ gallons of water. Apply the spray with a household hand sprayer that delivers a continuous coarse spray. Keep the solution well stirred so the powder will not settle to the bottom of your sprayer.

Wettable-powder sprays leave a powdery deposit on most surfaces.
If a visible deposit is objectionable, you can use an emulsifiable concentrate of methoxychlor. When diluting the concentrate, follow directions on the label of the container; add the smallest amount of water recommended.

Methoxychlor leaves a surface deposit that controls houseflies and other pests of cured meat except mites. Since mites feed on the surface of meat, you can easily brush them off the meat and destroy them. Remove all meat from the storeroom before you brush off the mites.

Before you put the meat back into the storeroom, apply a spray of synergized pyrethrins to the floor, walls, and other surfaces on which houseflies and other pests are likely to crawl. Use a spray of synergized pyrethrins that contains 0.1 to 0.2 percent of pyrethrins and 1 to 2 percent of synergist. (A synergist increases the effectiveness of pyrethrins. Some of the synergists are piperonyl butoxide, sulfoxide, MGK 264, and propyl isome.) Apply the spray with a household hand sprayer that delivers a continuous coarse spray. Do not get the spray on the meat. After the spray dries, you can safely put the meat back into the storeroom.

Do not spray the storeroom with insecticides when it is stocked with meat.

You may apply recommended insecticides with a paintbrush while meat is in the storeroom, but only to surfaces that do not come in contact with the meat. Treat the surfaces once every 3 months during warm weather if methoxychlor is used. Treatments of pyrethrins may be needed every 30 to 45 days.

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**PRECAUTIONS**

Insecticides used improperly can be injurious to man and animals. Use them only when needed and handle them with care. Follow the directions and heed all precautions on the labels.

Keep insecticides in closed, well-labeled containers in a dry place. Store them where they will not contaminate food or feed, and where children and animals cannot reach them. Promptly dispose of empty insecticide containers; do not use for any other purpose.

Methoxychlor and pyrethrins can be used safely in meat storerooms only if they are (1) diluted as recommended under "Apply Insecticides," (2) applied to surfaces that do not contact the meat, (3) applied by spray before storeroom is stocked with meat, and (4) applied by paintbrush after storeroom is stocked with meat.

Emulsifiable concentrates produce skin irritation. When mixing concentrates, avoid spilling them on your skin and keep them out of your mouth, nose, and eyes. If you get a concentrate on your skin, wash it off immediately with soap and water. If you spill a concentrate on your clothing, remove the clothing immediately and wash the skin thoroughly. Launder the clothing before wearing it again.

If a concentrate gets in your eyes, flush them with plenty of water for 15 minutes and get medical attention.

Some insecticide compounds contain borax. Do not use borax in meat storerooms or on meat.

Have empty insecticide containers buried at a sanitary land-fill dump, or crush and bury them at least 18 inches deep in a level, isolated place where they will not contaminate water supplies. If you have trash-collection service, thoroughly wrap small containers in several layers of newspaper and place them in the trash can.

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**Protect Hams**

Cured hams are particularly susceptible to attack by insects. Protect them as follows:

*Embedding.*—Get a carton or box that will allow 3 or 4 inches on all sides of the ham you want to embed. Put a 3- or 4-inch layer of cotton-
seed hulls in the container. Place the ham on the hulls and surround it with more hulls. Inspect the ham about once a month to be sure that it is keeping well. If the hulls become infested with grain beetles, remove the hulls and replace them with new ones.

Another way to embed hams is simply to bury them in a bin of oats or other grain. If you use this method, tie one end of a string around the ham, run the other end to the surface of the grain, and attach a tag so you can easily locate the ham.

Wrapping and hanging.—Wrap each ham separately, and see that it is free of insects before you wrap it. Lay the ham on heavy wrapping paper. Remove the string used to hang the ham for smoking or place it inside the wrapper. Fold the paper as shown in figure 5.

Place the wrapped ham in a closely woven cloth sack (fig. 6). Keep the sack free of grease. Check the bag for holes through which insects might enter.

Loop the top of the sack and tie it tightly with string or single-strand rustproof wire (fig. 7). Use the string or wire to hang the ham in the storeroom. Hang hams so they do not touch each other; hang them where rats cannot reach them.

Inspect wrapped hams at least once a month. Replace wrapping if it is spotted with grease or if it has holes in it.

Figure 5.—How to wrap a ham. Broken lines show where to fold the paper; numbers show order in which to make folds.
Figure 6.—Placing wrapped ham in a closely woven cloth sack.

Figure 7.—Sacked ham ready for hanging in storeroom.

Keep Meat Cool

If practicable, keep the temperature of your storeroom between 55° and 60° F. Higher temperatures favor the development of insects.

INFESTED MEAT

If meat becomes infested in spite of your preventive measures, remove it from the storeroom and trim out infested parts. Cut deep enough to remove larvae that may have traveled into the meat along the bone or through layers of fat. The uninfested part of the meat is safe to eat, but should be used promptly. Protect the exposed lean of trimmed meat by greasing it with salad oil or melted fat to delay molding or drying.

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