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# FLY CONTROL WITH POISONED BAIT



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U. S. DEPARTMENT OF AGRICULTURE

Entomology Research Branch  
Agricultural Research Service  
U.S. Department of Agriculture

MARCH 1954

**POISONED BAIT**S will control house flies in some situations where sprays fail. They have been particularly effective in unscreened dairies, poultry houses, and garbage dumps. Flies that have become resistant to the chlorinated hydrocarbon insecticides, such as DDT, have been controlled with baits containing certain organic-phosphorus compounds.

There are two types of these baits-- (1) liquids, which may be applied to the floors, walls, or other surfaces; and (2) dry baits, which may be sifted over floors or wherever flies congregate. Either type is distributed thinly to reduce the hazard to domestic animals that is present when large quantities are exposed in a single container.

Blackstrap molasses, cane or corn sirup, and sugar may be used as attractants in liquid baits. Use the one that is most readily available and cheapest in your locality. Granulated sugar is used in dry baits.

Malathion is one of the organic-phosphorus insecticides that is very effective in baits. It is available commercially as a 50-percent emulsifiable concentrate and as a 25-percent wettable powder. It is much less toxic to the higher animals than are some of the phosphorus insecticides now used for controlling agricultural pests, and no more toxic than some of the chlorinated hydrocarbon insecticides.

## Liquid Bait

In liquid baits various concentrations of attractant and poison may be used with equal effectiveness. However, the baits are effective at low concentrations. To provide the maximum margin of safety in handling and applying the bait, the minimum effective concentration is recommended.

### Preparation

A satisfactory liquid bait is made by adding to water 10 percent of molasses, sirup, or sugar, and 0.1 percent of malathion. To prepare this bait use the following quantities of material:

Water (gallons) . . . . .	1	3	10
Attractant (pints) ..	3/4	2 1/4	7 1/2
Malathion (tablespoonfuls):			
50% Emulsifiable			
concentrate . . . . .	1/2	1 1/2	5
<u>or</u>			
25% Wettable			
powder . . . . .	2	6	20

If you have a malathion concentrate of different strength, use proportionate quantities in preparing the bait.

### Application

Prepare only as much bait as you need at one time. Prepared bait waiting for use presents an unnecessary hazard.



You can apply liquid bait with an ordinary garden sprinkling can. Plug about half the holes so that the bait will be spread thinly. Sprinkle in strips 4 to 6 inches wide on the daytime feeding places of the flies, usually the floors. Apply it directly to concrete or wood floors, but on dirt or litter-covered floors apply it to sheets of tin, wood, paper, or similar material placed on the ground. About 1 gallon is usually needed for each 1,000 to 1,500 square feet, depending on the number of flies.

In poultry houses apply the bait to floors under cages or to cloths suspended below the cages. Take care not to contaminate animal feed or utensils containing it.

Apply the bait directly to garbage dumps where flies are feeding and laying eggs.

A single application may provide effective control for several days in locations where good sanitation is minimizing fly breeding. While infestations are heavy, however, it is best to apply the bait every day for a few weeks to kill newly emerged flies. After this time breeding may have been reduced so that it is only necessary to treat every 3 or 4 days. You can determine this by the number of flies seen when treatments are stopped for a day or two.

From 5 to 10 gallons of bait per acre have controlled flies successfully on municipal garbage dumps, despite the abundance of other attractive materials present.

## Dry Bait

A highly effective dry bait contains 1 percent of malathion in granulated sugar. It is strongly recommended that dry bait be colored in order to avoid mistaking it for regular sugar.

### Preparation

Use 3 tablespoonfuls of 25-percent malathion wettable powder and 1/8 to 1/4 teaspoonful of green or yellow food coloring to 1 pound of granulated sugar. Stir thoroughly with a paddle until all the grains of sugar are coated with the powder and colored.

Ready prepared dry baits containing malathion may be available at your feed-store or drugstore.

### Application

You can distribute the dry bait conveniently from a shaker-top can or jar, such as a fruit jar with holes punched in the lid. Sprinkle it thinly in strips on the floor or in other places where flies congregate but where it will not contaminate animal feed, human food, or utensils. Usually about 2 tablespoonfuls are needed for each 500 to 1,000 square feet, depending on the number of flies. If they are extremely numerous, several times this quantity may be needed, as a moderately heavy population can consume 3 or 4 ounces of sugar in a few hours.

Apply the bait daily while flies are abundant. After 2 or 3 weeks breeding may have been reduced so that it is only necessary to treat every 3 or 4 days.

Dry bait may be used on dry surfaces that are not too porous. On loose material such as straw the bait may fall beyond reach of the flies.

## PRECAUTIONS

Malathion is less poisonous to man and animals than a number of other insecticides. It has been employed extensively for controlling agricultural pests in concentrations at least as high as is recommended for the baits. However, it may cause trouble if swallowed, inhaled, or absorbed through the skin.

As with most insecticides, the greatest hazard is in handling the concentrated material. Avoid getting the concentrate in your eyes or on your skin or clothing, and if you do spill it wash immediately and thoroughly with soap and water and change your clothes. In using the wettable powder do not inhale the dust.

In applying the baits avoid excessive exposure and do not apply to animal feed or to utensils used for feed or human food. Wash your hands after applying the bait. After you have applied liquid bait to movable objects such as bags or boards, handle them with care and do not use them for other purposes.

Keep the concentrate and the diluted bait out of reach of children and domestic animals. Do not store near foods or medicines.

Color the dry bait and label the container so that it can not be mistaken for ordinary sugar.



If baits are used as described, the amounts available to domestic animals by licking from treated surfaces will be too small to present a hazard. However, if improperly used, fatal amounts might be consumed.

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Part of the research leading to the development of these baits was supported by funds transferred from the Department of the Army.

