

Professor Lovett tells Housewives How to Control Insects

Assistant Professor of O. A. C. Gives Advice on Handling of Vital Problem in the Home.

SINCE earliest history certain insects have been recognized as pests of the household, either because of what they actually destroyed or due to the irritation and annoyance caused by their presence.

Until comparatively recent years, the house fly was considered a necessary nuisance because of its activities as a scavenger. It is now known to carry typhoid fever, tuberculosis, cholera, dysentery and probably several other diseases as serious.

The careful screening of doors and windows and the use of fly traps and sticky fly paper will remain important means of control. A 2 per cent formaldehyde solution is useful in destroying flies. A 40 per cent solution of formaldehyde may be obtained at any drug store. Place the dilute solution in flat dishes about the rooms where flies occur. Cover all food in the evening, leaving the formaldehyde exposed. If milk or a little honey and vinegar are used instead of water to dilute the formaldehyde the solution is even more effective.

Ridding House of Flies.

To rid the house of flies, darken the rooms, leaving a single window or door open. Then burn cones of pyrethrum in the rooms. The powdered pyrethrum may be moistened, moulded into cones about the size of a chocolate drop and dried in the oven with a slow heat. To use the cone, place it in a plate or on a bit of crockery and light the apex. A single cone to the room is usually sufficient.

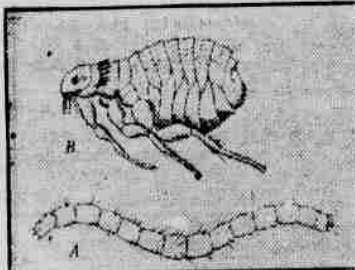
About 20 or 30 drops of carbolic acid placed on a heated shovel or similar implement will volatilize and kill all the flies in an ordinary room.

The contents of open outhouses and similar breeding places, where not conveniently screened, should be treated weekly with chloride of lime.

To rid a community of flies, which is, after all, the more practical method, requires community action for the abolition of breeding places. This is a measure well worthy of the attention of civic leagues and municipal authorities. The house fly is truly a menace to health. It may be controlled with but little labor or expense where every citizen in a community co-operates to this end.

Fleas.

Upon returning to a house which has been vacated for the summer, one sometimes finds it overrun with fleas. (Fig. 1.) Outbuildings and yards under certain conditions may have a similar infestation.



Fleas are different to control and one must make their eradication a business for a time, in order to successfully rid the premises of this irritating pest.

House pets should be examined and if infested, wash thoroughly with carbolic soap, repeating the bath at least every week for a time. Wash the floors and walls with a strong soap suds, then spray or wash with gasoline. Substitute rugs for carpets; take these up frequently, shake and air well.

Where the pest does not yield to the above treatments, the hydrocyanic acid gas fumigation should be given. Because of the deadly nature of these fumes, the work should be under the direction of an expert in the use of the gas.

Mosquitoes.

Oregon is remarkably free from mosquito plagues. In limited areas at certain periods of the year, however, this obnoxious little offender with its plaintive song and irritating bite may become a nuisance.

Mosquitoes breed in bodies of stagnant water and the little active wrigglers so common in watering troughs and storage tanks are mosquitoes in the making.

Where storage tanks of any sort are necessary, they should be carefully screened. Tin cans, bottles and pans

about the yard in which water might collect should be removed. The clogged roof gutter, the old disused well or the sewer catch on the corner should receive attention. All stagnant pools or low moist places should be drained or filled in.

Fish may sometimes be introduced into fishless pools or open cisterns. Top minnows, sunfish or stickle backs are very good. Goldfish feed voraciously on mosquito larvae.

The Use of Oil.

Where the abolition of the breeding place is not possible and the introduction of fish is not feasible, very often

in particularly obstinate cases hydrocyanic acid gas fumigation, (See Fleas) should be given.

Bedbugs.

Bedbugs, like cockroaches, may occasionally gain entrance to our households. In these times of much travel and frequent transient visitors, one need feel it no disgrace to find bedbugs in the house; but, as some one has remarked, "we should feel disgraced to retain them long in our midst."

A thorough overhauling of the furniture and rooms should be made. The woodwork must have special attention. Every crack and crevice should be treat-

Dissolve the sugar in the water, placing in a double boiler and heating gently. Dissolve the arsenite in a little hot water and add, stirring constantly. Place in vessel and label poison. Moisten a sponge with the solution and place it in a can with a tin cover. Punch a few holes in the cover and place the can in a position easily accessible to the ants.

Ant tape is the best material for use as a barrier to protect materials from ants. It is prepared as follows: Prepare a saturated solution of corrosive sublimate by placing an excess of crystals in water and heating in a granite or earthenware vessel (not iron). Cool and filter. Soak common cotton tape in this solution for several hours, remove, hang out and dry. Tie the strips of tape about the legs of tables, etc. Ants will not cross these strips for a year or more.

Caution.

Carbon bisulfide is inflammable. Do not handle near a stove nor have any fire or spark about when using.

The sodium arsenite and the corrosive sublimate solutions are poisonous. They should be plainly labeled and handled with all due caution.

Carpet Beetles and Clothes Moths.

Expensive carpets are often injured and winter clothing, laid away for the summer, may be attacked by the larvae of these pests.

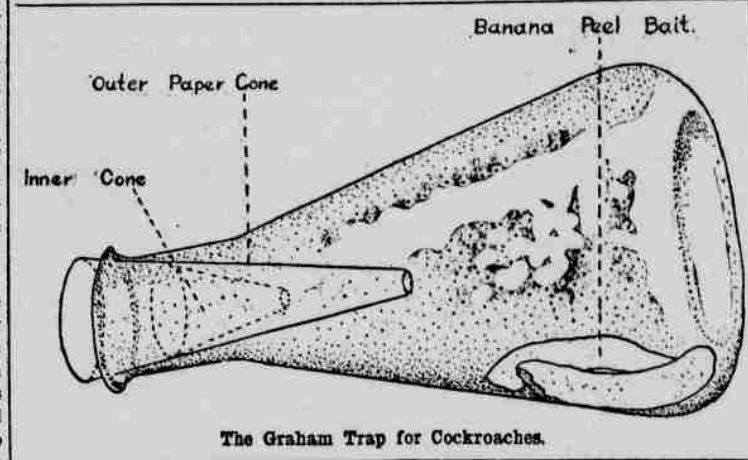
Clothing and carpets should be hung in the sunlight, thoroughly beaten and aired before storing away. The clothing should be placed in cardboard boxes or heavy paper sacks and the edges and cracks sealed with gummed paper. Spraying infested materials with gasoline or steam cleaning will rid them of the pest.

Stored Product Insect Pests.

Corn meal, dried fruit, etc., are sometimes found infested with worms or minute beetles.

Clean out the containers thoroughly and wash with boiling soap suds. Then carefully rinse and dry.

Heat the infested material in the oven. A temperature of 125 to 150 degrees, Fahrenheit, will kill all stages of these stored pests.



The Graham Trap for Cockroaches.

oil may be used to an advantage. This is applied to the water as a thin surface film. A low grade of kerosene is best. The heavier oils, such as crude oil, are worthless, because they collect in blotches on the surface and do not form a thin even coating. One ounce of oil is sufficient for 15 square feet of surface. It is best applied as a spray. One application is usually good for two weeks or more, but should be renewed whenever the film of oil fails to cover the surface of the water.

Protective liquids for repelling the mosquitoes, consisting of spirits of camphor, oil of pennyroyal, oil of peppermint, etc., are recommended. A few drops on a bath towel suspended over the pillow or rubbed on the face and hands, is supposed to repel the mosquitoes. A mixture recommended highly is composed of:

- Essential oil of oranges30 grains
- Camphorated alcohol30 grains
- Oil of cedar15 grains

Remedies for Mosquito Bites.

Moist toilet soap rubbed over the puncture; ammonia, or alcohol (applied externally) are said to relieve the irritation.

Cockroaches.

Cockroaches are another of the disgusting pests which sometimes gain entrance; and if once thoroughly established, they are difficult to eradicate.

A thorough house cleaning is of first importance; all cracks and crevices should be treated with gasoline and then filled with putty or similar material.

Poisons, such as sweet chocolate and powdered borax or phosphorus paste, may be scattered about the runways of the roaches.

A simple trap known as the Graham trap is described by Professor Washburn. The trap consists of a flat-bottomed flask of the type in the accompanying figure. (Fig. 2.) A paper cone is fitted into the mouth of the flask and held in place with vaseline smeared around the inside of the neck. A smaller cone is fitted into the larger and is glued to the wall of the larger cone. The smaller opening of the two cones is the same, about three eighths inch in diameter. The most tempting bait seems to be banana peelings. The cage should be placed near the runs of the roaches, preferably in a situation where there is little light and noise.

ed with corrosive sublimate or gasoline. Gasoline is probably the better to handle. A small spray pump may be used and the bedding, walls and floors given a thorough soaking. Repeat the treatment in nine days. For aggravated cases, hydrocyanic acid gas fumigation (See Fleas) should be given.

Ants.

Ants sometimes become troublesome about the house. Several species of ants will assume this habit, crawling into and over foods and food products.

With forms which have their colonies outside, one may treat them with carbon bisulfide and wipe out the entire colony. With a sharp stick punch holes in the soil, over and about the hill. Treat each hole with a tablespoonful of the liquid.

Two poisons are used inside the house to attract the ants. Both have the advantage of not killing instantly. The ants carry the poison to the colony and feed the developing brood on it. Subsequently the colony is killed out.

- No. 1:
- Tartar Emetic3 grains
- Syrup4 ounces
- Mix the materials and place on bits of china or chips near the runways of the ants.
- No. 2:
- Sugar21 pounds
- Water1.4 pint
- Sodium arsenite1.3 teaspoonful

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