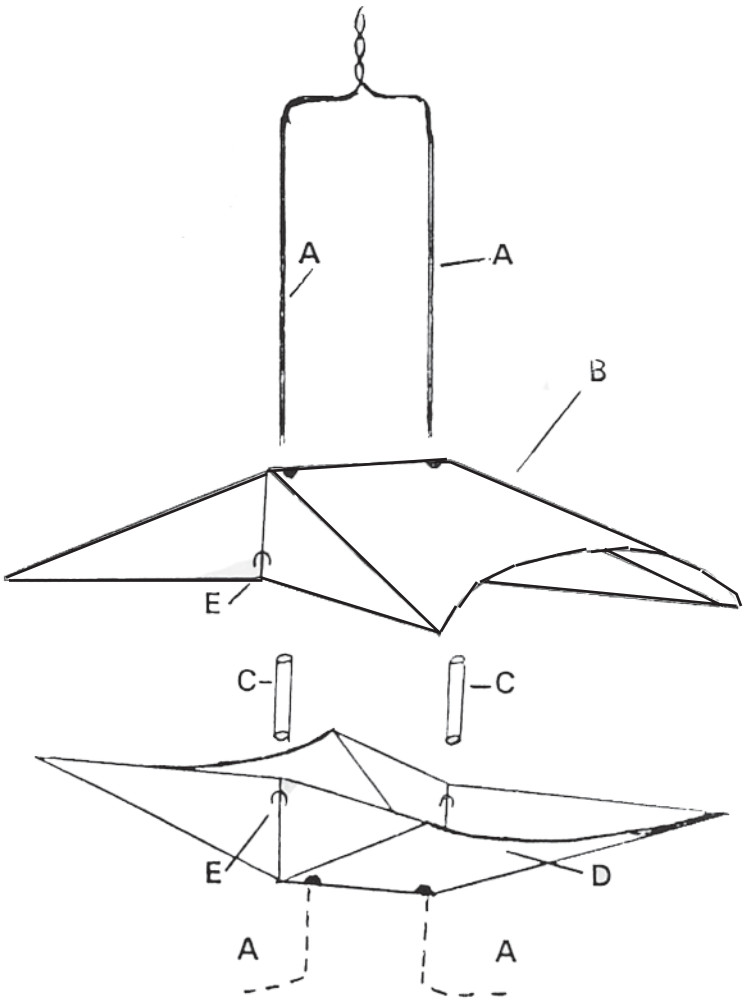
IPM WING TRAP ASSEMBLY INSTRUCTIONS

Remove from package:

1 wire hanger, folded (A)
1 wing trap top (B)
2 wing trap spacers (C)
1 wing trap sticky liner (D)



1. Fold top inward along each of the four diagonal creases. Be sure to fold only along score marks provided. May have to apply a little pressure.

2. Straighten wire hanger and insert ends through holes in top. Weave ends through holes in side panels from the outside and through bottom holes from the inside. With wire ends inserted in holes, push wire hanger down as far as it will go.

3. Slide one plastic spacer on each of the wire ends. Push them all the way up to the bottom hole so that the ends of the spacers are caught and held between the wires and the side panels.

4. Open folded bottom section to expose grid and sticky sur face.

5. Push up on side panels. Be sure to fold only along score marks provided. Push ear (E) to outside.

6. Insert ends of wire hanger into holes provided in both side panels of bottom section. Weave wire ends through top holes from the outside and through bottom holes from the inside.

7. Push bottom section all the way up to the top hole so that the ends of the spacers are in line with the top holes of the bottom section between the wires and the side panels. Then bend projecting wire ends outward and upward.

8. Place lure directly on sticky surface by dropping it through the side opening and into the center of the trap. To hang trap in tree, wrap braided portion of wire securely around limb.

Place trap in orchard according to location and density recommendations.

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BAGWORM-*Thyridopteryx ephemeraeformis*

The bagworm, native to the US, gets its name from the fact that it makes and carries with it a nest or "bag". This nest serves as a disguise that looks like a 1 1/2 inch pine cone. As a result, many homeowners may have an infestation of bagworm and not even know it.

The bagworm is prevalent in all counties of the following states: Kansas, Illinois, Indiana, Ohio, Missouri, Kentucky, Arkansas, Pennsylvania, New Jersey, Delaware, West Virginia, North Carolina, South Carolina, Tennessee, Louisiana, Mississippi, Alabama, and Georgia. There is a partial infestation in these states: Texas, Oklahoma, Iowa, Nebraska, and Florida.

The female moth deposits her eggs in the nest during August or September. Normally, she will lay between 500-1,000 eggs in a single mass within the bag. The egg is the over-wintering stage for the insect.

From mid-May into early June, the bagworm larvae begin to hatch and emerge from the protective bag. The young larvae start to feed on the foliage as soon as they leave the nest. They also start constructing silken shelters over their bodies. As they feed and grow, they enlarge the exterior bag with pieces of foliage, bits of bark, and other plant parts. Feeding continues through most of July. At that point, they are full grown and the bag is about 2 1/2 inches long.

Tree species preferred by bagworm caterpillars are Arborvitae, Juniper, Willow, Maple, Locust, Sycamore, Elm, Box Elder, White Pine, and Spruce. The bagworm larvae feed on about 128 types of plants, including many of the more popular shade and ornamental trees and shrubs, both hardwood and evergreens. The young larvae feed on the leaf tissue. Later, they eat all but the larger veins.

The bagworm, like all insect species, is affected by many factors in its environment. However, the bag it carries provides good protection. As a result, the bagworm has no major predators. In addition, there are only a few parasites and diseases that specifically attack the bagworm.

Weather does have some affect on the bagworm. Low winter temperatures can destroy a considerable number of eggs. Also cold weather limits the geographic distribution of the bagworm. The biological insecticide BT (*Bacillus thuringiensis*) can provide good control of the larvae if it is applied to the foliage at the first sign of caterpillars starting in May. It is important to apply BT early as this is when the larvae are most susceptible. After eating leaves treated with the biological spray, larvae will stop feeding within the hour and will die in several days. We recommend use of a good BT spray in conjunction with trapping for best results.

When the larvae stop feeding, loops of silk are wound around a twig and the bag hangs from this position; more silk is wound around the tip of the bag to close it. Once this is done, the caterpillar becomes a pupa, a transitional stage when the insect changes from caterpillar to moth.

Male moths emerge 1-2 weeks after the larvae stop feeding. They are black with almost clear wings that span about an inch. The female bagworm has neither wings nor legs. She never emerges from the bag she made as a caterpillar. To mate, she releases a strong sex attractant to lure the male. Soon after mating, the female deposits the eggs in a single mass in the bag where they remain all winter. The moths do no damage; they exist only to mate. After laying the eggs, the female drops from the bag to the ground and dies. The male lives only a few days after his emergence.

Starting the first of August, the bagworm moth pheromone traps can be placed in areas of infestation to trap the male moth which prevents mating. The traps are baited with a synthetic sex attractant which is 10 times more powerful than the female's own attractant. Place traps at a density of 2-4 traps per acre in areas of infestation, approximately 4-5 feet off the ground, 10-15 feet away from trees or bushes you wish to protect.

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