

ECONOMY RED SPHERE

Directions for control and monitoring of: Apple Maggot Fly, *Rhagoletis pomonella*

Biography and Description

The Apple Maggot Fly is a major tree fruit pest throughout temperate North America. The adult is a two-winged fly, slightly smaller than the common house fly. The peg-shaped larva, or maggot, is 3/8" long and milky white in color, making it difficult to see in the flesh of the fruit. Apple Maggots infest apple, plum, pear, and crabapple. Apple Maggots overwinter as pupa just below the soil surface. In early summer, Apple Maggot adults begin to emerge, and mating occurs shortly thereafter. Within 7-10 days after emergence, female Apple Maggots deposit eggs under the skin of the fruit. Fresh egg punctures, or stings, are very difficult to see without a hand lens. Older stings appear as depressed areas or dimples on the fruit, with a dark pin-sized hole in the center. Egg-laying may continue through harvest. Apple Maggot larvae tunnel through the fruit, leaving a brown, winding trail. Infested fruit may drop from the tree prematurely, or rot in storage.

How to use ECONOMY SPHERES

For control of Apple Maggots, use 1-6 traps per tree (about 1 trap per 100-150 apples or approximately 1 per dwarf tree, 2-3 per semi-dwarf, or 4-6 per full-sized standard tree). Hang traps for Apple Maggots in apple, pear, and plum trees when fruit begins to enlarge (approximately June 1st, here in Southern Indiana),

1. Holding the trap by the hanger, apply *Tangle-Trap*. (We've found the brush-on formula of *Tangle-Trap* to be by far the easiest to use.) If you're using the regular formula of *Tangle-Trap*, we've found that the best way to make an applicator is to cut out the side of a plastic milk jug. (The flexible plastic conforms to the curve of the apple, so that you can apply a thin layer of *Tangle-Trap* to the outside of the trap.) If you don't have a plastic milk jug, a popsicle stick or butter knife will do.
2. Select a branch 1/2 to 2" in diameter in an area of much fruit. Bend the top of the hanger to fit over the top of the branch.
3. Clear a 10-12" zone around the trap of all fruit and foilage to increase visibility. As fruit load changes the placement of the branches during the season, reposition to the traps to maintain optimum visibility and proximity to large numbers of fruit.
4. Repeat steps 1-3 for each trap, spacing traps evenly around the tree.
5. Check traps weekly for adequate stickiness. In a normal year, the initial application of *Tangle-Trap* will be sufficient for the entire season. Excessive rain may deplete it, however. Remove large insects and debris which may accumulate on the trap. Remove traps at harvest and follow directions below for maintenance of the traps.

Pick-up and remove all dropped fruit throughout the season to prevent pest populations from becoming established in your fruit planting. Remember to use appropriate controls for the other pests that attack your fruit, ECONOMY RED SPHERES are effective for controlling Apple Maggots only.

Care of ECONOMY SPHERES

ECONOMY RED SPHERES will last one or two seasons, if cared for properly. At harvest, remove traps (and wires, so as not to injure branch) and scrape clean. Use a stiff, but bendable, piece of plastic (such as that cut from a plastic milk jug) curved to fit the shape of the trap. Store in a dry place. If temperature has cooled off, storage in a warm spot will make cleaning easier. Vegetable oil or kerosene will help remove *Tangle-Trap*.

For additional information, we recommend the following publications:

1. Integrated Management of Apple Pests in Massachusetts and New England. Includes 100 color photographs. \$4.00 postpaid from Massachusetts Cooperative Extension Service, Bulletin Center, Cottage A, University of Massachusetts, Amhurst, MA 01003.
2. Common Tree Fruit Pests (By Angus Howitt), 252 pages. From the Cooperative Extension Service, Michigan State University, East Lansing, MI 48824. \$30.00, soft cover.

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