

## CAPS Surveys for 2009

The format for CAPS surveys is shifting from surveying for single pests to surveying for multiple pests of a particular commodity. These so called commodity based surveys are designed to make the survey effort more efficient by focusing attention on a commodity and surveying for multiple pests that the commodity is susceptible to. As part of the 2009 CAPS program the Ohio Dept. of Agriculture in cooperation with Ohio State University Extension will conduct a soybean commodity survey for five insect pests.

### **Soybean Commodity Survey:**

Soybean (*Glycine max*) is an annual crop in the Leguminosae family. The major soybean growing region of Ohio is the western half of the state; primarily counties in the northwest quadrant, although the crop can be found throughout the state. Summer Fruit Tortrix moth (*Adoxophynes orana*), Silver Y moth (*Autographa gamma*), Golden Twin Spot moth (*Chrysodeixis chalcites*), Old World Bollworm (*Helicoverpa armigera*), and Egyptian Cottonworm (*Spodoptera littoralis*) will be surveyed. With the exception of *Chrysodeixis chalcites*, which was detected in an Ohio greenhouse, none of the pests listed is known to occur in the U.S.

Silver-Y moth is a polyphagous pest and is considered a high risk for establishment in temperate and mixed broadleaf forest habitats. Its known distribution includes all of Europe and extends east through Asia to India and China. Adults can be observed from April through November.

Golden Twin Spot moth is a polyphagous pest that feeds on the foliage and fruit of vegetable, fruit, and ornamental hosts. The moth is reported to breed/overwinter as far north in Europe as northern Spain and northern Italy. It is present year round in greenhouses in the Netherlands and a specimen was detected on *Pelargonium* in an Ohio greenhouse. Adults can be observed at any time of the year. Given Ohio's climate range the potential for establishment in the southern part of the state seems a real possibility.

Old World Bollworm damages a wide variety of food, fiber, and horticultural crops. Its polyphagous nature, high reproductive rate, and mobility make it suitable for establishment in man-made ecosystems and microclimates. Although its global distribution suggests Ohio's broadleaf and mixed forests would be suitable for the pest, it is not known to be established in the wild despite reported introductions. Adults can be observed from April through October.

Egyptian Cotton Leafworm has wide host range of at least 40 families. Potentially economically important hosts in Ohio include: onion, beet, cabbage, cauliflower, bell pepper, watermelon, soybean, sunflower, tomato, cereal crops, radish, roses, maize, and grape. The potential distribution in Ohio may reach as far north as the central part of the state where winters are mild. The pest can be observed any time of the year that plants are actively growing.

The goals of this survey are to trap for these pests to 1) detect their presence if they do occur in the state and 2) demonstrate the absence of these

pests by negative trapping results. Pheromone traps will be set and maintained at eleven soybean fields in eleven Ohio counties distributed throughout the central, north central and northwestern parts of the state.

**Sudden Oak Death:** ODA will continue to survey high risk nurseries in 2009 for *Phytophthora ramorum*. A survey similar in scope to that performed in 2008 is planned under the CAPS program, however an expanded national survey may be in the works funded under the new Farm Bill.

**Chrysanthemum White Rust:** ODA will continue to survey mum producers and distributors throughout the state for chrysanthemum white rust.

**Viburnum Leaf Beetle:** ODA will continue to survey for viburnum leaf beetle, focusing on delimiting the infestations in the northeast corner of the state, and detection of other infestations in other regions of the state.

**Hemlock Woolly Adelgid:** ODA will continue to survey native hemlock stands for hemlock woolly adelgid but focus will be on residential and landscape plantings due to risk of introduction from nursery material from other states.

**Swede Midge** (*Contarinia nasturtii*) is an exotic pest of crucifers, especially those grown in clay soils. In 2001 Canadian scientists determined this pest was costing Ontario farmers upwards of 85% of their crops. Since then swede midge has been found in at least 23 Ontario counties and 26 Quebec counties. In 2004 the pest was detected in Niagara county, New York along the Canadian border. Further survey has shown the pest to be established in at least 21 New York counties in the western half of the state. Ohio has a modest crucifer industry, but given the state's proximity to New York and that the pest has not been surveyed for previously this pest is suitable for survey. In cooperation with Ohio State University Extension, pheromone traps will be set in cabbage farms at three sites in Sandusky (2 sites) and Ottawa (1 site) counties in the north central part of the state near lake Erie.