



Greenhouse TPM/IPM Weekly Report
University of Maryland Cooperative Extension
Central Maryland Research and Education Center

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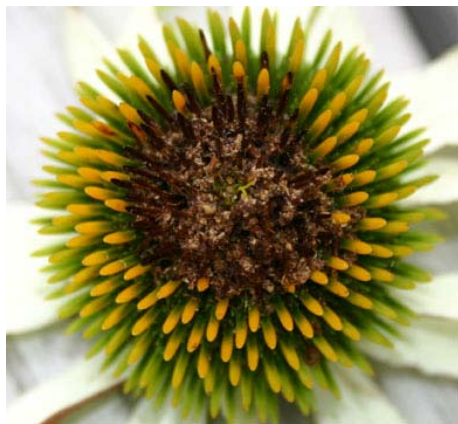
July 6, 2007

Summer Cut Flower Growers Program
July 24, 2007 in Salisbury, MD
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Sunflower Moth

Sunflower moth (*Homeosoma electellum*) was found on Echinacea this week. These distinctive larvae in the family Pyralidae are reddish-brown with light yellow stripes running the length of the body. The adults are present in late June through early July and females lay eggs on flower heads. The larvae tunnel down into the flower heads. They can produce silk, and in some cases may cover a flower head with fine silk. Sunflower moths also feed on sunflower and zinnia. Two years ago we received a sample from a cut flower grower in Charles County who noted that this caterpillar was feeding on his sunflower flower heads. The larvae feed on the floret and then the seed head, consuming seeds of the plant. The best stage to target for control is before the larvae have tunneled down into the flower heads.

Control: *Bacillus thuringiensis* on early instar larvae or Conserve. If the plants are inside a greenhouse then Pylon would be a good choice.



Frass on flower head



Larva in Echinacea flower

Japanese Beetles

We are seeing Japanese beetles (*Popillia japonica*) skeletonizing leaves on *Helenium* 'Zimbelstern' and feeding on the blooms of *Echinacea*. Also watch hibiscus, rose, zinnia, dahlia, cleome, hollyhock, hydrangea, clematis, and cockscomb for Japanese beetle activity.

Control: Orthene (acephate), Astro (permethrin), Talstar (bifenthrin), Sevin (carbaryl)



Rust

We are seeing rust on *Solidago* 'Crown of Rays' this week. Symptoms of a rust infection usually appear as light-colored spots on the upper leaf surface followed by rust-colored areas of spores either on the upper or lower leaf surfaces. The spores of pine needle rust (*Coleosporium asterinum*) produced on goldenrod infect pine needles. Other perennials to monitor for rusts include: aster, *Heuchera*, daylily, *Amsonia*, chrysanthemum, and *Vernonia*.

Control: Mancozeb or chlorothalonil as a protectant or a systemic fungicide once pustules are present such as Heritage, Compass, Strike, Contrast



Leaf Spots

We are receiving reports of *Septoria rudbeckiae* on *Rudbeckia*. *Septoria* disease is promoted by wet spring weather conditions.

Controls: Mancozeb, iprodione, chlorothalonil, and thiophanate-methyl

We are also seeing bacterial leaf spot on *Lavendula* this week. The symptoms are starting toward the base of the plant and then move upwards. Warm weather and prolonged wet periods can encourage infection. The bacteria is spread in splashing water.

Management: Copper sprays can help to prevent spread, but are not considered to be an effective control.



Scouting Reports

Thrips on daylilies, thrips and aphids on *Arum italicum* 'Pictum', leaf hoppers on *Monarda* 'Jacob Cline', *Cosmopepla bimaculata* on lambs ears, and snails on *Campanula* 'Alba' and *Ajuga* 'Metalica' and 'Burgundy Glow'



Snails on Ajuga 'Metalica'



***Cosmopepla bimaculata* on Stachys**

Computer Training

A one-day Excel class on customized cost analysis spreadsheets for your business is being offered by the Rutgers University Cooperative Extension on September 12, 17, or 24 from 8:00 a.m. to 4:00 p.m. The course, taught by Dr. Robin Brumfield, is designed specifically for greenhouse and nursery farmers. The fee for the Computer Spreadsheet Skills course is \$20. Copies of Dr. Brumfield's greenhouse cost accounting software will be available for an additional fee of \$50. For registration information, contact Keith Wilson, Program Coordinator, in the Office of Continuing Professional Education at 732-932-9271 or ocpe@cook.rutgers.edu.