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PLANT HEALTH



CLINIC NEWS

Issue-25, August 19, 2019

This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.



The Plant Health Clinic now has a Facebook page:

<https://www.facebook.com/UAEXPlantHealthClinic/?pnref=story>

Peach

Peaches are about done for this season in Arkansas, but we are still getting a few samples of late peaches. There is a lot of homeowner interest these days in having a small fruit orchard in the back yard. Of fruit trees, the stone fruits are probably the most difficult to grow. Peaches for example, are a difficult crop in Arkansas. If a late frost doesn't destroy the crop, there are plenty of diseases and insects that can ruin the fruit. We often get peach fruit with the complaint of a disease when the real problem is insect. The Oriental Fruit moth, *Grapholitha molesta*, is a serious pest of peaches, plums, apples, cherries, pears, and nectarines. This insect damages both tender terminal growths in the spring and the fruit at midsummer. The adult is a small, charcoal colored moth with bands of light and dark lines on the wings. The larvae overwinter in cocoons in bark crevices and in litter at the base of the tree. They emerge as moths in the spring as peaches are blooming and lay eggs on the leaves near terminal growth. The newly hatched larvae attack the tender terminal growth near the base of a leaf. They cause

twig dieback by tunneling down the center of the twig for 2 to 6 inches. There are five or more generations a year with later hatches feeding on the fruit. Gum is often exuded from their entry and exit holes. The larvae usually bore to the center of the fruit and feed around the pit. Oriental Fruit Moth larvae can be distinguished from Plum Curculio larvae by their pinkish color and because they have legs whereas Plum Curculio larvae are legless. By mid-March, at least two pheromone traps per 10 acre block are set inside the tree canopy at eye level to monitor moth activity and time insecticide applications. The trap should be checked twice a week in order to note first consistent moth emergence in late March and start accumulating degree days (DD) = average daily temperature – 45°F. Accumulate daily DD from first consistent trap catch (called biofix) until you reach 400 DD which is the time to apply insecticide against hatching larvae (occurs about 6 days after peak moth flight). Second and third generation hatch periods occur at 1,300 and 2,100 DD (sprays) and hatch periods of third to sixth generations overlap. Scouting for wilted shoots is helpful in determining early damage and adjusting spray schedules. Subsequent sprays need to be applied 3 days after peak flight. Actara 25WP, Altacor, Asana XL, Avaunt, Imidan, Provado, and Voliam xpress are labeled for control of Oriental fruit moth. Orchards larger than 4 acres may find the use of mating disruption helpful. Attaching at least 100 pheromone dispensers to middle to upper peach tree canopy per acre are placed throughout the orchard, confusing the male moths and preventing them from mating effectively.



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Oriental Fruit Moth twig damage-*Grapholitha molesta*



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Oriental Fruit Moth fruit damage-*Grapholitha molesta*



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Oriental Fruit Moth twig damage-*Grapholitha molesta*



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Oriental Fruit Moth larvae-*Grapholitha molesta*



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Canna

Cannas are a very reliable and showy plant in the sunny landscape. A range of cultivars vary in size from 2-6ft tall and bloom in colors ranging through the pink, yellow, orange and red spectrum. Some cultivars also have showy red or striped foliage. The most irritating insect pest of canna is the Canna Leaf Roller. Two species of canna leaf roller are present in the Southeastern United States, the larger canna leaf roller, *Calpododes ethlius* (Stoll) (Insecta: Lepidoptera: Hesperiiidae), and the lesser canna leaf roller, *Geshna cannalis* (Quaintance) (Insecta: Lepidoptera: Pyralidae). The lesser canna leaf roller appears to be more common in our area than the greater, but both have similar life cycles and management. Canna leaf rollers, as their name implies, roll canna leaves and keep them rolled using silk produced by larva (caterpillar). This is accomplished by attaching silk before the leaf unrolls (preferred by the lesser canna leaf roller) or by attaching silk to one edge of the leaf and pulling toward the other edge (usually the larger canna leaf roller). Once rolled, the leaf provides a protective area for the caterpillar to feed. The lesser canna leaf roller caterpillars generally feed on the surface of the leaf and don't chew completely through the leaf, but the larger leaf roller feeds through the leaf. Later when the leaf opens, the feeding damage appears as holes in the leaves and ragged leaf edges.

Canna leaf rollers only feed on plants in the Genus *Canna* and close relatives, so other plants in the garden are not threatened. This also makes management a little easier because dead plant material can be cut to the ground in winter and disposed of which

reduces the number of overwintering larvae and pupae. Systemic insecticides such as Merit, or Bio Advanced 3-1 Insect & Disease Mite Control, or Bio Advanced 2-in-1 Systemic Rose & Flower Care II may be applied. Alternatively, a product applied to the leaves containing *Bacillus thuringiensis* (BT) gives control without toxicity to organisms other than members of the Lepidoptera.

Lesser Canna Leaf Roller damage- *Geshna cannalis*



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Lesser Canna Leaf Roller damage- *Geshna cannalis*



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Lesser Canna Leaf Roller larva- *Geshna cannalis*



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Clematis

Clematis are one of our showiest and reliable blooming perennial vines. They grow best in full sun with well-drained, evenly moist soil with a pH of 6.6-7.0. Usually the only disease problem we see on clematis is Clematis Wilt caused by *Calophoma clematidina*, formerly *Phoma clematidina*, formerly *Ascochyta clematidina*. This is a fungal pathogen that causes both leaf spots and stem lesions. When a stem is girdled by the fungus, the flow of nutrients is shut off, and wilting occurs. When the affected stem is sliced open, it appears black inside. Clematis Wilt seldom kills the plant. Affected plants almost always immediately begin to produce new growth from the crown. All wilted stems should be cut back to healthy tissue. Homeowners may use Fertilome Broad Spectrum Lawn and Garden Fungicide, (chlorothalonil), or Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide, (chlorothalonil) or Ortho Garden Disease Control, (chlorothalonil), or Ortho Disease B Gon Garden Fungicide, (chlorothalonil), or Garden Tech Daconil Fungicide, (chlorothalonil), or Bonide Fung-onil Multipurpose Fungicide, (chlorothalonil), or Spectracide Immunox Plus, (myclobutanil & permethrin), or Bayer Advanced Garden-Disease Control for Roses, Flowers, Shrubs, (tebuconazole), or Bayer Advanced Garden-All-in-One Fungicide/Insecticide/Fertilizer, (tebuconazole & imidacloprid), or Bonide Infuse Systemic for Turf and Ornamentals, (thiophanate-methyl), or Ortho Rose and Flower Insect and Disease Control, (triticonazole & acetamiprid), or BioAdvanced Science Based Solutions All-In-One Rose & Flower Spray Concentrate, or BioAdvanced



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Science Based Solutions All-In-One Rose and Flower Spray Concentrate, (tebuconazole & tau-fluvalinate).

Clematis Wilt- *Calophoma clematidina*



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Clematis Wilt- *Calophoma clematidina*



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Clematis Wilt- *Calophoma clematidina*



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