



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.

Peach

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. 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. These Isomate

dispensers may not be registered for use in AR as yet - working on it with Pacific Biocontrol and AR Plant Board.

Oriental Fruit Moth larvae- *Grapholitha molesta*



Sherrie Smith University of Arkansas Cooperative Extension



Oriental Fruit Moth damage on peach-*Grapholitha molesta*



Sherrie Smith University of Arkansas Cooperative Extension

with purple to dark brown slightly raised borders. All peach, apricot, and nectarine cultivars are susceptible. Control of Scab begins at the shuck split stage of fruit development. Once the fruit lesions appear it is too late to do anything about the disease during the current growing season. Fungicides should be applied at 10-14 day intervals, beginning at petal fall and continuing until 40 days before harvest. Nova 40WP, Indar 75WSP, Rovral 50WP, Bravo WeatherStik, Captan 50WP, Abound 2.08 FL, Ziram 76DF, Adament 50WG, Scala, and Pristine are labeled for Peach Scab.

Peach Scab on fruit-*Cladosporium carpophilum*



Sherrie Smith University of Arkansas Cooperative Extension

Peach Scab

Peach Scab is an important and destructive disease of peaches and nectarines. Scab does not cause defoliation, but makes the fruit unmarketable. The causal agent is the fungus *Cladosporium carpophilum*. Symptoms may occur on twigs, leaves, and fruit. The fruit symptoms are the most noticeable. Symptoms begin on fruit when they are about mid-sized. Very small, green to olive, circular spots appear on the surface. These enlarge to 2-3mm, becoming olivaceous to black, sometimes with a green or yellow halo on the blush surface. The lesions are often raised, becoming corky with age. Cracking may occur when numerous lesions are present. Leaves are infected on the lower surface. Lesions are imperfectly defined, angular to circular, and nearly the same color as the leaf. The spots become olive green when sporulation begins. Tender, green twigs may also become infected. Twig lesions are slightly raised, circular to oval and the same color as surrounding tissue. Eventually they become tan



**Peach Scab on leaf-*Cladosporium
carpophilum***



Sherrie Smith University of Arkansas Cooperative Extension

Squash

Depending on environmental conditions and cultivar, sometimes a squash fruit will retain the blossom instead of shedding it. This is not a disease, but an abiotic condition.

**Squash blossom retention-
abiotic**



Sherrie Smith University of Arkansas Cooperative Extension

**Squash blossom retention-
abiotic**



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Sweet Potato

Soil Rot (Pox) of Sweet Potato, caused by the bacterium *Streptomyces ipomoea*, is common in all the major Sweet Potato production regions of the United States. Symptoms vary depending on cultivar and time of infection. Scabby lesions are the most common



symptom with lesions being circular to somewhat irregular, less than 5 mm deep. The lesions are dark brown to black with cracks radiating from the center. If the infection is acquired early in the enlargement of the tuber, indentations form in the root, or the tuber acquires a dumbbell shape. The fibrous root system may be devastated by the rot, with feeder roots developing a dark black decay. These roots break off readily during excavation, leaving a necrotic stub at the end of the root. Vines may suffer stunting, lower yields, premature flowering, wilting, bronzing and yellowing of the foliage. Unfortunately, Soil Rot is soilborne and persists for many years in the absence of a sweet potato crop. The use of resistant cultivars is the best way of controlling Soil Rot. However, good cultural practices may help. Keeping the pH to 5.2 reduces Soil Rot. Rotation with other crops also reduces but does not eliminate the incidence of soil rot. Timely irrigation when soil is dry also reduces the incidence. Avoid the use of mother roots or slips from infected fields. Soil fumigation where still allowed can reduce the severity of Soil Rot.

Sweet Potato Soil Rot (POX)- *Streptomyces Ipomoea*



Cindy Ham University of Arkansas Cooperative Extension