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## Arkansas Plant Health Clinic Newsletter

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### Peach

If you had problems with Peach leaf curl last season, you should already have sprayed after dormancy in the fall before your tree leafed out this spring. Once symptoms of Peach leaf curl are evident, it is too late to spray during the current season. Spores from the fungus *Taphrina deformans* overwinters on twigs and bud scales. Infection occurs at bud break early in the spring during cool, wet weather. Blister-like swellings, curling, thickening, puckering, and discoloration of the leaves are the first symptoms of Peach leaf curl. Affected areas may turn pink, red or yellow. In severe cases, defoliation occurs along with substantial yield loss. Peach leaf curl is easily controlled with one well-timed fungicide application in the fall after 90% of the leaves have dropped, or very early in the spring before the buds begin to swell. Chlorothalonil or copper sprays are effective. It is too late for chemical control this spring, but if only a few leaves are infected, they may be handpicked and destroyed to reduce inoculum levels.

### Peach Leaf Curl-*Taphrina deformans*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

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## **Peach Leaf Curl-*Taphrina deformans***



Photo by Jason Osborn, University of Arkansas  
Cooperative Extension

### **Peach**

The Oriental Fruit Moth, *Grapholita 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. They overwinter as large larvae in cocoons in bark crevices, in dried up peaches, in leaves and stems or other litter at the base of the tree, or other protected sites such as storage bins, etc. They emerge as moths in the spring as peaches are blooming and begin laying flat, whitish eggs in two to five days after emergence. Eggs are deposited near tips of twigs and 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 generations 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 to note first consistent moth emergence in late March and start accumulating degree days (DD) using the following formula:

$$DD = ((\text{maximum daily temperature} - \text{minimum daily temperature}) / 2) - 45$$

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, Assail 30 SG, Belt 4SC, Delegate 25 WG, Exirel, Imidan 70W, Intrepid 2 F, Rimon EC, and SpinTor 2SC are labeled for control of Oriental fruit moth. DO NOT use Imidan on sweet cherries. OMRI approved options are Entrust 2SC, Deliver, and Javelin. Spray is recommended if you averaged more than five moths per trap since last spray. 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 yet – working on it with Pacific Biocontrol and AR Plant Board.

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**Peach Oriental Fruit Moth**  
**Damage to fruit- *Grapholita molesta***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

**Peach Oriental Fruit Moth**  
**Damage to twigs- *Grapholita molesta***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

**Peach Oriental Fruit Moth**  
**Damage to last season's twigs- *Grapholita molesta***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



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## Peach Oriental Fruit Moth Larvae- *Grapholita molesta*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## Oak

Another species of *Taphrina* attacks oak. A common fungal leaf disease of oak in Arkansas is Oak Leaf Blister, caused by *Taphrina caerulescens*. All oak species are vulnerable with red oaks being particularly susceptible. Prolonged periods of cool, wet weather in the spring are conducive for disease development. Symptoms become apparent in early summer as yellow, blister-like, circular, raised areas,

1/16 to 1/2 inch in diameter. The blisters are scattered over the upper leaf surface with corresponding gray depressions on the lower surface. As the spots age, they turn from yellow to brown with pale yellow margins, becoming dull brown in color. Several blisters may coalesce and cause the leaves to curl. Although unsightly, the disease usually does not greatly impact tree health. Control consists of raking up all fallen leaves and twigs, and the application of preventative fungicides where practical. Practicality usually depends on tree size as most homeowners are unable to reach the canopy of large oaks. One application of Chlorothalonil, copper, or mancozeb during dormancy is effective. Fungicides do not have any effect after bud swell in the spring.

## Oak leaf Blister-*Taphrina caerulescens*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



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## **Oak leaf Blister-*Taphrina caerulescens***



Photo by Rick Cartwright, University of Arkansas Cooperative Extension

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.

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