UTAH PESTS fact sheet

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The Backyard Orchardist

Fruit Pests: Peach & Nectarine

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DISEASES

Coryneum Blight (Shothole)

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate-high
OTHER FRUIT HOSTS: apricot and cherry

GENERAL INFO: Shothole is a common fungal disease in Utah. It attacks dormant leaf buds, blossom buds, leaves, fruit, and twigs. The first visible lesions occur on young leaves as small, round, tan spots that eventually fall out, leaving round holes. Circular lesions develop on fruit that first appear as reddish spots (shown right, top), and later as rough, corky bumps. Sometimes they are sunken (shown right, bottom). Infected buds die and exude gum, and twigs may be killed.

SYMPTOMS:

- round, corky, or sunken spots on fruit
- dead twigs
- holes in leaves
- dead buds that ooze gum

MANAGEMENT: Prune infected shoots and twigs. Prevent irrigation water from wetting leaves. For severe infections, apply copper spray in fall starting at 50% leaf drop to protect newly forming buds. In spring, spray with captan or chlorothalonil.

Gummosis

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate-high
OTHER FRUIT HOSTS: all stone fruits

GENERAL INFO: Gummosis is a general term describing the prolific oozing of sap from a tree. Stone fruit trees are sensitive to injury, and will respond by exuding a gelatin-like gum in spring. Gumming is produced due to a variety of factors, including borers, diseases, or wounding. It can also be a response to poor growing conditions, such as compacted soil. If the oozing gum is clear, the problem is abiotic (non-living). If the ooze is milky or dark-colored, it is caused by an insect or disease.

SYMPTOMS:

- gelatinous-like ooze on bark that is clear, milky, or amber colored

MANAGEMENT: To most accurately identify the cause of gummosis, consult your local Extension agent.

Iron Deficiency

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate
OTHER FRUIT HOSTS: apple, berries, and cherry

GENERAL INFO: Iron is a nutrient necessary for the formation of chlorophyll. Lack of chlorophyll means reduced photosynthesis, and reduced tree vigor. Iron deficiency commonly affects peaches and nectarines, and it must be managed every year. Iron deficiency is not caused by a lack of iron in the soil, but rather Utah's high pH soils (which ranges from 7.5 to 8.5). In high pH, iron is insoluble, and therefore not available for root absorption. Because irrigation and rain water are also very alkaline, trying to manage iron deficiency by reducing soil pH is impossible. Iron deficiency is exacerbated by frequent springtime irrigation or prolonged soil wetness. Some trees are genetically more susceptible to nutrient deficiencies than others.

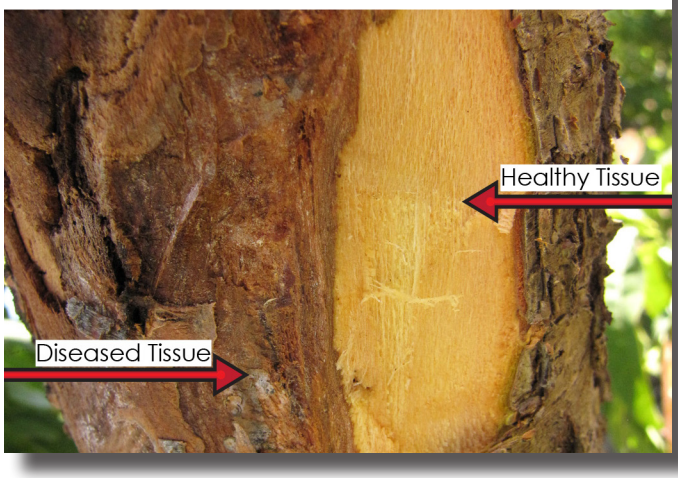
SYMPTOMS:

- interveinal chlorosis (yellowing between veins)
- blackened scorching, curling, or premature leaf drop (under severe conditions)

MANAGEMENT: To prevent or treat iron deficiency, chelated iron (in the form of FeEDDHA, such as Miller's Ferriplus) should be applied to the soil or foliage, but results are temporary. (Chelated products are readily available for absorption, and are not affected by soil pH.) Soil applications should be made in the spring, and worked into the root zone. For minor deficiencies, one application will last all season. Foliar sprays (0.1%) with a spreader-sticker provide quick results but must be reapplied at approximately 10- to 21-day intervals. The drawback of foliar sprays is that staining of fruit can occur. To accurately identify nutrient deficiencies, the USU Analytical Lab (435-797-2217) can test foliar and soil samples.

Perennial Canker

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate
OTHER FRUIT HOSTS: apricot, cherry, and plum



GENERAL INFO: Also called cytospora canker, perennial canker is caused by a fungus. Cankers are areas of dead cambium and bark and can occur on stems, limbs, and twigs. They are off-color, usually oval-shaped, and usually slightly sunken. Dark amber gum may exude from the canker edges. Cankers enlarge yearly or advance down side branches. Spores spread this fungus during wet weather, and successful infections occur in weak or wounded tissue.

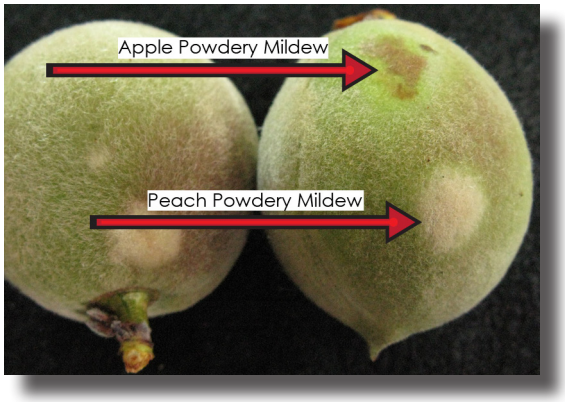
SYMPTOMS:

- amber-colored ooze
- flaking bark
- necrotic (brown) cambial tissue just under the bark (shown at lower right)

MANAGEMENT: Prune out diseased tissue, prevent wounding, and keep trees healthy. There are no fungicides for managing cankers.

Powdery Mildew

IMPORTANCE AS A PEST ON PEACH/NECTARINE: low
OTHER FRUIT HOSTS: apple, cherry, nectarine, peach, berries, and grape



GENERAL INFO: This fungus attacks leaves and fruit. The apple powdery mildew fungus just attacks peach/nectarine fruit and causes a rusty mottling. Peach powdery mildew attacks leaves and fruit and causes white fuzzy spots. Infections begin in late spring, during warm days, cool nights, and when moisture is present. The spores are spread by wind, dripping dew, rain, and irrigation.

SYMPTOMS:

- yellowing
- distortion
- stunting
- reduced yield
- rusty spot on fruit (apple mildew)
- white powdery residue, which is a mixture of the fungal mycelium and spores

MANAGEMENT: Most trees can tolerate light infections. Rake and remove all leaves and debris in fall. Fungicides (lime-sulfur, myclobutanil, or propiconazole) work as preventives, and must be applied prior to infections. They will not "cure" infected tissue.

INSECTS

Peach Twig Borer

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate-high
OTHER FRUIT HOSTS: apricot

GENERAL INFO: In spring, chocolate brown larvae emerge from overwintering sites on peach limbs and then tunnel into succulent shoot tips. Infested twigs die back and small amounts of gum may exude from tunnel openings. In summer, a second generation of these "worms" enters fruit when succulent shoot growth has ceased. Larvae typically enter fruit near the stem end. In backyard orchards, injury may not be severe enough to require treatment every year.

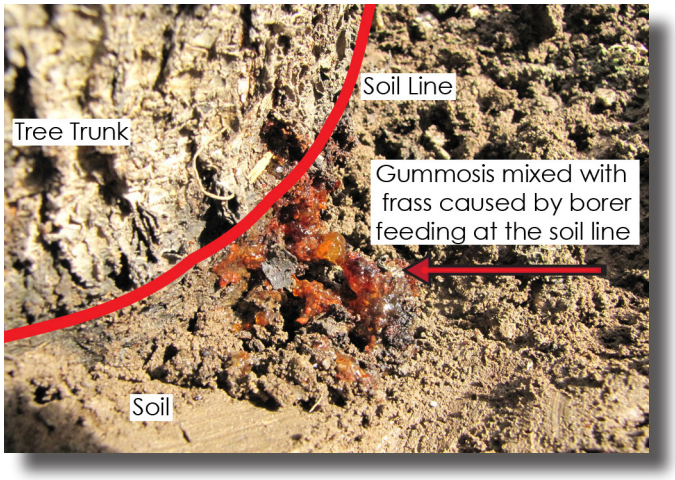
SYMPTOMS:

- wilted twigs
- holes in fruit with sawdust-like frass

MANAGEMENT: Twig borer activity is strongly regulated by temperature and timing of moth egg-laying varies from year to year. To find out when peach twig borer is active in your area of the state and for when to spray, contact your local county Extension agent or subscribe to the USU IPM Tree Fruit Advisory. Insecticides like spinosad, carbaryl, and malathion work for peach twig borer.

Greater Peachtree (Crown) Borer

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate
OTHER FRUIT HOSTS: apricot and plum



GENERAL INFO: This insect is a clearwing moth and the larvae tunnel in the cambium, just below the bark, typically at the soil-line of the trunk. Backyard orchardists should look carefully for round holes near the soil-line and oozing tree sap mixed with frass (sawdust-like excrement, shown at right). Adult moths begin activity in late June in northern Utah and mated females lay their eggs on the base of tree trunks or upper roots. Young trees and old or drought-stressed trees are most vulnerable.

SYMPTOMS:

- slow growth
- dieback in crown
- oozing at soil-line

MANAGEMENT: Preventive sprays with permethrin or carbaryl are the main control tactics, starting in late June, and continuing every 2 - 3 weeks through September. Only spray lower 12 - 18" of trunk and exposed roots.

Aphid (Green Peach Aphid)

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate
OTHER FRUIT HOSTS: stone fruits

GENERAL INFO: Aphids are small, soft-bodied insects that often occur in clustered colonies. They suck sap from the phloem vessels and reduce tree vigor. Watch for curled (shown at right) and sticky leaves due to honeydew excreted by the aphids. Black sooty mold may grow on the honeydew staining the leaves and fruit. Aphids migrate to alternate hosts for the summer.

SYMPTOMS:

- curled leaves
- yellowed leaves
- sticky honeydew
- leaf drop

MANAGEMENT: Numerous beneficial insects (e.g., lady beetles, lacewings, and syrphid flies) help suppress aphid populations, so conserve and protect these natural enemies. The backyard orchardist can usually ignore aphid infestations unless the populations are extremely high, growth of young trees is being stunted, or black sooty mold is staining the fruit. Apply 2% oil at budbreak to kill eggs. During the growing season, insecticidal soap or 1% horticultural oil can suppress aphids.

Western Flower Thrips (on Nectarine)

IMPORTANCE AS A PEST ON NECTARINE: moderate
OTHER FRUIT HOSTS: apple and plum

GENERAL INFO: Thrips are minute, thin insects that feed within the flowers and on young fruit. They are primarily a problem of nectarines at bloom. Their feeding damages the fruit and scars form as fruit matures.

SYMPTOMS:

- fruit scarring/russetting
- clear gumming from scarred areas
- deformed fruit

MANAGEMENT: Only an insecticide will prevent this injury. Spinosad can be applied during bloom when bees are not flying (at dawn or dusk), or at petal fall.

Spider Mites

IMPORTANCE AS A PEST ON PEACH/NECTARINE: moderate
OTHER FRUIT HOSTS: all fruits

GENERAL INFO: Mites are very small arthropods that are more closely related to ticks than insects. Spider mites overwinter as adults at the base of trees and may become a problem during hot, dry conditions in mid and late summer when they reproduce rapidly (1-2 weeks to complete a generation). They remove chlorophyll from leaves, causing a stippled appearance.

SYMPTOMS:

- stippled leaves
- loss of tree vigor
- fine silk webbing that becomes apparent when populations are high

MANAGEMENT: Low populations of spider mites can be ignored and are often kept in check by predatory mites. Spider mite outbreaks often follow pesticide applications that upset the predator-prey balance. Applying insecticidal soap or horticultural oil every 5-7 days until mite densities decline can be effective. Avoid applying soaps or oils at temperatures > 80°F as some leaf burn may result.

Walnut Husk Fly

IMPORTANCE AS A PEST ON PEACH/NECTARINE: low-moderate
OTHER FRUIT HOSTS: none (walnut is primary host)

GENERAL INFO: The walnut husk fly is similar to western cherry fruit fly. Although walnuts are the primary host, they can sometimes attack ripening peaches. The adults are about the size of a house fly and have patterned wings with an inverted "V" at the tip. Adults lay eggs on softening peach and nectarine fruits, and larvae (maggots) feed within the fruits.

SYMPTOMS:

- holes in fruit
- white maggots in fruit

MANAGEMENT: Adults can be monitored with Pherocon AM (yellow sticky) traps. Treat 7-10 days after the first adult flies are caught, or beginning in late July with products containing spinosad. Repeat again 7 days later.

Earwigs

IMPORTANCE AS A PEST ON PEACH/NECTARINE: low
OTHER FRUIT HOSTS: all fruits, but especially stone fruits and berries

GENERAL INFO: The European earwig is not native to North America and has become a pest in arid western regions of western U.S. Earwigs will climb the trunk or stem and chew into fruits as they near maturity. They are especially fond of ripening fruit. They can also be predators on other insects, so their presence can sometimes be beneficial.

SYMPTOMS:

- Round holes in fruit chewed by adults
- Black dots (excrement) near feeding areas

MANAGEMENT: Earwigs crawl up tree trunks. Remove debris and weeds from the base of trees. Rolled cardboard strips tucked into limb crotches can be used to trap and remove earwigs from trees (remove and replace cardboard rolls). Exclude earwigs by wrapping the trunk with a 3" wide band of duct tape covered with tanglefoot (a sticky substance). If necessary, carbaryl and spinosad provide a short interval of protection.

European Paper Wasp, Yellow Jackets

IMPORTANCE AS A PEST ON PEACH/NECTARINE: low
OTHER FRUIT HOSTS: trees with soft ripe fruit

GENERAL INFO: The European paper wasp builds umbrella-shaped nests in protected sites and yellow jackets build nests underground. The European paper wasp is very attracted to soft ripe fruit.

SYMPTOMS:

- holes in fruit

MANAGEMENT: Clean up rotting fruit on the ground and regularly pick ripe fruit. To trap European paper wasps, cut the top third of a soda bottle off and invert it into the bottom portion. Punch holes along the top edges and insert wires for hanging. Fill the bottle with 1 part fruit juice, 10 parts water, and 1 tsp detergent. Hang the trap in peach trees or nearby areas just before fruit starts to ripen.

Precautionary Statement: All pesticides have benefits and risks, however following the label will maximize the benefits and reduce risks. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

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