**PEACH DISEASES**

<table>
<thead>
<tr>
<th>BACTERIAL CANKER</th>
<th>BACTERIAL SPOT</th>
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<tbody>
<tr>
<td><img src="bacterial_canker.jpg" alt="Image" /></td>
<td><img src="bacterial_spot.jpg" alt="Image" /></td>
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</tbody>
</table>
| - Bacterial condition from *Pseudomonas syringae*  
- Symptoms include limb dieback, loss of fruit spurs, amber-colored gum, “dead bud”, and leaf spotting  
- Inner bark may be brown, fermented and sour-smelling  
- Young trees most affected  
- Spread by splashing rain, favored by high moisture and low spring temperatures  
- Overwinters in cankers and systemically infected branches and buds | - Bacterial condition from *Xanthomonas arboricola*  
- First appears as small, water-soaked grayish areas on underside of leaves  
- Develops into angular and purple, black, or brown spots on leaves and fruit  
- Later in the season, infections cause fruit skin to break and flesh to become sunken  
- Causes tree defoliation  
- Cracks fruit  
- Overwinters in branch tips and diseased twigs |

<table>
<thead>
<tr>
<th>POWDERY MILDEW</th>
<th>PEACH LEAF CURL</th>
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</thead>
<tbody>
<tr>
<td><img src="powdery_mildew.jpg" alt="Image" /></td>
<td><img src="peach_leaf_curl.jpg" alt="Image" /></td>
</tr>
</tbody>
</table>
| - Fungal infection from *Sphaerotheca pannosa*  
- First appears as round, whitish spots 2-4 weeks after fruit set, which enlarge  
- As pit hardens, fruit beneath fungus turns pink. Skin becomes hard, brown & cracked  
- Fungus distorts leaves  
- Overwinters in twigs and fallen leaves | - Fungal infection from *Taphrina deformans*  
- Distorted, reddened foliage often seen in spring. Spreads in cold, wet weather  
- Affects blossoms, leaves, shoots and fruits  
- Infected fruit drop early, and those that stay develop deformities similar to the leaves and can become cracked  
- Overwinters on buds and twigs |
### PEACH DISEASES

<table>
<thead>
<tr>
<th>PEACH SCAB</th>
<th>BROWN ROT</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image of peach scab" /></td>
<td><img src="image2.png" alt="Image of brown rot" /></td>
</tr>
<tr>
<td>- Fungal infection from <em>Cladosporium carpophilum</em></td>
<td>- Fungal infection from <em>Monilinia fructicola</em></td>
</tr>
<tr>
<td>- Often mistaken for bacterial spot</td>
<td>- First sign of infection is brown, wilted blossoms</td>
</tr>
<tr>
<td>- Yellow-green spots appear on undersides of leaves, raised light brown lesions grow and darken on this years twig growth</td>
<td>- Dark, sunken spots develop on new shoots and limbs</td>
</tr>
<tr>
<td>- Small, olive-colored spots develop on fruit close to the stem and enlarge in blotches</td>
<td>- Fruit develops fuzzy tan/grey spores on fruit surface</td>
</tr>
<tr>
<td>- Can crack, stunt, or deform fruit</td>
<td>- Fruit mummies turned shriveled and dark can cause recontamination</td>
</tr>
<tr>
<td>- Spreads in low-lying, moist, and shady areas with poor air circulation</td>
<td>- Overwinters in twig cankers and mummified fruit on the ground and in tree</td>
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<tr>
<td>- Overwinters in infected twigs from previous season</td>
<td></td>
</tr>
</tbody>
</table>

### PEACH PEST INSECTS

<table>
<thead>
<tr>
<th>TWO-SPOTTED SPIDER MITE</th>
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<tbody>
<tr>
<td><img src="image3.png" alt="Image of two-spotted spider mite" /></td>
</tr>
<tr>
<td>- These mites can spin a fine, silken web over infested leaves</td>
</tr>
<tr>
<td>- Large populations can cause bronzing of the leaves and leaf drop, leading to improper fruit sizing and sunburn</td>
</tr>
<tr>
<td>- Adults overwinter under bark of tree or in fallen leaves or weeds on the orchard floor</td>
</tr>
</tbody>
</table>
### PEACH PEST INSECTS

#### GREEN PEACH APHID
- **Appearance**: In the summer, 1.8-2.1 mm long
- **Common Period**: March-May; September-November
- **Overwintering**: On peach trees and spread plant viruses
- **Feeding Habits**: Sucks plant sap from underside of leaves causing plants to turn yellow, leaves to turn downward and inward from edges
- **Impact on Crop**: Peach crops can tolerate moderate infestations with little impact on the crop. Heavy infestations cause flowers and newly formed fruit to abort

#### PLUM CURCULIO
- **Description**: ¼” long dark brown weevil with white patches and four humps on its back
- **Appearance**: In orchards during bloom
- **Feeding**: Adults make crescent-moon shaped punctures on the fruit to lay eggs and feed
- **Eggs**: Pearly white eggs laid in cavity hatch in 7 days and feed on buds, petals and blossoms
- **Impact**: Cause deformed fruit and premature drop
- **Overwintering**: In nearby brush and soil

#### LESSER PEACH TREE BORER
- **Description**: Day flying adults resemble wasps
- **Generations**: 2-3 generations per season with first flight May-June, second August-September
- **Eggs**: Adults lays eggs in cracks of bark
- **Impact**: Attacks entire tree
- **Feeding**: Larva immediately burrow into bark, feed on inner bark and cambium,
- **Wounds**: Wounds ooze gum, frass and wood bits
- **Overwintering**: Beneath bark underground

#### GREATER PEACH TREE BORER
- **Description**: Black moth that resembles a wasp
- **Generations**: 1 generation per season
- **Eggs**: Adults lay eggs in cracks of bark
- **Impact**: Larva immediately tunnel and feed on the sapwood of lower trunk and major roots
- **Wounds**: Injury emits jelly like sap mixed with frass and bits of wood at the base of the trunk
### PEACH PEST INSECTS

#### JAPANESE BEETLE
- 7/16” metallic green beetles with copper-wing coverings
- Eat leaves, leaving only the skeleton
- Can cause damage on the fruit
- Adults emerge and feed on plants beginning in June (life cycle 30-45 days)
- Beetles overwinter in the grub stage in soil

#### STINK BUGS
- Stink bugs feed on the fruit of the tree
- Their piercing mouthparts cause sunken dimpled areas on the fruit or catfacing
- Under these ‘dimples,’ the flesh is brown and pithy to the core of the fruit
- Eggs are light yellow-red and elliptical with spines forming fine lines on the underside of leaves
- Group of adults overwinter in buildings and protected natural environments

#### ORIENTAL FRUIT MOTH
- Eggs appear as white flat ovals on the undersides of the leaves
- 1st generation larvae bore into growing shoots, causing terminal wilt and die back of new growth in spring, flagging
- Some 2nd, and most 3rd and 4th generation larvae attack fruit leaving a hole found in the side of the fruit with brown goo and powdery substance nearby
- Overwinters as a fully grown larva protected within a silk cocoon located in tree crevices or in the orchard ground cover.