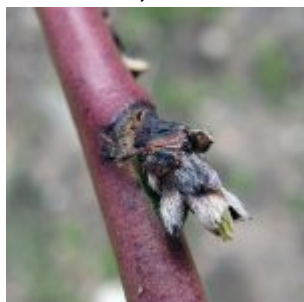


# Coryneum Blight, Blister Mites, Apple Maladies, Orchard Chores

October 5, 2020



## In This Issue

- Prevent new **coryneum blight** (shothole) infections on peach and apricot by applying copper to trees when 50% of the leaves have fallen. Use enough pressure to blow off remaining leaves.
- Manage **bacterial blight of sweet cherry** with a fall copper application.
- For **blister mites on apple and pear**, apply sulfur or 1.5% horticultural oil.
- Help reduce overwintering **pear psylla** with oil or carbaryl now.
- Check out the **apple image gallery** below for damage that may be seen at harvest.
- **General Orchard Chores**

---

## PEACH/NECTARINE, APRICOT, PLUM, CHERRY

### Coryneum Blight



New coryneum infections occur in the fall on fresh leaf scars, so be sure that the spray at 50% leaf drop covers these areas.

The time to treat coryneum blight (also known as shothole) is coming up. The optimal timing is when 50% of leaves have dropped from the trees.

Use a product that contains one of the following ingredients:

- copper (Bonide Copper, Lily Miller Microcop, Kocide, C-O-C-S, etc.)

- chlorothalonil (Daconil, Fertilome Broad Spectrum, Ortho Max Disease Control, etc.)

This disease affects many parts of the tree, including buds, small twigs, leaves, and fruit, so it is important to prevent new infections from happening in the fall.

When leaves drop, they leave behind a small open scar, and if any spores land on those scars under the right weather conditions, the fungus will invade the tissue and by the following spring, the associated bud will be killed. It is these bud infections that then lead to new leaf and fruit infections the following spring.

If trees have severe infections, it will take at least three years of diligent fall, spring, and summer treatments to suppress the disease incidence.

## **Bacterial Canker on Sweet Cherry**



A cross-sectional view of a bud and twig affected by bacterial canker.

Bacterial canker (*Pseudomonas syringae*) is a disease of sweet cherry, causing oozing around dead buds, and twig and branch death.

Like coryneum blight, new infections enter trees through leaf scars in the fall. Research out of Oregon State University has shown that an application of **copper in mid to late October** can help reduce the incidence of this disease the following spring.

Sweet cherries that show oozing sap from dead buds and twigs, along with clusters of dead leaves or dead shoots, typically means an infection by bacterial canker.

---

## **APPLE, PEAR**

### **Pear Psylla (Commercial Orchards)**



Pear psylla adults are hardly visible to the naked eye. The nymphs (young) feed in a bubble of sap (honeydew), and cause the leaf to die at the feeding area.

Early fall is a good time to treat for pear psylla before the adults migrate to protected areas in leaf litter or on tree bark for the winter.

To determine whether a post-harvest treatment is necessary, examine one shoot on at least 20 trees in your orchard (or 20 shoots on 1 to 2 trees) for the presence of nymphs (usually sitting in a drop of honeydew). If activity is seen on at least 5 shoots, a treatment is warranted.

**Treatment:** Oil or carbaryl are options.

### **Blister Mites (Backyard Orchards)**



Appleleaf and pearleaf (shown here) blister mites cause brown to black raised bumps on foliage.

Blister mites can be treated now, and no later than just before leaf drop. This pest is more of an aesthetic problem, primarily on backyard trees, and does not harm the health of the tree. In fact, they serve as a food source for early-emerging predatory mites in the spring. (In turn, the predatory mites will take care of the harmful spider mites that are active during summer.)

**Treatment:** if necessary, one of the following could be used:

- 1.5-2% oil, thoroughly covering the bottoms of the leaves
- Sevin (carbaryl), alone or with 1% oil
- lime-sulfur (at this time of year only, it is OK to mix with 1% oil, but not on drought-stressed

trees)

Blister mites belong to a group of mites called eriophyid mites (air-ee-oh-FYE-id). They are so small that they are invisible to the naked eye, but their feeding can cause visible symptoms.

Small raised blisters form on the leaves of pear and apple, which-by the middle of summer-look like brown or black leaf spots. In the fall, infested leaves will change color and drop before the healthy leaves. In early fall, just as the leaves start to turn color, the mites migrate to leaf buds to spend the winter under the bud scales. Their exposure at this time makes it a good opportunity to treat.

### **Apple Maladies Seen at Harvest - Image Gallery**



Codling moth can introduce fungi or bacteria that can cause a soft, spongy rot.



The rot introduced by codling moth can also be dry and firm.



Earwig feeding. Not the black dot (excrement) inside the hole, which helps to identify earwig feeding.



Birds are becoming more and more of a problem in orchards.



Powdery mildew causes lace-like russeting on fruit.



Some nutrient or pesticide sprays can puddle at the stem end, and cause russeting of the fruit skin.



Light frost damage will show up as a ring of small lesions around the bottom of the apple.



Frost injury often appears as a circular ring of russet around the apple.



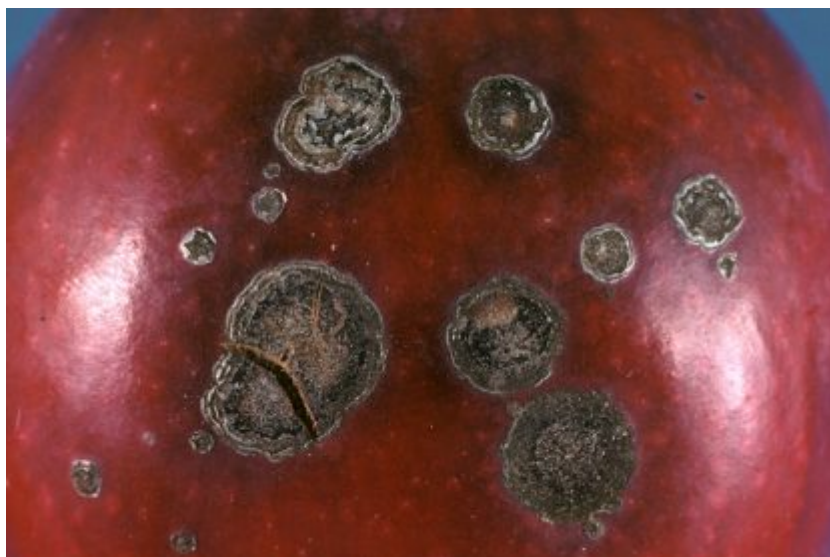
Hail damage can sometimes look like insect damage or a disorder.



Thrips are tiny insects that can lay eggs on the developing apple, causing a "pansy" shaped spot.



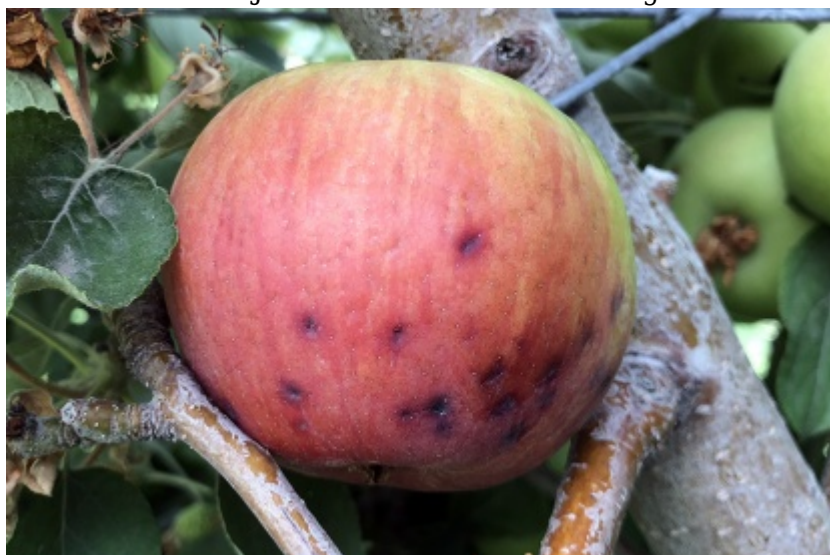
When campylopus bugs feed on developing fruitlets in spring, they cause a raised blister.



Apple scab is somewhat rare in Utah, causing black, circular, scabby lesions.



Infestation of San Jose scale on fruit and on twig.



Bitter pit on Honeycrisp, concentrated at the base of the apple.





“Jonathon spot” occurs on Jonathon Rome, Gravenstein, and other varieties. Its cause is unknown.



Lenticels within a sunburned area on fruit frequently become brown or black.



General fruit cracking is common and its cause is not well-understood.



General fruit cracking is common and its cause is not well-understood.



When rosy apple aphids feed on leaves and flowers during bloom, the resulting fruit becomes deformed and small.



Fire blight infections can happen later in the season, especially through wounds on fruit, resulting in a soft rot.



A dry rot may develop on the calyx end of fruit, mostly introduced by insect feeding.



Honeycrisp apples have a soft flesh, and are prone to diseases like bitter rot.



Stink and lygus bugs puncture-type feeding results in deep pits whose symptom is known as "cat-facing."

---

## Other Orchard Notes



Latex paint or white tree wrap will help to prevent sunscald damage.

**Prevent winter sunscald:** In late winter, bark can be warmed by intense sunlight. If this warming is followed by a cold spell that night, the bark can be killed. Sunscald is one of the primary problems affecting young trees in Utah and is a major factor in the incidence of cytospora canker or flatheaded borers. Protect trunks by applying white tree wrap or painting the trunk and lower scaffold limbs with a 1:1 mixture of white latex paint to water. If using tree wrap, remove it in early April.

**Plant new trees:** Fall is a great time to plant because this is when trees put energy into root growth. Plant early enough to allow enough time for some root establishment before the ground freezes.

**Do not prune:** Do not prune any fruit trees now. Wait to conduct any pruning on apples, pears until late December through March. Prune peaches, cherries next spring after severe cold temperatures have passed (late March to early April).

**Continue to irrigate:** At this time of year, leaves on trees are changing color and dropping, while underground, major root growth is occurring. So it is important to maintain adequate but not excessive soil moisture from now until the soil freezes for winter.

**Do not fertilize now:** Roots will continue to grow all through fall, but nutrient uptake essentially ceases after the leaves have dropped. It is too late for any fall fertilizer applications, as whatever is applied will leach out of the soil.

**Tree removal:** Trees suffering from significant insect, disease, or other problems should be removed now. There is still time to install replacement plantings this fall.

**Protect from mice, voles:** Create or maintain at least 3 feet of clear space from around the base of each tree to help minimize rodents from feeding on bark and roots. Young trees are particularly susceptible to girdling because their trunk circumference is so small. Consider installing a physical barrier around the trunk and down into the soil up to 6 inches.