Commercial: Powdery Mildew, Mating Disruption, Fire blight

March 30, 2017



Pome Fruit

Powdery Mildew on Apple



An optimal timing for powdery mildew fungicides is pink to open cluster stage.



Comparison of flower cluster affected by powdery mildew next to a healthy cluster.

At full pink to open cluster stage, the first mildew spray should be applied. Click here for powdery mildew options. At the same time, you can mix in nutrients, such as urea and zinc.

Fire Blight on Apple, Pear



Fire blight infections will cause the flower cluster to wilt and then turn brown or black.



Fire blight infections happen through flowers. Bacteria are spread from flower to flower by wind-driven rain, and by pollinating insects.

During apple and pear bloom, fire blight infections are a risk when conditions are warm and wet. It

is important to watch the fire blight predictions on Utah TRAPs. If the risk level for infection is HIGH or above, you have a 24-hour window in which to apply an antibiotic. Most areas (except much of Utah County, which has resistance) can use streptomycin, while areas that have resistance should use either Kasumin or oxytetracycline. Typically, the spray should be reapplied within 2 to 4 days, depending on the fire blight risk, and the bloom stage.

Codling Moth Mating Disruption on Apple, Pear



Orange delta traps with CM-DA Combo lures should be used with mating disruption.



Puffers can be used in orchards greater than 30 acres.



There are many different brands of mating disruption dispensers.

Mating disruption dispensers should be hung by full bloom.

Peach/Nectarine, Apricot

Coryneum blight



Coryneum overwinters in infected buds.



Brand new infection on apricot.



Leaf infections drop out, leaving a hole in the leaf.



Shuck split is one of the most important times to apply a fungicide for shot hole.

If coryneum blight is a problem for you, one of the most important times to apply a fungicide is at or right after the shuck split stage.

This pathogen is spread primarily by rain, and optimal conditions for infection are when temperatures are from 70 to $80\,^{\circ}\text{F}$.

Commercial growers can find options by clicking here.

Peach Twig Borer for Organic Growers

Before shoots have started to elongate, and while larvae are exposed, trees can be treated to help reduce the population. Data out of University of California-Davis showed that one or two bloom-time treatments of the organic option, Bt (*Bacillus thuringiensis*), is as effective as a dormant oil+insecticide spray. If you already sprayed a dormant oil for PTB, you do not need to apply the Bt spray.

Bt is a bacterium that must be consumed by the insect to be effective. The material only lasts about 3-5 days, which is why a second treatment may need to be applied. Although Bt does not affect pollinators or other beneficials, it should be sprayed at night so as not to disrupt them.

Bt products can be stored for 2-3 years in a cool, dry location. Liquid formulations will not last quite as long. Once the concentrate is mixed with water, it should be used within 12 hours.