UtahState University COOPERATIVE EXTENSION

Tree Fruit IPM Advisory

UTAH PESTS

Weekly Orchard Pest Update, Utah State University Extension, **April 13, 2012**

Insect/Disease Information

APPLE/PEAR

Fire Blight

Warm weather this spring will set the stage for a bad fire blight year, so it will be important, as your apples and pears are in bloom, to pay attention to the possibility of infection. Currently, the fire blight model (Cougarblight) predicts a **LOW** risk of infection for April 14-18, so if your apples are in bloom or starting to bloom, you do not need to worry about fire blight infection for the next 5 days. But once temperatures warm up again, be prepared.

For infection to occur, these things need to happen simultaneously: open blossoms, a wetting event, 4 or more days of temperatures above the 60s, and the presence of the pathogen.

The primary source of fire blight bacteria for all new infections is from the surface of overwintered cankers. These cankers can occur on branches or on twigs as small as 6 mm in diameter. If you have pruned out last season's cankers, you are in good shape, but keep in mind that all it takes is one canker with live bacteria to infect several trees.

Rain and rain splash spread the bacteria to open flowers. When a flower becomes infected, bacteria will multiply rapidly in warm weather, and as bees pollinate flowers, they spread the bacteria from flower to flower. When the bacteria become established on the flower parts, another wetting event is necessary to wash the bacteria down to the floral cup, which will result in an infection.

Fire blight is treated through prevention. There are currently two antibiotics available in Utah (a third option, Kasumin, will not be available until 2013): streptomycin (Agrimycin) and oxytetracycline (MycoShield), for use on apples and pears during the bloom period. Because of resistance to streptomycin in the Utah County region, commercial growers there are advised to only use oxytet, or to use strep once (at full rate, mixed with oxytet) at the most important spray.

Apple Powdery Mildew

Apple powdery mildew overwinters on twigs, and as a result can form new infections early in the season. Depending on weather conditions, it can become active at about the tight cluster stage. Treatment timing for powdery mildew is when the flower cluster has separated (just before blooms open).

If you have had powdery mildew in the past, consider treating at this time (Flint, Sovran for commercial growers; sulfur for residential growers).

A second application should be made at petal fall (Rally, Topguard, Procure, Vintage for commercial growers; sulfur for residential growers).

continued on next page

Insect and Disease Information, continued from previous page

Codling Moth

Apple bloom, in particular 'Red Delicious', typically coincides with first flight of codling moth. It is at this timing that commercial growers using mating disruption should hang your dispensers.

The USU IPM Program has codling moth monitoring traps in several orchards, and once we detect that the moths have begun to emerge, we can then provide the dates for starting your sprays for this pest.

Codling moth is the "worm in the apple". It overwinters as a full grown larva, and then pupates in the spring, emerging as an adult moth. Females lay eggs on apples, which then bore into the fruit to feed on the seeds (and pulp, along the way). It is best treated with an insecticide that targets the newly hatched larvae. We will provide options for materials in a later advisory, but for now, backyard growers could use: Ortho Max Flower, Fruit & Veg., Sevin, Malathion, Spectracide Triazicide, or any products containing the ingredient spinosad.

For organic backyard growers, you might consider using the codling moth virus (Cyd-X). It works best earlier in the season, and then alternate with spinosad later in the season. It can only be purchased online, and Peaceful Valley Farm Supply offers it in smaller containers.

Rosy and Green Apple Aphids

Both of these aphids are beginning egg hatch now, but the green apple aphid (the most common aphid of apples) won't increase significantly until the warmer summer months. The rosy apple aphid is more of a problem in spring. They inject a toxic saliva during feeding, causing curled leaves and stunted and deformed fruits (as shown above). They migrate out of the apple orchard to weed hosts in late June and July. Green apple aphids remain in the orchard for the entire season. Delayed dormant (up to 1/2" green) oil will kill most overwintering eggs and emerging nymphs. If you missed the delayed dormant oil application, be sure to watch the newly emerging leaves for aphids and leaf curling.

Stone Fruits (peach, nectarine, cherry, apricot, plum, etc.)

Green Peach Aphid

Scattered green peach aphid colonies have been found in Utah County, and populations will continue to increase with warmer weather and expanding foliage. Look for small, green insects on the new foliage and treat if necessary.

For commercial growers, if you find more than an average of two colonies per tree, you may need to treat. (Nectarines, 1 colony/tree.)

Backyard trees could tolerate a higher population, and can use 1% oil (in water) or insecticidal soap if leaves are starting to curl.

Keep in mind that these aphids will leave the orchard by early to mid-summer to feed on alternate weed hosts, and then return in fall to lay eggs.

Insect and Disease Information, continued from previous page

Coryneum Blight

Coryneum blight is best dealt with by prevention. The shuck split stage is one of the most important timings to get a fungicide on peaches, nectarines, apricots, and plums. The wet weather we just had will certainly help to spread the disease, so get a fungicide on as soon as possible if your fruit was affected last year.

Coryneum blight is caused by a fungus that overwinters in buds, causing small gummy cankers. From there, it spreads to leaves and later, to developing fruit. Infections on the leaves cause small round holes, with the center of the lesion sometimes barely attached.

On fruit, lesions vary from dark colored warts to sunken lesions (depending on time of infection). Look for developing lesions (holes in the leaves) and treat if necessary to protect fruit for later in the season.

At the shuck split timing, growers can use Bravo (chlorothalonil), Abound, Captan, Ziram, or Pristine. Products containing chlorothalonil cannot be used after shuck split stage.

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