



Issue 16 - July 16, 2002

## ***Brown Rot Blues***

As stone fruit color and ripen they become more susceptible to brown rot infection. Warm, humid, showery weather are ideal conditions for brown rot to take hold. And bird pecks, stem punctures, or hail damage are ideal sites for infection. If these favorable conditions occur in your orchard it's time to scout for infections and/or apply a fungicide. More than one or two infected fruit per several acres represents a high risk for brown rot infection. Continue to monitor throughout harvest. Most effective pre-harvest fungicides for brown rot control include Indar, Orbit, Elite, and Captan. (Sulfur for organic growers.) Make the first application 2 or 3 weeks before harvest, and repeat in 5 to 10 days. Be sure to watch pre-harvest intervals.

## ***Borer Blues Too***

If you have not already done so, now is still a good time to apply a trunk spray of Lorsban for borers in apples and peaches. Dogwood borers in apples – particularly on dwarfing rootstocks – have become a common and problematic pest. And in peaches, a borer infestation can lead to reduced productivity and orchard short-life. Lorsban is the most effective control, and a single application now will last all season. Apply with a directed handgun spray, thoroughly wetting the trunk all-around. Its current label is as a trunk spray only in peach and apples, so be sure to not hit the foliage and fruit.

## ***Apple Maggot***

Trap captures have increased somewhat over the past week, but most orchards still have not reached the threshold. The rain last week seemed to bring out some fresh fly activity, but we're still waiting for the majority to emerge and/or become active in orchards. Keep checking the traps, and plan to treat when unbaited traps reach 1-2 flies per trap, or baited traps reach 5-8 per trap.

## ***Leafhoppers***

Rose leafhoppers continue to be active in unusual numbers (there may also be some whiteapple leafhopper mixed in, but the majority are rose). What we are experiencing now is the second generation, when many adults migrate from multiflora rose to apple. There is still another generation to come, which is generally a mix of apple-origin and rose-origin leafhoppers. Thus, control measures such as Provado, Thiodan or Sevin at this time will only partially control the last generation, since new leafhoppers will be immigrating from rose at that time. Still, with the large numbers of leafhoppers that are active in some orchards, it may make sense to control both generations.

Potato leafhoppers continue to be active in moderate to high numbers. These insects are easily controlled using low rates of materials that are generally effective on leafhoppers, as well as by organophosphate insecticides. However, since they prefer to feed on newer leaves, they may need repeated applications of low-rate insecticide.

## ***Mites***

Rust mite feeding injury is evident in some orchards. This injury appears as light bronzing-type injury, but the mites are not visible to the unaided eye. A 20X or a very good-quality 10X magnifier is needed to see these tiny, rust-colored, peg-shaped mites. In general, rust mites do not require treatment; the action threshold is several hundred mites per leaf, and they are commonly preyed on by a range of mite predators. They also condition the leaves such that European red mites prefer not to feed on the same leaves.

## ***Leafminers***

Sap-feeding mines of the summer generation are showing up now. Some orchards that had spotty first-generation populations seem to have very few mines (at least so far!), while a few orchards have substantial numbers. Monitor carefully, and keep in mind that spot-treatment is often an effective method of controlling leafminer.

## ***Flyspeck Update (July 16)***

The 2002 growing season has several indicators pointing to a relatively light year for flyspeck. The dry weather last season and during most of this year to date contributed to a lower than average amount of inoculum this May and June. Wooded and hedgerow borders at about 20 locations around the state were surveyed. Every 10 paces along the edge of a border, 25 stems of potential hostplants were examined for flyspeck. This was done for borders up to 100 meters from the blocks of apple trees. Other factors, such as density of foliage in the borders (as demonstrated at last week's Mass. Fruit Growers' Summer Meeting), height and depth of borders, distance between borders and apple trees, and slope and elevation of the blocks were also recorded and used to predict the risk of flyspeck injury at harvest. In all 20 locations, the amount of flyspeck in the borders was less than last year, and the risk is somewhat lower. Because of this and the continued relatively dry weather, we have been recommending less summer fungicide. Most growers waited about 4 weeks after their last scab and plum curculio spray to apply a July spray. In

many cases (the low risk blocks), this may be the last fungicide spray of the season. In high risk blocks and blocks with late-ripening cultivars, an August spray will be applied. A greatly increased amount of rainfall will also indicate a late season spray.

The smaller amount of overwintering inoculum presumably led to a smaller ascospore release (starting a couple of weeks after petal fall and continuing for several weeks). The maturity of ascospores was difficult to evaluate this year due to a smaller sample size, but there seemed to be more "duds" or undeveloped spores and the ones that did develop were a week or 2 later than usual. The second stage of development is underway now: the conidia, or asexual spores, are being released from the infections that were caused by the earlier ascospore releases. Several spore samplers are being monitored at sprayed and non-sprayed areas of the UMASS Cold Spring Orchard. So far the numbers are quite low and there are fewer spores in the air in sprayed areas. These releases should continue for several weeks, and the appearance of the specks on unsprayed fruit could begin as early as next week. The factors driving this are the amount of inoculum, the amount and timing of fungicide, and the amount of rainfall/humidity.

