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College of Agricultural, Consumer, and Environmental Sciences

Illinois Fruit and Vegetable News

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A newsletter for commercial growers of fruit and vegetable crops

"We are what we repeatedly do. Excellence, then, is not an act, but a habit." Aristotle

Address any questions or comments regarding this newsletter to the individual authors listed after each article or to its editor, Rick Weinzierl, 217-244-2126, weinzierl@illinois.edu. The *Illinois Fruit and Vegetable News* is available on the web at: <http://www.ipm.illinois.edu/ifvn/index.html>. To receive email notification of new postings of this newsletter, call or write Rick Weinzierl at the number or email address above.

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University of Illinois Extension Specialists in Fruit & Vegetable Production & Pest Management

Upcoming Programs

- **Missouri East Central Region Farm Tour, September 3, 2009**, 3:00-7:00 p.m. See Elizabeth Wahle's note under "Regional Updates."
- **2009 Illinois Pumpkin Field Day, September 10, 2009**, 10:00 a.m. – 2:00 p.m. at the University of Illinois Vegetable Crops Research Farm at Champaign, IL. Registration is free, and the program includes lunch. For more information see <http://www.cropsci.illinois.edu/events/PumpkinDay2009.pdf> or contact Mohammad Babadoost at 217-333-1523 or babadoos@illinois.edu.
- **2009 Sustainable Agriculture Tours that involve fruits and vegetables:**
 - **September 22, Fresh Fruits and Vegetables.** River Front Berry Farm, Martinton (<http://www.riverfrontberryfarm.com>)

A fee of \$20 per person will be charged for this tour, which includes lunch. Registration at least one week in advance is required. For more information on these and other tours, see

<https://webs.extension.uiuc.edu/registration/default.cfm?RegistrationID=2845>. To register by phone, contact Donna Cray at 217-241-4644. For more information, contact Deborah Cavanaugh-Grant (217-968-5512; cvnghgrn@illinois.edu).

Regional Updates

In southern and southwestern IL ... it's an interesting time of the year when there are sweet corn growers pulling in their last harvests while others just finished planting the final succession, with the hope Jack Frost will stay away until its harvest date in October. Fall armyworm in sweet corn is adding to the length of the spray schedule, doing serious damage to the whorl and tassel if not controlled from early development on. Waiting for tomatoes to ripen has been a frustrating endeavor, but ripening finally kicked into high gear this week. For example, I picked 6.5 lbs of marketable fruit last week from six plants of 'Mountain Magic' which is a large cherry tomato, but this week picked just shy of

54.0 lbs from the same six plants. Since the first ripe fruit were harvested the second week of July, it has taken seven weeks for the plants to take off.

The main peach season is coming to an end, and apples are coming on. Apple growers are advised to maintain a good summer rot program, as conditions have been conducive to development of diseases like bitter and white rot. Grapes are in harvest, and long cool mornings have been welcome in terms of internal fruit temperature in the field.

As noted at the top of this issue, Illinois Pumpkin Field Day is September 10 at the Vegetable Crops Research Farm at Champaign, IL. Registration is requested by September 6. For program and registration details, check <http://web.extension.uiuc.edu/edwardsvillecenter/downloads/18846.pdf>.

Another opportunity to learn from other growers, share ideas, and promote good practices in vegetable production ... the Missouri Vegetable Growers' Association and University of Missouri Extension cordially invite Illinois growers to their Missouri East Central Region Farm Tour being held on Thursday, September 3, running from 3:00 p.m. to 7:30 p.m. The tour begins at Bellews Creek Farm in Hillsboro, then moves to Stuckmeyer's Farm Market in Fenton, and will conclude at Thies Farm & Greenhouse in Maryland Heights. A meal will be served at 6:00 p.m. at Thies Farm. Please call 314-615-2911 if you plan on attending. There is no cost for this event. To view the program flyer, check <http://web.extension.uiuc.edu/edwardsvillecenter/downloads/19293.pdf>

Elizabeth Wahle (618-692-9434; wahle@illinois.edu)

At Dixon Springs, tomato and pepper harvest is winding down. Growers are gearing up for strawberry plasticulture planting. Tips have been under mist now for a couple of weeks with many growers looking to make their plantings around the second week of September. Primocane blackberry harvest is well underway at DSAC and should continue until frost.



Strawberry tips awaiting plasticulture planting time.



Primocane blackberries at the University of Illinois Dixon Springs Ag Center.

In northern Illinois, late August has seen day temps in the 70s to upper 80s and night-time lows in the upper 50s to low 70s. The area received 1-3 inches of rain over the last two weeks. Irrigation equipment is still on in many farms in the region.

Summer spray programs to control apple scab, fruit rots, sooty blotch, and flyspeck are ongoing, and shorter spray intervals are needed where rainfall causes wash-off. Calcium chloride sprays at 12 lb/acre are needed to control cork spot, bitter pit, and Jonathan spot in apples. Picking of early-maturing apple varieties such as Red Free, Pristine, William's Pride, Lodi, Ginger Gold, Mollies Delicious, and Prima is going on in pick-your-own apple orchards, and picking of early to mid September-maturing varieties will commence soon.

Harvesting of sweet corn, muskmelons, cucumbers, squash, tomatoes, peppers, and other vegetables continues, and watermelon harvest will start soon. Some pumpkin fruits have started changing color from green to orange. Corn borer & earworm moth counts remain low on many farms, but blackbird populations have been very high. Other problems have included sun scald on fruits of some varieties of peppers, bacterial spot and speck on tomato fruits, and blossom end rot in tomato fruits. I also have received reports of late blight on tomatoes. Western corn rootworm beetles and cucumber beetles are a problem in vine crops and other vegetable crops such as sweet corn, and growers need to scout their fields and spray when necessary. In pumpkins and squash, powdery mildew on leaves, aphids, and squash bugs are issues. I also have observed phytophthora infection on vine crops and peppers.

Maurice Ogutu (708-352-0109; ogutu@illinois.edu)

Degree-day Accumulations

As this newsletter goes to press, many weather stations in the Illinois State Water Survey WARM data base are showing missing data, and currently available maps are far less accurate and useful than they usually are. As a result, I am not including the maps and tables that I usually present in this newsletter. Sites are likely to be back up and reporting soon, so I encourage readers to use the Degree-Day calculator on their own. Degree-day accumulations are based on weather stations in the Illinois State Water Survey WARM data base and are available on the Degree-Day Calculator on the University of Illinois IPM site (<http://www.ipm.uiuc.edu/degreedays/index.html>). I often print maps that present degree-day accumulations and projections based on a 50-degree F developmental threshold and a January 1 starting date, but other options that use different thresholds and specific biofix dates are available on the Degree-Day Calculator. The degree-day calculator is available as a result of a joint effort of current and former extension

entomologists (primarily Kelly Estes) and Bob Scott of the Illinois State Water Survey. If you have questions about how to use the site, contact me or Bob Scott (rwscott1@uiuc.edu).

Rick Weinzierl (217-244-2126; weinzier@uiuc.edu)

Notes from Chris Doll

We have enjoyed some nice temperatures this month, and the 3.3 inches of rain a week ago gave the crops ample moisture going into apple harvest season. In addition, lots of sunshine and several cool nights have added to the color and sugar in the apples. Galas are ready for picking, and maybe about ready for stem-end splitting, and Honeycrisp are coloring and maturing nicely. Some Golden Supreme and Jons have been picked, and the apple season will move into fast gear after Labor Day. The peach season is almost finished, but my Encore need another 10 days to be picked. Thornless blackberry harvest is completed, but the red raspberries continue to fruit with the good moisture and cooler temperatures. My records say that we are on course with 2008 at this time.

A few codling moths were found in traps this week, as well as a few larvae in instar levels of one, two and four. Not bad for a block with a history of much higher numbers. A few stink bugs and tarnished plant bugs have been found, but the major pest found is San Jose scale on fruit and wood, and lots of crawlers also. The lavender spots on the fruit plus the scales can let a grower identify problem trees or blocks for special treatment next spring if treatment is impractical at this time.

Sooty blotch and flyspeck are prevalent on poorly sprayed apples, and bitter rot infections have been found in a couple of blocks. If no history of apple scab and white rot infections is recorded for a block, no problems with these diseases should be encountered. More leaf drop from necrotic leaf blotch was seen in the past week than has happened for several years. The good news is that this problem does not affect the appearance of the fruit.

Other sightings recently were the effect of Apogee on Empire fruits. This was a severe rosette cracking around the stem of the apple in the majority of the fruits. It happened because the trees were included in a fire blight control treatment for Jonathans. Cork pitting was very light in orchards visited this week. Fruit russeting was prevalent at a couple of sites, a result of some cold and wet weather at bloom and petal fall time. A large number of small seedless or near seedless apples were found on one of the sites, which indicates that it was poor pollinating weather.

Fruit feeding by birds has been common for some this summer. Crows were named by two growers, and I identified the chipping sparrow as the culprit in two others as well in the Back 40. The chipping sparrow is a small version of the sparrow that most of us know, and it tends to be in flocks and very flighty so that seeing one sitting or feeding is rather rare. My experience is that they tend to do repeat feeding on a fruit that they like. In my Sansa apple variety, they consumed the entire fruit down to core, while selecting about 10 percent of a dwarfed tree's crop. Now they have moved onto the Honeycrisp, and they seem to prefer some of the white peach varieties. I don't know how widespread this problem is, but they have been here for three years. And they will eat grapes too.

Drop of apples has not been a problem to date. But more maturity and some hot weather could cause the problem to develop. The use of NAA at 10 ppm can work if applied in time.

Chris Doll

Fruit Production and Pest Management

Training DVD on apple harvest

Penn State extension educators have produced an employee training DVD on "***Apple Harvest***" in Spanish and English. For ordering information, check <http://frec.cas.psu.edu/pdf/PruningHarvestOrderForm.pdf>

Late-season codling moth management

Chris Doll noted that he has seen various stages of codling moth larvae in apples as well as moths in traps in his area; the same is true for central Illinois. Growers are reminded that as long as traps are catching moths, egg-laying, hatch, and fruit entry will follow. Discontinuing codling moth control efforts too early can result in late infestations that ruin fruit that had been protected from damage for several weeks earlier in the season. Check the [2009 Spray Guide](#) for a full list and additional details, but insecticides that can be used for codling moth control until a short time before harvest include Assail (7-day PHI [preharvest interval]), Clutch (7-day PHI), Delegate (7-day PHI), Entrust (7-day PHI), Imidan (7-day PHI), and Sevin (3 days).

Rick Weinzierl (217-244-2126; weinzier@illinois.edu)

Vegetable Production and Pest Management

Elizabeth Wahle noted that fall armyworm is abundant in some areas, and earlier this week their characteristic damage showed up in our plots in central Illinois as well. While Bt sweet corn hybrids are damaged less by fall armyworm than non-Bt sweet corns, currently available Bt sweet corns are not highly resistant to fall armyworm attack, and they (as well as non-Bt hybrids) often need to be protected from this insect if populations occur at moderate to heavy levels. In general, the pyrethroid insecticides Warrior, Brigade/Capture, Mustang Max, and Baythroid have been most effective against fall armyworm, but this insect is difficult to control. We have very little data on their performance against this insect in the Midwest so far, but Belt and Radiant also are labeled against fall armyworm. Fall armyworm larvae will move from foliage and stalks to infest and damage sweet corn ears.



Fall armyworm damage to corn (University of Wisconsin).

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