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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

- **Illinois/Iowa Cucurbit School, November 19, 2010.** Scott County Extension Office, Bettendorf, IA. For more information, contact Maurice Ogutu (ogutu@illinois.edu) or see <http://www.extension.iastate.edu/johnson/news/FVmeeting.htm>.
- **Missouri Watermelon Conference, December 1, 2010.** American Legion Building, Kennett, MO. Registration begins at 8:00 a.m. Contact the Butler County Extension Center at 573-686-8064 or Sarah Denkler at denklers@missouri.edu.
- **Great Lakes Fruit, Vegetable, and Farm Market EXPO, December 7-9, 2010.** Grand Rapids, MI. Pre-register by November 12 to save money at: <http://www.glexpo.com/index.php>.
- **Illiana Vegetable Growers School, January 4, 2011.** Teibels' Restaurant in Schererville, IN. Contact Liz Maynard (emaynard@purdue.edu) or Maurice Ogutu (ogutu@illinois.edu) for more information.
- **2011 Illinois Specialty Crops Conference, January 5-7, 2011.** Crowne Plaza Hotel, Springfield, IL. Details will be included in future issues of this newsletter. See www.specialtygrowers.org or contact Diane Handley at 309-557-3662 or dhandley@ilfb.org.
- **2011 Indiana Hort Congress, January 18-20, 2011.** Wyndham Indianapolis West, Indianapolis, IN. Details at www.inhortcongress.org or contact Tammy Goodale at 765-494-1296 or tgoodale@purdue.edu.
- **2011 Horseradish Growers Convention, January 27, 2011.** Gateway Conference Center, Collinsville, IL. For more information, contact Elizabeth Wahle, 618-692-9434; wahle@illinois.edu.
- **Southern Illinois Commercial Tree Fruit School, February 1, 2011.** Mt Vernon Holiday Inn, Mt. Vernon, IL. For more information, contact Elizabeth Wahle, 618-692-9434; wahle@illinois.edu.
- **Southwestern Illinois Commercial Tree Fruit School, February 2, 2011.** First Presbyterian Church, Hardin, IL. For more information, contact Elizabeth Wahle, 618-692-9434; wahle@illinois.edu.
- **Southern Illinois Commercial Vegetable School, February 9th, 2011.** Mt Vernon Holiday Inn, Mt. Vernon, IL. For more information, contact Elizabeth Wahle, 618-692-9434; wahle@illinois.edu.

Regional Updates

In the south and southwest, we've had no hard freezes in the southern region yet, but several light frosts have done a good job in accelerating leaf drop. With dropping temperatures, several activities can be done before the onset of really cold weather. In the last newsletter I mentioned getting straw lined up to be ready to cover strawberries when temperatures are predicted to drop below 20° F. In addition, now is the time to apply a preemergent herbicide (to unfrozen ground) to dormant strawberries just prior to straw application. Dormant strawberries will have a flattened appearance after they have been exposed to a few light frosts. Sinbar is the traditional choice, but Chateau and Ultra Blazer are also options. See the 2010 Midwest Small Fruit and Grape Spray Guide for all your herbicide options: http://www.ag.purdue.edu/hla/Hort/Pages/sfg_sprayguide.aspx. Asparagus should be turning a nice gold color after a few frosts as well, meaning you can cut ferns back to the ground in preparation for harvest early next spring.

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

In the northern region, the season is quickly coming to an end. Cooler weather began around October 27, when the day temperatures dropped to the 40s to 50s and night-time lows fell to the 20s to 30s. It has been one of the driest periods of the year. Most fruit and vegetable operations are now closed except a few still harvesting cabbage and other cool season vegetables such as collards and other greens. Some vegetable growers who are using season extension techniques such as high tunnels are still in operation. The pumpkin crop in the region was much better than last year's. Removal of plastic mulch and drip tapes as well as tilling under leftover crop residues is underway, and some pick-your-own apple operations are still open.

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

Notes from Chris Doll

I've had a long vacation from writing, and I cannot say that it was enjoyable. The replacement hip and surrounding areas have restricted my travels and orchard observations other than the Back-40. It had no pesticide sprays for three months, and the results were not as bad as expected. Sooty blotch and flyspeck had free opportunity for infection and were the worst on Mutsu, Orin, Pink Lady, and Chieftain, but not too bad on Fuji, Golden Delicious, and Sunburst. No internal worms were present, and only a trace of leaf roller damage was seen on harvested apples. Stink bug injury was less than most years, but the fruit next to a soybean field were badly pitted by stinkbug feeding. I have hated this pest for many years and now will worry about the brown marmorated stink bug that is causing problems in some of the eastern states.

The peach crop was harvested while I was in the hospital, as were the earlier apples. (In fact, lots of apples were picked on the green side by amateur pickers that would not wait for maturity.) At this time, I am still waiting for Goldrush, Fuji, and Pink Lady to develop the color and flavor that make them great. They are also great because of their hanging ability. They are earlier than they were in 2009 and have withstood some mighty strong winds.

October was very dry, with only 0.8 inch of rain in the last week of the month. Prior to that time, rainfall was adequate and plant growth was vigorous. Thornless blackberry grew like weeds, and I could see new terminal growth on peaches into late September. They have now stopped growing and are 90 percent defoliated. The dry weather made for poor germination conditions for wheat growers and cover crop seeding in orchards. Somehow, the latter will get established. It is a good time to tag or remove dead limbs or trees that failed to survive. It is also a time to survey for mouse/vole populations and treat accordingly. Anyone that has the white plastic spiral guards on young trees needs to remove those that are tight on the trunk to avoid freeze injury during the winter.

Much has been written about "club" varieties of apples and their great characteristics. I happened so see some SweetTango in a local chain store this week side by side with Honeycrisp. Both were spotted with cork spot from poor storage, but the prices were near the \$3.00 range.

A summary of some apple variety evaluation was reported by Penn State researchers in the October 2010 issue of HortTechnology. The varieties were Crimson Crisp, Crimson Topaz, Goldrush, Jonagold, NY 49, and Sundance. The overall rating by the panel favored Crimson Crisp as the best and declined in the order listed. Crimson Topaz was rated

as the best in appearance, and Goldrush was the lowest. Jonagold was rated lowest for texture, and Sundance was lowest in flavor. The report on consumer preferences indicated that the apple cultivar name and previous purchases were primary influences on choices, with fruit appearance and flavor next in importance. Dr. Diane Miller will be doing an evaluation of some selections from the Midwest Apple Improvement Association program at a Cleveland food show that should reveal how some of the Association's cultivars are liked by consumers. I hope to have more on this in the future.

Chris Doll

Growing Challenges and Specialty Crop Production in Illinois

Having worked on specialty crop production systems in northern Illinois since 1985, I feel I have gained some valuable experience in managing this kind of work through diverse weather patterns. The first few years were relatively benevolent, with warm temperatures and adequate, but not excessive, rainfall for producing crops. Those were the "good old days"! 1989 was hot, with severe drought. Perhaps that was a wake-up call. During the 90's we had good years and tough years. Some were hot and dry, some were wet. We had cold winters then too. One week in January of '96 (?) we had 5 nights with temperatures colder than -20°F. One got down to -28.6°F. That's the coldest it has been since I've been here. There was damage to fruit trees, vines, and shrubs that year. But they grew back.

The current decade has been less predictable, or should I say tolerable. We had late spring frosts and early fall frosts during the first few years. We had some pretty nice growing seasons early, but they had more flooding rains. That was bad for us, as we have some low ground. It's rich ground, but wet. We lost some plantings due to the floods. Development around us contributed to those floods, and still does. It can be hard to reason with numerous bureaucracies, so we haven't found a way to fix that, yet. In 2005 we had really hot weather and no rain. From early June to mid-August we had less than 0.5" of rain. With the hot temps, we saw wilting in pumpkins in the low ground, a first. But irrigation saved us, and we had a great season of production, though we were weary at the end. Quality was generally high.

The last 4 years have been the most difficult of my career though. We have had persistent rain, flooding cycles, and high disease pressure. Each has been worse than the preceding year. This year we had almost 6" in May, then it really got wet. We had about 17" for June and July, then over 3" in the first week of August. Then, the rain stopped. We had very little rain the rest of the season. The ground actually dried out, and all tillage was dusty. In the end, it made for a lot of anguish this season. We had difficulty with planting schedules and with timely harvest. We had herbicides breaking down at half their normal life of protection, and weeds proliferated. Disease pressure was enormous, and we saw diseases we've never had before. A few crops were total losses as a result. Nevertheless, I want to give my crew credit for hard work and persistence, and it paid off. We enjoyed some success at the end of the season. Hard work makes up for a lot of challenges.

I'm not writing this to be folksy or to share my troubles. I just wanted to set the stage for discussing some critical factors in growing specialty crops in Illinois. To be successful, growers must be ready for unpredictable challenges. We have many tools, some of which have only recently become available – good drip tapes, easy-to-use fertigation equipment, high tunnels, and more. These tools can be used to meet many challenges, but we need to understand what they can or cannot do. We need to know when they can help us make money and when they just cost us too much. That can be pretty complicated, but our industry has unique challenges, and weather is often chief among them. Do you, and should you irrigate? Should you put out drip tape every year when you have just had 4 years in a row of excessive rain and floods? Will our next 4 years be hot and dry? Come visit the St. Charles Horticulture Research Center next year, and I'll show you my drip irrigation system, in place and ready for use.

Bill Shoemaker (630/584-7254; wshoemak@illinois.edu)

Fruit Production and Pest Management

Planning Ahead for Grape Phylloxera Control

At the Midwest Fruit Workers meeting in October, Donn Johnson, extension entomologist at the University of Arkansas discussed results and recommendations from his recent work on grape phylloxera. Grape growers should find it valuable to review this work before the 2011 season. Some key points:

A new fact sheet on grape phylloxera is available at: http://comp.uark.edu/~dtjohnso/GP_Fact_Sheet_09.pdf.

A presentation given at the 5th Phylloxera Symposium on 21 September 2010 in Vienna is also available online at: http://comp.uark.edu/~dtjohnso/GP_Johnson_Vienna_Sept_10.pdf.

Some key recommendations from Dr. Johnson: (1) Apply insecticide only to GP susceptible vines that get severe GP leaf galling. (2) Instead of a bloom spray, we recommend scouting for phylloxera stem mother galls to pinpoint the crawler emergence period and improve spray application timing (insecticide applications or Surround kaolin clay to maintain white-washed vines). (3) As soon as stem mother galls mature (fully expanded), begin looking inside galls for eggs and crawlers or on the leaf surface for 2nd generation GP crawlers. Crawlers usually begin emerging after 450 DD (base 43.5 F) accumulate after the first grape leaves begin to expand. (4) Spray only during the 2nd generation crawler emergence (a 2- to 3-week period that begins late April to late May depending on latitude and season). (5) Depending upon the formulation, adequate control may require 2 applications 10 to 14 days apart. (Note: Assail has a 14 d spray interval.) (6) If you use Admire Pro, apply it shortly after bud break to bud swell (roots need to be active) to get material to translocate from the roots to emerging foliage. Apply Admire Pro as a drench to the soil under the vines (root zone), then water it in to get it to the roots either by irrigation or apply it just before you expect a soil drenching rain. BE SURE TO CHECK THE FACT SHEET AND PRESENTATION AT THE LINKS ABOVE FOR MORE DETAILS AND BACKGROUND INFORMATION.

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

Vegetable Production and Pest Management

New Insecticide Listings in the 2011 Midwest Vegetable Production Guide

The 2011 Midwest Vegetable Production Guide is about to go to press, and it contains the following notes about new registrations of insecticides for use on vegetable crops. You may want to read up on these products, as trade magazines likely will carry more than a few ads for them over the winter months.

- Hero has been labeled on several crops including Brassicas and leafy greens, cucurbit vegetables, fruiting vegetables and potato. Hero is a combination of two pyrethroid insecticides, bifenthrin and zeta-cypermethrin. Its range of activity is pretty much the same as other pyrethroid insecticides.
- Radiant SC has been labeled on several crops including asparagus, Brassicas and leafy greens, cucurbit vegetables, legumes, and dry bulb and green bunching onions. Radiant contains spinetoram, a synthetic compound that is very similar to the spinosads found in SpinTor and Entrust. Expect Radiant to be a little longer-lasting and little more active than SpinTor and Entrust. Primary targets for Radiant in Illinois vegetable crops are lepidopteran larvae (the “worms” on cabbage and related crops and corn earworm, corn borer, and armyworms on sweet corn, for example) and thrips.
- Voliam Flexi has been labeled on several crops including Brassicas and leafy greens, cucurbit vegetables, fruiting vegetables, and potatoes. Voliam Flexi is a combination of chlorantraniliprole (same ingredient that’s in Coragen) and thiamethoxam (same ingredient that’s in Actara and Platinum). Chlorantraniliprole is effective primarily against lepidopteran larvae, and thiamethoxam is effective primarily against aphids and leafhoppers.
- Voliam Xpress has been labeled on several crops including Brassicas and leafy greens, cucurbit vegetables, fruiting vegetables, legumes and sweet corn. Voliam Xpress is a combination of chlorantraniliprole (same ingredient that’s in Coragen) and lambda-cyhalothrin (the pyrethroid that’s in Warrior). Again,

chlorantraniliprole is effective primarily against lepidopteran larvae; lambda cyhalothrin is effective against a range of lepidopteran larvae, beetles, and several other insects (though not against aphids, at least in general).

I'll offer the candid opinion that I'm not a big fan of pre-mixes that contain two or more insecticides, but we'll discuss the strengths and weakness of all these new registrations during our winter extension programs.

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

Less Seriously ...

In Memoriam

With all the sadness and trauma going on in the world at the moment, it is worth reflecting on the death of a very important person, which almost went unnoticed recently. Larry LaPrise, the man who wrote "The Hokey Pokey," died peacefully at age 93. The most traumatic part for his family was getting him into the coffin. They put his left leg in. And then the trouble started.

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