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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://ipm.illinois.edu/ifvn/>. To receive email notification of new postings of this newsletter, call or write Rick Weinzierl at the number or email address above.

In this issue ...

Upcoming Programs

Regional Updates (from Mike Roegge in western IL)

Notes from Chris Doll (rainfall, sweet fruits, crop estimates, bud set)

Fruit Production and Pest Management (more on spotted wing Drosophila; preparing orchards for winter; Ethrel and Pro-Gibb for bloom delay in peaches and nectarines)

Local Foods Issues (MarketMaker September newsletter)

University of Illinois Extension educators and specialists in fruit and vegetable production and pest management

Upcoming Programs

Two upcoming winter programs of broad interest to Illinois commercial fruit and vegetable growers in December and January are the Great Lakes EXPO, December 4-6, and the Illinois Specialty Crops, Agritourism, and Organics Conference, January 9-11, 2013. These programs are listed first, below, followed by several other local and regional programs.

- **Great Lakes EXPO, December 4-6, 2012.** Grand Rapids, MI. A comprehensive program that covers production and marketing of a broad range of fruit and vegetable crops and farm marketing, including tracks for organic and greenhouse growers as well as conventional outdoor production. For more information, see <http://www.glexpo.com/>.
- **Illinois Specialty Crops, Agritourism, and Organics Conference, January 9-11, 2013.** Crowne Plaza Hotel and Conference Center, Springfield, IL. More details to come, but mark your calendars. Workshops on January 9 will cover high-tunnel production systems, cover crops, basics of orchard establishment and management, and sweet corn production and pest management. Concurrent tracks on January 10-11 include fruits, vegetables, herbs, agritourism, organic production systems, and emerging issues and challenges in specialty crop production and marketing. More detailed program information will be posted soon; for more information, see www.specialtygrowers.org; complete program will be available soon.
- **Living on the Land, October 1 through November 9, 2012.** An 8-week series held on Mondays from 6:00 p.m. to 9:00 p.m. at the University of Illinois Extension Office, Will County, 100 Manhattan Road, Joliet, IL 60433. \$150 per person for the series and \$100 for additional farm/family members. For more information, contact James Theuri at 815-933-8337 or jtheu50@illinois.edu.
- **Illinois Nut Tree Association fall meeting, October 21, 2012,** at the White Farm along Highway 158, SW of Belleville, and 2 miles east of Millstadt. Gathering begins at 9:00 a.m., and the program begins at 10:00 a.m., with lunch, followed by tours and discussions of the nut plantings for another hour or so. Visitors are welcome ... so is a contribution to the pot-luck lunch. (No registration required ... just show up.)
- **Healthy Farms, Healthy People, October 23, 2012,** 9:00 a.m. – 4:30 p.m. at the Statehouse Inn, Springfield, IL. A symposium that explores the intersection of food policy, agriculture, and health. Keynote speakers and

plenary sessions will be followed by working roundtables that discuss and generate possible solutions to the challenges of the Illinois food system. For more information and to register, see www.iphionline.org or call the Illinois Public Health Institute at 312-850-4744.

- **2012 Sustainable Living Expo, October 27, 2012**, 9:00 a.m. to 4:00 p.m. at the University of Illinois Dixon Springs Agricultural Center, Simpson, IL. A diverse program with resources and information for individuals, businesses, and communities to promote sustainability. Free admission; for more information, see www.SLEexpo.org.
- **Sangamon Area Farm to School Summit, November 2-3, 2012**, at the Workforce Careers Center on the Lincoln Land Community College campus, Springfield, IL. Focuses on improving child nutrition, supporting local agriculture, and integrating school gardens into curricula. For information and registration, see <http://web.extension.illinois.edu/lms/>.
- **20th National Small Farm Trade Show & Conference, November 1-3, 2012**, Central Missouri Event Center, Columbia, MO. Features dozens of SARE grant recipients plus staff from the USDA Sustainable Agriculture Research and Education (SARE) program. For more information, see <http://www.smallfarmtoday.com/trade-show.html>.
- **GAPs – Good Agricultural Practices for safer fresh produce – Workshop, November 9, 2012**, 8:30 a.m. – 4:00 p.m. University of Illinois Extension, Sangamon County Office, 700 S. Airport Drive, Springfield. For more information and to register, <https://webs.extension.uiuc.edu/registration/?RegistrationID=6413>.

Regional Reports

In western Illinois, the remnants of Hurricane Isaac provided a reprieve and generated a spurt of growth to many crops. That, coupled with some recent rains during the last week in September, allowed those crops that survived the heat and dryness of summer to continue on. Picking of summer vegetables continues, and yields are directly tied to amounts of water available. Disease pressure has picked up after the rains on some crops (field tomatoes), however disease pressure this year has been the lowest in recent memory, due to lack of rainfall.

Pumpkin harvest has started, and producers are reporting wide ranges in crop size. We found out this year it didn't take much rain to produce a crop. But because of the nature of summer rains (scattered and in widely varying amounts), just a slight difference in rainfall made a great difference in crop. Some producers are reporting an average crop while some are reporting a 30% crop, all within the same county.

High-tunnel plantings of greens and other vegetables are growing well, as are field plantings. Light frost the fourth weekend in September ended growth of a few field vegetables and also signaled time to dig sweet potatoes. Yields are reported to be good to very good. Apple harvest has ended with mixed results – these who irrigated their trees were rewarded.

The rains of Isaac provided this area with 4-8" of rainfall, however those who have been digging or moving soil have reported that the moisture only moved down into the soil to a 12-18" depth, and we saw very little runoff. We need a couple more Hurricanes moving through the area before we will escape this drought!

Mike Roegge (217-223-8380; roeggem@illinois.edu)

Notes from Chris Doll

Our summer has passed and some nice rains and weather have been recorded recently. The SW Illinois area was only the fourth hottest on record, and had only 21 days of triple digit temperatures as contrasted to 1936 when 37 days were reported for this extreme. And we tend to think that this is a cooler time of the year, and the record of September 30 is 102 degrees, in 1936 naturally. Rains for September totaled 5.0 inches for here, 3.0 inches for St. Louis airport, over 18 inches for Centralia according to Tom Schwarz, and lesser amounts in southern Illinois. The countryside has greened up after the rains from Isaac and beyond, the surviving apple crop continued to size and color, and the final harvest is in sight for most growers, with the problem of not having any apples on the trees this month of October for the pick-your-own operators. I don't know if there is any way to duplicate the habit of hauling and spreading pumpkins in an expired patch for pick-your-owners to an apple orchard.

Lots of reports of sweet fruits ... My testing of soluble solids has been sporadic and nonscientific, and these reported results are current and also non-scientific, but a couple were almost like picking candy from a tree, with Seckel pear at 22%, and my last Arctic Sweet nectarine at 23 %. Today's tests on Bartlett pear was 16.1 %, and apple varieties' percentages were: Chieftain at 16.2, regular Fuji at 15.1, Jubilee Fuji (late picking) at 13.8, Jonagold at 14.3, Suncrips at 14.0, Jonathan at 13.5, and Golden Delicious at 13.2.

During the summer, concerns about the effect of the weather on the 2013 crop potential were common in discussions. In my recent observations, most peach varieties have produced plenty of flower buds for a good bloom next year. The reduction in crop size would have to come from lack of enough spur and shoot growth to fulfill expectations, in which case the tree probably is not worth much. In apples, flower buds are visible on trees in this area where the crop was somewhere below the full crop. Varieties such as Honeycrisp, Goldens, and Fuji that were full to over-loaded appear to have a light set of buds. There is nothing to do now except to resolve to do a better job of thinning during and after the next full bloom, and also use some growth regulating sprays to stimulate initiation.

Most readers have seen the U.S. Apple Association apple crop estimates for 2012, but here are the figures that tend to complete the season for us. The Illinois crop was classified as being down from both the 2011 and 5-year average crops by 35 and 32 percent. That shows this year's freeze effects on central and northern parts of the state. For this year, Michigan is down 89 percent, but Missouri is up 127 percent, and Washington is up 5 percent. Another interesting apple statistic mentioned in the October issue of the Goodfruit Grower is about Honeycrisp now being number 6 in U.S. 2012 total yield. Other articles in that issue are about the explosion in cider (or more specifically alcoholic ciders) and the varieties for production thereof.

Congratulations to Ken and Barb Hall of Edwards Orchards for the great photos and story on the cover and inside of the October American Fruit Grower. They are an outstanding couple for their production, marketing, and outreach abilities, and the farm is an American icon.

The same issue of the American Fruit Grower had an article about an icon of small fruit production, namely Tim Nourse and his son Nate of Nourse Farms in South Deerfield, MA. During my 18,000 mile study leave 25 years ago, Tim and his farm were a highlight of the study for information and show/tell on strawberry and raspberry production and marketing, plus small fruit nursery plant production ... another great story about people and American horticulture.

Chris Doll

Fruit Production and Pest Management

More on Spotted Wing Drosophila (SWD) ... be watchful of high tunnel raspberries and strawberries

Previous issues of this newsletter have included reports on spotted wing Drosophila (SWD) ... see <http://ipm.illinois.edu/ifvn/contents.php?id=11#fruit> and <http://ipm.illinois.edu/ifvn/contents.php?id=13#fruit>. The map below indicates the counties in which the presence of SWD has been confirmed, and in several of these cases, larval infestations of raspberries have been reported as well. As I stated earlier, I suspect that SWD is present in most if not all Illinois counties and that counties not marked on the map below represent areas where we have not monitored enough to detect it yet.

As fall brings frost and freezes to the area, outdoor production of raspberries will end, and so will reports of outdoor infestations of fruit. Be aware, however, that this insect has been recorded from high-tunnel raspberries and strawberries. As production of these crops continues in high tunnels, monitoring for SWD will be essential. Michigan State University's web site on SWD includes directions on how to construct traps to monitor for it ... see <http://www.ipm.msu.edu/SWD/SWD-monitor.htm>.

[Issue 13](#) of this newsletter listed effective insecticides for SWD control in raspberries. For strawberries, labeled insecticides that should reduce damage from this insect include Brigadier (7-day PHI; residual activity of about 7 days), Danitol (2-day PHI; residual activity of about 7 days), Entrust (1-day PHI, OMRI-approved; residual activity of about 3-5 days), Pyganic and other natural pyrethrins (0-day PHI, OMRI-approved; residual activity of about 1-2 days), Malathion (3-day PHI; residual activity of about 5 days), and Radiant (1-day PHI; residual activity of about 7 days).

(PHI = preharvest interval, the number of days that must elapse between final application and harvest; OMRI = Organic Materials Review Institute.)



Spotted wing *Drosophila* occurrence in IL, based on adult specimens.

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Preparing Orchards for Winter

Preventing Damage from Voles, Mice, and Rabbits

The dry weather this year may have reduced rodent populations, but those that survived are likely to be strong and hungry. With corn and bean harvest at its peak, mice will likely be looking for other places to hide and build their nests. October and November are the most active months for nesting.



Left: Rodent damage to an apple tree. Mouse feeding occurred while the trunk was covered with snow. Right: A row of trees killed by pine vole. Notice grass was mowed between the rows but not between the trees within the row.

Areas with tall grasses, especially between rows of trees are the best places for mice nests. Killing grass between trees within rows with herbicide is not sufficient to keep the mice away. They will nest even in dead grass if it is tall enough to provide good cover from predators and if it is close to a food source such as live tree roots. For this reason, it is

recommended that you keep the grass mowed, especially between trees within the row if it has not been eliminated by herbicide sprays throughout the summer.

If you plan to use chemicals to kill mice, then place the bait stations between the rows soon after you mow. There are several types of bait stations that you can use. A 1 to 1.5" T-shaped PVC pipe, roofing shingles, metal trays, slit tires (along the center of the tread), or any other material that provides a dark and dry environment can work as bait covers. Do not bait the stations until the critters start to use them as a nesting site, which usually takes about two weeks. Check the stations frequently for any signs of mice activity. Usually you see a small pile of straw or a hole in the ground under the station.

There are two types of chemical baits for mice – zinc phosphide, which forms toxic phosphine gas in the intestine of the animal, and chlorphacinone (Rozol) an anticoagulant. Place the bait on a piece of plastic under the station, but don't spread it on the ground. The animals will shy away from rotted bait. Also, change the bait every two weeks and alternate between the two types of chemicals. Mice will shy away from both chemicals, especially zinc phosphide, after a few feedings. Never spread the bait on the ground outside the bait station. Birds and other non-target animals will be injured or killed by these chemicals.

Some growers use trail baiting which works only when the ground is dry, but there is a danger in that the trail will serve as a tunnel when the bait is gone. Trail baiting is more effective on pine vole, but not as effective on prairie or meadow voles, since they tend to spend most of their time outdoors not in tunnels. You can also reduce mice population by encouraging predatory birds to roost in the orchard. To do that you need to build a 20 to 30 foot high post with a 24 x 24 platform that owls and hawks can use either as a nest or a stand.



Left: A slit tire is the best baiting station, but it may be difficult to find someone to cut the tire along the thread. Right: Mice nest adjacent to chlorphacinone bait. Bait was placed under a metal tray.

Rabbits can also cause extensive damage to fruit trees. Make sure you place rabbit guards around young trees less than 6 years old and spray repellent if available. Avoid using plastic tubes around young trees because they reduce winter acclimation of the trunk, which may lead to winter damage and trunk splitting. A wire mesh works better as a rabbit guard. The mesh has to be at least 1.5 foot high.

Bloom Delay of Peaches and Nectarines using Fall Application of Ethrel and Pro-Gibb

A study by Kim Williams found that fall application of Pro-Gibb (gibberellin A₃) and Ethrel (ethephon (2-chloroethyl) phosphonic acid) delayed spring bloom of both peaches and nectarines. The data showed that mid-October application of Pro-Gibb at 50 to 400 ppm delayed bloom by 2 to 5 days, while a combination of 50 ppm ethrel and 100 ppm Pro-Gibb applied at the same time delayed bloom by 7 to 13 days, depending on the weather in early spring. However, application of the same combination in November did not give good results. She also found that mid October application of 100 ppm Ethrel increased bud mortality, while application of Pro-Gibb at the same time increased bud retention.

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Local Foods Issues

September Issue of MarketMaker Newsletter Available Online

The September, 2012 edition of the Food [MarketMaker Newsletter](#) is posted and available. To view the document, you will need Adobe Reader. If you currently don't have this program on your computer, you can get the latest version by going to <http://get.adobe.com/reader>.

This month you can read about:

- * Business Spotlight: Berries by Bill Inc., Newport, Arkansas
- * Step-by-Step Instructions to Post and Ad on MarketMaker's Buy & Sell Forum
- * Let's Be Facebook Friends
- * MarketMaker Buy & Sell Forum Ads

For more information on MarketMaker, email marketmaker@illinois.edu or check the website at <http://foodmarketmaker.com>.

Less seriously ...

Duane Beck from South Dakota spoke about cover crops at a SARE meeting last week and used a photo of his daughters standing by an example of the deep profiles of original prairie soils. He used it as an opportunity to boast a little about his daughters (as every proud father should) and noted that their mother is Canadian and all of his girls are bilingual ... they respond to all of his questions by saying “huh” the first time and “eh” the second time.

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