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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.

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Upcoming Programs

Check the Illinois SARE calendar for a full list of programs and links for registration.

<http://illinoissare.org/> and <http://illinoissare.org/calendar.php>

Also see the University of Illinois Extension Local Food Systems and Small Farms Team's web site at:

<http://web.extension.illinois.edu/smallfarm/> and their calendar of events at

<http://web.extension.illinois.edu/units/calendar.cfm?UnitID=629>.

- **University of Illinois Dixon Springs Ag Center Field Day, August 6, 2015.** 9:00 a.m. – noon. In addition to presentations aimed at agronomic crops, topics include vertigro hydroponic strawberries, mushroom production in high tunnels, and factors contributing to healthy soil. The Dixon Springs Ag Center is located on Illinois Route 145 near Glendale (25 miles south of Harrisburg, IL, and 25 miles north of Paducah, KY). For more information, contact John Pike at 618-695-2441 or jpik@illinois.edu.
- **Southern Illinois Summer Twilight Series Meeting, August 10, 2015.** 6:00 p.m. at Darn Hot Peppers, 825 Vines Road, Cobden, IL 62920. Learn more about growing and marketing specialty peppers in addition to incorporating them into value-added products. This program is provided at no cost but pre-registration is required. Please register online at <https://web.extension.illinois.edu/registration/?registrationid=12655> or by calling 618-382-2662 no later than August 7. For more information check the link above or contact: Nathan Johanning (njohann@illinois.edu; 618-687-1727) or Bronwyn Aly (baly@illinois.edu; 618-382-2662).
- **University of Illinois Pumpkin Field Day, September 2, 2015.** 10:00 a.m. – 2:00 p.m. at the University of Illinois Vegetable Crops Research Farm. Topics include varieties, production systems, herbicides and weed control, insect management, pumpkin disease management, spray equipment, post-harvest issues, and marketing. Registration and lunch are free, but pre-registration is requested to allow preparation of lunches. See <https://web.extension.illinois.edu/units/event.cfm?UnitID=629&EventID=68197>, email Mohammad Babadoost (babadoos@illinois.edu), or call Devin Quarles at 217-333-5299.

Staffing Note

Connie Echaiz, Local Food Systems and Small Farms Educator for Lake and McHenry counties, has left her position to return to Chile. Her letter to co-workers earlier this week stated, "I am leaving to return to my home country and to my family farm in the countryside near Santiago, Chile, to start over in sustainable vegetable production. As I learned here working for Extension, it's time to "walk the talk" to implement all [the] ideas I've learned during the last two years." Connie can be reached at conyechaiz@gmail.com.

Passing of Bill Whiteside

William "Bill" Whiteside passed away last week. Bill worked for University of Illinois Extension for 46 years, and many who read this newsletter benefitted from his work over his long career. Here is a portion of his obituary.

Dr. William F. Whiteside, 87, of Batavia, IL passed away on Wednesday, July 22, 2015 at his residence. He was born on September 8, 1927 in Moline, IL, the son of Frank and Vera (Hull) Whiteside.

William served his country as a first lieutenant in the United States Army. He was a graduate of Blackburn College and subsequently earned a Masters and PhD from The University of Illinois College of Agriculture. Dr. Whiteside had a very distinguished career of 46 years with The University of Illinois Extension Service as an Educator in Horticulture Food Crops.

William was the father of David and Patricia Whiteside; grandfather of Mark Whiteside, Christina (Billy) McCann, and Julie (Stephan) Wilson; and a great-grandfather of Dean and Alexa Whiteside, and Tony Wilson. He was preceded in death by his parents; wife, Frances (McKeeman) Whiteside; and brother, Eldon Whiteside.

Donations in his name may be made to The Kane County 4-H Foundation, 535 South Randall Road, St. Charles, IL 60174.

Regional Reports

From southern Illinois ... The summer time heat and humidity are here! We have been having highs up in the mid-90s the last few days, and we have been having more typical rainfall with common pop-up thunderstorms. In Murphysboro, we had 0.75 inch of rain on July 20, and then over the weekend another 1.6 inches on Monday evening, July 27.

All of the rain has taken a toll on many tomato plantings. Early blight and bacterial leaf diseases have been abundant and have almost completely defoliated some plantings. In addition, we are seeing a lot of rain cracks on tomatoes.

We are now into the main season peaches, including 'Redhaven' and 'Cresthaven'. Overall the peach crop has been average, however, some varieties have a very light to no crop after the cold snap back in February. One local grower reported 'Loring' as being one of those hit very hard by the nearly -20 temps. The apple crop so far looks very good. Spotted wing Drosophila are still out in small fruits (and will be all the way to frost), so make sure to protect and manage for them in later maturing blackberries ... and note that they can infest elderberries as well. Refer back to [IFVN issue 20:17 from March 19th](#) for more details on SWD management and pesticide recommendations.

At home, my pumpkins are really taking off, and bloom has started on most varieties. Some early fruit set has begun as well. So far there I have not seen any powdery mildew, but I am sure it will be just around the corner. Blueberries are all done for this season, but I am in the midst of harvest on 'Black Satin' and at the end on 'Dirksen' blackberries.

Nathan Johannning (618-687-1727; njohann@illinois.edu)

From western Illinois ... Constant rains and saturated soils have been causing havoc for many growers. Trying to plant, harvest, control weeds and diseases, and just about anything related to plant production has been almost impossible. I recorded rain on 16 of 31 days in May (5.8 inches), 16 of 30 days in June (11.3 inches), and thus far 11 of 27 days in July (8.7 inches).

Needless to say, the soil is saturated with water. There is no oxygen. And when that occurs, root death occurs, as roots are living organisms and they require oxygen to function. When root systems are compromised in this manner, they can't provide for the plant. That means that the crop that the plant produces can't receive the necessary nutrients to allow full production. We're seeing this in a number of plants that are in production now, including annuals and perennials. Blackberries, raspberries, peach, apple and other fruits have a good crop for the most part, but they're unable to fill it out. Alfalfa, clover, and grass pastures aren't immune to this disorder either. There really isn't anything we can do to prevent this loss, unless providing some surface drainage allows standing water to move off the affected area more quickly.

There are several factors that can influence the degree of loss. The ability of the soil to allow water to drain away or percolate through is the dominant factor. The better drained soils are allowing root systems to function more normally and thus they aren't as affected (although they still are, just to a lighter degree). And in some of the poorly drained areas, there is going to be considerable loss.

Some growers have lost their annual plants due to saturated soil conditions. If it ever does quit raining, remember that fall plantings can be very productive. Crops that can be planted for fall harvest include cole crops (broccoli, cabbage, etc.), greens (Asian greens, lettuce, spinach, etc.), radish, beets, carrots, peas, cucumber, turnip and a few others.

Corn earworm moth flight is still very light. I've only trapped a couple of moths over the past 3 weeks, and nearly all the commercial corn is at brown silk, as is some sweet corn. Later plantings of sweet corn will be attractive and vulnerable to corn earworm damage if moth flights arrive over the next few weeks. Squash bugs adults are active and laying eggs on cucurbit crops, and cucumber beetles are common in pumpkin fields. Japanese Beetles are still very active in many areas.

In fields where soil moisture and plant disease have not interfered with growth, summer crops are hitting their stride. Sweet corn, green beans, cucumbers, squash, peppers, okra, eggplant, and many others are in full production. Some growers have asked about adding supplemental nitrogen to help alleviate crop stress for those crops requiring high nitrogen levels, but until the root system begins to function normally, there really isn't any benefit to this practice.

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

Fruit Production and Pest Management

“Warty” Peaches

We have some “warty” peaches at Urbana this year ... something I have not seen before. This symptom is not prevalent but also not really rare in the ½-acre block of ‘Redhaven’ peaches at our research farm at Urbana, IL. It is not linked to any insecticide treatment or lack of treatment, and there is absolutely zero evidence of peach leaf curl on foliage. We do have significant catfacing from stink bugs in untreated trees.



Left: “Warty” peaches from the University of Illinois Fruit Research Farm.
Right: Similar symptoms on fruit in 2012 in Michigan (right photo by Bill Shane, MSU)

Bill Shane from Michigan State University reported seeing similar symptoms in 2012 and again this year in Michigan. He had the 2012 fruits tested for peach wart virus, but they tested negative. Best guesses from fruit workers around the region suggest the symptoms may be caused by plant bugs or maybe leafhoppers, but there is no evidence of a puncture wound, and the flesh beneath the wart is not corked or browned. There are no mites or other creatures in the warty galls.

If anyone knows the cause for these symptoms, please send me an email or call me.

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

Vegetable Production and Pest Management

Mid-Season Nitrogen Management in Pumpkins

Pumpkins are off to good start and vines are starting to run in southern Illinois, which means it is time to think about making a sidedress application of nitrogen. Typically, I try to split my nitrogen half preplant and half sidedress. This is especially beneficial given all of our rain this season. If you relied on preplant N alone, you may very well have lost almost all of your nitrogen, and the plants are just starting to set fruit. On my soils (light-colored, 2-2.5 % organic matter) and using no-till with cereal grain residue, I generally shoot for around 100-110 pounds actual N per year (this would be decreased with more fertile, high organic matter soils) with about 50 pounds of that at sidedress.

My preferred nitrogen source for sidedress is calcium nitrate (15.5-0-0). It has a low risk of nitrogen loss when surface applied, and I also think the added calcium is beneficial for plant growth and good fruit development. Ammonium nitrate (34-0-0) is also a good option with a higher N content than calcium nitrate and low risk of N loss with surface applications. However, ammonium nitrate is becoming increasingly more difficult to find at local retailers. Urea (46-0-0) is also another option, but if you are not incorporating (with tillage or water/rain), you can have very significant nitrogen loss due to volatilization, especially if you do not have incorporation within 5 to 7 days. If you want to surface apply urea, look in to getting a product such as Agrotain (a urease inhibitor) applied to the urea. This will stabilize the urea and significantly reduce volatilization. The down side is typically you would have purchase fertilizer in bulk rather than bagged to get this, but it is an option to consider depending on what is available in your area.

Nathan Johannig (618-687-1727; njohann@illinois.edu)

Don't Over-do Insecticide Applications in Pumpkins

As the need to apply fungicides in pumpkins develops in mid- to late summer, growers sometimes choose to add an insecticide, usually a relatively inexpensive pyrethroid, to weekly fungicide applications. If the insecticide really is needed to control squash bugs or cucumber beetles, then adding it to the tank is a justified practice, and if the insecticide formulation is a liquid and the application is made when bees are not foraging, the overall result can be needed insect control and minimal bee kill. However, simply adding an insecticide to every weekly fungicide application is almost never needed and almost always counter-productive. Pyrethroids and Sevin (and some other commonly used insecticides) kill the natural enemies of aphids (lady beetles, parasitic wasps, and others) but are not really effective against the aphids. Aphids build up in the absence of natural enemies, and fields treated unnecessarily through the summer have greater aphid problems in the fall. Unneeded and poorly timed applications of insecticides also kill bees needed for pollination ... this year and in the future. So ... don't add an insecticide to the tank unless it's really needed, and don't spray when bees are actively foraging. For a listing of the relative toxicity of common pesticides (insecticides, fungicides, and herbicides) to honey bees see [Protecting Honey Bees from Pesticides](#) by Christian Krupke, Gregory Hunt, and Rick Foster of Purdue University.

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