



UNIVERSITY OF ILLINOIS EXTENSION

College of Agricultural, Consumer, and Environmental Sciences

Illinois Fruit and Vegetable News

Vol. 23, No. 9, June 7, 2017

Editors: Nathan Johannig & Bronwyn Aly

A newsletter to provide timely, research-based information that commercial fruit & vegetable growers can apply to benefit their farming operations.

Address any questions or comments regarding this newsletter to the individual authors listed after each article or to its editors, Nathan Johannig, 618-687-1727, njohann@illinois.edu or Bronwyn Aly 618-382-2662, baly@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, contact Nathan Johannig at the phone 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 website** at:

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

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

- **Twilight Tour: Highland Blueberry Farm, Wednesday June 7, 2017, 6 – 8 pm.** 2607 PCR 616, Perryville, MO. Pre-registration is required and the fee for the tour is \$5. To RSVP or for more information contact Katie Kammler at the University of Missouri Extension: 573-883-3548 or kammlerk@missouri.edu
- **ISHS 2017 Summer Horticultural Field Day, Thursday, June 8, 2017, 8 am – 3 pm.** Kurt and Connie Christ will be hosting the 2017 Summer Hort Day at their place, Christ Orchard, 4321 N Texas Rd, Elmwood, IL. Click here for on-line registration: <https://www.picatic.com/ilhortday2017> . Please don't hesitate to contact us at ilsthortsoc@gmail.com if you have any questions, comments or concerns you want to share
- **2017 Southern Illinois Summer Twilight Series.** Join University of Illinois Extension as they team up with area farmers to provide four monthly evening meetings to highlight and demonstrate diverse farming enterprises across southern Illinois. Growers and extension educators will provide information on the following topics: u-pick lavender production, growing fruits and vegetables within city limits, fresh cut flower production, mushroom production, and utilizing farmers markets, roadside stands, and CSA's to market products. We will also explore the impacts and importance of buying local to our local farms as they help to support a stronger, more sustainable, regional economy. Meetings will begin at 6 p.m. at the following locations:

June 19, 2017

July 17 2017

August 14, 2017

JC's Produce and Fruit Pies, Sesser, IL

Flower Ridge Farm, Herod, IL

Flyway Family Farm, Makanda, IL

There is no cost for these programs but pre-registration is appreciated. Please register online at <http://web.extension.illinois.edu/ghhpsw/> or by phone 618-382-2662.

For more information please contact: Bronwyn Aly – 618-382-2662, baly@illinois.edu or Nathan Johannng – 618-687-1727, njohann@illinois.edu

- **Bi-State Compost School, June 21-22, 2017, Henry White Experimental Farm & St. Louis Composting, Belleville, IL.** The school is an intensive 2 day program for new and experienced mid to large scale composting operators that will train participants in the science and art of composting. For more information or to register visit <http://go.illinois.edu/bistatecompost> or contact Duane Friend at friend@illinois.edu or 217-243-7424. Registration is limited to 30 participants.
- **Produce Safety Alliance Grower Training Course, Monday, June 26, 2017 8 a.m. – 5 p.m.** University of Illinois Extension Office, DeKalb County, 1350 W. Prairie Drive, Sycamore, IL 60178. Do you have concerns about safety in your produce operation? Are you concerned about compliance with FSMA? Do you want to know more about the difference between FSMA and GAPs? Then the Produce Safety Alliance Grower Training might be for you! To register or find more information visit <https://web.extension.illinois.edu/registration/?RegistrationID=16567> or contact Laurie George at (618) 242-0780 or ljgeorge@illinois.edu. **REGISTRATION DEADLINE IS TUESDAY, JUNE 13, 2017. DON'T MISS OUT ON THIS OPPORTUNITY TO MEET FSMA REQUIREMENTS!!**

News & Announcements

2017 Illinois Hops Census

If you or someone you know is growing hops, on any scale, please take the time to either fill out the census information or share the census information below with the grower. Collecting information on hops acreage in Illinois will help guide future programming opportunities.

Grant McCarty, University of Illinois Local Foods and Small Farms Systems Educator, is compiling acreage data through the Illinois Hops Census for the USA Hop Growers of America to get a better idea of what varieties are being grown, acres harvested, and the overall state of Illinois hops. It also provides comparisons with other states producing hops. This census will guide future hops programming and outreach on behalf of the University of Illinois Extension.

Grant has setup a [census page](#) to compile this information. You'll see listed current acres planted (pre-2017), acres planted in 2017, acres harvested in 2016, and acres planned to harvest in 2017. He has tried to list as many popular varieties as possible but knows that there are many not listed. The "other" box can be used to list those varieties. In addition, when you list numbers, try to round to the closest whole number. You can also list acres that are less than 1 acre in the "other" box.

For the first 50 hops growers that complete this census, Grant will send by mail the [Hops Pocket IPM Scouting Guide](#) from MSU. Deadline is **Friday, June 30th**.

Thanks for your willingness in contributing to the Illinois Hops Census. Please don't hesitate to contact Grant if you have any additional questions/concerns either about this census or general production during the growing season. While he might not be able to visit your yard, he is always able to assist in insect/disease diagnosis, fertility concerns, and other general production issues you might be facing via email and phone.

Grant McCarty (815-986-4357, gmcarty@illinois.edu)

Regional Reports

From north central Illinois... The past two weeks yielded little rain, but gave us higher temperatures. Just how hot has it been? Let's just say this past weekend, found me at the pool and the water was very refreshing. Typically, swimming this early in the year turns my kid's lips blue, but the water felt good these past few days with temperatures in the nineties.

With the lack of rain, the drip irrigation system has been running almost daily. The final harvest of lettuce is this week. The romaine and buttercrunch have held up well in the heat, but other leaf lettuces have begun to bolt. Spinach is finished along with most of the strawberries in the area. Some growers commented it was not their best year for strawberries.

May cascade hops have grown at least seventeen feet already, and I saw the first evidence of side branching and flowers. Last Friday I found a tiny Eastern Comma caterpillar beginning to feast on the hop leaves. My first year growing hops, I was taken unaware by these pests. They had stripped a couple of bines before I knew what was happening. Now I am vigilant in my scouting, and upon my first encounter sprayed the hops with a Bt mixture. Imported cabbageworm adult butterflies arrived last week, and I observed several females laying eggs in the high tunnel. All cole crops also received a Bt treatment.

Peaches are looking good. I've noted some stink bug damage, but it has not been as bad as previous years. The codling moth traps have captured over a dozen adults by now. Tomorrow brings another day of scouting, watering, and weeding. And perhaps another trip to the pool.



*Eastern Comma caterpillar.
Photo by Chris Enroth.*

Chris Enroth (309-837-3939; cenroth@illinois.edu)

From west central Illinois... We finished up the 2017 strawberry crop this past Saturday, June 3rd. It was a good crop, all things considering. During the 3 weeks that we picked, temperatures ranged from lows in the mid 40's during the second week of picking to highs of 90 during the last few days. It's a good thing we plant on raised beds covered with plastic, as the rains during the middle of harvest were excessive. On several occasions there was standing water between the rows as we picked. But taste and size held up rather well.

We tried Flavor Fest for the first time and were pleased with that variety. We have always had difficulty getting enough branch crowns established before dormancy on Chandler. Flavor Fest provided 5 crowns on most plants. Chandler did as well, but several crowns did not produce any fruit. The one negative that we saw on Flavor Fest was that the plant

was extremely vigorous. The thick canopy hindered fungicide application resulting in a few berries that were not salvageable.

We have been experimenting with bare root strawberries, planted in mid-July on white plastic. This earlier planting date provides ample time to allow for adequate branch crown development. We had 4 varieties this year and are going to continue to use this method of planting as yields were equal to the plasticulture system using plugs and planting in late August.

It's amazing how quickly we went from excessively wet to dry. We (like many of you) received hard rains on wet soils the latter part of April, which causes issues with soil tilth as air pore space is eliminated. Driving over our first two sweet corn plantings applying some post applications didn't even leave a wheel track. However there is soil moisture available. I've seen instances in the past on low organic matter soils where pulling a cultivator or shank between the rows really improved the growth of the plants, as the soil was so dense that air couldn't reach roots.

The warm and sunny weather of the past week has certainly benefited many crops. You can almost see sweet corn growing. High tunnel crops seemed to weather the cold temperatures much better than those same crops planted outdoors, which would make sense as temperatures were in the 80's in the tunnels when outside temperatures were 20-30 degrees cooler.

There was some replanting that had to take place due to cool and wet conditions during the rains of late April. We kept a sweet corn field that has anywhere from 10K to 18K population due to the need to have some corn on a daily basis to harvest. We also had to replant a green bean planting that occurred April 25. On roughly one third of an acre, there were maybe 50 plants that survived.

Those producers who heated high tunnels are now picking tomatoes and have been for over a week. Farmers Markets have started as have CSA's. Customers are excited to be getting locally grown fruits and vegetables. We are going to start planting pumpkins this week. We had to start those that mature in 110-120 days in transplant flats as the soil was not fit for planting two weeks ago.

Mike Roegge – Mill Creek Farm, Quincy (retired Extension Educator)

From southern Illinois... We have had a true feel of summer, with temperatures last week and over the weekend in the upper 80s to low 90s with our typical summer humidity as well. Fortunately, a front came through Monday night and left us with low humidity, highs around 80°, and clear blue skies. These mild temperatures are supposed to hang around most of the week, but the heat and humidity will creep back for the weekend. We have had some spotty showers and storms over the weekend with the humidity with some areas getting around an inch, but some places getting little or any rain. Overall, soil moisture is good for most field work, but some areas might be getting a little dry if they have missed the rain.

Out in the field our orchard crops are doing well. Apples are around golf ball size and we are just at the very beginning of peach season with a few of our earliest peaches like 'Spring Gold' ripening now. Sweet Cherries are nearing the end of harvest. Blueberries are in full swing. 'Duke' and 'Earliblue' are well into harvest and picked the first 'Bluegold' and 'Bluecrop' and 'Chandler' are just starting to get some color. Black raspberries and gooseberries are starting to ripen, and I am starting to see a little bit of color in Kiowa blackberries here at the office. Make sure to keep up with cover sprays for spotted wing drosophila on small fruits. I have had reports of some larva in untreated blueberries and with them they will find the raspberries and blackberries as well. Refer to the [2017 Midwest Fruit Pest Management Guide](#) for details on specific products and use patterns. Also, refer to [IFVN 23:2](#) and detailed information on this pest from earlier this year.

In the vegetable field, we have had first harvest of zucchini and yellow squash, cucumbers and green beans. Main plantings of peppers and tomatoes are starting to set fruit and potatoes are starting to bloom. Pumpkin planting is underway with many growers getting seeds in the ground in the next weeks. We have had many questions about weed control in pumpkins and remember that especially for most broadleaf weeds our best herbicide options are preemergence herbicides. Also, we do have a 24c indemnified label for Reflex on pumpkins in Illinois, you have to register at www.farmassist.com and get copy of this label in order to legally use this product. Reflex is a preemergence option to enhance control especially of pigweeds, waterhemp and Palmer amaranth among other broadleaf weeds. For

more details refer to [IFVN 22:10](#) for more information on Reflex in pumpkins. For more details, on other herbicides or pest management in other vegetable crops refer to the [2017 Midwest Vegetable Production Guide](#).

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

Fruit & Vegetable Production & Pest Management

Modified Growing Degree Days (Base 50° F, January 1 through June 4)

Station Location	Actual Total	Historical Average (11 year)	One- Week Projection	Two-Week Projection
Freeport	612	514	722	862
St. Charles	602	488	704	835
DeKalb	637	564	752	896
Monmouth	863	628	983	1129
Peoria	990	670	1113	1263
Champaign	882	691	1011	1168
Springfield	1134	769	1269	1431
Perry	1115	727	1240	1390
Brownstown	1220	850	1360	1525
Belleville	1250	896	1386	1540
Rend Lake	1337	965	1486	1659
Carbondale	1279	922	1421	1582
Dixon Springs	1380	977	1522	1685

Insect development is temperature dependent. We can use degree days to help predict insect emergence and activity. Degree day accumulations calculated using the [Illinois IPM Degree-Day](#) Calculator (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey).

Kelly Estes (217-333-1005; kcook8@illinois.edu)

Blueberry Renovation Pruning

I realize that most growers are just starting to harvest some of the early blueberry varieties and pruning is the furthest thing from your mind, but after a visit last week at a farm in southern Illinois, I was reminded of how much impact pruning has on the renovation and renewal of mature plantings. In the pictures below, you can see the flush of new growth coming from the base of the bush. Removing the oldest and least productive canes opened up the canopy, allowing more sunlight to penetrate into the base of the plant, stimulating a lot of new growth this spring. Maintaining an equal number (5-7) of progressively older canes, up to 8 years in age, promotes maximum yield potential in established blueberry plantings. While many of the new canes seen in the pictures below will need to be removed next winter during pruning, there should be an ample selection of strong, upright canes to leave in place.

Growers are also reminded to maintain an adequate level of moisture in blueberry plantings through harvest. Blueberries are very shallow-rooted plants and don't have the ability to reach and utilize moisture in soil below 12-18 inches. Another critical time to maintain adequate soil moisture is late summer to early fall (mid-August through September), during fruit bud formation. Keeping blueberries moist during this often dry part of the year can have a significant impact on the fruit crop realized the following spring.



Photos taken by Bronwyn Aly.

Bronwyn Aly (618-382-2662; baly@illinois.edu)

Aquatic plant management in ponds

I have had several calls from pond owners recently asking for help with their algae problems. Most of them have had floating green mats of filamentous algae on the pond.

Filamentous algae begins growing on the bottom of the pond and as it matures the hair-like filaments float to the surface. On the pond's surface, thousands of the filaments mat together to form floating "pads or patches" of algae. Oftentimes, when it rains, the pads of algae are driven under the surface of the pond and then reappear several days later along with more recently mature algae.

If you haven't already treated excessive algae in your pond, get this task completed in early June, if you plan to treat the whole pond. As water temperatures rise to 80 degrees Fahrenheit the ability to hold dissolved oxygen decreases. Decomposing algae and other aquatic plants consume oxygen, so check your water temperature before applying herbicide and if the temperature is getting near the 80 degree mark, switch to a partial pond treatment. You don't want to cause a fish kill.

Copper sulfate is the active ingredient recommended for algae control. Copper sulfate is a contact herbicide so the product must be dissolved in your pond. Do not throw crystal formulations into the pond because it will sink to the bottom and when covered with sediment is very slow to dissolve. If you purchase a crystalline formulation of copper sulfate it can be dissolved by placing it in a burlap bag and drug behind a boat until it has dissolved.

Read the label. Copper sulfate can cause burns on your eyes and skin, so read the label and wear the recommended personal protective equipment. The label will also tell you how much formulation to dissolve based on the size of your pond. If you are using the pond as a source of irrigation or livestock watering, be sure to read the label to determine any required restrictions for use of the pond water after treatment. Remember that all aquatic herbicides have varying restrictions on the use of the water after treatment and it is important to consult the label for each product.

Make sure you know the volume of the pond. Do you know your pond's size in acres to the nearest tenth of an acre? If not, your local Soil and Water Conservation District can help calculate the acreage from an aerial photograph. The aquatic herbicide you purchase will give you several application options and product recommendations. You should find a shoreline banded application rate, and a rate of application per acre-foot of water on the label.

To determine how many acre-feet of water your pond contains, multiple the surface acreage by the average depth of your pond. If you don't know your pond's average depth, take several depth measurements across your pond in a grid, add the depths recorded, and divide by the number of measurements you took.

To get assistance in the form of advice, contact the Illinois Department of Natural Resources fisheries biologist responsible for your county in Illinois. The Illinois Department of Natural Resources has a fisheries website that can be found at www.ifishillinois.org. On their website you can find the fisheries biologist for your county. In most cases the biologist can't come to your pond, but most are willing to take a look at a sample that is mailed to them. You can also download a copy of their "Aquatic Plants, ID and Control" at the fisheries website, and you can learn about other requirements and precautions that should be followed when applying chemicals to your pond.

Aquatic plant management takes careful thought and planning. If you have questions about pond management contact your local University of Illinois Extension Unit office, or drop me an email.

Dave Shiley (217-543-3755; dshiley@illinois.edu)

Less seriously... <http://memoblender.com/memes/funny-meme-mix/>

**Today's 3 year olds
can switch on laptops and
open their favorite apps**



**Me? When I was 3,
I ate mud**

Shooting in Action Movies



**When Villain
Fires**



**When Hero
Fires**

University of Illinois Extension Educators and Specialists in Fruit and Vegetable Production and Pest Management

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