



UNIVERSITY OF ILLINOIS EXTENSION

College of Agricultural, Consumer, and Environmental Sciences

Illinois Fruit and Vegetable News

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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>.

- **Social Media Strategies for Small Farms Webinar. Thursday, January 19, 2017 11 a.m. (Central Time)** presented by Ivory Harolow. The link to login to the webinar is: go.osu.edu/SocialMediaStrategiesforSmallFarms1-2017. All webinars are recorded. To view previous webinars go to go.osu.edu/DirectMarketingWebinars. For more information contact Charissa Gardner The Ohio State University South Centers Research and Extension, 740-289-2071 Ext. 132; gardner.1148@osu.edu.
- **2017 Small Farms Winter Webinar Series, every Thursday from noon to 1:00 p.m. from January 19 – March 30, 2017.** It's easy (and FREE!) to register for the Small Farms Winter Webinars. Sign up for as many as you want at <http://go.aces.illinois.edu/winterwebinars2017>. We'll send you a webinar reminder, log-on instructions, and how to access the archived recording. If you do not have broadband internet capable of streaming video, call your local Extension office to see if they can offer live viewing. For more information, contact: Andy Larson, University of Illinois Extension, Local Food Systems and Small Farms Educator at 815-732-2191 or andy Larson@illinois.edu

Jan. 19 - ABCs of Strawberry Plasticulture Production, Bronwyn Aly, University of Illinois Extension Local Food Systems and Small Farms Educator

Jan. 26 - Buying Hay: Quality vs. Cost, Jamie Washburn, University of Illinois Extension Local Food Systems and Small Farms Educator

Feb. 2 - Slow Flowers: Small-Scale Cut Flower Production, Candice Hart, University of Illinois Extension Horticulture Educator

Feb. 9 - Out with the Old: Pruning Old and Neglected Fruit Trees, Grant McCarty, University of Illinois Extension Local Food Systems and Small Farms Educator

Feb. 16 - Small Commercial Microgreen Production, Zack Grant, University of Illinois Extension Local Food Systems and Small Farms Educator

Feb. 23 - Food Safety Needs for Midwest Produce Growers, Dr. Angela Shaw, Iowa State University Extension and Outreach Food Safety Specialist

Mar. 2 - Growing Your Hobby Farm into a Business, Andy Larson, University of Illinois Extension Local Food Systems and Small Farms Educator

Mar. 9 - Do Your Bees Have PMS (Parasitic Mite Syndrome)?, Doug Gucker, University of Illinois Extension Local Food Systems and Small Farms Educator

Mar. 16 - Maximizing Windbreaks on Your Farm, David Shiley, University of Illinois Extension Local Food Systems and Small Farms Educator

Mar. 23 - Benefits of Mulching Vegetables, James Theuri, University of Illinois Extension Local Food Systems and Small Farms Educator

Mar. 30 - Soil Management for High Tunnels, Nathan Johanning, University of Illinois Extension Local Food Systems and Small Farms Educator

- **Spotted Wing Drosophila Insecticide Update Webinar. January 25, 2017 11-Noon (Central Time); Noon-1 p.m. (Eastern Time).** Members of the Sustainable SWD Project will present a webinar online highlighting information about control of the invasive insect pest, spotted wing drosophila. The webinar titled “Making the Most of Your Insecticide Toolbox to Manage SWD” will cover research conducted during the first year of this project, and will provide recommendations for growers to prepare for the 2017 growing season. In this webinar, presenters from North Carolina State University, Michigan State University, and the University of Georgia will report on their research on insecticidal control of spotted wing drosophila.

Please register online for this webinar. You will receive a reminder before the session and a link afterward to the slides and a recording of the webinar. Follow this link to

register: <https://msu.zoom.us/webinar/register/5c0227f576a61869d746f627e8486654>

- **Spotted Wing Drosophila Organic Research Update Webinar. February 1, 2017 1 p.m. (Central Time).** Members of a multi-state research project will provide a comprehensive update on organic management of spotted wing drosophila entitled “Management of Spotted Wing Drosophila Using Organic Strategies”. It will cover findings of the research conducted during the first year of this project on organically approved strategies including: 1) behavioral strategies to improve monitoring (using more attractive baits and lures) and management (attract and kill approach); 2) cultural strategies to lower SWD populations in the field (canopy and floor management, and using exclusion netting); and 3) chemical strategies (using organically approved insecticides in combination with adjuvants and phagostimulants. Presenters are Ash Sial, UGA; Mary Rogers, UMN; Christelle Guedot, UWisc; Kelly Hamby, UMD; Rufus Isaacs, MSU; Tracy Leskey, USDA; Vaughn Walton, OSU.

The webinar is free and open to the public, and advance registration is required. Register now at <https://attendee.gotowebinar.com/register/8379387290681616900>

- **Horseradish Growers Convention, Madison-Monroe-St Clair Extension Branch Office, Collinsville, IL, January 26, 2017.** For more information, contact Elizabeth Wahle, University of Illinois Extension, Horticulture Educator at 618-344-4230 or wahle@illinois.edu.
- **2017 Commercial Tree Fruit Schools, Mt. Vernon & Hardin, IL, February 7 & 8, 2017.** For current research-based information on growing tree fruits, attend the 2017 Tree Fruit School. This program features a wide range of topics to help you meet the challenges of commercial fruit production in Southern and Southwestern Illinois. The school will cover key orchard management topics as well as other production issues. Industry representatives will also be on hand to talk about their latest products and services. Registration starts at 8:00am with programs beginning at 8:30am for both schools, adjourning around 4:30pm. **Advanced registration is required by January 24, 2017** Registration information and agenda can be found at: <http://web.extension.illinois.edu/units/event.cfm?UnitID=629&EventID=73703>. For more information, contact Laurie George University of Illinois Extension, Local Food Systems and Small Farms Educator at 618-548-1446 or ljgeorge@illinois.edu.
- **Market Manager Certificate Program**
LOCATION: University of Illinois Extension Office 4618 Broadway Mt. Vernon, Illinois 62864
IN-PERSON SESSIONS: February 10, 11, and March 11, 2017
WEBINARS: February 13, 15, 17, 20, 22, 27, March 1, 2017

This is a voluntary program that was created to encourage farmers market managers to pursue leadership skills and professional development on topics essential to market management. Hosted by the Michigan Farmers

Market Association and the Illinois Farmers Market Association. Additional information and registration can be found at: <http://mifma.org/mmcp/>

- **Stateline Fruit and Vegetable Conference, Rockford, IL, February 13, 2017.** For more information, contact Grant McCarty University of Illinois Extension, Local Food Systems and Small Farms Educator at 815-235-4125 or gmccarty@illinois.edu.
- **Specialty Food Business Seminar Series. Christian County and Montgomery County Extension offices.** The seminars will be held the second Monday of each month starting in January and ending in May. The seminars are free and the public is invited to attend any or all of the seminars they choose.

Workshops include:

- **Cottage Law** - Monday, February 13, 2017 (1-3 pm). Presented by Lisa Peterson, Nutrition & Wellness Educator, UI Extension, on local rules and regulations for business that prepare and sale consumables.
- **Importance of Branding** - Monday, March 13, 2017 (1-3 pm). Featuring local vendors with regional branding experience.
- **Agri-Tourism** - Monday, April 10, 2017 (1-3 pm). A panel discussion, representatives from Illinois South Tourism will be part of the discussion.
- **Social Media** - Monday, May 8, 2017 (1-3 pm). May's topic will be presented by Terri Miller, Promotion and Publicity Specialist, UI Extension. She will address best practices for social media and current trends.

There is no cost to attend the seminars, however advanced registration is required. Participants may register on-line at <http://web.extension.illinois.edu/cjmm/> or by calling either the Christian County Extension office in Taylorville at 217-287-7246 or the Montgomery County Extension office in Hillsboro at 217-532-3941. For more information contact: Lisa Peterson, Extension Educator, Nutrition and Wellness, lap5981@illinois.edu

- **Gateway Small Fruit and Vegetable Conference, Regency Conference Center O'Fallon, IL, February 15, 2017.** For more information, contact Elizabeth Wahle, University of Illinois Extension, Horticulture Educator at 618-344-4230 or wahle@illinois.edu
- **Produce Safety Alliance Train-the-Trainer Course, Vincennes, IN, February 20 & 21, 2017.** Sponsored by Illinois and Indiana SARE. Thanks to the sponsorship, the cost of this class is significantly less than any of the other currently scheduled trainings \$150 compared to \$200 - \$275. Please use this link to sign up: <https://web.extension.illinois.edu/registration/default.cfm?RegistrationID=15885>
- **Illinois Grape Growers and Vintners Association Winter Wine Festival and Annual Conference Crowne Plaza Springfield, IL, February 24-25, 2017.** For more information, contact Elizabeth Wahle, University of Illinois Extension, Horticulture Educator at 618-344-4230 or wahle@illinois.edu
- **2017 Midwest Cover Crop Council (MCCC) Annual Meeting, Making Cover Crops Work – Experience from the Field. Crown Plaza in Grand Rapids, Michigan, March 15th 2017.** This meeting will draw farmers, researchers, agribusiness, and government agencies from across the Midwest. This year's event will feature three concurrent tracks, vegetables, row crops, and forage. Researchers and farmers will team up to present new ideas and practical application of cover crops. Participants will learn the value of covers in a production system, their role in protecting resources and their contribution to soil health. To register visit <https://events.anr.msu.edu/event.cfm?eventID=DCBB51F08423699F>

News & Announcements

Food Safety Survey Available for Grower Input

Round 2 of the NCR FSMA Training Center survey is now available (and it is shorter!). Please take it and let your voice be heard. Complete survey by February 28 and be entered into a drawing for a \$50 gift card. https://iastate.qualtrics.com/jfe/form/SV_9nUunWepLP5CSzP



Highlights from the 2017 Illinois Specialty Crops, Agritourism, & Organic Conference

The ISCAOC was held last week, January 11 – 13, at the Crowne Plaza Hotel in Springfield. Nearly 600 farmers, educators, and industry persons attended during the three-day event. More than 60 workshops, featuring 80 speakers were held and offered through a series of up to six distinct tracts.

The ISCAOC kicked off with a set of pre-conference workshops that focused on Cover Crops and Nutrient Management, Digital Marketing, Growing and Marketing Tomatoes and Peppers, and Designing Irrigation Systems. In addition, ISGA hosted the North Central Sustainable Agriculture Research and Education (SARE) Forum. This national forum showcased Illinois farmers that have been able to tap into grant funds to assist them with specific projects on their farms.

The second day of the conference started with a General Session with IFB's Adam Nielsen. His talk, "National Ag Policy Under a New Administration," was extremely well received. I personally talked to several attendees that have been motivated to become more involved in legislative and immigration issues because of Adam's challenge to become more active. Six workshop tracks were held on Thursday: Agritourism and Marketing, Fruits, Herbs, Vegetables, Organics, and an Emerging Issues session.

These same tracks were offered on Friday, with a special emphasis on Farmer's Markets and increasing your farm's sales through effective marketing.

The Banquet speakers were Chris and Audra Wyant, Finding Eminence Farm in Lexington. Their keynote address was, "Why Your Story Matters." They described their success in marketing their farm's services and products through an active social media presence and weekly blog posts. It is all about developing that farmer-consumer relationship.

New Worker Protection Standard Rules in Effect

The Worker Protection Standards (WPS) established specific requirements for employers to follow in order to reduce the potential for worker exposure to pesticides. New revisions to these standards went into effect January 2, 2017. They will give farm workers health protections similar to those that are already afforded to workers in other industries.

There is a new training requirement. In the past, employers had to provide training once every five years to inform farm workers regarding required protections afforded to them. Starting this year, this training is an annual requirement. In addition, employers must provide additional training with instruction to reduce take-home exposure from pesticides on work clothing and other safety topics.

There is now a minimum age requirement that prevents children under the age of 18 from handling pesticides.

Starting this year, there is a mandatory record-keeping of all records of application-specific pesticide information, as well as farm worker training, and these must be kept for 2 years.

In addition to the above changes, there are new requirements for posting, for personal protective equipment and the amounts of water necessary for worker decontamination.

The exemption for farm owners and their immediate families is still in effect with further clarifications.

A quick reference guide of the newly updated WPS is available [online](#).

Doug Gucker (217-877-6042; dgucker@illinois.edu)

Midwest Cover Crop Council Launces New Website for Grower Resources

The **Midwest Cover Crops Council** has introduced a new website design, making it easier for users to find resources and access the site on mobile technology.

The MCCC website, <http://www.mccc.msu.edu/>, contains Extension publications from **Purdue University** and other universities, as well as links, media and resources providing information on how to select, plant and maintain cover crops. The goal of the updated site is to organize resources more consistently and enhance search capabilities to help users find information more quickly. Additionally, the new website is mobile responsive, meaning it will switch to a mobile-friendly design when viewed on a phone or tablet.

Popular features such as the interactive cover crop selection tools are still included on the new website, but are easier to find, said **Anna Morrow**, the MCCC's program manager.

"Our top priority is to make the information more accessible and user-friendly," Morrow said. "Because the site will now be responsive to mobile technology, farmers can access materials while they're out in the field. Also, the material will be more searchable, making it easier for people to locate information quickly."

The MCCC is a group of experts from universities, Extension services, businesses and government across 12 member states and one Canadian province. The group's goal is to promote ecological and economic sustainability by facilitating the use of cover crops.

The new website design is funded by a grant from the Walton Family Foundation, a philanthropic organization that funds education and conservation efforts in the South and Midwest.

Regional Reports

From north-central Illinois... The recent ice storm to impact the Midwest did not manifest quite as what was predicted. In fact, by the time the primary front of rain came through temperatures were warm enough to alleviate any fears of ice development. This winter has been mild for the most part. During a conversation with colleagues, we remarked how tempting it is to mistake the above average temperatures with the onset of spring. After all, we are still in the height of winter. We all agreed it would be nice to have a real snowfall at least once this season. For the week ahead, it looks like we will hit highs reliably in the 40s.

As I write this update, our high today is 45 degrees Fahrenheit, making it 68 degrees Fahrenheit in the high tunnel. The cozy high tunnel temperatures combined with the excess water from our last few days of rain means one thing, weeds. They appear to be mostly cool season annuals and will be swiftly dealt with a quick cultivation.

This past fall I decided to let the high tunnel go 'fallow' and removed all my crops for the winter so I could concentrate on rebuilding portions of beds and clean things up after a whirlwind growing season. I spoke with another grower who is doing the same with the additional hopes our cold weather will help out with a persistent aphid problem. During the 2016 season, mites were an issue for me. See the article later in this issue for more on high tunnel insect management.

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

From the St Louis Metro East... Winter storm Jupiter spared the St Louis Metro East compared to the icy devastation experienced in the Plains during the weekend. By Friday evening, most surfaces were ice glazed, but not enough to result in any significant limb breakage or downed power lines. Roads for the most part remained wet, but not frozen. By Sunday, temperatures were well above freezing and all ice had melted. Typical of the region, daily highs in January have fluctuated from the upper teens to the upper 60's, and lows ranging from -1 to the upper 30's. The ground has not frozen sufficiently to stop horseradish growers from digging. Make sure to scout any plasticulture strawberries under cover for insect pests that are stowed away enjoying protection with the strawberries; see the article later in this issue for more details.

Elizabeth Wahle (618-344-4230; wahle@illinois.edu)

From southern Illinois ... The weather has been typical winter overall with some below freezing days and some times in the 50s and in between. We did get some of the ice from the storm last Friday; however, our temperatures hovered right around freezing and with the ground fairly warm. This did not cause any problems on the roads overall. The ice did mount up on trees, and I would say we may have had not quite 1/4" total of accumulation in Murphysboro. This was enough to cause some problems for weaker trees in the landscape such as pines and soft maples, but nothing compared to ice storms in the past years. Other than that, we really have not had much winter precipitation so far. We did have maybe an inch of snow that first week of January, but in all cases nothing has lasted too long. We did have a short run of sub-freezing temperatures the first full weekend of January where lows were down in the single digits. The coldest I saw was 3° one morning. Now we have hit a warmer time with highs predicted in the 50s for most of the week, but many chances for rain and not many fully "sunny" days.

With the weather we have had many cloudy days which have put a kept high tunnel production at slower growth. Today (Wednesday) we have had some breaks in the clouds and enough sun to get the high tunnel heated up. Established greens and carrots have survived fine under row covers; our broccoli does have heads about the size of golf balls, but leaves have been injured by the cold somewhat. In December, I planted a second planting of lettuce and it is finally starting to come up after a month or so. While you can get things established in the winter, establishing greens mid to late fall and using them as a "continuous harvest" or cut and regrow is often the most successful for a continuous harvest. The established plants bounce back a lot faster than a young germinating seedling.

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

Fruit & Vegetable Production & Pest Management

Insect Issues on Covered Strawberries

Winter row covers on plasticulture strawberries can "trap" insect pests, allowing them to overwinter on the crop. Strawberry growers lifting covers to monitor growth should also take the time to scout for any over-wintering pests like aphids and tarnish plant bug nymphs. According to work in California, infestation rates of above 30% are necessary to justify insecticide applications. Collect 40 randomly selected leaves per acre to sample for aphids. Inspect the leaves and count non-parasitized aphids. Aphids killed by a parasitoid wasp appear brown, swollen, and dry. Tarnish plant bug nymphs can be confused with aphids. Tarnished plant bug nymphs are green with distinctive black spots on their back and are more mobile. Aphid management recommendations for strawberries are not included in the [2017 Midwest Fruit Pest Management Guide](#), so consider malathion, flupyradifurone/Silvanto, imidacloprid/Admire Pro or insecticidal soap (organic option). Follow instructions on pesticide labels to minimize damage to honey bees; spraying insecticides immediately prior to bud opening, during bloom or when bees are foraging is hazardous to honey bees.



Tarnished plant bug nymph. Photo Credit Jeff Hahn. University of Minnesota



Aphids on strawberries. Credit: Pam Fisher, Ontario Ministry of Agriculture, Food and Rural Affairs

Elizabeth Wahle (618-344-4230; wahle@illinois.edu)

High Tunnel Pests: Aphids, Mites, & Whiteflies

Aphids, mites, and whitefly are common pests of high tunnels, but can easily be controlled by using “soft” pesticides like insecticidal soaps and oils. Many growers incorporate biocontrols (beneficial insects, low-impact pesticides, cultural practices, etc.) similar to what is used in greenhouses. Biocontrol methods will work for both growing systems but will need to be adapted when going from one to other.

Some essential items if you are considering bio-controls in high tunnels:

1. Start small – Build your knowledge of growing crops with bio-controls by deploying them in small plots or one high tunnel, before using this practice throughout your farm.
2. Eliminate pesticide residues – If you have been using broad-spectrum pesticides that have residual control, make sure to read the label to learn when these residuals will have sufficiently degraded so introduced beneficial insects are not impacted.
3. “Soft” pesticides – These low-impact pesticides can be used to treat hotspots of infestations.
4. Sanitation – Keep weeds under control as these can serve as reservoirs for pests. Use only clean transplants. If a tray of seedlings looks diseased, don't plant them in the high tunnel.
5. Start early – Bio-controls work better when pest levels are low, and it will not overwhelm the biocontrol species.

Source: High Tunnel Integrated Pest Management (IPM): Insects and Mites. Minnesota High Tunnel Production Manual for Commercial Growers. 2004

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

Less seriously...

Three bulls are standing around overlooking a field full of cows when they overhear the farmer tell one of the cowhands to get the trailer ready to pick up a new bull.

The old bull snorts and says, "I'm a tellin' ya what, there ain't but fifty cows here that are mine and if'n that new bull thinks he's a gettin' any of my cows, well, he's got another think comin'."

The second bull says, "There ain't but 30 cows here that are mine and that new bull sure ain't get any of my cows."

The young bull says, "There ain't but 10 cows here that even know me, but I sure ain't lettin' that new bull have any of 'em."

A few hours later a tractor trailer arrives and the bulls listen as the air brakes let out a whoosh, then the trailer doors open and the gate lowers what has to be the biggest, meanest, orneriest looking brahma bull they've ever seen.

Great big hump on his back, huge horns, froth dripping from his jowls as he stamps and paws at the ground.

The old bull says, "Ya know, I've been thinkin, it's mighty selfish of me to keep all them cows for myself, I might just part with a few of 'em to be neighborly."

The second bull says, "Ya know, I'm thinkin the same thing, no need for me to keep all thirty of them cows to myself, gets to be a mite tiresome."

The young bull lets out a huge snort and starts stamping and pawin' at the ground, raisin' a huge ruckus.

The old bull says, "Woo boy, what's a matter with you? Don't you know that new bull will kill you?"

The young bull says, "I'm just makin' sure that he knows that I'm a bull..."

<http://jokes4us.com/peoplejokes/comedianjokes/jerryclowerjokes.html> Jerry Clower Stand Up Jokes

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

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