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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 (the list includes dates for most of our 2013 programs for January-February)

Open Positions for Local Food Systems / Small Farms Extension Educators (in five units around IL)

Fruit Production and Pest Management (notes on fireblight)

Vegetable Production and Pest Management (aphids on spinach and other greens in high tunnels)

Invasive Pests (brown marmorated stink bug and spotted wing *Drosophila*)

Local Foods Issues (2013 Small Farms Webinar series)

High Tunnel Resources (a couple of introductory references)

Organic Production (National Organic Program Guides for Organic Certification)

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

Upcoming Programs

- **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. The 2013 program flyer with the complete meeting agenda is available online by following links at the Illinois Specialty Growers Association page at <http://www.specialtygrowers.org/> (directly by clicking <http://jhawkins54.typepad.com/files/pre-conference-flyer-2013.pdf>).
- **The Northern Grapes Project Webinar Series, "Selecting Yeast for Cold-Hardy Grape Cultivars"** by with Katie Cook, University of Minnesota. **Tuesday, December 18, 2012, 12:00 Noon Eastern (11:00 AM Central) and 7:00 PM Eastern (6:00 PM Central).** Although registration closed Friday, December 14, you may email Chrislyn Particka at cap297@cornell.edu by noon Central Time on Monday the 17th, and she will provide the links.
- **Training and testing for a Private Pesticide Applicator license** is offered at multiple locations in the next few months. A Private Applicator's License is required for the purchase and use of Restricted-Use pesticides. These training programs are very strongly oriented to field crop agriculture (corn, soybeans, wheat, and alfalfa) because most of the state's private applicators (farmers) grow these crops, but there is only one test for private applicators, regardless of the crops you grow. Use <http://web.extension.illinois.edu/psep/> to learn the dates and locations for programs for Private Applicators (not Commercial Applicators).
- **2013 Small Farm Webinar Series** ... see the schedule below under the *Local Foods Issues* heading.

February programs ... mark your calendars ... registration details will be included in the January issue of this newsletter.

- **Southern and Southwestern Illinois Tree Fruit Schools, February 5 and 6, 2013.** Programs will be held at Mt. Vernon and Hardin. More information to come.
- **Stateline (IL-WI) Fruit and Vegetable Conference, February 11, 2013.** Midway Village Museum, Rockford, IL. More information to come.
- **A combined vegetable and small fruits program (production, pest management, marketing), February 12-13, 2013,** will be held in Mt. Vernon. More information to come.
- MOSES Feb 21-23 <http://www.gifttool.com/registrar/ShowEventDetails?ID=1674&EID=13222>
- **Adams County / Western Illinois Fruit and Vegetable School, February 22, 2013.** Quincy, IL. More information to come.
- **Kankakee-area Vegetable Growers School, February 26, 2013.** More information to come.

Open Positions for Local Food Systems / Small Farms Extension Educators

University of Illinois Extension is seeking applicants for five Local Food Systems and Small Farms educator positions. These are full-time, 12 month academic professional positions. Extension Educators are expected to deliver research-based educational programs and to work within team settings that may consist of other Extension Educators, community college professionals, and faculty within and outside of the College of ACES.

These positions focus on the development of educational resources for small farm producers, outreach to communities on issues related to local food systems, and team-based outreach efforts. Development and delivery of high impact and relevant educational programs and materials in several of the following areas will be important: 1) small farm production and planning, 2) marketing of local food initiatives, 3) food safety and Good Agricultural Practices (GAPs), 4) small farm fruit, vegetable, and livestock production (may include organic), 5) integrated pest management, 6) harvest/post-harvest handling and storage of produce, and 7) general agronomic/livestock production principles.

Each of the following units has a full-time opening for an Extension Educator, Local Food Systems and Small Farms:

- Unit 1: JoDaviess/Stephenson/Winnebago counties
- Unit 3: Lake/McHenry counties
- Unit 4: Carroll/Lee/Whiteside counties
- Unit 17: DeWitt/Macon/Piatt counties
- Unit 26: Franklin/Jackson/Perry/Randolph/Williamson counties

Extension Educators are administratively responsible to the County (Unit) Director and are programmatically responsible to the Program Leader for Agriculture and Natural Resources for the delivery of programs that mesh with identified national and state priorities.

Qualifications: A Master's degree related to subject matter emphasis is required. Examples of relevant majors could include, but are not limited to, agronomy, animal science, entomology, horticulture, plant pathology, soil science, or weed science. Candidates with a Master's degree in progress may be considered for interviews, but the degree must be completed by the hiring date. Candidates must possess excellent oral and written communication skills, as well as effective interpersonal skills and the ability to work within a team environment. Experience within the specialty field is highly desirable, as are informal and formal teaching experience and a demonstrated ability to build and maintain diverse networks.

For more information and to apply, see <http://go.illinois.edu/26389> and click Apply Now. To receive full consideration, all requested application materials must be submitted via the online system by the closing date of January 11, 2013. For further information, contact Michael Gray at megray@illinois.edu. *Illinois is an Affirmative Action /Equal Opportunity Employer and welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity. (www.inclusiveillinois.illinois.edu).*

Fruit Production and Pest Management

Updates on management of fire blight of apple in Illinois



In 2008 and 2009, severe fire blight (shoot blight), caused by the bacterium *Erwinia amylovora* occurred in Illinois apple orchards, leading to speculation that streptomycin-resistant strains of *E. amylovora* might be present in some orchards. Statewide surveys conducted in 2010, 2011, and 2012 showed that none of the more than 400 isolates of *E. amylovora* collected from apple orchards in 19 counties throughout Illinois was resistant to streptomycin (Agrimycin 17WP) at the rate recommended for use in commercial orchards. Similarly, none of the *E. amylovora* isolates tested was resistant to copper sulfate (Cuprofix Ultra 40), copper hydroxide (Kocide-3000 40.1DF), cuprous oxide (Nordox 75 WG), or a mixture of copper hydroxide and copper oxychloride (Badge X2 45DF). Blossom infection in apple orchards is not common in Illinois, but shoot blight, root-stock blight, and canker were common symptoms of fire blight infections in Illinois apple orchards.

Based on the results of our studies, the following practices are recommended for management of fire blight in apple orchards in Illinois: (i) be vigilant when ordering nursery stock from states with streptomycin-resistant populations of *E. amylovora* (California, Oregon, Michigan, and possibly New York); (ii) prune out all affected shoots during winter (cut the shoots about 6 inches below the necrotic line); (iii) apply copper (e.g., copper hydroxide, copper oxychloride, copper sulfate, or Bordeaux mixture) at silver-tip growth stage; (iv) apply streptomycin (Agrimycin 17WP) during bloom, as predicted by the MARYBLYT program; (v) apply prohexadione calcium (Apogee 27.5DF), with a 50:50 split of recommended rate at full-bloom and petal fall; and (vi) apply streptomycin (Agrimycin 17WP) after hail storms and major rain storms during the season. To prevent streptomycin-resistant *E. amylovora* strains from developing in Illinois, do not exceed four applications of streptomycin (Agrimycin 17WP) per season.

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Vegetable Production and Pest Management

Aphids on Spinach and other Greens in High Tunnels



Turnip aphid on mustard greens (photo by Celeste Welty).

We usually quit talking about insect pests in Illinois vegetable crops from November through March, but for those who grow spinach and other leafy greens through December and January, especially in the southern part of the state, aphids can be active whenever temperatures in the tunnel exceed 50 to 60 degrees F. Turnip aphid and green peach aphid are common culprits, but other species can persist through the winter as well. Growers are advised to keep scouting greens for aphids as long as they are holding crops for harvest. Insecticides labeled for use on leafy greens are listed in the [2012 Midwest Vegetable Production Guide for Commercial Growers](#) ... be sure check the PHI (preharvest interval ... the number of days that must be allowed to pass between application and harvest) for specific insecticides and time applications and harvests accordingly.

Invasive Pests

A couple of quick updates on brown marmorated stink bug and spotted wing *Drosophila* ...

Brown marmorated stink bug has been reported moving into homes in very low numbers in a few locations in Illinois over the last several weeks. Reports of just a few brown marmorated stink bugs on doors and window screens in western Illinois range from the metro-east area near St. Louis, through locations near Jacksonville and north of the Quad Cities. These reports suggest that low-level infestations may have developed in soybeans in those areas, although this conclusion cannot be made with any certainty. As the season progresses in 2013, I expect that we'll see more detections of this insect.

Spotted wing *Drosophila* (SWD) was a big topic at the Great Lakes EXPO in Michigan last week. Crops that are especially good hosts for this insect include strawberries, blueberries, blackberries, and raspberries. Because populations build over the course of a season, fall raspberries are likely to be especially vulnerable to infestation and contamination. I've received a few reports of SWD in raspberries in IL this fall (including November infestations of high-tunnel red raspberries), and all indications suggest that raspberry growers will need to be prepared to manage this insect in most of Illinois in 2013.

Both of these insects will be "star players" in this winter's educational programs, so expect to hear a lot more about them.

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Local Foods Issues

A Reminder on the 2013 Small Farm Webinar Series

Not all of these pertain to fruit or vegetable production, but ...

The Small Farm Webinar Series is a weekly educational series for the small farm community and provides practical knowledge on emerging topics which advance local food production in Illinois. This series of online events is aimed at providing small farm producers with a look at how leading practices in production, management, and marketing enable operations to improve predictability and sustainability.

The dates and topics ...

January 10, 2013	Raising Broiler Turkeys on Small Farms
January 17, 2013	Strawberry Production
January 24, 2013	Water Sanitation For Small Farms
January 31, 2013	Wildlife Damage Control
February 7, 2013	Basics of Fruit Insect Management
February 14, 2013	Farm Financial Management
February 21, 2013	Seed Saving
February 28, 2013	Crop Rotations in High Tunnels
March 7, 2013	Farm to School Sales - What's involved?
March 14, 2013	Beneficial Insects
March 21, 2013	Weed Control in Pastures
March 28, 2013	Crop Budgeting Resources

All programs are offered on-line. They will also be available via the small farm webinar archive site. To register, see <https://webs.extension.uiuc.edu/registration/?RegistrationID=7543>. Any questions regarding the series can be sent to Kyle Cecil, Local Food Systems and Small Farms Educator, University of Illinois, at cecil@illinois.edu or by contacting any of the Small Farm Educators listed at the end of this newsletter.

Kyle Cecil (309-342-5108; cecil@illinois.edu)

High Tunnel Resources

We have begun classes in our Beginning Farmer Program (Preparing a New Generation of Illinois Fruit and Vegetable Farmers), and lots of questions about high tunnels have come up. A few good “beginner” resources (out of many available online) are:

- ***Iowa High Tunnel Fruit and Vegetable Production Manual***, a very good starter resource that’s available to download for free as a pdf from <https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=13342>.
- ***Season Extension with High Tunnels***, an archived webinar by Chris Konieczka and Kyle Cecil of the Local Food Systems and Small Farms Team, is available at <http://web.extension.illinois.edu/hkmw/localfoods.html>. Scroll down the page and click on the title.
- A short and somewhat lighthearted slide show that chronicles the construction of two high tunnels at the University of Illinois Dixon Springs Agricultural Center available online at <http://www.youtube.com/watch?v=4HSGNAONCUG>. (If you don’t like the music, you can always turn down the volume.)

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Organic Production

Beginning farmers and existing organic operations can find detailed information about organic certification in a series of new guides available now on the ATTRA-National Sustainable Agriculture Information Service website.

Four new guides provide detailed information about relevant organic requirements and best practices and explain the organic certification process.

Guide for Organic Crop Producers: <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=67>

Guide for Organic Livestock Producers: <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=154>

Guide for Organic Processors: <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=407>

Organic Certification of Farms and Businesses Producing Agricultural Products:
<https://attra.ncat.org/attra-pub/summaries/summary.php?pub=152>

These guides can be downloaded for free or ordered as a paper publication for a small handling fee either at the links above or on the ATTRA website at www.attra.ncat.org.

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