



# UNIVERSITY OF ILLINOIS EXTENSION

College of Agricultural, Consumer, and Environmental Sciences

## *Illinois Fruit and Vegetable News*

Vol. 17, No. 12, September 2, 2011

*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](mailto:weinzierl@illinois.edu). The *Illinois Fruit and Vegetable News* is available on the web at: <http://www.ipm.illinois.edu/ifvn/index.html>. 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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**University of Illinois Extension Staff in Fruit & Vegetable Production & Pest Management**

#### ***Upcoming Programs***

- **"Is Entrepreneurial Farming for You?" September 13, 2011.** 5:30 p.m. to 9:00 p.m. at the University of Illinois Will County Extension Office (100 Manhattan Road, Joliet). This workshop covers resource assessment, goal-setting, financial planning, and marketing options. Registration is \$30 and includes a light supper. Payment can be processed online at <http://central.illinoisfarmbeginnings.org> or by contacting The Land Connection at 217-688-2570.
- **Local Food: A Roadmap to Healthy People, Planet, and Profit, September 9, 2011.** 9:00 a.m. – noon at Illinois Central College, East Peoria Campus. Keynote presentation by Ken Meter, Crossroads Resource Center, followed by a panel discussion and audience questions. This event is free and open to the public. For more information, see <http://www.cigreenexpo.org/index.html>.
- **Plot tour, University of Illinois South Farms (vegetables and apples), September 16, 2011.** 9:00 a.m. – 12:30 p.m. This is an opportunity for extension educators, growers, and others to tour specific research plots at Urbana-Champaign. Plots will include pumpkin disease management trials, sweet potato variety evaluations, All-American Selection plots, and apple insect management trials. Tour begins at the Vegetable Crops Research Farm on South First Street in Champaign. There is no charge, but pre-registration is requested. We'll end by 12:30, and lunch is on-your-own. To pre-register, email Rick Weinzierl at [weinzierl@illinois.edu](mailto:weinzierl@illinois.edu) or call 217-244-2126. Driving directions will be provided.
- **Farmer Grant Writing Workshop, September 21, 2011.** 6:30-8:30 pm (registration starting at 6:00 pm). University of Illinois Sangamon County Extension Office, 2501 North 8th Street, State Fairgrounds #30, Springfield, IL. Information will be provided on the basics of grant writing as well as specifics on grants available through the NCR SARE Farmer Rancher Grant Program and the Illinois Department of Agriculture AgriFIRST Specialty Crop Grant Program and the C-2000 Sustainable Agriculture Grant Program). For more information and to register, see <http://www.cisfn.org> or contact Deborah Cavanaugh-Grant at [cvnghgm@illinois.edu](mailto:cvnghgm@illinois.edu), 217-782-4617.
- **Sustainable and Organic Farmers Network Potluck, September 26, 2011.** Beginning at 5:00 p.m., Anderson Farm, 2190 N. 45th Road, Leland, IL. Crops include lettuce, potatoes, turnips, rutabagas, sweet corn, peppers, pumpkins, melons and strawberries. Although there is no registration fee, attendees should

bring a dish to share at the potluck and register online at <http://web.extension.illinois.edu/units/event.cfm?EventID=55196&UnitID=463> . For more information, contact University of Illinois Extension Local Foods and Small Farms Extension Educator Ellen Phillips at 815-732-2191 or [ephillips@illinois.edu](mailto:ephillips@illinois.edu).

- **Illinois/Iowa Fruit and Vegetable Symposium, November 18, 2011**, at the Scott County Extension Office, Bettendorf, IA. Details to come
- **Illinois Specialty Crops, Agritourism, and Organic Conference, January 11-13, 2012**, at the Crowne Plaza Hotel in Springfield, IL. Details to come.

### *Notes from Chris Doll*

Weather and its effects on the crops continue to be the primary topic of concern for most growers. It has been a hot, dry summer here with only 0.4 inches of rain for the last 61 days. There were nine days of >100 degrees, and maybe some more are to come, as it is 98 degrees and 15 percent relative humidity at 1:30 p.m. on the last day of August, with more heat coming. Back in the "hot" days during July, there was not much wind velocity, and the humidity was much higher. Recently, the winds are blowing and the humidity is down, really pulling the moisture from the plants and soil. And yet we can be thankful that something like Hurricane Irene (my wife's name) did not come through here. The wind and rain can really take a toll on tree fruit crops, and I feel for the Eastern growers. The Rutgers Plant and Pest Advisory fruit edition dated August 31, Vol. 16, No. 22, has some photos of peach trees in water and some leaning trees, along with some commentary. This issue also includes comments about the New York problems and a good write-up about what needs to be collected for possible storm damage claims. With numerous reports about hail and drought damage (among other things) in Illinois this year, this is a good summary of what you might do.

I've lost track of comparisons of fruit maturity with last year and "normal" years, but the peach and apple ripening is moving fast. Cresthaven peaches are done, and Encore and other later varieties are right behind. In apples, Gala is past, Honeycrisp is about done, Golden Supreme is ready, and Jonathans are dropping. A few cool nights last week yielded some good color for Jonathans that might help absorb lots of heat this week. Some Jonathans have already had two applications of NAA and then will need to head for storage. That makes it tough on pick-your-own operations, and we hope that the Retain treatments work under our tropical weather conditions.

Pest control has been generally good, with some wooly apple aphids and mite infestations that needed control. After 2 to 3 years of seeing increased numbers of San Jose Scale at this time of the year, they are at low ebb this year. Sooty blotch and flyspeck are around but not extensive, even in poorly sprayed blocks. Black Rot on apples is not epidemic but fairly common. Peaches have had plenty of bacterial spot injury via leaf drop and some fruit spotting. Good spraying jobs have held brown rot under control too.

Damage by bird feeding is becoming increasingly common as they become thirstier and develop a taste for quality. In the Back-40 a chirping sparrow flock found the trees of Sansa, causing a high percentage of loss. When those were gone, they moved to Honeycrisp, where more loss has been seen. They also seem to prefer white nectarines over yellow nectarines. I have not been able to detect a preference for yellow peaches.

Tough times mean tough jobs. It's time to get the fall application of nitrogen on strawberries and to irrigate for best results. It's time to prepare ground for new tree planting sites, and that's a tough and dusty job. It's time to seed fall cover crops, but nothing will grow until rains come. And the remaining harvest of peaches and the prime harvest of apples has to be done at proper maturity and moved to coolers, and again that means tough work conditions. They will change one of these days.

*Chris Doll*

### ***Specialty Crops and Local Foods Issues for Fruit and Vegetable Growers***

#### ***Illinois MarketMaker's New Homepage***

Finding local foods and registering your business is now easier than ever. Check out Illinois MarketMaker's newly designed state homepage at [www.marketmaker.uiuc.edu](http://www.marketmaker.uiuc.edu).



**Need demographic information?** Use the Market Research box to choose the particular type of information you need (age, household type, race, income, education, etc.). Click Search to find statistics.

**Looking for a business?** Farmers, Fisheries & Businesses will help you find a business with the product you want. Select the type of business (farmer, fishery, agritourism, processor, etc.) from the drop-down box, then type in a product (apples, honey, corn, etc.) You may search the entire state or break it down by zip code, county, city, or multi-state.

**Want to register your business?** Simply click on Register in the “Register Your Business” box. Follow the on-screen instructions to input your business information in as many business categories as apply.

Don’t forget to check out “Happening Now” for Buy & Sell Forum ads and Upcoming Events. If you’re looking for a specific business, click on “Directory Search” to be taken to a list of all businesses registered on Illinois MarketMaker. You can also find foods that are in season along with producers who carry those items by clicking on “Now In Season”.

**Interested in listing your business in the Business Spotlight or Taste of Illinois?** Please contact us at: [marketmaker@extension.uiuc.edu](mailto:marketmaker@extension.uiuc.edu).

Lori Dalfonso (309-792-2500; [dalfonso@illinois.edu](mailto:dalfonso@illinois.edu))

### **North Central SARE Grant Programs Accepting Applications**

Earlier this week the North Central Region Sustainable Agriculture Research and Education Program opened a call for proposals for their **Farmer-Rancher grant program** and their **Youth and Youth Educator grant program**. Information on these grant programs is available on North Central SARE’s web site at <http://www.northcentralsare.org/>.

Farmer-Rancher grants support efforts by farmers and ranchers to carry out sustainable agriculture research, demonstration, and education projects on their farms. A total of approximately \$400,000 is available for this program. Grants to individuals are capped at \$7,500, and grants to three or more farmers working cooperatively on a single

project are capped at \$22,500. Grant recipients have 25 months to complete their projects. Farmer-Rancher grants are for sustainable agriculture research, demonstration, and education projects; they are NOT for everyday farming expenses. Applicants must identify specific problems and potential solutions to those problems. Projects that involve whole farm systems and/or a youth component are encouraged. Any farmer/rancher or group of farmers/ranchers who farm or operate a ranch in the North Central Region may apply. The deadline for applications for the Farmer-Rancher grant program is December 2, 2011.

Youth and Youth Educator grants are for youth, ages 8-18, and youth educators. These grants are intended to provide opportunities for youth in the North Central Region to learn more about sustainable agriculture: farming and ranching that is ecologically sound, profitable, and socially responsible. Please note that 21<sup>st</sup> Century Farming involves growing food and fiber and can include market gardens and urban agriculture. **Youth grants** support on-farm research, demonstration, or education projects by youth ages 8-18. Research and demonstration projects are for hands-on efforts to explore sustainable agriculture issues and practices. Education projects can involve teaching others about sustainable agriculture or attending a sustainable agriculture conference, workshop, or camp. Youth grants are capped \$400 each. Youth educator grants are for educators to provide programming on sustainable agriculture for youth. These grants are capped at \$2,000 each.

Sustainable agriculture is broadly defined, and grants might target a broad range of issues, including integrated pest management, soil erosion control, soil quality improvement, water quality improvement/wetlands, cover crops, crop/landscape diversity, nutrient management, agroforestry, value-added and direct marketing, beneficial insects, organic agriculture, and proactive weed control. See the details of each grant program at the North Central SARE web site (<http://www.northcentralsare.org/>).

Those interested in submitting a proposal would benefit from attending the grant-writing workshop scheduled for the evening of September 21, 2011, in Springfield, IL (see details in the list of upcoming programs at the beginning of this issue). In addition, Illinois applicants are encouraged to contact Rick Weinzierl, Illinois SARE Coordinator, for assistance and guidelines on grant proposal preparation.

*Rick Weinzierl (217-244-2126; [weinzier@illinois.edu](mailto:weinzier@illinois.edu))*

### ***Take the \$5 Challenge***

Slow Food USA is challenging people to cook slow food for less than it costs to buy fast food. In case you are wondering, slow food is food that is good for the person who eats it, good for the people who grow and pick it, and good for the planet. This September 17, you're invited to help take back the 'value meal' by getting together with family, friends, and neighbors for a slow food meal that costs no more than \$5 per person. Find an event happening near you, host a dinner, or have a potluck. For more information see [Take the \\$5 Challenge](#).

### ***Are you a Facebook user?***

Want to connect with the University of Illinois Extension Local Food Systems and Small Farms Educators? Then go to Local Food Systems and Small Farms and "Like" this page.

## ***Fruit Production and Pest Management***

### ***San Jose Scale on Apples***

Chris Doll mentioned lower numbers of scale-infested apples this year, but for some, the problem may still be increasing. For those not familiar with San Jose scale on fruit at harvest, the following pictures illustrate this problem.





San Jose scale on apples (upper left photo by Laura Jesse, Iowa State University; upper right photo from Oregon State University; bottom photo from the University of Kentucky).

On yellow apples, feeding by San Jose scale typically causes an accumulation of red pigments around the site where the scale is or has been feeding. Although now is not the time to control scale infestations, it is a good time to record where in the orchard the infestations are present and to plan for next year's monitoring and control efforts. A good fact sheet on San Jose scale by D. Mague of Cornell University and the New York Agricultural Experiment Station at Geneva is available at <http://www.nysipm.cornell.edu/factsheets/treefruit/pests/sjs/sjs.asp>.

Rick Weinzierl (217-244-2126; [weinzier@illinois.edu](mailto:weinzier@illinois.edu))

## ***Vegetable Production and Pest Management***

### ***Aphids and Whiteflies in Late-Season Vegetables***

My usual fall reminder about these little “suckers” ...

In late summer and early fall, aphids show up as late season “colonizers” or “passers through” in several vegetable crops, including tomatoes, peppers, cucurbits, and snap beans. In peppers and tomatoes, the colonizers usually are green peach aphid and potato aphid. In pumpkins, cucumbers, melons, and squash, the pest species that colonizes plants is generally the cotton-melon aphid.

Why do aphids “pass through” vegetable crops in the fall? As I have pointed out in previous years, most aphids that winter successfully in most of Illinois have separate winter and summer hosts. Eggs overwinter on a woody plant, and the aphids that hatch from those eggs usually cycle through a few generations on that woody host in the spring and early summer. When “the time is right,” a generation of winged adults is formed, and these “alates” (aphids with wings)

migrate to a summer host, usually an annual plant. Rosy apple aphid winters as eggs on apple trees and related species, then moves to narrow-leaf plantain in the summer; soybean aphid winters on buckthorn, then moves to soybeans in the summer. As the summer ends and annual plants begin to dry down, winged adults fly back to their winter host to lay eggs. This life cycle pattern results in lots of aphids moving from place to place in the spring and early summer and again (in even greater numbers) in the late summer and fall. Not all aphids that are pests of Illinois crops winter here; some are carried here on high-level winds from the south ... the corn leaf aphid is one common example of a pest species that reaches us in this way. Some of these migrant species build up to their greatest population densities in late summer, and they too move across the landscape in search of their specific host plants at this time.

Aphids pose problems in vegetables in two ways: (1) when they actually colonize plants (settling on the plants, reproducing, and building up in numbers) and (2) when they simply pass through weedy areas and then fields, making feeding probes along the way, picking up and transmitting viruses as they do so. In peppers and cucurbits, virus transmission by several aphid species may threaten yields and crop quality when the aphid vectors pass through and feed in the crop earlier in the season, but virus transmission in these situations is NOT really preventable by insecticide applications. However, when colonies of aphids build on plants in late summer and fall, controlling them to prevent yield and quality losses that result directly from feeding can be worth doing.

In cucurbits, several older insecticides give some control, but thorough coverage of upper and lower leaf surfaces is essential (as it is for all insecticides used for aphid control except for systemic products). Endosulfan is labeled for use on all vine crops for aphid control. Dimethoate is labeled for use on melons for aphid (and mite) control, but its use on other cucurbits is not legal. Malathion, Diazinon, and Lannate also are somewhat effective; Malathion is labeled for use on cucumbers, squash, and pumpkins, but not melons. Conversely, Diazinon is labeled for use on muskmelon and watermelon, but not on cucumbers, squash, or pumpkins. Pyrethroids such as Asana, Baythroid, Brigade, Hero, Pounce, and Warrior generally are NOT effective for aphid control. Newer insecticides labeled for aphid control in cucurbits include Assail (acetamiprid), Fulfill (pymetrozine) and Actara (thiamethoxam). For organic producers, M-Pede and other insecticidal soaps provide some control of aphids in cucurbits; thorough coverage of upper and lower leaf surfaces is especially important if these products are to give successful results.

In peppers and tomatoes, Actara, Assail, Danitol (tomatoes only), Orthene (peppers only), Dimethoate, Endosulfan, and Provado are labeled for aphid control; all are fairly to very effective. Platinum and Fulfill are newer products registered for aphid control in these crops. M-Pede and other insecticidal soaps also are labeled for use on tomatoes and peppers.



Left: green peach aphid colony (photo from Colorado State University). Right: greenhouse whiteflies.

Whiteflies don't winter well in the Midwest, but by late season the combined processes of migration, import on transplants, and local population increases produce populations great enough to warrant control in several vegetable crops. In recent years, the "players" have included a banded-winged species, the greenhouse whitefly, and the sweet potato or silverleaf whitefly. The crops most often infested are green beans, cucurbits, eggplant, peppers, and tomatoes.

Check the [2011 Midwest Vegetable Production Guide](#) for full lists of insecticides labeled for use on cucurbits, peppers, and tomatoes, along with rates, restrictions, and required preharvest intervals.

The effectiveness of insecticides labeled for whitefly control varies considerably among locations, depending on the insecticide resistance characteristics of local populations. In some instances, a pyrethroid (Warrior, Baythroid, Mustang-Max, Brigade, Asana, or others, depending on the specific crop) may be effective; in other instances the local

population may be resistant and go uncontrolled. Assail, Provado, Oberon, and Voliam Flexi are effective alternatives in some of these crops, as are Lannate, Dimethoate, and Endosulfan. Actara, Knack, and Fulfill are labeled for whitefly control in peppers and tomatoes; Actara and Fulfill are labeled for use against whiteflies on cucurbits as well. Insecticidal soaps (M-Pede and others) and neem products provide some whitefly control for organic growers.

The key is to scout at least weekly to detect building infestations and to evaluate any insecticide treatments a couple of days after application. If a particular product fails to provide control, shift to an unrelated insecticide if another treatment is necessary. Again, check the [2011 Midwest Vegetable Production Guide](#) for listings of registered products for specific crops and for preharvest intervals (PHIs) that must elapse between application and legal harvest for each crop and insecticide combination.

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### **University of Illinois Extension Specialists in Fruit Production and Pest Management**

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