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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, weinzier@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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Closure of Horticulture and Agronomy Programs at Dixon Springs, St. Charles, and Two Other Locations

The news story below is taken from the September 17, 2015, online issue of [*Prairie Farmer*](#). On September 14 and 15, agronomy and horticulture staff at University of Illinois Research and education Centers at Dixon Springs, Brownstown, DeKalb, and St. Charles were given notices of non-reappointment, with notice periods for individual employees ranging from approximately 3 to 12 months (most are 6 months). The staff who have worked with Illinois fruit and vegetable growers and are impacted by this decision are Jeff Kindhart, Julie Zakes, Shelby Henning, and Mike Krueger. I am greatly disappointed by this action but will refrain from further comment. Neal Merchen, Associate Dean for Research and Director of Illinois Agricultural Experiment Station, is the administrator who is communicating to the public on this issue; his email address is nmerchen@illinois.edu.

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From *Prairie Farmer* ...

State budget cuts force University of Illinois research station reductions; impacted field stations include Brownstown, DeKalb, St. Charles and Dixon Springs.

The University of Illinois has announced that it will eliminate crop production research at four of its agricultural experiment stations, effective January 2016. Those impacted field stations include Brownstown, DeKalb, St. Charles and Dixon Springs.

"This is a budget issue," says Neal Merchen, Associate Dean for Research and Director of Illinois Agricultural Experiment Station. "Since 2003, we have seen some kind of reduction or reallocation of state budget funding every

year. Until now, we have largely been able to avoid having to reduce anything at the off campus centers." Merchen says that in the past, cuts have been made on campus, within departments and administration.

This year, however, the U of I is facing one of its largest budget reductions over the past 10 years, with the state reducing their base budget allotment by 7.5%, or \$3.7 million. A special appropriation of \$300,000 to the Dixon Springs Center has been zeroed out in the governor's budget.

"This is a larger-than-normal reduction. One of largest over the past 10 years," Merchen says. "We project further substantial cuts next year and the year after.

"It's left us with the point that we can no longer support everything we've supported in the past.

"We can't continue to provide the same levels of support to the field stations, for example, without compromising our ability to support other core areas – such as maintaining a critical mass of personnel and operating support for our South Farms operation, where the bulk of our research is conducted," Merchen concludes.

And what of that research? Merchen maintains the U of I will still have significant research activity at the South Farms, the recently upgraded Monmouth Research Station, the Orr Center in Pike County, and the beef research program at Dixon Springs.

A forestry program may be added at Dixon Springs, capitalizing on its proximity to the Shawnee National Forest.

Horticultural research will be lost, but Merchen says that's not an area of research and faculty strength. Research will continue in urban horticulture in Chicago and with regional farmers. "The field stations are simply not being used to do horticultural research that's supported by outside funding," he adds.

The bottom line in dollar allocation today is teaching. "There are appointments in teaching, research and Extension that have been reduced, and Extension has suffered disproportionately. Not because it's not important, but because teaching and research is emphasized," Merchen says.

"As faculty numbers decline, teaching classes is the first thing on our mind. We are still a pre-eminent research institution. U of I is a tier-one research institution. The College of ACES, among its peers, is one of the strongest research colleges, and that will continue to take place," he says.

Faculty numbers have slipped by roughly 15% since 2009, when there were 220 faculty members in the College of ACES. Today, there are 190.

Merchen says no decisions about the physical locations have been made yet. The University owns the ground and facilities, and will make decisions in the next 3-4 months.

And while the closed research stations represent a loss of regional crop research opportunities, Merchen is optimistic about the chance to work with Illinois farmers.

"As the technology supporting crop production changes, there's a lot of expectation that it will become much easier to do this kind of research instead with farmers, in their own specific production systems. With precision ag, all the tech for monitoring enviro conditions and productivity, there will be a lot more opportunity to collect that kind of data and do that regional research on farms," he says.

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>.

- **Illinois Herb Association Herbfest.** September 26, 2015. 9:00 a.m. to 3:00 p.m. Allerton Park, 515 Old Timber Road, Monticello, IL. Register at <http://www.specialtygrowers.org/illinois-herb-association.html>. For

more information, contact Charlene Blary, Illinois Herb Association, at 309-557-2107 or by e-mail at cblary@ilfb.org.

- **Farmer Grant Writing Workshop, September 28, 2015.** 6:00 to 9:00 p.m. (registration starting at 5:30 p.m.) at the University of Illinois Extension Office, 700 S. Airport Drive in Springfield. See <https://web.extension.illinois.edu/registration/?RegistrationID=12506> or contact Deborah Cavanaugh-Grant at cvnghgrn@illinois.edu or 217-782-4617.
- **Good Agricultural Practices (GAPs) Webinar Series.** The webinar series will be held Wednesdays, October 7, 14, 21 and 28 from 6:00 p.m. to 8:00 p.m. You may attend the webinars from your home or at University of Illinois Extension offices in Kankakee or Springfield. For more information and to register, <https://web.extension.illinois.edu/registration/?RegistrationID=12829>
- **Great Lakes Fruit, Vegetable, and Farm Market EXPO, December 8-10, 2015.** Grand Rapids, Michigan. See <http://www.glexpo.com/>.
- **Illiana Vegetable Growers Conference, January 5, 2016.** Schererville, Indiana. More details to come.
- **Illinois Specialty Crops, Agritourism, and Organics Conference, January 6-8, 2016.** At the Crowne Plaza Hotel and Conference Center, Springfield, IL. More to come in future issues of this newsletter ... for now, save the date.
- **Also save the dates for several regional programs ...**
 - January 28, 2016: Horseradish Conference at Collinsville, IL
 - February 2 and 3, 2016: Tree Fruit Schools at Mt. Vernon and Hardin, IL, respectively
 - February 9-10, 2016: Gateway Small Fruit and Vegetable Conference, O'Fallon, IL

Regional Reports

From southern Illinois ... Despite having some heat last week, since Saturday we have had some beautiful fall like days with highs in the 70s and lows in the 50s and lots of sunshine. This weather pattern is forecast to continue throughout the week. Overall, we are very dry and we have not had very much rainfall in Murphysboro since the 2.8" we received back on September 9.

The dry conditions have been a welcomed change of pace this season, especially as we get into harvest of our fall cucurbit crops. Pumpkin harvest is in full swing on early-planted fields that made it through the rains, while many later plantings still have green fruit that will be ripening in the next few weeks. I have seen downy mildew on many fields in southern Illinois ranging from leaf yellowing and 10-20% leaf loss all the way to plants that have lost all of their leaves to this disease. Remember, even though you might have mature pumpkins in the field, maintaining vine health is crucial to producing a high quality pumpkin fruit that keeps well and holds up after harvest.

At the family farm in Monroe County, my pumpkins have been doing well. I do have some downy mildew, but I have been keeping it at bay with fungicide sprays. I have seen very little powdery mildew. Fortunately, I was able to get my pumpkins in early enough that I started harvesting around September 1 for some earlier markets, and I'm in the midst of harvest now. Cucumber beetles and squash bugs have not been horrible this year, but numbers have increased in the last few weeks. Melonworms have also been a problem (see my notes later in the newsletter on this pest). Over the weekend, I put on what will probably be my last insecticide and fungicide spray to carry the plants through the rest of the season.

The apple crop has not been as good for most growers in this area as earlier estimates were predicting. Growers have not gotten as much growth at the end of the season to fill out the crop. Some suspect this may be the result of excessive rainfall earlier in the season. I did get some really good late peaches at a local market. 'Big Red' is a late peach that is has a firm flesh and very good flavor. Most notable is its large size, with some fruits over 3.5" in diameter; only 5 fruits fit in a half peck bag. The cold winter thinned out the blossoms which additionally pushed the size this year.

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From western Illinois ... Fall-like weather has been mixed with summer-like hot temperatures for the past month or so. The cool weather slowed down the growth of those crops that favor warmth: tomatoes, peppers, melons, etc. And yields were much reduced for up to a week after some of these cold temperature periods. Those periods of cool weather certainly favored some of the cool season crops, such as radish, cole crops, etc. The cooler temperature episodes must be responsible for the huge amount of peppers, eggplant and some other crops that set several weeks ago.

Our part of western IL received 1.2 inches of rain Sept. 9-10 and has not received any since. We were dry in early September, as we had less than 2 inches of rain in August. As a result, since root systems were so severely restricted due to wet soils, irrigation has been running for those who have that ability. Many perennial fruit crops (such as strawberries) are developing fruiting buds for next years' crop. Due to the compromised root systems of some of these plants, irrigation to help the plants through this stressful time may be in order (especially for those areas where rains have not recently occurred).

Pumpkin growers are scrambling to find enough crop to fill their needs, and prices at the wholesale market reflect the shortage. Those pumpkins that did survive have been mature for several weeks. Keeping them in good condition with the reduced amount of vine cover can be a challenge. There is a small amount of unripe fruit on some vines that will mature over the next few weeks, but not an overwhelming amount.

Tomatoes have been great sellers all season long this year, which is very uncharacteristic. In most summers, when garden tomatoes begin to produce, it's difficult to compete. This year however, since so few garden tomatoes survived the wet soil conditions, sales have been good. The same goes for other produce as well. High-tunnel growers have been able to capitalize, as tomato production remained mostly constant throughout the summer.

Aphids and/or mites are still present and being treated in both high tunnels and outdoor production areas. In some instances, repeated use of pyrethroid insecticides has led to these outbreaks (in pumpkins for instance). High tunnel growers often have to deal with one or both of these pests.

Fall is typically the time for soil testing. In order for plants to maximize their production, they need balanced nutrition. A soil test is the only way to determine the ability of the soil to provide these nutrients. Soil samples should be taken to a depth of 7". One soil sample for every 3-4 acres should suffice. However, take 4-5 subsamples to make the one sample. The cost is relatively minor. Most soil tests will include: pH, phosphorus and potassium. CEC (cation exchange capacity) and OM (organic matter) are two other tests that can be useful. We usually don't recommend a soil test for micronutrients, as the reliability of those tests are questionable. For micronutrients, a plant sample is best. Consult with one of the Extension Educators listed at the end of this newsletter for soil testing and fertilizer recommendations.

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Fruit Production and Pest Management

Oystershell Scale on Apples



Oystershell scale at the calyx end of Golden Delicious.

A few weeks ago I commented on San Jose scale infestations on Golden Delicious apples at our University of Illinois Fruit Research Farm at Urbana. As we have continued harvest, we've also found oystershell scale on most of the varieties we have picked. The prevalence of these insects is low enough it would go unnoticed by most who purchase apples, but their presence on fruit is a sign that we need to examine branches and twigs to see how severe those infestations are and we need to step up our superior oil sprays from green tip to pink next spring. For more information on oystershell scale, see <http://jenny.tfrec.wsu.edu/opm/displaySpecies.php?pn=500>.

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Vegetable Production and Pest Management

Melonworm in Pumpkins



Clockwise from upper left: Melonworm on pumpkin stem; damage to the side and stem end of the fruit of 'Cotton Candy' (white) and 'Touch of Autumn' (pie pumpkin).

Just when I thought things were going well, I encountered a somewhat unusual pest of pumpkins: melonworms (*Diaphania hyalinata*). I noticed some insect feeding and frass on some leaves about two weeks ago, and when I inspected further I found small, green worms with two white stripes going down the length of the body. They were feeding on leaves and also pumpkin fruit. While the leaf damage was not enough to cause any major problems, the fruit feeding was reducing the marketability of many of the fruits. Typical feeding was around the base of the stem and also in patches around the fruit. They mainly ate just the surface layer of skin on the fruit causing callusing and scarring on the fruit surface. Most of the injury did heal over without causing the fruit to rot, but many times this injury

significantly reduced the value of the fruit. Fortunately, the injury was somewhat localized in spots in the field, but where there were heavy infestations it reduced the marketable fruit by as much as 10 to 20%. Thorough coverage when making insecticide sprays is critical, as many times melonworms will hide under leaves and the undersides of fruit. Overall, I have been able to reduce the population with insecticide sprays and minimize future injury.

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Local Foods Issues

Open Calls for Grant Proposals for USDA's North Central Region Sustainable Agriculture Research and Education Program.

There are several North Central Region SARE grants with open calls for proposals. The focus of the NCR-SARE grant programs is on research and education, and these grants are all highly competitive. Funding considerations are made based on the relevance and potential of the project to increase the sustainability of agriculture in the region, as well as how well the applicant articulates the research and education components of their sustainable agriculture grant proposals. The grants and their deadlines include: [Research And Education Grant](#) Preproposals: Deadline **October 22, 2015**, [Partnership Grant](#): Deadline **October 29, 2015**, [Youth Educator Grant](#): Deadline **November 12, 2015**, and the [Farmer Rancher Grant](#): Deadline **December 3, 2015**. For more information visit <http://illinoissare.org/>

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

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Extension Educators – Horticulture		
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Horticulture Research-Extension Specialists at our Research Stations		
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