

# Illinois Fruit and Vegetable News

Vol. 19, No. 10, August 8, 2013 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, <a href="weinzier@illinois.edu">weinzier@illinois.edu</a>. The *Illinois Fruit and Vegetable News* is available on the web at: <a href="http://ipm.illinois.edu/ifvn/">http://ipm.illinois.edu/ifvn/</a>. 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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### **Upcoming Programs**

Check the Illinois SARE calendar for a full list of programs and links for registration.

<a href="http://illinoissare.org/">http://illinoissare.org/</a> and <a href="http://illinoissare.org/calendar.php">http://illinoissare.org/calendar.php</a>
Also see the University of Illinois Extension Local Food Systems and Small Farms Team's web site at:

<a href="http://web.extension.illinois.edu/smallfarm/">http://web.extension.illinois.edu/smallfarm/</a>

- **Driving and Maintaining Small Tractors**, **August 11, 2013**, 2:30 6:00 p.m., Spence Farm, Fairbury, IL. Beginning farmers may lack experience with farm equipment which could be really useful to them especially small tractors. This program will give you a hands-on experience with tractor safety and maintenance (and an opportunity to operate a small tractor). For more information, <a href="https://webs.extension.uiuc.edu/registration/?RegistrationID=7954">https://webs.extension.uiuc.edu/registration/?RegistrationID=7954</a>
- **Growing Garlic for Market (webinar), August 15, 2013**, noon 1:30 p.m. To register, see: https://webs.extension.uiuc.edu/registration/?RegistrationID=8683.
- Aronia Berry Field Day, August 28, 2013, 9:30 a.m. noon, Coldbrook Farm, 16952 E 6000N Road, Momence, IL 60954. Register for this free event by calling University of Illinois Extension, Kankakee County at 815-933-8337 by August 27, 2013. For additional information, please email <a href="mailto:aronia.us@att.net">aronia.us@att.net</a> or <a href="mailto:jtheu50@illinois.edu">jtheu50@illinois.edu</a> or visit <a href="mailto:www.coldbrookfarm.net">www.coldbrookfarm.net</a>.
- FDA's Proposed Produce Safety Rules—An Interactive Discussion (webinar), August 28, 2013, 2:00 3:00 p.m. <u>Eastern Time.</u> This informative session is part of AMS' ongoing webinar series designed for fruit and vegetable growers, packers, shippers, processors, wholesalers, and retailers of all sizes. The webinar is free and available to anyone with Internet access. <u>Registration is required and space is limited</u>. Register at <a href="http://bit.ly/17TR8yu">http://bit.ly/17TR8yu</a>).

- **Growing Vegetables Year-around (webinar), August 30, 2013**, noon 1:30 p.m. To register, see: https://webs.extension.uiuc.edu/registration/?RegistrationID=8698.
- Western Illinois Pumpkin Day, September 6, 2013, 10:00 a.m. 2:00 p.m. (lunch provided). University of Illinois and Iowa State University Extension specialists, and educators, and grower Tim McVeigh will discuss pumpkin production, soil fertility, and plant disease, insect, and weed management. Seed and input suppliers will be available and discussing their products. Lunch will be provided. McVeigh Farm is locate at 956 E. Co. Rd. 1800, Hamilton (Hancock County), IL. From the east edge of Hamilton, travel east on Rt. 136 for ½ mile to the Connable Road. Turn north and travel 4.5 miles to 1800 N, turn west and travel ½ mile to the farm. Please register at <a href="https://webs.extension.uiuc.edu/registration/?RegistrationID=8690">https://webs.extension.uiuc.edu/registration/?RegistrationID=8690</a>.
- Large Scale Composting Workshop, September 10, 2013, 8:30 a.m. 2:00 p.m. DeKalb Farm Bureau, 1350 W. Prairie Drive, Sycamore, IL. Advance registration is \$15 per person by September 3. On-site registration is \$20 and walk-ins are welcome, but lunch will not be guaranteed. Information and a registration form is available at <a href="http://web.extension.illinois.edu/bdo/localfoods.html">http://web.extension.illinois.edu/bdo/localfoods.html</a>. For more information, contact Ellen Phillips at 815-732-2191 or Bethany Macarus at 815-758-8194.
- 2014 Illinois Specialty Crop, Agritourism, and Organics Conference, January 9-11, 2014, Crowne Plaza Hotel and Conference Center, Springfield, IL. Lots more details to come, but it's time to mark your calendars. The keynote speaker on January 10 will be Elliot Coleman, co-author of Four-Season Harvest: How to Harvest Fresh Organic Vegetables from Your Home Garden All Year Long, and author of other widely popular books on high tunnel production and organic production. In addition to concurrent tracks on fruits, vegetables, herbs, agritourism, and organics on January 10 and 11, pre-conference workshops on January 9 will feature (1) Pumpkin Production, Pest Management, and Marketing; (2) Season Extension and Year-Round Markets; (3) GAPS and Food Safety Guidelines for Growers who Sell at Farmers Markets; and (4) Optimizing Plasticulture and Drip Irrigation Practices (am) and Growing Unique Fruits and Vegetables (pm). In addition, training and testing for the Private Applicator License (pesticides) will also be offered on January 9.

## New Research Specialist at the St. Charles Horticulture Research Center

Dr. Shelby Henning is now on the job as the Research Specialist and Superintendent at the St. Charles Horticulture Research Center. Shelby brings experience in soils, soil fertility, turf, vegetable production, and general horticulture. He has already started with plot maintenance and trials in grapes, sweet corn, and pumpkins and is contributing to the St. Charles Beginning Farmer program ("Preparing a New Generation of Illinois Fruit and Vegetable Farmers"). He brings an enthusiastic attitude for the future of the St. Charles Horticulture Research Center and a great work ethic. For those in the area, please stop in and introduce yourselves and be a part of the planning for future efforts at the Research Center. Shelby's email address is <a href="mailto:shenning@illinois.edu">shenning@illinois.edu</a>, and the phone number at the Research Center is 630-584-7254.

## Accepting Applications -- "Preparing a New Generation of Illinois Fruit & Vegetable Farmers"

In 2012, we (the University of Illinois) received a USDA NIFA grant from the Beginning Farmer and Rancher Development Program (grant number 2012-49400-19565) to provide training for new fruit and vegetable growers. We are now in the last 4 months of the first year of the program and are recruiting participants (students) for Year 2.

If you are (or if you know someone who is) an aspiring farmer, a new grower with less than five years' experience, a commodity crop farmer interested in diversifying to begin fruit or vegetable production, or a high school or community college agriculture teacher, you are invited to apply now for the next session of this training program. Training is provided by University of Illinois faculty and Extension Educators, with help from several other agencies and existing growers. There is no charge to qualified students. The year-long program, which features classroom, hands-on, and in-field instruction on essential skills and information, is offered at three locations in Illinois: the UIUC campus in Urbana, U of I's Dixon Springs Agricultural Center near Simpson in far southern Illinois, and at the Kane County U of I Extension office and the St. Charles Horticulture Research Center in St. Charles (northeastern Illinois). Classes are held one Saturday a month at each location from 9 a.m. to 4 p.m., running December 2013 through November 2014.

To apply, see: <a href="http://newillinoisfarmers.org/">http://newillinoisfarmers.org/</a>, and use the application link near the bottom of the page.

See more at:  $\frac{http://news.aces.illinois.edu/news/new-illinois-farmers-program-accepting-applications-second-session}{http://news.illinois.edu/ii/13/0620/newfarmers.html}$ 

## Regional Observations

In southern Illinois ... Growing conditions have been good but variable, and soil moisture levels are highly variable. Cooler than normal temperatures and cloudy days have limited plant stress, which has been good for many crops and for those at markets and in the field. However, later planted crops such has pumpkins are growing slowly, and if this weather pattern persists, we could be looking at a delay in first pumpkin harvest due to a lack in GDD's to increase vine growth, fruit set, and growth. Field observations show that the pumpkin crop looks very healthy, with first fruit set underway; however, vines are not filling in the rows as quickly as we would expect (or hope!).

With these damp weather conditions, make sure you are making applications to prevent bacterial fruit spot in pumpkins. Applications of copper compounds are effective for managing this disease ... refer to the <u>Midwest</u> <u>Vegetable Production Guide</u> for more details. This reference also provides listings for fungicides for control of other cucurbit diseases ... note Ellen Phillips' remarks on powdery mildew in northern Illinois.

Peach harvest is going very well (and tasting very good!), with many growers reporting extremely good peach size attributed to good management of fruit load (thinning) but also good weather conditions.

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

**In western Illinois** ... Cooler temperatures have been a mixed blessing ... they have helped crops to continue to develop without much rainfall, but they've also slowed crop development. It has been weeks since we've seen 85 degrees and sunshine on the same day, but our soil moisture situation is such that very many days of hot, sunny weather would compromise crops.

Summer crops continue to produce, but at a slower pace. We did have a couple of nights of temperatures in the 50's, which meant even more days before ripening for field tomatoes and other heat loving crops. Field tomato production is just beginning to hit its peak, and it's the first of August.

Irrigation has paid dividends to those growers who have use it. Some have begun to plant for fall crop harvest and have been waiting patiently for moisture to germinate the seeds. The frequent rains of this spring made planting of succession crops difficult, and as a result getting a steady supply of some crops (such as sweet corn) has been difficult.

Blackberry harvest continues, with a few red berries still to ripen. We've got another week or so of picking left. Growers have commented that with each of the rains we've been receiving the size picks up a little. Red Haven peaches are now ripe.

In the few scattered locations where Japanese beetle are present, they are still causing problems. Repeated insecticide applications are ongoing. Corn earworm moth captures still haven't reached high levels (as of Aug. 7). Spider mite and aphids seem to be continuing problems in high tunnels, and also for some field grown crops. We really haven't had the heat to cause mite populations to soar, but they seem to hang in there, and populations haven't declined.

I've been hearing from several growers about bird and deer problems in sweet corn. These two pests are difficult to eliminate. There are nuisance permits that can be issued to help with deer damage by contacting your area Illinois Department of Natural Resources office. Some have tried other remedies such as scented soap, human hair, coyote urine, etc. to varied success. Bird damage is a difficult issue to deal with. Propane cannons, inflatable owls or inflatable "eyes" have some effect, but birds soon become used to these devices (moving them to different locations every day or two can help). Some folks have had some success by shooting offending birds and then hanging them up in a conspicuous location so other birds can easily see them (but be sure to check with DNR on hunting/ shooting regulations). Others have reported that this hasn't been very effective at all. Distress calls have some merit and are being used by some grape growers (and at least one sweet corn producer has used this method this year and has found success). Just last month a sweet corn grower has found that topping his sweet corn, along with using a distress call, has significantly reduced bird damage. He forwarded to me a research paper that investigated the use of topping sweet corn to reduce bird damage ... <a href="http://extension.umass.edu/vegetable/articles/demonstrating-effects-%E2%80%9Ctopping%E2%80%9D-sweet-corn.">http://extension.umass.edu/vegetable/articles/demonstrating-effects-%E2%80%9Ctopping%E2%80%9D-sweet-corn.</a> In western IL, where tree lines and timber is interspersed with fields, dealing with bird problems is not unknown, and will probably always present issues.

Plasticulture strawberry planting will begin in less than a month (for some locations). Preparation should begin now as the fumigant plant-back times might be an issue. Dry soils might be a concern when attempting to shape beds and fumigate. Irrigation has been used in previous years to wet the soil to allow plowing, bed shaping and fumigation.

A couple of high tunnel growers have reported leaf mold on tomatoes. Powdery mildew of pumpkins has been noted as light thus far.

Mike Roegge (217-223-8380; roeggem@illinois.edu)

Also in western Illinois ... Phytophthora crown infections are common in some pumpkin fields. This is a challenging disease to control because plant infection can take place at all growth stages and even after harvest. Recommended management of this disease includes at least a 3-year crop rotation out of cucurbits, fungicide applications, and disking of localized infected areas. Planting in well drained soils also helps. For additional information regarding this disease, see the <u>Midwest Vegetable Production Guide</u> and this presentation by Dr. Mohammad Babadoost on managing cucurbit diseases ... <a href="http://ipm.illinois.edu/ifvn/presentations/pumpkins/babadoost\_diseases.pdf">http://ipm.illinois.edu/ifvn/presentations/pumpkins/babadoost\_diseases.pdf</a>.

Be careful not to confuse phytophthora crown infections with vine borer damage. The tell-tale signs are different. Phytophthora infection of the crown will show a somewhat restricted appearance at the base of the stem. Vine borer will show a decayed stem but not a restricted one, and frass (droppings) from vine borer larvae are present even after the damage is done. (See <a href="http://ipm.illinois.edu/ifvn/contents.php?id=28">http://ipm.illinois.edu/ifvn/contents.php?id=28</a>.)

As far as moisture goes, my part of western Illinois looks relatively good. At the Monmouth research farm, a total of 1.56 in of rain fell in June, and we received 1.6 inches in the last ten days of July. Temperature has varied quite a bit. We dipped down to 49 degrees on the July 29. For those of us that grow okra, for example, this creates a challenge. Okra is becoming a popular crop, and more growers are taking advantage of market opportunities. Cool days and cooler nights basically have these plants standing still. Plants that should be 36 inches tall have barely risen to 18 inches at this point. Warmer August temps (I hope) will serve this crop well.

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

In north central Illinois ... Last week was very cool at night, down to the lower 50's, and day-time highs were in the upper 70's with very scattered showers. This week trended back to warmer conditions, with highs in the upper 70 and 80s and nights dipping into lower 60's. These temperatures have allowed the spread of powdery mildew, especially on vine crops. Some virus symptoms also have shown up on cucumbers. Squash bug numbers are increasing. Blossom end rot on peppers and tomatoes is evident in fields without irrigation. Pepper harvest is in full swing.

Ellen Phillips (815-732-2191; ephillps@illinois.edu)

## Fruit Production and Pest Management

## Updates on Spotted Wing Drosophila (SWD)

Reports of SWD flies in traps and larvae infesting fruit (blueberries, blackberries, and raspberries) are becoming more common. I have reared flies from larvae collected in untreated raspberries, blueberries, and blackberries at the University of Illinois Fruit Research Farm and Urbana to confirm that this species is indeed in the fruits. See the insecticide listings in the June 7, 2013 issue of this newsletter for products that can be used to control this insect.

Rick Weinzierl (217-244-2126; weinzier@illinois.edu)



Spotted wing Drosophila adult male (left) and larvae in blackberry (right). Photos by Phil Nixon.

## Rainfastness of Insecticides Used on Fruit Crops ... from John Wise, Michigan State University

Subscribers to the "applecrop" list serve may have already seen this information, but for everyone else ... John Wise of Michigan State University posted a very useful summary on the rainfastness of several insecticides used on fruits. It's available at <a href="http://msue.anr.msu.edu/news/rainfast characteristics of fruit crop insecticides">http://msue.anr.msu.edu/news/rainfast characteristics of fruit crop insecticides</a>. John's overall summary notes ...

"There are several critical factors that influence impact of precipitation on a pesticide's performance. First is the plant penetrative characteristic of the various compounds. Some pesticide chemistries, like organophosphates, have limited penetrative potential in plant tissue, and thus are considered primarily as surface materials. Some compounds, such as carbamates, oxadiazines and pyrethroids, penetrate plant cuticles, providing some resistance to wash-off. Many newer compounds, such as spinosyns, diamides, avermectins, and Insect Growth Regulators (IGR) readily penetrate plant cuticles and have translaminar movement in leaf tissue. Others, like the neonicotinoid insecticides, are systemic and can have translaminar as well as acropetal movement in the plant's vascular system. Penetration of plant tissue is generally expected to enhance rainfastness of pesticides.

The second factor is the inherent toxicity of an insecticide to the target pest and the persistence of the compound in the environment. In some cases, a compound may be highly susceptible to wash-off, but its persistence and inherent toxicity to the target pest compensates for the loss of residue, thus delaying the need for immediate re-application.

The third factor is the amount of precipitation. In general, organophosphate insecticides have the highest susceptibility to wash-off from precipitation, but their high level of toxicity to most insect pests overcomes the necessity for an immediate re-application. Neonicotinoid insecticides are moderately susceptible to wash-off with residues that have moved systemically into plant tissue being highly rainfast, and surface residues less so. Carbamate, IGR and oxadiazine insecticides are moderately susceptible to wash-off, and vary in their toxicity to the range of relevant fruit pests. Diamide, spinosyn, avermectin and pyrethroid insecticides have proven to be moderate to highly rainfast on most fruit crops.

For most insecticides, a drying time of two to six hours is sufficient to "set" the compound in the plant. With neonicotinoids, for which plant penetration is important, drying time can significantly influence rainfastness. For neonicotinoids, up to 24 hours is needed for optimal plant penetration, thus the time proximity of precipitation after application should be considered carefully. Spray adjuvants, materials intended to aid the retention, penetration or spread on the plant, can also improve the performance of insecticides.

Based on the results from John's studies at Michigan State University's research orchards, he developed a series of charts that serve as a guide for general rainfastness characteristics and re-application recommendations for certain insect

pests. Those tables are presented at the link listed above and are also printed in the MSU Extension E-154 bulletin, "2013 Michigan Fruit Management Guide"). John encourages grower to note that these recommendations should not supersede insecticide label restrictions or farm-level knowledge based on site-specific pest scouting, but rather are meant to compliment a comprehensive pest management decision-making process.

Rick Weinzierl (217-244-2126; weinzier@illinois.edu)

## Codling Moth and Oriental Fruit Moth Control ... Preharvest Intervals for Insecticides

The only way to really assess the need for insecticides to control successive generations of oriental fruit moth in peaches and apples and codling moth in apples at this stage of the season is to use pheromone traps to monitor flights and predict egg-laying. Where traps continue to catch significant numbers of these insects, insecticide applications are still needed to prevent larval infestations of fruit. As peach harvest continues and apple harvest approaches, it is important to know and adhere to the required preharvest intervals (PHIs) for registered insecticides – the number of days that must elapse between last application and harvest. Here they are for the insecticides most often used to control these insects. (See pages 46-47 of the 2013 *Midwest Tree Fruit Spray Guide* for a more extensive list.)

Insecticide	PHI in apples	PHI in peaches
Altacor	5	10
Assail	7	7
Avaunt	14	14
Baythroid	7	7
Belt	14	7
Belay	7	21
Calypso	30	Not labeled
Danitol	14	3
Delegate	7	14
Entrust	7	14
Imidan	7	14
Intrepid	14	7
Mustang Max	14	14
Pounce (permethrin)	Not recommended	14
Renounce	7	7
Rimon	14	8
Sevin	3	3
SpinTor	7	14
Warrior	21	14

Rick Weinzierl (217-244-2126; weinzier@illinois.edu)

#### Sap Beetles in Strawberries (and other small fruits)

It is typical for growers of day-neutral strawberries to encounter problems with sap beetles as berries ripen in mid-summer when these insects are abundant. Berries progress from almost ripe to "a mess" – burrowed into, mushy, and unmarketable – in a few days. The beetles that 'picnic' on strawberries and a variety of other 'fruits' (damaged apples, strawberries, raspberries, watermelons, muskmelons, corn, tomatoes), including the picnic beetle (*Glischrochilus quadrisignatus*), are collectively called sap beetles. Picnic beetles are attracted by over-ripe or fermenting fruit, so it is important to pick fruits as soon as they ripen. Insecticide applications may be appropriate, but the preharvest intervals for most products limit their usefulness against these insects. See pages 60-61 of the 2013 Midwest Small Fruit and Grape Spray Guide for a listing of PHIs for insecticides registered on berry crops.

James Theuri (815-933-8337; jtheu50@illinois.edu)



Picnic beetle (left) and infested/damaged strawberries (right).

## Vegetable Production and Pest management

Quick Updates on Insects ... check previous issues of this newsletter for more management recommendations.

- Corn earworm moth counts in traps throughout the state remain low ... with field corn silking in most areas (and attractive to egg-laying corn earworm moths), pressure in sweet corn is low.
- Squash vine borer and squash bug infestations continue to cause problems in much of the state.
- Aphids are building up in pumpkin fields that have ben (over)treated with pyrethroids that kill their natural enemies. Actara and Fulfill are among the most effective insecticides labeled in pumpkins for aphid control. Obey the label restrictions regarding application timing to avoid bee poisoning.

Rick Weinzierl (217-244-2126; weinzier@illinois.edu)

#### August Seeding for Fall and Winter Harvests

Commercial production of many vegetables can take place all year with the use of row covers and high tunnels. Timing is critical for this type of production to be successful. August signals an important time period to begin seeding a number of crops. The idea is to get the majority of the growth the plants need completed before the coldest temperatures of winter arrive. As such, a consideration of how soon we should seed the crop is warranted. Common vegetable crops we see produced in Illinois for fall and winter harvest include several varieties of greens as well as the hardy bulb type crops. The table below shows the optimum germination temperature for these crops as well as estimated days to harvest.

Optimum germination temperature for fall crops.

Crop	Optimum germination temp (F)	Estimated days to harvest
Beet	80	60
Carrots	80	70
Spinach	70	40
Chard	85	60
Turnips	80	50

While the "dog days of summer" are upon us, we still need to be seeding these crops soon to have marketable produce in the fall and winter and maintain our customer base.

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

#### Local Foods Issues

#### GAPs – Cooling Produce After Harvest

In order to remain competitive, growers must ensure that the quality of produce is maintained as well as possible from harvest to time of consumption. Harvest should be done at the right temperature to avoid late-day field heat, and cooling should be done as soon as possible to remove field heat. Proper cooling inhibits/slows enzymatic degradation and respiratory activity (softening), slows water loss (wilting), hinders growth of decay-causing organisms (fungi and bacteria), and reduces production of ethylene (ripening hormone). In addition, cooled produce can be sold at a later date, increasing marketing flexibility.

Requirements for cooling differ with different commodities, product packaging type (box, bin, or bag), product flow capacity (rate of cooling of each method), and economic considerations (profit margins, cost-benefit ratio, etc.). Produce should ideally be harvested during the coolest part of the day and kept in the shade away from direct sun. Common methods of cooling include

- Room cooling in an insulated room equipped with refrigeration units.
- Forced air cooling with fans to force cool air inside the unit; it is usually 75 to 90% faster than room cooling.
- Hydrocooling uses running water over water-insensitive food commodities, thus absorbing heat off the produce. However, hydrocooling is only about half as efficient as forced cooling.
- Top or liquid icing: crushed ice is added to container over top of the produce by hand or machine, as in dense packages of sweet corn or broccoli that cannot be cooled with forced air.
- Evaporative cooling uses misting or wetting the produce in the presence of a stream of dry air. This method works best when RH is less than 65%, and at best only reduces produce temperature by 10 to 15° F.

How important is cooling for produce quality? Studies show that for each hour of delay between harvest and cooling, one day of total shelf life can be lost. It is particularly rapid for strawberries: a 4-hour delay causes unmarketability of 40% of the crop, while an 8-hour delay results in 60% loss of harvested crop.

Wash water temperature is important not just to keep produce cool, but to also slow the rapid loss of a disinfectant such as chlorine from the water. Chlorine can also become unavailable if it is adsorbed by organic matter, or if the water becomes too acidic. For best sanitation, chlorine should be monitored continuously, for example using test strips that are dipped in the water and the change in color of the strip is checked against a color code whose intensity correlates with the amount of chlorine in the wash water.

For additional information, see <a href="http://jhawkins54.typepad.com/files/konieczka---harvests-and-handling-1.pdf">http://jhawkins54.typepad.com/files/konieczka---post-harvest-standards-and-safety-1.pdf</a>, and <a href="http://jhawkins54.typepad.com/files/kindhart---cold-storage-conditions-and-how-to-achieve-them-1.pdf">http://jhawkins54.typepad.com/files/kindhart---cold-storage-conditions-and-how-to-achieve-them-1.pdf</a> from the 2013 Illinois Specialty Crops, Agritourism, and Organic Conference (ant the slides in each presentation that provide useful references).

James Theuri (815-933-8337; jtheu50@illinois.edu)

### Soils, Manure, and Compost

Preparing for the 2014 season includes preparing the soil this fall. Some things to put on the "to do" list for this fall include soil testing if it hasn't been done recently. If fertilizer needs to be added, fall is a good time to incorporate lime, phosphorus and potassium. For a list of soil test labs, see: <a href="http://urbanext.illinois.edu/soiltest/">http://urbanext.illinois.edu/soiltest/</a>.

You might also consider using soil amendments such as manure or untested compost that should be incorporated in the fall. Manure and compost are excellent soil amendments that not only add nutrients but also improve soil quality. To test for the nutrient content you can send a sample to specialized labs listed at: <a href="http://web.extension.illinois.edu/smallfarm/downloads/49512.pdf">http://web.extension.illinois.edu/smallfarm/downloads/49512.pdf</a>.

If you don't have manure, then get to know your closest livestock owners and negotiate a deal for the manure. Manure Share, <a href="http://web.extension.illinois.edu/manureshare/">http://web.extension.illinois.edu/manureshare/</a>, provides an easy network to share this valuable resource. You can list your farm as "wanting manure" or you can go to the list "I want manure" and search for farms close to you.

Both manure and compost can pose a risk for pathogen contamination. Manure often contains *E. coli*, *Salmonella*, or other pathogens. Compost may carry pathogens if it was not turned properly or if it didn't heat up consistently during the process. If you are purchasing compost, ask for the process records or grade certification. GAPs recommends incorporating these soil amendments in the fall and at least 120 days prior to harvest of produce.

To learn how to do large-scale composting, attend the Composting Workshop on September 10 in DeKalb. Register at: <a href="http://web.extension.illinois.edu/state/calendar\_event.cfm?ID=62657">http://web.extension.illinois.edu/state/calendar\_event.cfm?ID=62657</a>

Ellen Phillips (815-732-2191; ephillps@illinois.edu)

## Less Seriously ...

David Gergen, a former staff member for four different presidents and now of CNN, recently addressed the Commonwealth Club of California and prefaced his remarks by acknowledging he has been around politics and government for a long time ... in other words, getting old. He lightheartedly offered a couple of anecdotes that he noted applied fairly well ...

- My son said to me, "Dad, you're really slowing down ... do you realize that it takes you an hour and a half to watch 60 Minutes?"
- He retold this story ... I was walking through the woods and heard a faint voice. I stopped but could not see anyone. Then I heard the voice again, coming from the ground. The voice came from a frog, and it said, "If you kiss me I will turn into a beautiful princess devoted to you." He thought for a minute but did nothing. The frog repeated its message. "Please, if you kiss me, I will turn into a beautiful princess." He thought for a moment, then reached down, picked up the frog, put it into his coat pocket, and resumed walking. The frog, rejected and confused, crawled to the open in the pocket and said, "Don't you believe me? If you kiss me I really will turn into a beautiful princess devoted to you." The man looked down at the frog, and said simply, "Oh, I believe you alright, but at my age I would rather have a talking frog."

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

Extension Educators – Local Food Systems and Small Farms				
STEPHEN AYERS, Champaign, Ford, Iroquois, & Vermilion counties	217-333-7672	srayers@illinois.edu		
DEBORAH CAVANAUGH-GRANT, Logan, Menard & Sangamon counties	217-782-4617	cvnghgrn@illinois.edu		
KYLE CECIL, Henderson, Knox, McDonough, & Warren counties	309-342-5108	cecil@illinois.edu		
CONNIE ECHAIZ, Lake and McHenry counties	847-223-8627	cechaiz@illinois.edu		
LAURIE GEORGE, Bond, Clinton, Jefferson, Marion, & Washington counties	618-548-1446	ljgeorge@illinois.edu		
DOUG GUCKER, DeWitt, Macon, and Piatt counties	217-877-6042	dgucker@illinois.edu		
NATHAN JOHANNING, Franklin, Jackson, Perry, Randolph, & Williamson counties	618-687-1727	njohann@illinois.edu		
GRANT McCarty, Jo Daviess, Stephenson, and Winnebago counties	(815) 235-4125	gmccarty@illinois.edu		
ELLEN PHILLIPS, Boone, DeKalb, & Ogle counties	815-732-2191	ephillps@illinois.edu		
MIKE ROEGGE, Adams, Brown, Hancock, Pike & Schuyler counties	217-223-8380	roeggem@illinois.edu		
DAVID SHILEY, Coles, Cumberland, Douglas, Moultrie & Shelby counties	217-543-3755	dshiley@illinois.edu		
JAMES THEURI, Grundy, Kankakee, & Will counties	815-933-8337	jtheu50@illinois.edu		
Extension Educators – Hort	iculture			
RICHARD HENTSCHEL, DuPage, Kane, & Kendall counties	630-584-6166	hentschel@illinois.edu		
ANDREW HOLSINGER, Christian, Jersey, Macoupin, & Montgomery counties	217-532-3941	aholsing@illinois.edu		
SONJA LALLEMAND, Franklin, Jackson, Perry, Randolph, & Williamson counties	618-687-1727	lalleman@illinois.edu		
ELIZABETH WAHLE, Bond, Clinton, Jefferson, Marion, Madison, Monroe, St Clair, & Washington counties	618-344-4230	wahle@illinois.edu		
Extension Programs for Farm to School				
JULIA GOVIS, Statewide Extension Program Coordinator, Farm to School	630-955-1150	jgovis@illinois.edu		
Horticulture Research-Extension Specialists	at our Research Statio	ns		
JEFF KINDHART, Dixon Springs Agricultural Center	618-695-2770 618-638-7799 (cell)	jkindhar@illinois.edu		
SHELBY HENNING, St. Charles Horticulture Research Center	630-584-7254	shenning@illinois.edu		
Campus-based Extension Specialists				
MOHAMMAD BABADOOST, Plant Pathology	217-333-1523	babadoos@illinois.edu		
	+			
Mosbah Kushad, Fruit & Vegetable Production	217-244-5691	kushad@illinois.edu		
	217-244-5691 217-244-4469	kushad@illinois.edu masiunas@illinois.edu		
MOSBAH KUSHAD, Fruit & Vegetable Production				

## Return Address:

Rick Weinzierl Department of Crop Sciences University of Illinois 1102 South Goodwin Ave. Urbana, IL 61801

