



# UNIVERSITY OF ILLINOIS EXTENSION

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](mailto:weinzier@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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### *Upcoming Programs*

- **IL/IA Fruit and Vegetable Conference, November 21, 2008** ... at the Scott County Extension Office, Bettendorf, IA. Contact Maurice Ogutu at [ogutu@illinois.edu](mailto:ogutu@illinois.edu) or 708- 352-0109 for more information.

### *Regional Updates*

#### **From southwestern Illinois ...**

The remnants of Hurricane Ike passed over much of the southern region Sunday, September 13, delivering high winds and upwards of 5 inches of rain. Damage was reported in the form of lodged and snapped trees, structural damage to greenhouses, and flooded fields. In apples, G.30 overall had the most breakage and M.7, M.9 and Bud.18 had the most reports of leaning or lodging. Apple drop could have been worse, but because the season is running a bit late, apples were tighter on the tree than they normally would have been at that date. For the most part, damage was not devastating, but quite a bit of work will be involved in repairs and cleanup. Damage was far less than has been reported from states to our east, such as Ohio. Except for Fujis, apple harvest in the southern region should be finished in the next two weeks. Already completed are Galas, Jonathans, and Goldens. Reds are finishing, and pickers are expected to be moving into regular season Fujis in the next 10 to 14 days if weather conditions hold up. Those with late-season peaches such as Parade are just finishing.

Grape harvest should be finishing in the next week or so with Chambourcin being the last to harvest for most growers in the region. Plasticulture strawberries are in the ground, and so far growing conditions have been conducive to good establishment. Pumpkin harvest is picking up, and harvest is ongoing for many vegetables including sweet corn, tomato, and peppers.

*Elizabeth Wahle (618-692-9434; [wahle@illinois.edu](mailto:wahle@illinois.edu))*

**From the Dixon Springs Agricultural Center ...**

Very dry conditions continue though parts of southeastern Illinois. Remember that irrigation should continue on blueberry and matted row strawberry plantings at this time of year. Poor growing conditions during the fall period of flower bud initiation can have a significant impact on next year's yields. It is also time to think about planting garlic for those of us who grow that crop.

Most growers have finished planting their plasticulture strawberries, and the forecast looks good for getting the plants off to a strong start. Remember to scout strawberry plasticulture plantings for insect and foliar disease problems and treat when warranted to reduce the impact of any problems that may slow plant development. Primocane blackberry harvest should continue for some time, with plantings showing all stages from flowers in tight bud to ripe fruit. Traps for raspberry crown borer are catching clearwing moths at this time at DSAC ... the next step is to get them identified to make sure what species are present. (Lures for clearwing moths such as raspberry crown borer are not as specific as those for many other pest species, so a little extra care is needed in interpreting the catches.)



Upper left: primocane blackberries at DSAC; upper right: irrigation to cool and promote establishment of newly set strawberries; lower left: pheromone trap for raspberry crown borer; lower right: clearwing moths captured in the trap.

Jeff Kindhart (618-695-2441; [jkindhar@illinois.edu](mailto:jkindhar@illinois.edu))



## **In northern Illinois ...**

September 10-24 brought the region several sunny days with temperatures in the 60s to low 80s and overnight lows in the upper 40s to upper 60s. But of course ... the region received 4 - 14 inches of rain September 11-14, with higher amounts recorded in the Chicago Metropolitan area and parts of Kankakee and Will Counties, with lower amounts in the Rockford area. The higher amounts of rainfall led to flooding in some fruit and vegetable farms, and even homes were flooded in some areas in the region. The water remained standing on some fields for days, leading to death and rotting of vegetables and even total crop loss in some fields.

Apple picking is going on in many orchards, particularly for the varieties such as Honey Crisp, Jonathan, Cortland, Fuji, and Liberty. Harvest of grapes and fall-bearing raspberries also is ongoing. Due to the wet and humid weather following recent heavy rains, orchardists need to continue summer disease control spray programs.

Picking of sweet corn, peppers, tomatoes, melons, cucumbers, and squash continues. Heavy rains contributed to outbreaks bacterial spot in pumpkins, phytophthora rot (peppers, and vine crops), angular & cercospora leaf spots (cucumbers and melons), and fusarium fruit rots in pumpkins and other vine crops. Bacterial canker, bacterial spot, and early blight have been observed in tomatoes. Mosaic viruses and powdery mildew have been problems in pumpkin and squash. Squash bugs, cucumber beetles, and western corn rootworm beetles are common in pumpkin and squash. Pumpkin harvesting well underway in many farms, particularly for the wholesale market.

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## ***Notes from Chris Doll***

It seems that everyone has their "IKE" story, and most have not been good. Locally, the good news is that not as many apples and trees hit the ground as in many other areas. The Back-40, Madison County, and eastern Missouri orchards did not have near the fruit loss that would be expected from high winds. Some of the southern Illinois apple growers had quite a few apples on the ground, and some trees were lost, depending on the rootstock. M9's were noteworthy in that the roots snapped, resulting in tree loss versus M7's that bent instead of snapping. Locally, the rainfall amounts in a few hours ranged from 3.5 to 6.5 inches, while the far south had only a couple of tenths. But almost everyone is wet at this time.

The weather following the storm has been great, with lots of sunshine and relatively mild temperatures, for example 58-86 degrees on September 24. Apples are continuing to color and size, and harvest is proceeding also. The season remains somewhat behind "normal," but maturity of the major varieties has increased rapidly in the last week. Jons, Reds, and Goldens are all being picked, but in the Back-40, I am waiting for Empire, Spartan, and Jonagold to develop harvest quality. Refractometer readings taken September 24 (rounded out in percent) were 11 for Goldens and Spartan, 12 for Jonagold and Goldrush, 13 for Reds and Fuji, and 15 for September Wonder Fuji.

Apple size is good to very good this year. I thought that I had a big Honeycrisp (470 grams) until I found a bigger Jonagold (515 grams) on the ground in a commercial orchard. Maybe we should have a state contest for the biggest apple this year.

Problems seen in orchards recently include lots of peach tree growth to be pruned off after a fairly wet growing season. A few blocks are just beginning to show a change toward leaf maturation, so the corn growers are not the only people worried about an early freeze. In apples, plenty of cork pitting is present, even with full season use of calcium in the cover sprays. A few third generation codling moth entries have been seen, as have woolly apple aphids in large numbers. No severe San Jose scale problem has been seen, but their presence has been noted in several peach and apple blocks. On the disease side, bitter rot and white rot can be found, and the wet September could lead to a collar rot problem if the rain continues through the next month.

I've stayed away from grapes in these Notes over the years, but the increased focus on the crop and the fermented product does interest me. In my grape files, I found the following wine item given to me by Fred Baxter of Navou when we were at the U of I:

Good wine makes good blood  
Good blood causes good humor.  
Good humor causes good thoughts.  
Good thoughts bring forth good works.  
Good works carry a man to heaven. Ergo, Good wine carrieth a man to heaven.

*Chris Doll*

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

### ***Honeycrisp Leaf Yellowing.***

Two weeks ago, a grower in northern Illinois sent me photographs of his young Honeycrisp trees, and most of the leaves were brown, as if they were scorched in a fire. The damage was mostly in the areas that had turned yellow earlier in the growing season. The problem is not unique to this orchard. Jon Clemens of University of Massachusetts observed similar injury in his area. The damage appears to be more severe on young trees and on trees with no crop load (opposite of what one would suspect). The damage is also more severe in orchards with poor weed control and with no herbicide strip. Jon and I think that the problem maybe nutritional, but testing of soil and leaf samples is needed to identify the type of deficiency causing this problem.



Leaf scorch of Honeycrisp

Growers who have Honeycrisp should pay attention to weed control in the herbicide strip. If you're in Illinois, please contact me so I can arrange to collect leaf and soil samples next summer for testing.

*Mosbah Kushad (217-244-5691; kushad@illinois.edu)*

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

### ***Pumpkin Handles and Flooding After a Heavy Rain.***

Many areas in northern and central Illinois saw heavy rains as great as 10 inches on Sunday September 14, following Hurricane Ike. Some pumpkin patches, especially those that are on heavy soil with poor drainage, suffered damage due to fruit rot. Handles of many fruits in the flooded area also snapped at the union between the fruit and the handle, even though there was no visible rot on the fruits. Patches of fruits in sandy soil and soils with good water drainage had little damage to the handles. Some of the handles were still green when they broke (abscised) at the union. The most likely cause of the handle breakage is that the roots of flooded plants produce a chemical called ACC (1-aminocyclopropane-1-carboxylic acid) that translocates into the abscission zone between the handle and the fruit. When the ACC reaches the fruit abscission zone and the leaves, it converts into ethylene. Ethylene is a hormone that causes the cells in the abscission zone to produce enzymes that break the cell walls. Ethylene synthesis is stimulated by any type of mechanical damage, diseases, and insect infection. The abscission zone of most fruits is only a few cells deep, and it is very sensitive to ethylene, so any damage by flooding, diseases, or mechanical injury causes the handle to break at the junction between the fruit and the handle.



Left: Pumpkin handle snapped due to flooding. Right: Pumpkin handle snapped due to disease damage.

It is best to harvest healthy fruits before a heavy rain and to minimize damage to the fruit during harvest and storage. Cure the harvested fruits by storing them in a high tunnel or a greenhouse. Curing is best when the fruit is kept at 84°F and high relative humidity (95%) for about 10 days. To get high humidity, spray water on the ground but not on the fruits and do not store the fruit on any surfaces that retain water. If you plan to store the fruit on concrete, put straw under the fruits and store them in a single layer.

*Mosbah Kushad (217-244-5691; kushad@illinois.edu)*

### *Less seriously ...*

#### **Proper Job Placement**

1. Put 400 bricks in a closed room.
2. Put your new hires in the room and close the door.
3. Leave them alone and come back after 6 hours.
4. Then analyze the situation:
  - a. If they are counting the bricks, put them in the Accounting Department.
  - b. If they are recounting them, put them in Auditing.
  - c. If they have messed up the whole place with the bricks, put them in Engineering.
  - d. If they are arranging the bricks in some strange order, put them in Planning.
  - e. If they are throwing the bricks at each other, put them in Operations.
  - f. If they are sleeping, put them in Security.
  - g. If they have broken the bricks into pieces, put them in Information Technology.
  - h. If they are sitting idle, put them in Human Resources.
  - i. If they say they have tried different combinations, they are looking for more, yet not a brick has been moved, put them in Sales.
  - j. If they have already left for the day, put them in Management.
  - k. If they are staring out of the window, put them in Strategic Planning.
  - l. If they are talking to each other, and not a single brick has been moved, congratulate them and put them in Top Management.
  - m. Finally, if they have surrounded themselves with bricks in such a way that they can neither be seen nor heard from, put them in Congress.**

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