



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, 217-333-6651, weinzierl@uiuc.edu. The *Illinois Fruit and Vegetable News* is available on the web at: <http://www.ipm.uiuc.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 Specialists in Fruit & Vegetable Production & Pest Management

Upcoming Programs

- **Illinois-Iowa Fruit and Vegetable Conference**, Thursday November 29, 2007 at the Scott County Extension Office Bettendorf, Iowa. Registration is \$25 per person; program begins just before mid-day. For more information, contact Maurice Ogutu, 708-352-0109 (ogutu@uiuc.edu) or refer to: <http://www.extension.iastate.edu/johnson/news/fruitandvegemt看g.htm>
- **Tri-State Locally Grown Conference**, also November 29, 2007, 9:00 a.m. to 4:00 p.m. at John Wood Community College. This conference is designed for farmers, consumers, educators, and others interested in building and supporting a sustainable local food system. Registration is \$25 per person in advance. To find out more or to register online visit: www.extension.uiuc.edu/adams or contact Carrie Edgar at 217-223-8380 or cedgar@uiuc.edu.
- **Great Lakes Fruit, Vegetable, and Farm Market EXPO**, December 4-6, 2007, Grand Rapids, MI. See: <http://www.glexpo.com/index.php>.
- **More to come on these programs, but mark the dates on your calendar ...**
 - January 3, 2008: Illiana Vegetable School, Schererville, IN
 - January 8, 2008: Community Supported Agriculture & Collaborative CSAs Workshop, Macomb, IL
 - January 9-11: 2008, Illinois Specialty Crops and Agritourism Conference, Springfield, IL
 - January 12, 2008: Buy Local, Eat Healthy, Springfield, IL
 - January 17-18, 2008: Midwest Organics Conference, Urbana, IL
 - January 19, 2008: Herb Day, Champaign-Urbana, IL
 - January 24, 2008: Illinois Horseradish School, Collinsville, IL
 - January 25, 2008: Alternative Crop Production Workshop, Macomb, IL
 - February 5, 2008: Southwestern Illinois Tree Fruit School, Hardin, IL
 - February 6, 2008: Southern Illinois Tree Fruit School, Mt. Vernon, IL
 - February 13, 2008: Southern Illinois Vegetable School, Mt. Vernon, IL
 - February 15, 2008: Illinois-Wisconsin Fruit and Vegetable Conference, location to be announced
 - February 19, 2008: Western Illinois Fruit and Vegetable School, Quincy, IL
 - February 20, 2008: Kankakee Area Vegetable School, Kankakee, IL
 - February 21-23, 2008: Illinois Grape Growers and Vintners Association Annual Meeting, location to be announced
 - March 4-5, 2008: Illinois Small Fruit and Strawberry School, Mt. Vernon, IL

Regional Updates

In the south and southwest ...

On the morning of October 29 the southern region got a frost that toasted most tender foliage close to the ground. Volunteer corn, tomatoes and pumpkins on bare ground are shriveled, but most everything perennial is easing into dormancy. Of course it's typical that johnsongrass lasted through this just fine. Surprisingly, the landscape developed a muted beauty in terms of fall color despite the drought and high temperatures through the season. I had seen my first Bald Eagle on the Illinois River on October 20th, a clear sign that winter was coming, though it has been slow in truly developing. The last few weeks in southern Illinois have had several days that would count as a perfect.

Strawberry growers have had straw on hand as strawberries have flattened out, signaling the beginning of winter dormancy. Application of Devrinol before straw is applied over plants is recommended before soil freezes. Cultivate or irrigate 1 inch within 24 hours of Devrinol application. Straw should be mulched over the plants following herbicide application, but before temperatures drop below 20° F and or soil freezes up. This usually occurs in the latter half of November after a few light frosts – but it has not yet happened this fall. The 2 to 3 inches of straw required to cover strawberries sufficiently is equivalent to 2.5 to 3.0 tons per acre.

Leaves began falling from peach trees in late October and early November, and growers doing fall dormant applications after leaf drop for peach leaf curl are reminded applications must be thorough. Complete coverage of the twigs, branches, and trunks is essential for the fungicide to kill the spores on surfaces. For complete pesticide options, see the 2007 Midwest Commercial Tree Fruit Spray Guide at <http://www.extension.iastate.edu/Publications/PM1282.pdf>

Horseradish harvest is underway, and some are reporting tough soil conditions due to the heavy drought. Irrigated areas have been harvesting easier. Most of the horseradish growing area has received enough rain to start sizing roots. Other cool weather crops remain in harvest, but aside from a few high tunnels, warm season crops finished for the year at least a couple of weeks ago.

Elizabeth Wahle (618-692-9434; wahle@uiuc.edu)

In northern Illinois, first frost occurred on October 28 in most parts of the region. The area had received about 2 inches of rainfall during the last three weeks of October. Most vegetable operations closed during the first week of November, but a few continued harvesting cabbage and others who are using season-extending techniques such as high tunnels remained active a little longer. The pumpkin crop in the region was very poor compared to the last two years due to heavy downpours that occurred towards the end of August. This led to a lot of fruit rots in the field and also higher incidences of phytophthora-infected vines and fruits. In some cases, higher incidences of fruit rots occurred even after the fruits were harvested and stored. It is very important for growers that had flooded spots in their fields and higher incidences of phytophthora to deep-plow crop residues left on those areas and to look for alternative sites to grow pumpkins and other cucurbits next year. Removal of plastic mulch and drip tapes as well as tilling under leftover pumpkin fruits and crop residues is going on in many vegetable fields in the region. Some pick-your-own apple orchards remain open through as Thanksgiving approaches.

Upcoming meetings in northern IL:

- Illinois/Iowa Fruit and Vegetable conference on Thursday November 29, 2007 at Scott County Extension Office Bettendorf, Iowa. Registration is \$25 per person. For more information, contact Maurice Ogutu (ogutu@uiuc.edu) or refer to this web site: <http://www.extension.iastate.edu/johnson/news/fruitandvegmetg.htm>
- Illiana Vegetable Grower School on Thursday January 3, 2008 at Teibel's Restaurant in Schererville, IN: Contact Liz Maynard (emaynard@purdue.edu) or Maurice Ogutu (ogutu@uiuc.edu) for more details.

Maurice Ogutu (708-352-0109; ogutu@uiuc.edu)

Notes from Chris Doll

It has been a warm fall and one with plant dormancy a little behind normal. A couple of frosty mornings occurred in late October, but freezing temperatures arrived late this year. The foliage of apples, blackberries and strawberries remained fully green at the end of October, while grapes leaves were turning color and peaches were about 50 percent defoliated. The heat and drought of the summer and fall of 2007 took its toll on much of the landscape, but green wheat fields are a pleasant site as November progresses. Southwestern Illinois remains dry. The October rainfall here totaled 2.4 inches from six measurable rains, and much of that

disappeared rapidly with warm and sunny days. The yearly total at the end of October was 20.9 inches, which is about 10 inches below normal. This is in contrast to some areas further south that had 6-8 inches of rain recently.

Apple and peach trees have what appears to be a good flower bud set for next year, and without a crop of fruit on most trees, young vigorous trees made lots of shoot growth. Growth of older trees and new plantings generally was not very vigorous, and pruning time will be less on these. There is a tendency to begin pruning at this time of the year when the weather is nice and labor is available, but the "book" says that it is too early. Some of the nutrients in the leaves even in late fall are translocated to the wood which is beneficial to next year's growth. If removed by pruning, it is not there. The potential for freeze injury goes up the earlier pruning is done, and this too is a reason for delaying some more.

The seasonal tasks of mouse control, preventative measures against deer, and weed control are still not too late. Residual herbicides can be applied now to take advantage of soil and ground conditions as well as some nice spray days. The negatives to this include potential runoff if it ever rains and a 5-15 percent loss of residual time on the end of the control season next year.

An effect of the no-crop and no-spray season on peaches was noted in the Back-40 when I discovered some lesser peach tree borers in six percent of my trees. The trunk sprays with Lorsban appear to have been effective against (greater) peach tree borer and somehow the applicator failed to go higher in the tree. Peach growers might inspect their trees for similar infestations and consider the fact that a year without fungicides might result in an increase in leaf curl infections next spring.

Some reports of high infestation levels of codling moth have been received. Some of the problem might stem from less intensive spray programs on the light crop. And percentages of infestation tend to go up as the number of fruits goes down. I don't think anyone took the time to count CM entries by location on trees in 2007, but Stewart Chandler did in 1955, a light crop year from a freeze. His studies in southern Illinois that year showed that the CM numbers in tree tops averaged 27.4 percent and 28.9 percent in the bottom of the trees. This was in contrast to his findings in previous years when the tops usually had three to ten times more entries. (At that time the trees were much taller, and he inferred that spray coverage accounted for the difference in normal years.)

I found the above information because Ren Sirles reported that the last comparable freeze to 2007 was in 1955. In the 1955 ISHS Transactions I found the above report and some of the following weather and crop information. "The growing season began early, and a freeze on March 26 destroyed most of the apple, peach, and strawberry crops south of the 40 degree latitude. Minimum temperatures ranged from 2 degrees at Griggsville to 9 degrees at Carbondale. The peach industry was [so] damaged that commercially there was no crop. The apple industry suffered extreme losses." The Illinois Crop Report listed the Illinois apple crop at 1.4 million bushels or about 40 percent of average, and 130 thousand bushels of peaches, or about 9 percent of average. 2007 was like history repeating itself, or else the wheel went around one more time.

Chris Doll

Vegetable Production and Pest Management

Southern Illinois Pepper and Tomato Variety Trial Summaries

Summaries of three variety trials conducted in southern Illinois in 2007 are presented below. For more information on these trials, contact Jeff Kindhart at the University of Illinois Dixon Springs Agricultural Center, 618-695-2444 (jkindhar@uiuc.edu).

2007 PEPPER VARIETY TRIAL, FLAMM ORCHARDS

A pepper cultivar trial was established and evaluated at Flamm Orchard in Union County, Illinois. The plots were established from transplants set on April 27. Plots were grown on bare ground without irrigation at 24" x 40" spacing. They were harvested on June 27 and July 19. Plots were replicated four times. Table 1 shows yield data. The varieties are listed in descending order of U.S. No. 1 yield.

Table 1. Yield data for pepper varieties at Flamm Orchard.

<i>Variety</i>	Source	Color	Average Fruit Size U.S. No.1	Yield U.S. No. 1	Yield U.S. No. 2	Culls
			(oz)	(bu/A)	(bu/A)	(no./plant)
Alliance	SW	Red	9.3	485	54	0.6
Heritage	SW	Red	8.6	482	82	0.8
Aristotle	SW	Red	8.2	439	49	0.7
Olympus	SW	Red	9.0	430	65	0.4
Wahoo	SW	Red	9.6	425	98	1.0
Snapper	SW	Red	8.7	425	71	1.1
Telestar	SW	Red	8.1	411	101	0.4
Patriot	SW	Red	8.2	406	95	1.0
Gloria	SW	Yellow	8.5	387	71	0.9
Revolution	SW	Red	8.7	384	49	0.4
HMX 7649	SW	Red	8.9	381	82	0.5
Lafayette	SW	Yellow	8.5	376	54	0.6
Valencia	SW	Orange	7.5	365	180	0.7
Paladin	SW	Red	7.9	365	60	0.8
HMX 7648	SW	Red	8.6	362	27	0.6
Red Knight	SW	Red	8.2	359	68	1.0
King Arthur	SW	Red	8.7	349	171	1.2
Socrates X3R	SW	Red	8.1	315	54	0.4
Polaris	SW	Red	8.6	261	82	1.2

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2007 PEPPER VARIETY TRIAL, UNIVERSITY OF ILLINOIS DIXON SPRINGS AGRICULTURAL CENTER

A pepper cultivar trial was established and evaluated at the Dixon Springs Ag Center in Pope County, Illinois. The plots were established from transplants set on May 8. Plots were grown in twin rows at 12" spacing on raised beds at 5.5' spacing with black plastic mulch and trickle irrigation. They were harvested on July 9, July 24, and August 7. Plots were replicated three times. Table 2 shows yield data. The varieties are listed in descending order of U.S. No. 1 yield.

Table 2. Yield data for pepper varieties at DSAC.

<i>Variety</i>	Source	Color	Average Fruit Size U.S. No.1	Yield U.S. No. 1	Yield U.S. No. 2	Culls
			(oz)	(bu/A)	(bu/A)	(no./plant)
Revolution	SW	Red	10.1	1684	449	0.9
HMX 7649	SW	Red	10.1	1642	428	0.6
HMX 7648	SW	Red	9.6	1637	554	0.8
Polaris	SW	Red	8.4	1558	449	0.8
Heritage	SW	Red	8.9	1447	454	1.1
Socrates X3R	SW	Red	9.4	1404	628	1.0
Paladin	SW	Red	9.1	1404	517	1.4
Aristotle	SW	Red	9.3	1404	422	0.8
HMX 6644	SW	Red	9.3	1346	655	1.1
Granny Gold	SW	Yellow	7.0	1093	306	0.5
Tabby	SW	Yellow	6.8	523	502	0.5

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2007 TOMATO CULTIVAR TRIAL FOR SOUTHERN ILLINOIS

A tomato cultivar trial was conducted at the Dixon Springs Agricultural Center located in Pope County. Transplants used in the study were grown at DSAC and set on May 17, 2007. Plants were grown on raised beds with black plastic mulch and trickle irrigation. Plants were set 24 inches apart in rows with 5.5-foot bed spacing. They were grown using a trellis weave and pruned to below first cluster. All plots were replicated three times. Pest control practices followed recommendations given in the *Midwest Vegetable Production Guide, 2007*.

Plots were harvested twice per week for the period of July 16 to August 30. Cultivars are listed in descending order of total pounds of U.S. No. 1 fruit harvested. We wish to thank the seed companies for their contribution in this trial.

Table 3. Results of 2007 DSAC tomato variety trial.

Cultivar	Source	Early	Midseason	Total #1	Total Mktbl	Size	Culls
		7/16-7/20	7/24-7/31	7/16-8/30	Yield 7/16-8/30		
U.S. No. 1							
-----pounds per plant-----							
						(oz)	(no.)
NC 0377	NC	1.6	5.7	15.0	18.0	10.7	4.8
NC 05137	NC	1.6	4.5	12.7	16.1	9.9	12.0
Crista	SW	2.5	4.2	12.2	15.9	10.6	11.3
NC 0392	NC	2.4	5.5	11.2	13.6	10.5	7.5
Fabulous	SW	1.3	3.9	10.5	12.7	10.2	10.7
Big Beef	SW	1.3	4.1	10.2	15.0	9.2	10.2
NC 0718	SW	2.5	4.1	9.7	12.1	10.6	8.8
Florida 47	SW	1.3	4.3	9.2	17.8	10.7	6.9
BHN 589	SW	2.1	4.1	9.2	11.9	11.2	8.9
Pink Girl	SW	0.6	1.6	6.3	9.5	10.3	14.1
Tough Boy	SW	0.1	0.2	2.4	7.4	8.0	36.4
NC 05255 *	NC	0.3	3.0	13.5	13.5	4.4	
NC 05114*	NC	2.1	2.9	13.4	13.4	1.6	
Smarty*	NC	1.6	2.0	11.0	0.4		

* Specialty tomato

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