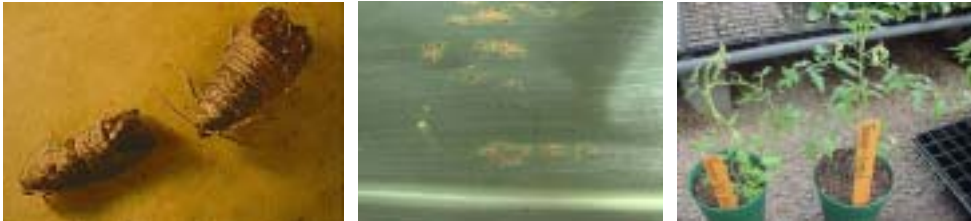


Illinois Fruit and Vegetable News

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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 address above.

This issue's words of wisdom ... which usually means the jokes ... are at the end of newsletter ... check the last page.

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University of Illinois Extension Specialists in Fruit & Vegetable Production & Pest Management

Crop Reports

From the University of Illinois Dixon Springs Agricultural Center ... The cool, wet weather of the last few weeks has been great. The vine crops have not really grown much, I've had to replant sweet corn, and the grass is growing out of control, but at least the electric bills have dropped from \$300 in March to \$80 in May. The last of the strawberries on plastic were harvested last week. Earliblue blueberries are ready to pick, with Coville coming on close behind. We will open up for U-pick blueberries next week. Tomatoes on plastic have been suckered, and the first string will be tied later this week. We did spray for aphids on tomatoes this week, so be on the lookout. As for the apples, I have noticed just a few shoot blight strikes of fire blight. The hail damage on the fruit is interesting in that some fruit have large, scarred areas while other fruit just have slight dents or depressions. The wounds on the limbs are starting to heal over. We applied third cover sprays last week. The grapes are in all stages of maturity, some clusters have pea-size fruit while others are just past bloom. We did some light pruning on the grapes this week and have been on a tight fungicide spray schedule due to all the rain.

Bronwyn Aly (618-6952444; baly@uiuc.edu)

In northern Illinois, average day temperatures in the mid 60s to low 70s with night temperatures in the upper 40s to low 50s were recorded during the last two weeks, with an exception on June 1 when the night temperature dropped to 39° F in many areas. It appears to be over 10° F cooler this year compared to the same period last year. Between May 22 and June 3, the area received about 2 inches of rainfall. Apples are about 1 inch diameter, and codling moth counts which were above ten per

night last week at a location or two have decreased to around 1 per night this week. Grape flower buds are sizing well, and pre-bloom sprays are going on. Asparagus and rhubarb harvesting are ongoing. Most growers have transplanted tomatoes, eggplant, and peppers, and a few have planted squash, cucumbers, melons and pumpkins. Others will continue with planting as soon as the ground can be worked again.

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

Degree-Day Accumulations Since January 1, 2003

Data for the table below are taken from the Midwestern Climate Center web site (<http://mcc.sws.uiuc.edu/>). Degree days are calculated using a rectangular averaging method on a 50 degree Fahrenheit threshold, with the minimum temperature for calculations reset to 50 on days with highs above 50 and lows below 50.

Location	DD, Base 50 F, through May 27	DD, Base 50 F, through June 3	DD, Base 50 F, 40-yr average through June 3	DD, Base 50 F, projected through June 17
1. Carbondale	933	1028	1128	1441
2. Belleville	1024	1118	1077	1392
3. Mt. Vernon	823	906	1027	1332
4. Springfield	760	838	846	1143
5. Urbana	760	830	759	1037
6. Peoria	687	765	748	1026
7. Kankakee	621	679	703	964
8. Moline	653	745	712	985
9. St. Charles	525	587	581	813



Projections for degree day accumulations two weeks into the future are derived by adding historic averages for degree days for the next two weeks to the actual current total listed for each location.

Kelly Cook (217-333-6651; kcook8@uiuc.edu; Rick Weinzierl (217-333-6651; weinzier@uiuc.edu)

Upcoming Meetings and Programs

Calhoun-Jersey Twilight Orchard Meeting, June 12. Dean and Lori Murray’s Orchard at Crooked Creek near Mozier, Illinois, is the location for a twilight orchard meeting at 6:00 p.m. on June 12. Rick Weinzierl will be present to provide an update on insect populations and insecticides. To get to the Orchard at Crooked Creek, from Hardin, take Rt. 100 north to Kampsville and turn left (west) onto Rt. 196. Pass through Mozier (past the church), and turn right at the stop sign. Turn right onto Crooked Creek, and after 1/4 mile, take the first driveway on the right and continue until you are near the cabin. Signs will be posted. For more information, contact Jennifer Russell at the Calhoun County Extension Office, 618-576-2293.

Illinois Summer Horticulture Day, June 27-28, Barry, Illinois. A preconference tour will be conducted on the afternoon of Friday, June 27, to show value-added and on-farm marketing opportunities in the area with fruits, vegetables, elk and wine. On Saturday, June 28, the summer meeting will provide specialist presentations, vendor displays and a field tour on current marketing and production topics of interest to fruit and vegetable growers. Novice and established growers will find useful information and the chance to renew and make new industry contacts. Registration includes the cost of meals, wine tasting, bus tours and offers a farm discount. Registration and programming details are available on-line at: www.dce.siu.edu And by phone at 618-536-7751. Imed Dami (618-453-2496; imeddami@siu.edu)

University of Illinois Dixon Springs Ag Center Field Day, August 7. The 2003 DSAC Field Day and Open House will be held on Thursday, August 7, 2003 from 7:30 a.m to 1:00 p.m. The Dixon Springs Ag Center is located on Illinois Route 145, approximately 30 miles south of Harrisburg, IL, and 30 miles north of Paducah, KY. Represented at the DSAC are the Departments of Natural Resources and Environmental Sciences, Crop Sciences, and Animal Sciences, and the College of Veterinary Medicine. Tours in each of the areas will be offered throughout the morning. For further information, contact Bronwyn Aly at 618-695-2444 or baly@uiuc.edu.

Fruit Production and Pest Management

Notes on codling moth and Oriental fruit moth

Elizabeth Wahle sent in some excellent photos that are included below: a codling moth egg (upper left), some “stings” (shallow entries into fruit) (upper right, and close-up lower left), and a very young larva (lower right).



Elizabeth noted that these fruits came from an Assail-treated orchard where pressure was very heavy and that fruit injury was minimal.

My observations of apples and peaches in Calhoun, Jersey, and Union counties in the last few days have been promising – little or no codling moth or Oriental fruit moth damage to date, though it's only now that codling moth entries will begin to show, and the next few weeks will be key in preventing Oriental fruit moth entries. Next week I'll be doing the first evaluation of a plot comparing several insecticides for codling moth control in southern Illinois.

Rick Weinzierl (217-333-6651; weinzier@uiuc.edu)

Vegetable Production and Pest Management

Corn earworm and European corn borer counts from traps

Ron Hines at the University of Illinois Dixon Springs Agricultural Center in far southern Illinois has been operating pheromone traps for several Lepidopteran pests for a few weeks now, and his report from June 3 (on the web at http://www.ipm.uiuc.edu/pubs/hines_report/) notes active flights of corn earworm, European corn borer, and southwestern corn borer. John Shaw of the Illinois Natural History Survey in Champaign reported capturing European corn borer moths for the first time this season on the night of June 4.

Kelly Cook is attempting to provide a frequently updated web site with counts of European corn borer and corn earworm moths for access by Illinois growers (and anyone else). To do so, she needs your help. If you operate a light trap or pheromone trap for European corn borer or a pheromone trap for corn earworm moths, please contact Kelly. She would like to make arrangements to receive information from you and post it for all to see. Please contact Kelly directly if you are willing to supply information. You can reach her at kcook8@uiuc.edu or 217-333-6652.

Rick Weinzierl (217-333-6651; weinzier@uiuc.edu)

Worm control in cabbage and other crucifers

Cabbage, broccoli, Brussels sprouts, cauliflower, and crucifer greens (mustards, collards, etc.) are all host crops to a group of “Leps” (butterflies and moths). Larvae of these insects are often referred to as the “worms” in cabbage and related crops. They include the imported cabbage worm (top left in the photos below), cabbage looper (top right), and diamondback moth (lower left).



Imported cabbage worm adults are the common white cabbage butterflies, and this species often shows up earlier in the season than the other two. Larvae are “fuzzy” or velvety. Cabbage looper adults are brown moths with distinctive markings on their forewings (see http://creatures.ifas.ufl.edu/veg/leaf/cabbage_looper_adult2.htm from the University of Florida). Cabbage loopers are the largest and most damaging of the three species. Diamondback moth adults are very small, as are the larvae. They have become infamous as pests of crucifers because populations in various parts of the world are resistant to a broad range of insecticides.

Recommendations for the control of these pests: Growers are advised to scout crucifers at least weekly and record the percentage of plants infested with any larvae of any of the three species. Thresholds for control are:

Cabbage		Broccoli and Cauliflower	
Stage Infested:	Control if percent plants infested exceeds:	Stage Infested:	Control if percent plants infested exceeds:
Seedbed	10%	Seed bed	10%
Transplant to cupping	30%	Transplant to 1 st flower / curd	50%
Cupping to early head	20%	First flower / curd to Maturity	10%
Mature head	10%		

Insecticides registered for controlling Lepidopteran larvae in these crops and in crucifer greens are listed in the *Midwest Vegetable Production Guide* and in Chapter 7 of the *Illinois Agricultural Pest Management Handbook*. Remember that diamondback moth populations often include individuals resistant to one or more insecticides, including the pyrethroids. It is unwise to use the same compounds repeatedly throughout the season because doing so “selects” these resistant individuals for survival and reproduction, and subsequent generations contain higher and higher percentages of resistant larvae, making control very difficult. Using products that contain *Bacillus thuringiensis* (Bt) such as MVP, Javelin, Dipel, Biobit, Agree, Xentari, Lepinox, and Ketch is advised early in the season and early in the development of each planting. Bt insecticides kill Lepidopteran larvae without directly harming the natural enemies of these pests. The natural enemies can then attack the worms that are not killed by Bt applications. This approach also saves the pyrethroids for later in crop development when a highly effective cleanup spray may be needed as the crop approaches harvest. Other alternatives to pyrethroids include (but are not limited to) SpinTor, Proclaim, and Avaunt. Pyrethroids that are effective for controlling cabbage looper and diamondback moth (populations that have not evolved resistance) include Capture, Warrior, Pounce, Scout Xtra, and Mustang.

Rick Weinzierl (217-333-6651; weinzier@uiuc.edu) (From Kelly Cook, 217-333-6651, kcook8@uiuc.edu)

This issue's words of wisdom ... always pay close attention to the details ...

After dying a grisly death in an Afghan cave, Osama made his way to the pearly gates.

There, he was greeted by George Washington.

"How dare you attack the nation I helped conceive!" yelled Washington, slapping Osama in the face.

Patrick Henry came up from behind. "You wanted to end America's liberty, so they gave you death!" Henry punched Osama in the nose.

James Madison came next, and said, "This is why I allowed the government to provide for the common defense!" He took a sledge hammer and whacked Osama's knees.

Osama was subjected to similar beatings from John Randolph, James Monroe, and 65 other people who had the same love for liberty and America. As he writhed on the ground, Thomas Jefferson hurled him back toward the gate where he was to be judged.

As Osama awaited his journey to his final very hot destination, he screamed, "This is not what I was promised!"

An angel replied, "I told you there would be 72 Virginians waiting for you. What did you think I said?"

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

Extension Educators in Food Crop Horticulture		
Bill Shoemaker, St. Charles Res. Center	630/584-7254	wshoemak@inil.com
Maurice Ogutu, Countryside Ext Center	708-352-0109	ogutu@uiuc.edu.
Elizabeth Wahle, Edwardsville Center	618-692-9434	wahle@uiuc.edu
Extension Educators		
Mark Hoard, Mt. Vernon Center	618-242-9310	hoard@uiuc.edu
Suzanne Bissonnette, Champaign Center	217-333-4901	sbisson@uiuc.edu
George Czapar, Springfield Center	217-782-6515	gfc@uiuc.edu
Dave Feltes, Quad Cities Center	309-792-2500	dfeltes@uiuc.edu
Russel Higgins, Matteson Center	708-720-7520	rahiggin@uiuc.edu
Campus-based Specialists		
Mohammad Babadoost, Plant Pathology	217-333-1523	babadoos@uiuc.edu
Raymond Cloyd, Greenhouse insects	217-244-7218	rcloyd@uiuc.edu
Kelly Cook, Entomology	217-333-6651	kcook8@uiuc.edu
Imed Dami, Viticulture (So. Ill. Univ.)	618-453-2496	imeddami@siu.edu
Mosbah Kushad, Fruit & Veg Production	217-244-5691	kushad@uiuc.edu
John Masiunas, Weed Science	217-244-4469	masiunas@uiuc.edu
Chuck Voigt, Veg Production (& herbs)	217-333-1969	c-voigt@uiuc.edu
Rick Weinzierl, Entomology	217-333-6651	weinzier@uiuc.edu

Return Address:

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

