



# 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, [weinzier@uiuc.edu](mailto:weinzier@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.

**For your calendar ...** Summer Viticulture Field Day at the Demonstration Research Vineyard at the Southern Illinois University Horticulture Center, Carbondale, IL on August 5; Grape Harvest Workshop at Bay Creek Vineyard, Saturday, August 12 ... See Elizabeth Wahle's notes in the southern Illinois update below for details on these two programs. Illinois Pumpkin Field Day on September 8 at the University of Illinois Vegetable Research Farm near Champaign, IL.

### *In this issue ...*

**Regional Updates** (from Elizabeth Wahle, Jeff Kindhart, and Maurice Ogutu)

**Degree-day Accumulations**

**Notes from Chris Doll** (weather and crop conditions, pest observations, sunburn of fruit, water usage, and summer pruning)

**Fruit Production and Pest Management** (updates on codling moth and oriental fruit moth phenology, notes of fruit insects, preharvest intervals for selected insecticides and miticides)

**Vegetable Production and Pest Management** (Again, updates on corn borer, corn earworm, and western bean cutworm; common rust and northern corn leaf blight of sweet corn)

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

### *Regional Updates*

**In southern and southwestern Illinois ...** the heat is still on, with temperatures hovering near the 100 degree mark. With humidity factored in, field workers are experiencing heat indices near 115 degrees. With this heat, rain has been very unpredictable and many areas have reported microbursts with heavy rain over a short period of time. The Sorento area experienced high winds and over 2 inches of rain within half an hour Tuesday morning. I witnessed several downed trees and lodged corn fields, making for a white-knuckled drive through the area. Just 20 miles to the west, not a drop fell. Several growers throughout the region received rain last week, but with this heat, most everyone is looking for more to fall.

Peach harvest is moving on to varieties such as Glohaven, Coralstar, and Carolina Belle. Just finishing are varieties such as Red Haven and Jim Dandee. Next up will be Harmony, Contender and Bounty. The blackberry crop is looking phenomenal this year in terms of fruit size and volume. I have seen some characteristic heat damage on blackberries recently, which appears as bleached areas on the fruit--mostly on non-irrigated plantings. Reminder to those with black and purple raspberries and thorny (erect) blackberries, if you haven't done it already, summer pruning is an essential step in the production of these brambles. All new shoots should be pinched back three to four inches once they have grown to the desired height in order to promote later shoots for the next season's production, which results in higher yields. This process would usually coincide with harvest, but should be completed as soon as possible in order to achieve sufficient lateral growth. Pinching is not beneficial in the red and yellow raspberries or the thornless blackberries (trailing). Plasticulture strawberry growers should start thinking about prepping fields for laying plastics. It is critical to be ready to take advantage of good soil moisture conditions when it is available for laying plastic—especially in August. In addition, your drip is much more effective after plastic laying at maintaining soil moisture in preparation for planting than it is at wetting down a dry bed. For fallow fields, apply glyphosate 3-5 days prior to field prep in order to reduce the weed population, particularly perennial weeds.

Main season field tomatoes are now in harvest, as well as personal-sized watermelons, sweet corn, melons, cucumbers, and beans. Yield and quality is good on all crops, with a few quality issues popping up in some later plantings of sweet corn—related to heat interfering with proper pollination.

Susan Rick, Field Development Representative for DuPont contacted me with Sinbar and Accent label updates. Registration in individual states is in progress, so we should see the new labels as soon as the process is complete. The Sinbar supplemental label for newly planted and young, non-bearing fruit trees and the supplemental label for strawberries will be added to the new federal label, H-65208. In addition to the above changes, a tolerance was just established by the EPA for Sinbar in watermelons, but when a label will issue with this use included has not been determined. The major change in the Accent label is the addition of use on fresh market sweet corn under federal label H-65203. Growers are cautioned that there is tremendous variability in crop response of sweet corn varieties to Accent. Information is available on some varieties but not all. Note the precaution that DuPont is not responsible for crop response due to the use of Accent on sweet corn (as well as popcorn/corn grown for seed).

A Summer Viticulture Field Day will be hosted at the Demonstration Research Vineyard at the Southern Illinois University Horticulture Center located in Carbondale, IL on August 5<sup>th</sup>. On-site registration begins at 12:30 pm, followed by presentations throughout the day both in the classroom and vineyard. The day will end with a picnic-style dinner beginning at 7:00pm. Registration is available online at [www.dce.siu.edu](http://www.dce.siu.edu) by clicking on the “conferences” link. Early registrations received by July 31 are \$10.00 per person, after which the cost is \$15.00. Contact: Elizabeth Wahle, [wahle@uiuc.edu](mailto:wahle@uiuc.edu), 618-692-9434.

A grape harvest workshop will be held at Bay Creek Vineyard, Saturday, August 12, 2006 at 9:00 am. There are three factors, sugar, acid, and pH, which can be tracked weekly after véraison that will reach optimum levels when the grapes are ready to harvest for winemaking. Accurately and quickly measuring these three factors is a skill needed by both grape growers and winemakers alike, in order to produce top quality wines. This workshop, sponsored by the Illinois Department of Agriculture, the Illinois Grape Growers and Vintners Association, and University of Illinois Extension, is designed to give participants hands on experience working with special equipment used in measuring and determining grape ripeness. In addition to vineyard sampling of differing grape varieties, winemakers are also invited to bring wine samples for analysis as well. Participants will meet at Bay Creek Vineyard, located three miles south of I-72 (Exit 31) on County Hwy 3 at 9:00am. Bay Creek Vineyard is located on the west side of the road at 26909 County Hwy 3, Pittsfield, IL 62363. Don't forget to dress for the weather, since most of the workshop time will be spent in the vineyard. This is a hands-on workshop, and participants are encouraged to bring their personal gear, including gloves and work boots. Grape publications will also be available for sale at the workshop, including the 2006 Small Fruit & Grape Spray Guide for \$9.00 and The Midwest Grape Production Guide for \$15.00. For further information and in order to plan space for the meeting, please contact Elizabeth Wahle at (618) 692-9434 or by email at [wahle@uiuc.edu](mailto:wahle@uiuc.edu).

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

**From the Dixon Springs Agricultural Center ...** The 5+ inches of rain received in parts of southern Illinois is taking its toll. Phytophthora is killing some pepper plants and some tomato fields are showing increased foliar disease severity. There is also a great deal of tomato plant death due to vascular disease, although this is occurring most commonly in home gardens rather than commercial plantings (good news for direct marketers). Tomato cracking problems also occurred where growers had either susceptible cultivars or poor irrigation management prior to the large rains. We have begun harvest of our tomato variety trials at DSAC and also at the Trover farm in Johnson County. Pepper cultivars at DSAC are ready for the first picking.

Peaches very near harvest also did not need 5 inches of rain, but those damaged have been dealt with, and crop harvest has returned to normal. The excessive heat is shoving some varieties together as harvest proceeds.

Happy picking and marketing, and try to stay cool. The forecast high for DSAC today is only 100 F.

*Jeff Kindhart (618-695-2444; [jkindhar@uiuc.edu](mailto:jkindhar@uiuc.edu))*

**In northern Illinois**, the last two weeks have been characterized by sunny days with average temperatures in the lower 90s and night temperatures in the upper 60s to low 70s – very hot and humid. As of July 19, soil moisture is low, as less than 0.3 inches of rainfall was recorded in the region during the last two weeks, and many growers are irrigating their vegetable fields.

Orchardists are continuing with summer spray programs, and it is time to include calcium sprays. First generation codling moth damage is apparent where control efforts were inadequate, and second generation flight is well underway. Sour cherry harvesting is going on in many orchards, and I've observed scattered incidence of powdery

mildew and cherry leaf spot on leaves, as well as shriveled fruits due to brown rot. Japanese beetles continue to feast on sour cherry and grape leaves. Summer raspberry and blueberry harvesting is also going on in many farms. In the Kankakee area, harvesting of sweet corn commenced last week, and picking of cucumbers, green beans, and cabbage is going on as well. Phytophthora in peppers was also reported in the same area. Harvesting of sweet corn will commence this week in the northern counties.

Maurice Ogutu (708-352-0109; [ogutu@uiuc.edu](mailto:ogutu@uiuc.edu))

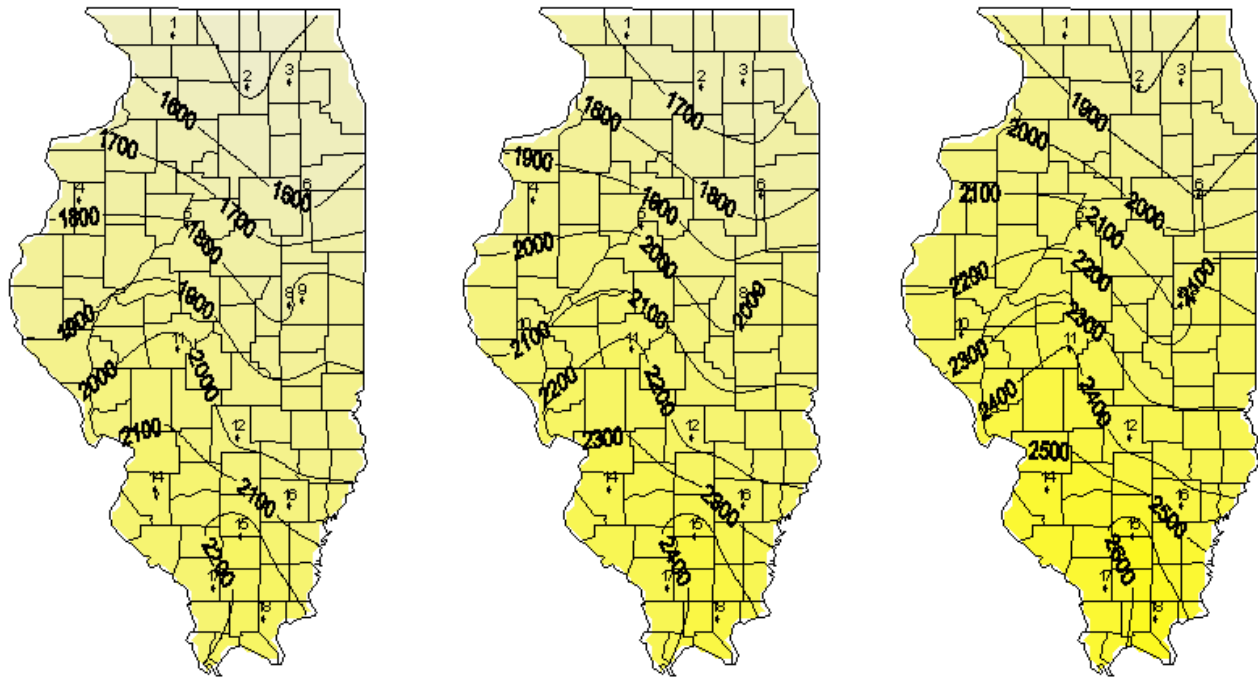
### **Degree-Days**

Degree-day accumulations listed below for weather stations in the Illinois State Water Survey WARM data base have been summarized by using the Degree-Day Calculator site on the University of Illinois IPM site (<http://www.ipm.uiuc.edu/degreedays/index.html>). The list below includes only degree-day accumulations and projections based on a 50-degree F developmental threshold and a January 1 starting date, but other options that use different thresholds and specific biofix dates are available on the Degree-Day Calculator. The degree-day calculator is available as a result of a joint effort of extension entomologists (primarily Kelly Cook) and Bob Scott of the Illinois State Water Survey. If you have questions about how to use the site, contact me or Bob Scott ([rwscott1@uiuc.edu](mailto:rwscott1@uiuc.edu)).

Rick Weinzierl (217-333-6651; [weinzier@uiuc.edu](mailto:weinzier@uiuc.edu))

### **Degree-day accumulations, base 50 degrees F, starting January 1.**

Station	County	Base 50F DD Jan 1 – July 19 Historic Average	Base 50F DD Jan 1 – July 19 2006	Base 50F DD Jan 1 – July 26 (Projected)	Base 50F DD Jan 1 – August 2 (Projected)
1. Freeport	Stephenson	1535	1524	1685	1843
2. Dekalb	Dekalb	1595	1485	1641	1792
3. St. Charles	Kane	1493	1520	1673	1822
4. Monmouth	Warren	1696	1783	1949	2107
5. Peoria	Peoria	1777	1810	1986	2157
6. Stelle	Ford	1675	1560	1728	1891
7. Kilbourne	Mason	1888	Missing	Missing	Missing
8. Bondville	Champaign	1801	1750	1920	2083
9. Champaign	Champaign	1836	1906	2087	2262
10. Perry	Pike	1826	1891	2071	2242
11. Springfield	Sangamon	1946	2037	2226	2409
12. Brownstown	Fayette	2048	1974	2167	2353
13. Olney	Richland	2029	Missing	Missing	Missing
14. Belleville	St. Claire	2116	2201	2393	2576
15. Rend Lake	Jefferson	2204	2277	2477	2669
16. Fairfield	Wayne	2145	2042	2239	2429
17. Carbondale	Jackson	2129	2136	2328	2513
18. Dixon Springs	Pope	2185	2262	2457	2644



Degree days, base 50 degrees F, since January 1, 2006.  
 Left: January 1 – July 19; center: January 1 – July 26 (projected); and right: January 1 – August 2 (projected).

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

**WEATHER AND CROP CONDITIONS:** Hot and dry locally, and hot everywhere. Data loggers have recorded 100 degrees plus on several days and the 19th and 20th are scheduled to hit 100 degrees officially. Not a good situation when the soil moisture levels are low. July rainfall now totals 0.4 inches and mowing the lawn (and orchard) is on hold. Peach harvest is proceeding with good color and fair size. Apples have been sizing well in spite of low rainfall. Some push-off has been happening to Honeycrisp. Harvest of thornless blackberry is in full swing, but lots of sunburn is present. Even immature red berries have burned in some plantings. In the Back-40, ripe red raspberries--Caroline and Autumn Bliss--are baked in the field. My Red Haven and Raritan Rose peaches are ripe, as are the Saturn and Rose Princess nectarines. First pick of Crimson Snow, Arctic Sweet and Honeykist nectarines has been made. Where Japanese beetles haven't laced the grape leaves, this crop continues to look good. Leaf drop of peach continues, both from bacterial spot infections and dry weather. Fruit infections of bacterial spot are minimal--just enough to let you know it is around.

**PEST OBSERVATIONS:** My codling moth degree days now total 1751 hours, and trap catches for the second generation are down after an initial jump in counts. OFM trap numbers continue to roll at 20-30 per week. Mites have been well controlled by Nexter in a couple of apple orchards and mine as well. San Jose crawlers are persisting in one apple orchard where oil treatments did not give complete control. A northern Illinois orchard called about a spotted tentiform leafminer problem. Japanese beetle feeding has abated in the Back-40, but a fair number of green June beetles have emerged to feed on both peach and blackberry fruit. In spite of the dry weather, we are past the wetting hour threshold for sooty blotch and flyspeck, but none has been seen. A couple of infected apples by bitter rot were found this week.

#### **MISCELLANEOUS NOTES:**

- Sunburned fruit is the topic of the day. The May 15, 2006, issue of the Good Fruit Grower discussed this topic and its causes. A walk-through the orchard at 6:00 am this morning revealed Honeycrisp and Gala apples with burned cheeks, and some red-skinned peaches and nectarines that have softened flesh on the exposed side. The Good Fruit Grower article says that both high temperature and light are responsible for most of the injury. The cause is known, and some prevention methods are also known, but they may now be feasible. "Evaporative cooling via evapotranspiration is one of the most efficient ways to reduce fruit surface temperature, but does not completely eliminate the problem." Ample moisture is needed for this to happen. The only experience I've had with reflective material like Surround was on a block of Honeycrisp last year. It seemed to prevent some bronzing and ultimately the fruits had better color than the untreated fruits. However, product residue is not too attractive or easily removed.

- Water figures repeated: 27,560 gallons make one acre-inch. This will wet some dry soils to a 6-inch depth. A 7-15 foot apple tree needs about 30 gallons of water a day at current temps. A mature peach tree needs 20-24 gallons of water per day. 300-500 parts of water are required for 1 part of dry weight of peach. Weeds also use the 300-500 parts of water to make 1 part of dry matter.
- Summer pruning of both apples and peaches is sometimes practiced to remove some top and inside growth to improve light conditions for better coloring of the fruit. I have removed vigorous growth above peach fruits and experienced reduced fruit size. One report from Iowa stated that shoot removal that totaled less than 10 percent of the tree's leaf volume would probably not affect fruit size. Most of the reports on apple pruning show best efficiency in late August.

Chris Doll

## **Fruit Production and Pest Management**

### **Updates on Codling Moth Phenology**

Based on data provided by Bronwyn Aly at Dixon Springs, Gary Grammer near Murphysboro, Sissy Erbacher of Eckert's Orchard at Belleville, Chris Doll at Edwardsville, Kenny Horn from the University of Illinois orchard at Urbana, Curt Christ near Elmwood, and Ken Hall near Poplar Grove, biofix dates for codling moth are listed for six locations in the table below, along with degree-day accumulations and projections for the weather station sites nearest each orchard. (Note that there is no reporting weather station near Edwardsville, so I've used the Springfield station as the best option.)

Orchard Location	Weather Station	Codling Moth Biofix Date	DD <sub>50</sub> through July 19, 2006	DD <sub>50</sub> projected through July 26	DD <sub>50</sub> projected through Aug 2
Dixon Springs / Murphysboro	Dixon Springs	April 17	1839	2033	2219
Belleville	Belleville	April 20	1790	1980	2163
Edwardsville	Springfield	April 23	1698	1885	2067
Urbana	Champaign	May 1	1557	1737	1911
Elmwood	Peoria	May 6	1460	1636	1805
Poplar Grove	Freeport	May 10	1260	1420	1578

Developmental events for the codling moth based on degree-day accumulations are presented below. Emergence of second generation moths should be just underway in the southern portion of the state, and the earliest of second generation eggs should begin to hatch in the next few days from the St. Louis area southward. In the far northern portion of the state, second generation moth flight is likely to begin around July 1.

Codling moth development:

99 percent of first generation eggs hatched	~920 DD <sub>50</sub> after biofix
First moths of second generation emerge	~900 DD <sub>50</sub> after biofix
Beginning of second generation egg hatch	~1120 DD <sub>50</sub> after biofix
50 percent of second generation moths emerged	~1349 DD <sub>50</sub> after biofix
50 percent of second generation eggs hatched	~1580 DD <sub>50</sub> after biofix
First moths of third generation emerge	~1920 DD <sub>50</sub> after biofix
99 percent of second generation eggs hatched	~2100 DD <sub>50</sub> after biofix
Beginning of third generation egg hatch	~2160 DD <sub>50</sub> after biofix
*First moths of fourth generation emerge	~2900-3000 DD <sub>50</sub> after biofix
*Beginning of fourth generation egg hatch	~3200 DD <sub>50</sub> after biofix

(Table based on **Orchard Pest Management** by Beers et al., published by Good Fruit Grower, Yakima, WA.)

\* Extrapolated from the model presented by Beers et al.

Rick Weinzierl (217-333-6651; [weinzierl@uiuc.edu](mailto:weinzierl@uiuc.edu))

## Oriental Fruit Moth Phenology

We do not have a broadly representative monitoring program for oriental fruit moth (less so than for codling moth), but biofix dates for first generation flight were approximately April 7 in the Belleville area and April 10 for lower Calhoun County. Based on a 45-degree F developmental threshold and an upper cut-off of 90 degrees F, degree-day accumulations for the Belleville area and Springfield (best available data site for Calhoun Co.) are listed in the table below. Each generation takes approximately 950 DD base 45 F to develop.

Orchard Location	Weather Station	OFM Biofix Date	DD <sub>45</sub> through July 19, 2006	DD <sub>45</sub> projected through July 266	DD <sub>45</sub> projected through Aug. 2
Belleville	Belleville	April 7	2471	2696	2914
Southern Calhoun County	Springfield	April 10	2385	2607	2824

Oriental fruit moth development (beginning with occurrences that are pertinent at this time):

First moths of third generation emerge	~1900 DD <sub>45</sub> after biofix
50 percent of third-generation moths emerged	~2200-2450 DD <sub>45</sub> after biofix
Peak egg-laying for third generation	~2500 DD <sub>45</sub> after biofix
First moths of fourth generation	~2850 DD <sub>45</sub> after biofix
Peak egg-laying for fourth generation	~3500 DD <sub>45</sub> after biofix

(Table adapted from data from *Common Tree Fruit Pests* by Howitt., published as NCR 63 by Michigan State University, East Lansing, MI, 1993.)

Rick Weinzierl (217-333-6651; [weinzierl@uiuc.edu](mailto:weinzierl@uiuc.edu))

## Notes on Fruit Insects

- European red mite infestations have developed in scattered locations on peaches and apples. Where infestations exceed thresholds (at this time of year, 5 to 7.5 mites per leaf, depending on location from north to south), Acramite, Nexter, and Zeal (not labeled on peaches) have proven effective in the lower Midwest; other miticides also are available. Be sure check the preharvest interval (the minimum number of days that must elapse between application and harvest) for each miticide and crop combination in the table above..
- Japanese beetles and/or green June beetles continue to plague lots of fruit growers around the state. Where harvest is underway or near, the use of most pyrethroids is not practical because the required preharvest interval is too great. Sevin, malathion, and Pyganic often are the most practical choices in such situations.



Japanese beetles on 'Pristine' apples.

## ***Preharvest Intervals for Insecticides and Miticides for Tree Fruits and Small Fruits***

The table below lists pre-harvest intervals for selected insecticides and miticides for use on apples, peaches, brambles, and grapes. More complete lists (more pesticides and more fruit crops) are available in the [2006 Midwest Commercial Small Fruit and Grape Spray Guide](#) and the [2006 Midwest Commercial Tree Fruit Spray Guide](#).

<b>Insecticide / Miticide</b>	<b>Minimum Preharvest Interval (days)</b>			
	<b>Apple</b>	<b>Peach</b>	<b>Brambles</b>	<b>Grapes</b>
<b>Acramite</b>	7	3	NR	14
<b>Apollo</b>	45	21	NR	NR
<b>Asana</b>	21	14	7	NR
<b>Avaunt</b>	14	NR	NR	NR
<b>Calypso</b>	30	NR	NR	NR
<b>Capture</b>	NR	NR	3	30
<b>Clutch</b>	7	NR	NR	NR
<b>Danitol</b>	14	NR	NR	21
<b>Diazinon</b>	21	21	NR	28
<b>Endosulfan</b>	21-30	21-30	NR	7
<b>Entrust / SpinTor</b>	7	14	1	7
<b>Esteem</b>	45	14	NR	NR
<b>Fujimite</b>	14	NR	NR	14
<b>Guthion</b>	14-21	21	14	21
<b>Imidan</b>	7	14	NR	14
<b>Intrepid</b>	14	7	NR	30
<b>Lannate</b>	14	4	NR	1-14
<b>Malathion</b>	NR	7	1	3
<b>Nexter</b>	25	7	NR	7
<b>Pounce</b>	NR	14	NR	NR
<b>Provado</b>	7	10	NR	0
<b>Pyganic</b>	0	0	0	0
<b>Rimon</b>	14	NR	NR	NR
<b>Savey</b>	28	28	3	NR
<b>Sevin</b>	3	3	7	7
<b>Warrior</b>	21	14	NR	NR
<b>Zeal</b>	14	NR	NR	14

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

### ***Notes on Vegetable Insects***

**Updates on European corn borer and corn earworm:** No updates on European corn borer. Corn earworm moth counts averaged less than 1 per trap per night for the 7 days ending July 17 at Quincy, Urbana, Kewanee, St. Charles, and Burlington. Traps captured an average of 21 and 4 moths per trap per night for the same period at Collinsville and Manito.

### **Western bean cutworm (despite its name, a potential pest of corn):**

A network of pheromone traps to monitor for western bean cutworm moths was established throughout Illinois in late June and early July. The widespread network (across essentially every county) should help us determine the 2006 distribution of this potentially threatening pest which had not been found in Illinois before 2004. Trap operators in a few locations in Illinois already have reported captures of western bean cutworm moths. You can view trap captures thus far at the [Iowa State University "Western Bean Cutworm Monitoring Network" Web site](#).

Unfortunately, operators may have to be more careful when identifying moths captured in the pheromone traps. Although the pheromone is supposed to be specific for western bean cutworm, trap operators in Illinois have been finding other species of moths in the traps with some frequency. Kelly Cook, entomologist with the Illinois Natural History Survey and coordinator for the western bean cutworm trapping effort, has received several phone calls and e-mail messages indicating that other species of moths are being captured in the western bean cutworm traps. Although western bean cutworm moths have characteristic markings on their wings, they could be confused with other species of moths.

The western bean cutworm moth is brown, gray, and cream-colored with a broad pale stripe along the front edge of the forewing. In addition, there are two distinctive spots--a circle and a "boomerang"--on the forewings. Other species of moths lack these characteristic markings. Check out the fantastic photograph sent to us by Jim Donnelly, Crops Specialist with Ag View FS in Bureau County. The wing characteristics previously described are quite clear. Jim found this western bean cutworm moth resting in a soybean field, and the moth graciously posed for the photo.



*Western bean cutworm moth, Bureau County, Illinois, July 2006 (photo courtesy of Jim Donnelly, Ag View FS).*

To compare a western bean cutworm moth with other species, check out the photos posted on the [University of Nebraska South Central Agricultural Laboratory Web site](#); click on "Moths." In our opinion, the dingy cutworm moth may be the species most easily confused with western bean cutworm moths. However, some trap operators in Illinois have captured yellowstriped armyworm moths, which also resemble western bean cutworm moths in some ways. The army cutworm is also a candidate for confusion with the western bean cutworm.

The occurrence of the western bean cutworm in many northern Illinois counties in 2005 raised the level of concern among corn growers about this insect. Although we do not believe the western bean cutworm has achieved pest status in corn in Illinois yet, it's probably only a matter of time before corn growers must consider the insect's management. Accurate identification of the pest is thus extremely important. We hope you find the identification aids useful.

*Kevin Steffey and Kelly Cook (from the July 14, 2006, issue of the University of Illinois Pest Management and Crop Development Bulletin)*

### **More on western bean cutworm development**

Based on a May 1 date to start counting degree-days on a 50-degree F threshold, moth emergence begins some time after 1,000 degree-days have accumulated, generally in early July. There is one generation per year, and moth emergence roughly conforms to the following schedule ...

- 25 percent moth emergence by about 1320 DD
- 50 percent moth emergence by about 1420 DD
- 75 percent moth emergence by about 1535 DD

Degree-day accumulations, base 50 F, since May 1, look like so for the northern half of Illinois (where this insect may pose problems for sweet corn growers) ...

Weather Station	DD <sub>50</sub> May 1 through July 19, 2006	DD <sub>50</sub> May 1 projected through July 26	DD <sub>50</sub> May 1 projected through Aug 2
Freeport	1328	1489	1647
Dekalb	1287	1442	1592
Monmouth	1492	1657	1814
Peoria	1505	1680	1850
Champaign	1557	1737	1911



Repeating text from the July 6, 2006, issue of this newsletter ... Newly hatched larvae feed on leaves, tassels, and silks before moving into ear tips where they cause damage similar to that caused by corn earworm larvae. Pyrethroid insecticides labeled for corn earworm control (Baythroid, Capture, Mustang Max, and Warrior, as well as generic formulations of the same active ingredients), as well as SpinTor/Entrust should provide control of western bean cutworm, but thresholds (based on trap counts or observations of early feeding) and spray intervals for sweet corn have yet to be established. For more information on western bean cutworm, see the [January 3, 2006, issue of this newsletter](#).

Rick Weinzierl (217-333-6651; [weinzier@uiuc.edu](mailto:weinzier@uiuc.edu))

### ***Common Rust and Northern Corn Leaf Blight of Sweet Corn***

Late-season sweet corn can be damaged by foliar fungal diseases especially if weather is wet and heavy dews occur. Common rust and northern corn leaf blight (NCLB) are the most frequent foliar diseases of late-season sweet corn in Illinois although other diseases such as gray leaf spot, anthracnose leaf blight, or southern leaf blight may be problematic in specific fields.

The common rust fungus, *Puccinia sorghi*, does not overwinter in Illinois; however, by mid-July, low levels of infection in field corn can be a source of spores that infect late-planted sweet corn. Likewise, early-planted fields of sweet corn adjacent to late-planted fields are potential sources of rust spores. Juvenile leaves are more susceptible to rust than adult-leaves; therefore, infection of plants prior to the 4- to 6- leaf stage has the potential to produce an abundant amount of secondary inoculum that can cause rust infection to be severe if weather is wet as plants mature. Yields (marketable ears and ear weight) are reduced about 0.5% for each 1% of the leaf area infected about a week before harvest. An application of a strobilurin fungicide (e.g., Headline, Quadris, Quilt) may be needed to prevent rust from reaching yield damaging levels as plants mature if: i.) 5% to 15% of leaf area in the lower canopy is infected on plants any time prior to tasseling, ii.) wet weather or heavy dews are anticipated, and iii.) the hybrid has a moderate to susceptible reaction to rust. If sterol-inhibiting fungicides (e.g., Tilt) are used, the action threshold for application should be somewhat lower (e.g. 2% to 5% leaf area infected) than those used for strobilurin fungicides.

The fungus that causes northern corn leaf blight, *Exserohilum turcicum*, overwinters in corn leaf debris that was infected the previous growing season. Hence, NCLB tends to be more severe following a corn-corn rotation. NCLB has been unusually severe in the past two years in fields of processing sweet corn in the Rock Falls, Rochelle, Mendota areas. Possibly, reduced tillage has increased the amount of overwintering inocula coming from fields planted with field corn the previous year. Most hybrids are not damaged by NCLB in the lower canopy, but yields are reduced about 0.5% for each 1% leaf area infected beyond 20% severity in the lower canopy. Fungicides may be needed to control NCLB if: i.) a hybrid has a moderate to susceptible reaction to NCLB, ii.) five or more 2- to 4-inch lesions occur on each leaf in the lower canopy of plants any time prior to tasseling, and iii.) wet weather or heavy dews are anticipated. The same fungicides used to control common rust are effective against NCLB.

To determine if a hybrid has a moderate to susceptible reaction to common rust, NCLB or other diseases, refer to information provided by seed companies or to results from the University of Illinois sweet corn hybrid disease nursery available at: [www.sweetcorn.uiuc.edu](http://www.sweetcorn.uiuc.edu).

*Jerald Pataky*

### ***Words of Wisdom ...***

On a bumper sticker in Champaign ...

- Sky divers are good to the last drop.

**University of Illinois Extension Specialists in Fruit Production and Pest Management**

<b>Extension Educators in Food Crop Horticulture</b>		
Bill Shoemaker, St. Charles Res. Center	630/584-7254	<a href="mailto:wshoemak@inil.com">wshoemak@inil.com</a>
Maurice Ogutu, Countryside Extension Center	708-352-0109	<a href="mailto:ogutu@uiuc.edu">ogutu@uiuc.edu</a> .
Elizabeth Wahle, Edwardsville Extension Center	618-692-9434	<a href="mailto:wahle@uiuc.edu">wahle@uiuc.edu</a>
Bronwyn Aly, Dixon Springs Agricultural Center	618-695-2444	<a href="mailto:baly@uiuc.edu">baly@uiuc.edu</a>
Jeff Kindhart, Dixon Springs Agricultural Center	618-695-2444	<a href="mailto:jkindhar@uiuc.edu">jkindhar@uiuc.edu</a>
<b>Extension Educators in IPM</b>		
Suzanne Bissonnette, Champaign Extension Center	217-333-4901	<a href="mailto:sbisson@uiuc.edu">sbisson@uiuc.edu</a>
George Czapar, Springfield Extension Center	217-782-6515	<a href="mailto:gfc@uiuc.edu">gfc@uiuc.edu</a>
Dave Feltes, Quad Cities Extension Center	309-792-2500	<a href="mailto:dfeltes@uiuc.edu">dfeltes@uiuc.edu</a>
Russell Higgins, Matteson Extension Center	708-720-7520	<a href="mailto:rahiggin@uiuc.edu">rahiggin@uiuc.edu</a>
<b>Campus-based Specialists</b>		
Mohammad Babadoost, Plant Pathology	217-333-1523	<a href="mailto:babadoos@uiuc.edu">babadoos@uiuc.edu</a>
Mosbah Kushad, Fruit & Vegetable Production	217-244-5691	<a href="mailto:kushad@uiuc.edu">kushad@uiuc.edu</a>
John Masiunas, Weed Science	217-244-4469	<a href="mailto:masiunas@uiuc.edu">masiunas@uiuc.edu</a>
Chuck Voigt, Vegetable Production (& herbs)	217-333-1969	<a href="mailto:cevoigt@uiuc.edu">cevoigt@uiuc.edu</a>
Rick Weinzierl, Entomology	217-333-6651	<a href="mailto:weinzier@uiuc.edu">weinzier@uiuc.edu</a>

Return Address:

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

