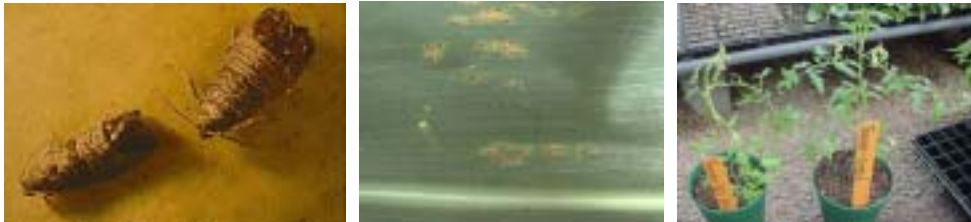


Illinois Fruit and Vegetable News

Vol. 9, No. 6, May 22, 2003

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.

In this issue ...

Crop Reports (from Elizabeth Wahle and Maurice Ogutu)

Degree-Day Accumulations

University of Illinois Plant Clinic

Notes from Chris Doll (Peach thinning, Cresthavens, codling moth, plum curculio, thrips, wind injury)

Upcoming Meetings and Programs (Summer Horticulture Day, June 27-28)

Fruit Production and Pest Management (Grape berry moth, eastern flower thrips, San Jose scale)

Vegetable Production and Pest Management Update (Black cutworm, potato leafhopper)

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

Crop Reports

In the south and southwest, conditions have been wet, as rain has continued to fall on an almost daily schedule. Perhaps carried in on these spring frontal systems, eastern flower thrips have made their presence known in strawberry fields. Blossoms and small berries damaged by thrips mature to form berries that are bronzed to brown, smaller than normal, and seedy. At first glance, the symptoms resemble those of leather rot. Eastern flower thrips are very small, making them difficult to view with the naked eye. To aid in their detection, tap flowers onto a white or very dark plate, and look for the slender yellow thrips. Thrips are also visible with the aid of a 10X magnifying lens. (See the illustrations provided under the "Fruit Production and Pest Management" heading below.) Thrips immigration is not a one-time event, so control has to be maintained throughout the critical bloom period. Although thresholds have not been determined for the Midwest, data from outside growing areas suggests that control is warranted if counts of thrips exceed 2 to 10 per blossom. Although harvest is underway for most growers in the southern region, control is recommended for unaffected fruit less than dime in diameter if thrips are detected at or above the threshold level. Of the insecticides labeled for use in strawberry, Brigade (bifenthrin) should work very well, and it has a 0-day PHI (no waiting period required between application and harvest), but it is not readily available from all suppliers. Among other effective insecticides, Danitol (fenpropathrin) has a 2-day harvest restriction and Thiodan (endosulfan) has a 4-day harvest restriction. Homeowners might use products containing neem (azadirachtin) or pyrethrins (not pyrethroids).

Apples are at second cover, with the southern portion slightly ahead in terms of degree-days. Peaches are still holding tight, slowing the hand thinning process. Apples are responding to chemical thinning. Overall, both crops are sizing well, and most growers report a good crop. Grapes are vining and in bloom. Sweet cherries are approximately 1 week from harvest in the northwest portion of the region.

With cool weather, the potato crop is looking good this season. Greens in general have had good flavor under these conditions as well. Sweet corn and tomato growers continue to plant and hope for warming temperatures.

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

In northern Illinois, during the last 10 to 14 days temperatures have ranged from the mid 80s, with gusty winds of 30-50 mph on the weekend of May 10 & 11 to day-time high temperatures in the upper 60s and lower 70s with night temperatures in the 40s (and even colder). It has been a rainy period in many counties in northern Illinois, with rainfall totals of about 3 inches for the period overall.

Apples have passed petal fall, with Gala and McIntosh first and Jonathan, Cortland, and Braeburn last (around May 20). Yellow Delicious apples in some orchards have very few blossoms. The new shoot growth on grapes was at 2 to 3 inches and 5 to 6 inches on May 13 and May 20, respectively. Orchardists are applying petal fall sprays apples, and bud break to bloom sprays in grapes.

Despite several rainy days during this period, some growers planted sweet corn and peppers. Most of the ground is ready for planting of vegetables, which will continue this week and possibly next week if the weather is good for outdoor activities. In Kankakee area, the earliest sweet corn was more than 5 inches tall on May 14.

Maurice Ogutu (708-352-0109; ogutum@mail.aces.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 14	DD, Base 50 F, through May 21	DD, Base 50 F, 40-yr average through May 21	DD, Base 50 F, projected through June 4
Carbondale	757	869	875	1156
Belleville	838	955	835	1220
Mt. Vernon	653	760	785	1036
Springfield	601	691	624	933
Urbana	601	691	547	822
Peoria	534	620	538	848
Kankakee	497	568	505	779
Moline	498	580	510	799
St. Charles	398	463	423	634



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)

University of Illinois Plant Clinic

The University of Illinois Plant Clinic opened for the 2003 season on May 2.

The Plant Clinic is part of the University of Illinois extension system, initially instituted to help provide impartial plant problem diagnosis across a range of disciplines. Services include insect, plant and weed identification, disease diagnosis, nematode assays, help interpreting chemical injury symptoms and nutrient related problems, as well as management recommendations. The clinic cannot handle herbicide injury problems on ornamental plants nor can it assess nutrient levels in tissue or soil samples.

Diagnoses are available electronically as well as through U.S. mail. Digital images of plant problems are welcome, along with the actual plant sample. The Plant Clinic is a distinct entity from extension's distance digital diagnosis system but often receives samples that could not be diagnosed by images alone. Unlike the digital diagnosis system, there is a fee for all plant clinic samples. The fee varies depending on the type of service requested. Fees have not changed since last year and are still required with the sample. There is no clinic billing office.

General Diagnosis (including cultures)	\$12.50
Specialty Tests (PWN, Foliar Nematodes, ELISA)*	\$18.75
Complete nematode assay	\$40.00

* PWN indicates pinewood nematode analysis. ELISA is a technique used to test for various viral pathogens. ELISA fees may be higher depending on the number of tests requested.

The Plant Clinic web site provides information such as service fees, data forms to accompany samples, directions for preparing and submitting a sample, directions to the clinic, and links to newsletters, publications and other clinics. The web address is <http://plantclinic.cropsci.uiuc.edu/>. Most plant specimens still arrive by mail. The clinic mailing address is:

Plant Clinic
1401 W. St. Mary's Rd.
Urbana, IL 61802

The Plant Clinic can be reached by telephone at 217-333-0519. The service is available weekdays from 8am – noon and 1 – 4:30 pm.

Nancy Pataky (217-333-0519; npataky@uiuc.edu)

Notes from Chris Doll

As of May 21, my phenology chart says that we are one to two days behind 2002. This means that a few strawberries are ripe, labrusca grapes are at early bloom, Triple Crown blackberry is just beginning to bloom, and a few peach varieties are getting in the "loose" stage for thinning.

And some of the peach orchards do need thinning! This is a job that must be done and the earlier the better. Light setting varieties like some Cresthaven in some blocks, and those that were bloom-thinned have a visual size increase over heavily set limbs and trees. The 9-inch spacing between peaches is a pretty good rule to thin by. I saw Dr. Brad Taylor instruct his thinning crew last year, and he used the spread of the tip of his thumb and the tip of his little finger as the illustrative distance needed. Many trees that are heavily loaded need a quick load reduction and then the fine tuning can come later.

The Cresthaven cropping habit is a little unusual this year. The bloom was lighter than usual, and then the set was lighter yet. Does anyone in S. Illinois have heavily laden Cresthaven that we could talk about?

Apple disease problems have been low, with no scab seen since the last issue. Some powdery mildew is out, and cedar apple galls were "blooming" on the 20th. Fireblight has been generally light, but a little shoot blight has been seen and reported. It would be nice to say the same thing about codling moth moths. The trap lines are busy in some orchards with catches of 35-72 in a night, and over 100 in a week. Trying to determine a peak catch to match the life cycle charts is more of a challenge than I am able to figure out. My current DD50 from the biofix on April 28 is 400, so egg hatch is well underway here. Lots of

Assail and Esteem have been sprayed on apples, and I hope they work. Other apple insects have been quiet in sprayed orchards.

Anybody missing the plum curculio this spring? My field and Back-40 observations are that they are very light this year, and this follows widespread reports last year. More San Jose scale injury reports on apple and peach trees have been reported than for many years. As I see it, the time to trap the crawlers with upside down electric tape is about now, so give it a try on infested trees.

Elizabeth Wahle was inspecting the Back-40 this morning and found thrips in both strawberry and blackberry flowers. Most strawberry plantings have moved past bloom in this area, but the blackberries are in bloom, depending on the variety. There are reports on the books that the white drupelets of blackberry are sometimes caused by thrips damage, and Carl Lask of O'Fallon, MO, says that his insecticide sprays have solved the problem.

Can you thin strawberries? Field visits on two Centralia area farms last week revealed overloaded Earliglow fields, and maybe the same thing on Honeoye and Allstar. The Earliglow bloom was noted as very heavy on an earlier visit, but never have I seen so many berries on plants – and the excessively wet soils were not favorable for optimum fruit development. Anyone else have similar problems?

Apple thinning is done for the year in this part of the state. Some Sevin with oil on 5/13 did a nice number on 18-20 mm Reds and Gala. The rest of the thinning results are variable, with some reports of overthinning this spring. Hand thinning for crop reduction and quality control can begin now as the thinning and June drop size expression is visible.

Blackened leaves on many fruit plants developed during the high winds on Sunday, May 11. My first concern on awakening that morning was wallowing of young apple and peach trees, but most areas were not wet enough for that to happen. But many leaves were windwhipped, even strawberries, and lots of grape shoots were broken off in this latitude. We have since had 4 days with rains that ranged from trace amounts to 0.05 inch during the week. At that rate, the evapotranspiration will quickly dissipate the soil moisture and we might consider cover crop mowing and water conservation.

Chris Doll

Upcoming Meetings and Programs

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, vegetable and grape 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)

Fruit Production and Pest Management

Grape insects: As grapes bloom berries begin to form, grape berry moths lay eggs in flower and berry clusters. Larvae hatch in mid to late May (in the far south) and June, and they feed on blossoms and small berries. The Midwest Small Fruit Pest Management Handbook provides a summary of scouting and management practices on pages 128-130. This publication is available from the University of Illinois (call 217-333-2007 to order) and on the web at:

<http://ohioline.osu.edu/b861/index.html> .

Pheromone traps are available for monitoring grape berry moth flight and predicting the right time to scout for larvae. Guidelines for control recommend a threshold of 5 percent of the clusters infested with one or more larvae. Insecticides labeled for grape berry moth control include Guthion, Sevin, Imidan, Danitol, Lannate, and Diazinon. Pheromones also may be used directly for control of grape berry moth. High numbers of dispensers resembling twist ties may be hung in vineyards, or sprayable formulations of the grape berry moth pheromone may be applied through conventional pesticide application

equipment. These products interfere with male berry moths' ability to locate females and prevent mating ... the approach is called mating disruption. To be effective, mating disruption products must be applied before moth flight begins and mating occurs. Pacific Biocontrol (1-800-999-8805) markets Isomate GBM.

Michigan State University's fact sheet on grape berry moth is available on the web at: <http://www.msue.msu.edu/vanburen/grpmth.htm>.

Grape berry moth adult (left) and larva in a fruit cluster (right). (From Michigan State University)



Thrips in strawberries: Elizabeth Wahle contributed her observations on thrips problems in the south, and along with her comments she sent the following illustrations of thrips and the injury they cause. *Top left: Adult eastern flower thrips; top right: thrips (at arrow) in strawberry blossom; bottom left: close-up of berry discoloration; bottom right: partially browned berry, likely caused by earlier feeding by eastern flower thrips.*



I can't add much to the text of Elizabeth's report or the photos above ... growers in central and northern Illinois should be scouting strawberries from earliest bloom until all berries that will be harvested have reached dime size.

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

San Jose scale crawlers: Ric Bessin, extension entomologist at the University of Kentucky, recently reported that San Jose scale crawlers were active in western Kentucky, and the same should be true in southern Illinois. Crawler (immature scale) activity generally coincides with the timing of third cover sprays in apples (but generally doesn't mean exactly). Esteem and Diazinon are among the registered insecticides that should give some crawler control at this time in apples and peaches. Esteem's label allowing use on peaches was granted after the publication of the *2003 Commercial Tree Fruit Spray Guide*, but it is now labeled for use on peaches.

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

Vegetable Production and Pest Management

Notes on black cutworm and potato leafhopper: Kelly Cook contributed the following notes to the May 15 issue of the *Illinois Pest Management and Crop Development Bulletin* (for field crops), and they bear repeating here ...

Black cutworm moths continue to fly throughout the state, but flights are significantly lower in northern Illinois. Regardless of these flights, corn fields should be scouted for early cutworm injury. A few more reports this week indicated small amounts of feeding has been seen on seedling corn. Refer to earlier issues of the *Illinois Pest Management and Crop Development Bulletin* for tips on scouting (issue no. 5, April 25, 2003) and rescue treatments (issue no. 6, May 2, 2003).

Something new. . . . Potato leafhoppers are here! These small green insects "ride" in on winds from the southern states, and they have arrived.

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

This issue's words of wisdom ...

Actual Medical Chart Notes

1. Patient has two teenage children, but no other abnormalities.
2. Patient has chest pain if she lies on her left side for over a year.
3. On the second day, the knee was better, and then on the third day it disappeared.
4. The patient is tearful and crying constantly. She also appears to be depressed.
5. Discharge status: Alive, but without my permission.
6. Healthy-appearing decrepit, 69-year-old male, mentally alert but forgetful.
7. The patient refused autopsy.
8. The patient has no previous history of suicides.
9. Patient has left white blood cells at another hospital.
10. Patient's medical history has been remarkably insignificant with only a 40-pound weight gain in the last three days.
11. She is numb from her toes down.
12. Occasional, constant, infrequent headaches.
13. I saw your patient today, who is still under our car for physical therapy.
14. Skin: somewhat pale but present.
15. The patient has been depressed since she began seeing me in 1993.

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	ogutum@mail.aces.uiuc.edu.
Elizabeth Wahle, Edwardsville Center	618-692-9434	wahle@uiuc.edu
Extension Educators		
Mark Hoard, Mt. Vernon Center	618-242-9310	hoardm@mail.aces.uiuc.edu
Suzanne Bissonnette, Champaign Center	217-333-4901	bissonnettes@mail.aces.uiuc.edu
George Czapar, Springfield Center	217-782-6515	gfc@uiuc.edu
Dave Feltes, Quad Cities Center	309-792-2500	feltesd@mail.aces.uiuc.edu
Russel Higgins, Matteson Center	708-720-7520	higginsr@mail.aces.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

