

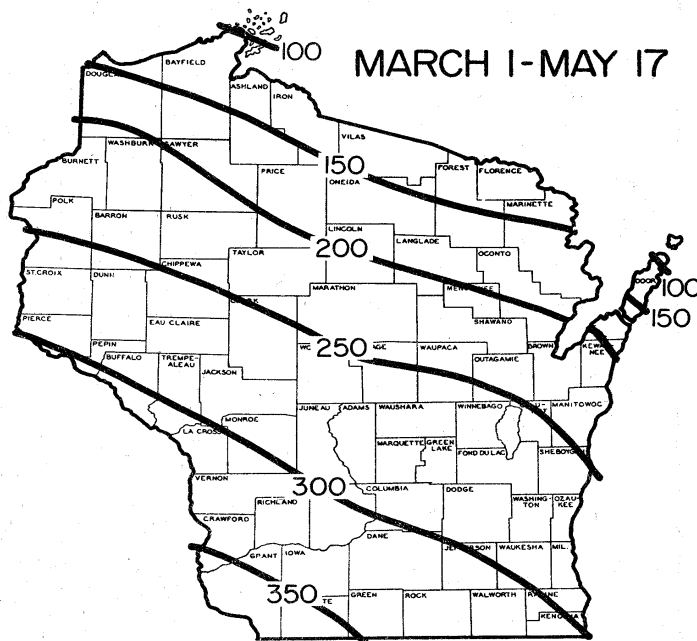
## Weather and Pests

This week's surveys found the first potato leafhoppers and corn borers of the season, more winterkill, even a few discouraged farmers. What began as a very promising spring turned cool, delaying corn emergence by as much as three weeks in Rock and Jefferson Cos. Fluctuating temperatures have stressed crops and made pest prediction no simple task. Winterkill of alfalfa and wheat is striking, severe and widespread. Very few Wisconsin fields managed to evade injury.

On a positive note, sunny weather and warmer

### Growing degree days from March 1 through May 19 were:

Site	GDD	2004 GDD	Base 48	Base 40
<b>SOUTHWEST</b>				
Dubuque, IA	407	441	413	800
Lone Rock	377	408	371	740
<b>SOUTH CENTRAL</b>				
Beloit	396	434	389	760
Madison	372	375	373	739
Sullivan	385	399	373	741
Juneau	362	368	357	717
<b>SOUTHEAST</b>				
Waukesha	325	369	314	668
Hartford	312	343	305	652
Racine	253	328	248	579
Milwaukee	246	310	240	571
<b>EAST CENTRAL</b>				
Appleton	269	257	252	569
Green Bay	213	216	203	510
<b>CENTRAL</b>				
Big Flats	338	334	325	672
Hancock	324	310	311	649
Port Edwards	310	288	295	619
<b>WEST CENTRAL</b>				
LaCrosse	383	411	392	762
Eau Claire	343	314	340	680
<b>NORTHWEST</b>				
Cumberland	281	233	273	584
Bayfield	152	126	134	398
<b>NORTH CENTRAL</b>				
Wausau	268	241	248	547
Medford	255	218	245	536
<b>NORTHEAST</b>				
Crandon	231	205	203	488
Crivitz	200	180	178	476



Historical Average Growing Degree-Days Accumulated Since March 1. (Wisconsin Agricultural Statistics Service)

temperatures are in the forecast. Corn planting is nearly complete, soybean planting is well ahead of schedule, and we in agriculture are fortunate to work in the noblest of professions, despite the uncertainty.

## Alerts

**Pine shoot beetle (*Tomicus pinipeda*)** – The presence of pine shoot beetle was confirmed in yet another Wisconsin Co. this week. The single specimen was collected from Trempealeau Co. between April 15 and May 9. Pine shoot beetle traps will be maintained for another two to four weeks, at which point the 2005 survey will be discontinued until next February. A total of nine new counties were placed under quarantine following detections of pine shoot beetle this spring.

**Alfalfa blotch leafminer** – Remarkably high numbers of flies were swept from western Jefferson and eastern Rock Co. alfalfa fields in the past week. While alfalfa blotch leafminer has been only an occasional pest since being detected in Wisconsin in 1996, conditions this season may be favorable for the development of heavy populations in first crop hay. Currently both adults and pinholes are visible in southern Wisconsin fields. Look for the characteristic comma-shaped mines to appear in 3-10 days.

**Soybean rust**—No new infections of soybean rust have been detected in the last week, leaving the count of confirmed counties at four in Florida, all on kudzu, and one in Georgia, on soybeans. Nationally, planting progress is 46% complete, slightly ahead of the five-year average.

***Hylotrupes bajulus***--A new state record for a beetle called the old house borer, *Hylotrupes bajulus*, found in Oshkosh-infesting a 15 year old home. *Hylotrupes* apparently arrived in logs shipped from the Carolinas. Investigation indicates an actively breeding population in the house, apparently established for the past three to five years.(P. Pelliteri)

## Looking Ahead

**Potato leafhopper** – The much anticipated arrival of potato leafhopper migrants transpired early this week, and more are sure to have blown in on strong winds out of the south on Wednesday and Thursday. Currently counts are very low, numbering fewer than three leafhoppers per 50 sweeps.

**European corn borer** – The first male moths of the season were sighted on Wednesday in Jefferson Co. hay

ECB	Black Light Catch (1 night)
10	a flight
25	a significant flight
100	re-infestation

fields, and two were collected in the black light trap located near Mazomanie. While it is still far too early for scouting, interested readers should follow black light trap reports in the next two weeks. A catch of 10 moths per night suggests that a flight is occurring. Twenty-five moths per night indicates a significant flight is in



progress, and 100 moths per night hints at a re-infestation. Egg laying is expected to begin at 450 GDD<sub>50</sub>, and the peak first flight of moths is expected around 631 GDD<sub>50</sub>.

**Bean leaf beetle** – Overwintered beetle activity increased this week with detections in Grant, Jefferson, Rock and Lafayette Cos. The earliest soybean fields to emerge will be highly attractive to these overwintered beetles.

**Alfalfa weevil** – Numbers of larvae are variable, but on the rise. Tip feeding could exceed the economic threshold of 40% in some southwestern fields that are not harvested soon. In contrast, weevil populations are still relatively low in southeastern hay fields. Scouting is strongly encouraged in areas where 300-400 weevil GDD<sub>48</sub> have accumulated.

**Apple scab** – The first primary scab lesions becoming evident in southern Wisconsin orchards. See FRUIT section for additional information.

## Corn

**European corn borer** – The first moths of the season took flight this week. Males were observed while survey specialists swept hay fields in Green, Jefferson and Rock Cos. The emergence of moths came as no surprise; corn borers were expected once growing degree day accumulations approached 347 GDD<sub>50</sub> in the south late last week.

The first flight of moths is just beginning, and the first eggs of the season are soon to follow around 450 GDD<sub>50</sub>. Advanced southern sites are already approaching 400 GDD<sub>50</sub>, meaning egg laying could begin by the end of next week. With corn emergence and growth having been very slow so far this season, one

has to wonder if there will be suitable host material for European corn borers once they hatch. Corn that is less than 18 inches tall is not susceptible to European corn borer infestation because it contains a compound called DIMBOA, which prevents larvae from establishing. Warmer weather ahead will help to stimulate corn emergence, but it's unlikely that many fields will reach 18 inches in the next week.

**Black cutworm** – In the next two weeks emerging corn will be highly susceptible to cutting by black cutworm larvae. Mixed trapping results this season have made it particularly difficult to forecast the potential for damage. Pheromone traps were placed in late March, and in subsequent weeks very few moths have been captured. Unfortunately the low moth captures do not necessarily mean corn is in the clear. In fact, the buzz around Mazomanie this week was that cutworms were cutting clear through emerging tomato plants. While the muck soils near Mazomanie are sometimes more prone to cutworm problems, growers elsewhere should be alert to black cutworm activity. Below are some thresholds for black cutworms in vegetable crops:

- Beans            2 larvae/foot of row
- Potatoes        4 larvae/foot of row
- Sweet corn     > 5% of plants damaged
- Leafy greens   > 3% of stand affected

**True Armyworm** – Although black light trap catches have been minimal thus far, they do represent a good beginning to a season of armyworm activity. Armyworm moths migrate into Wisconsin on the same southern winds and storm fronts that are used by black cutworm moths. Larvae should be watched closely in the weeks to come in susceptible crops, especially corn and wheat fields. No-till corn planted into a rye cover crop is especially prone to severe armyworm problems, particularly border rows.

## Forages

**Potato leafhopper** – Low numbers of wind-borne migrants appeared in Wisconsin alfalfa fields for the first time this week. No more than three adults per 50 sweeps were observed in any field surveyed, but populations will undoubtedly escalate by this time next week as more migrants blow into the state on prevailing winds from the south. During the remainder of the month and throughout summer it will be particularly important to

Height of alfalfa (inches)	Ave. # PLH per Sweep (adults & nymphs)
< 3	0.2
3-6	0.5
6-12	1
12-14	2

follow potato leafhopper trends and monitor levels of adults and nymphs closely to diagnose problems early on. Nymphs typically appear by early June and damage is often first visible along field margins.

**Alfalfa weevil** – Levels of alfalfa weevil larvae and tip feeding injury observed in south central fields this week were higher than last week, but not cause for concern. Less than 20% tip feeding was noted in 22-28 inch Walworth and Jefferson Co. fields, where counts of larvae averaged about 0.3-2.2 per sweep. Higher levels of tip feeding and larvae were found from Rock Co. west to Iowa and Grant Co. fields, ranging from 15-60%. Nearly all southern fields surveyed were within 7-10 days of harvest and it now appears that weevil populations will probably not grow large enough to impact first crop hay in southeastern Wisconsin; however, some southwestern fields have already developed economic levels of weevils.

In addition, although much acreage of first crop may evade injury, carryover of larvae and timing of weevil development mean second crop regrowth will be highly susceptible to injury. Scouting for weevils in the week ahead and monitoring regrowth is critical. Control is warranted when 40% tip feeding is observed more than 7-10 days prior to harvest, and in new growth when 10% of the tips show signs of injury. Should populations escalate unexpectedly in the next few days, cutting early will effectively reduce larval numbers.

**Pea aphids** – Populations are on the increase in south central Wisconsin. The highest levels were detected in Rock Co. fields this week, where counts ranged from 4-11 per sweep. The presence of moderate numbers of aphid mummies in the fields surveyed suggests parasitism by *Aphidius rosae* may be one factor helping to limit pea aphid numbers. In addition to this parasitic wasp, pea aphids are predated by approximately 75 species of flower flies, ladybeetles, lacewings and fungi.

**Alfalfa blotch leafminer (*Agromyza frontella*)** – This alfalfa pest has dropped off the radar in recent years, but observations of an alarming number of flies in a few



Jefferson Co. fields this week suggest it's time for a review. Before spreading to the Midwest in the early 1990s, alfalfa blotch leafminer had been confined to the northeastern United States and Canada. It's widely thought that it was introduced into Minnesota on infested hay from Ontario. In 1996, alfalfa blotch leafminer was detected in Minnesota and five Wisconsin counties, and by 1997 it had spread to 34 more Wisconsin counties. In those few short years, it had become apparent that most alfalfa producing Wisconsin counties were amenable to alfalfa blotch leafminer infestation.

Alfalfa blotch leafminers damage plants in two ways. Females use their ovipositors to pierce tiny pinholes in the leaflets, then extract the exuding plant juices. A single female makes an average of 3,769 pinholes during her lifetime. The larvae mine feed between the leaf tissue, forming distinctive, comma-shaped mines by the third instar. Both mines and pinholes make alfalfa plants more vulnerable to disease, particularly spring black stem.

The sheer number of flies netted in Jefferson Co. hay fields, 30-40 flies per 100 sweeps, suggest alfalfa blotch leafminer may cause problems for some growers. The presence of adults and pinholes indicates mines may begin to develop in the next 3-10 days. Early cutting can help to reduce damage and would be most beneficial during first cut.

**Meadow spittlebug** – Scattered spittle masses have begun to appear in alfalfa fields. The tiny green nymphs developing within the protective foam will give rise to adults by mid-June. There is only one generation of spittlebugs per year in Wisconsin and feeding by adults (planthoppers) during the remaining summer months is inconsequential. Meadow spittlebugs problems seldom arise after the first crop.

**Rapid and Alfalfa plant bugs** – Nymphs began to appear in southern counties this week. Newly hatched plant bugs nymphs somewhat resemble aphids; however, plant bugs are more slender, have noticeably longer antennae, and move much more rapidly when disturbed. Plant bugs develop quickly, and by next week this week's tiny nymphs will look more plant bug-like.

**Beneficial insects** – Ladybeetles, lacewings, damsel bugs and flower flies were abundant in alfalfa fields surveyed this week, which is always an encouraging sight. Collectively these insects will help to reduce levels of pea aphids and alfalfa weevil larvae.

## Soybeans

**Bean leaf beetle** – DATCP's annual spring survey for overwintered beetles began in Grant, Jefferson and Rock Cos. Thus far, beetles have been collected from 13 of the 28 alfalfa fields surveyed. Abundance is highly



variable. Survey specialists seldom gather more than two to three beetles in 100 sweeps; however, in one Grant Co. field, 22 adults were netted in 100 sweeps. This overwintered population could cause some serious defoliation as soybean seedlings begin to emerge in the week ahead, but it is unclear whether BPMV transmission will be a factor. The overwintered beetles collected in the next three weeks will be tested for BPMV at a later date by plant pathologists at the Plant Industry Laboratory.

**The new soybean rust management guide, *Using Foliar Fungicides To Manage Soybean Rust***, is now available. This publication, produced by the USDA CSREES NC-504 and an extensive group of plant pathologists from a number of universities in the nation, provides guidance on fungicide spray decisions and use, and includes information on modes of action and application approaches. The guide is available for download as a PDF file (requires Adobe Acrobat Reader 6 or above). The publication is also available as a paper copy by contacting Bryan Jensen at the university of Wisconsin, [bmjense1@facstaff.wisc.edu](mailto:bmjense1@facstaff.wisc.edu).

## Vegetables

**Colorado potato beetle** – As potato emergence begins in the week ahead, growers are encouraged to start scouting for Colorado potato beetle adults. Once the first adult is spotted, begin calculating growing degree day using a base temperature of 52°F. The first eggs are laid 120 at GDD<sub>52</sub> after the appearance of the first beetle. To learn more about the life stage development and management options for Colorado potato beetles, visit <http://cecommerce.uwex.edu/pdfs/A3678.PDF>. As a reminder, despite being called the Colorado *potato* beetle, this insect favors eggplant even more than potato. (information from Karen Delahaut).

**Aster leafhopper** – Although Dr. Jeff Wyman and his students did not accompany aster leafhoppers on their northward migration from Louisiana and Arkansas to Wisconsin this spring, samples of leafhoppers were collected by Scott Chapman (of the Arlington Research

Station) during a recent fishing trip in the boot heel of Missouri, and infectivity rates are being assessed.

Aster leafhoppers transmit aster yellows, a highly damaging organism that has been known to destroy entire lettuce crops in a matter of days. Symptoms begin to appear 24-30 days after leafhopper feeding has occurred. Growers of carrots, celery and leafy greens are encouraged to follow upcoming reports on aster leafhopper infectivity rates.

**European corn borer** – Black light trapping results confirm that moths began emerging this week where 347 GDD<sub>50</sub> were reached. First generation eggs will be laid once 450 GDD<sub>50</sub> have accumulated, which could occur around June 1 in southern regions. Once egg laying is underway, sweet corn growers should begin scouting for egg masses by examining 10 plants in five different areas of the field. If 5% of plants have egg masses, larvae, or leaf-feeding damage AND are in early silk stage, treatment is recommended. In addition to sweet corn, European corn borer is also a pest of beans and pepper; however, since no pods or fruit are present yet, the first generation of larvae is less damaging than the second. All indications are that the first flight of corn borer moths is going to be exceptionally light. With any luck, that should translate into fewer infestations of first generation larvae in June.

**Imported cabbageworm** – First generation larvae begin to appear at 300-400 GDD<sub>50</sub>. Most areas of southern Wisconsin are currently in this degree-day range. Second generation larvae, which occur in late July, usually cause more damage than the first generation. Nonetheless, growers should scout cole crops weekly for larvae and eggs to monitor when populations are increasing or decreasing. Eggs are yellow-orange colored and laid singly on any plant part. Larvae are velvety green worms with a faint yellow strip along the back.



**Striped cucumber beetle** – Striped cucumber beetles (SCB) overwinter in Wisconsin as adults and begin to

emerge in mid-to-late May. They vector the bacteria which causes bacterial wilt, *Erwinia tracheiphila*. *E. tracheiphila* overwinters within the beetle, and is transmitted to plants through feces or mouthparts when beetles feed on plants in early spring. The bacteria obstruct the water-conducting xylem of plant, eventually causing death. Cucumbers, muskmelons, and watermelons are all susceptible to bacterial wilt.

Striped cucumber beetles are 1/5 inch long with three black stripes on their backs. They may be mistaken for the western corn rootworm beetle, which is not a pest of cucurbits. The two may be distinguished by the fact that corn rootworm has a yellow-green abdomen while SCB has a black abdomen. There is no treatment for bacterial wilt, so controlling the beetle population is crucial. Early in the season (now!), you should scout fields three times a week. Treatment is warranted when there are more than four to five adults per 50 plants.



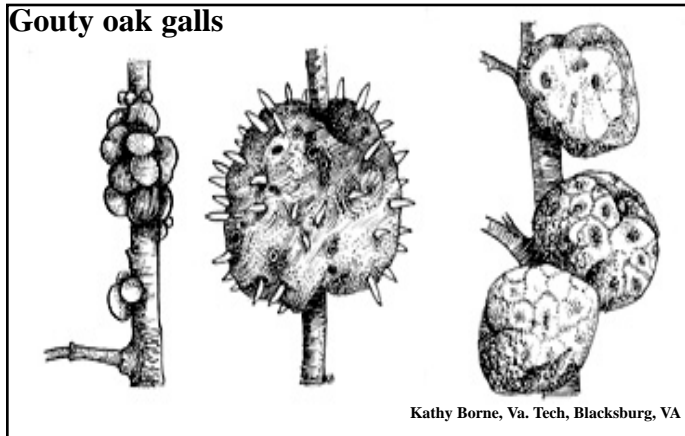
**Onion maggot** – A reminder to growers that onions should be transplanted one week before onion maggot flies emerge, which occurs when 680 GDD<sub>40</sub> have accumulated. Most areas of the state have already surpassed this point, however, some southeastern and northern regions are still a week away from peak fly emergence. See the first page of the bulletin for growing degree days base 40, and see the feature article on Maggots in the April 15 issue of the Bulletin for more information.

## Forest and Landscape

**Gouty oak gall** – This leaf gall was found on oaks at a nursery dealer in Green Lake Co. at moderate levels. One can find many galls on oak trees; some are innocuous while others are injurious. Gouty oak galls are formed by a tiny cynipid wasp, and may at times form clusters that cover entire branches, severely injuring or even killing the affected parts. The cynipid wasp responsible for gouty oak gall has alternate generations on oak. The first generation in the spring forms blister-like galls on the leaves near the veins. The second generation produces the gouty galls in the summer,

which can take three years to mature. Generally, insecticidal control is not warranted because the wasps are physically protected within the galls and timing applications to provide effective preventive control is difficult. With small, lightly-infested trees, pruning of infested twigs may help to reduce the problem.

### Gouty oak galls



Kathy Borne, Va. Tech, Blacksburg, VA

**Tomato Spotted Wilt Virus (TSWV)** – Several anemone ‘September Charm’ plants were found to be infected with this virus at a nursery dealer in Outagamie Co. The plants were ordered destroyed as there is no cure for this disease. Tomato Spotted Wilt Virus, like impatiens necrotic spot virus, is transmitted primarily by the western flower thrips. TSWV is acquired by the nymph stage during feeding on infected hosts. Once the thrips mature into an adult, the virus can then be transmitted to other hosts as the thrips feeds. At least five minutes of feeding are required to transmit the virus. Since adult thrips are winged, many plants can be infected in a short period of time.

Symptoms of TSWV are apparent a few days after infection. Over 170 species of plants are known to be susceptible. Symptoms vary with host species, stage of growth and strain of TSWV. Ringspots are the most common symptom but others include stunting, wilting, foliar necrosis, leaf midrib necrosis, mosaic, and leaf distortion. Growers are urged to examine susceptible plants for symptoms of TSWV or thrips. Several insecticide sprays may be needed to control thrips if they are present. It is important to get thorough coverage as



INSV symptoms on plant

WI DATCP

thrips can hide deep inside floral parts. In greenhouses, make sure weeds are controlled as many of them act as reservoirs of the disease. Control the thrips on weeds before controlling the weeds, as thrips may leave weeds that have been sprayed with an herbicide. Yellow sticky traps can be used to monitor thrips populations in a greenhouse.

**Impatiens Necrotic Spot Virus (INSV)** – This virus, a close relative of Tomato Spotted Wilt Virus (TSWV), was found on impatiens at a nursery dealer in Wood Co. Only a small number of plants were infected. The same control and monitoring measures used for TSWV (described above) apply to INSV.



A. Phibbs, WI DATCP

**Cedar-apple rust** – Brandywine crabapple at a nursery dealer in Outagamie Co. had light to moderate amounts of this fungal pathogen beginning to show on the leaves.

**Spruce needle drop** – Moderate amounts of this malady were observed on Colorado spruce this week at nursery dealers in Green Lake and Outagamie Cos.. Visit last week’s issue of the bulletin for a description and picture.

**Weir’s cushion rust** – Inspectors continue to find Weir’s cushion rust at nursery dealers throughout the state, primarily supplied by one company. The company has been notified and is taking steps to control the disease. For more information on Weir’s cushion rust, see last week’s Bulletin.

**Viburnum borer** -- Moderate loss to a large planting of five to seven-year old *Viburnum opulus* to Viburnum borer infestation in Rock Co.(P. Pelitteri)

**Eriophyid mites** -- High population of eriophyid mites causing browning on hemlock in Dane Co (P. Pelitteri)

**Pine-oak galls** – Pine-oak galls on jack pines were sporulating in Monroe and Juneau Cos. this week. The jack pines were also flowering and producing profuse amounts of pollen, something not appreciated by allergy sufferers.

## Gypsy Moth

**Gypsy moth spray program** -- The 2005 gypsy moth

spray season finally began on Saturday, May 14, in several southwestern Wisconsin counties, after inclement weather postponed spray plans for three days in a row. As of May 20, a first round of Btk pesticide applications had been completed at 24 sites in seven counties, covering 70,613 acres. Adverse conditions, such as rain, fog, high winds or frost can postpone spray plans, often times at the last minute.

Overall in 2005, the STS program plans to spray 65 sites in 19 western Wisconsin counties, between mid-May and the end of July or early August. Sites will be treated either twice (5-10 days apart) with Btk, or once with either NPV (Gypchek) or Pheromone Flakes.

To find out about spray plans, call our toll-free number at 1-800-642-Moth (800-642-6684). Background information and maps of spray blocks can be accessed at the Wisconsin Department of Agriculture, Trade and Consumer Protection website at [www.datcp.state.wi.us](http://www.datcp.state.wi.us). Enter "gypsy moth" in the search box.

Information on suppression spraying in the eastern half of the state, conducted by the Wisconsin DNR, can be found at [www.gypsymoth.wi.gov/](http://www.gypsymoth.wi.gov/).

## Fruit

**Obliquebanded leafroller** – Contaminants are turning up in Richland and Crawford Co. OBLR traps, according to Orchard IPM Specialist John Aue. He reports that the moths are approximately the same size as OBLR, but instead of the caramel color characteristic of OBLR, these moths are gray with black banding. Recent reports of contaminants in both OBLR and CM traps suggest apple insect trappers should examine trap catches closely and not assume all moths captured are the target pest.

**Spotted tentiform leafminer** – Leaf mines have grown visible this week in orchards as far north as Eau Claire, and wherever 329 GDD<sub>50</sub> have accumulated. In southwestern Wisconsin orchards, trap counts have declined in the last week, indicating that populations are primarily made up of sap-feeder and possibly early tissue-feeder larvae. In the southeast, counts are still on the rise. Expect the second flight of moths to begin around 539-750 GDD<sub>50</sub>, still a few weeks off.

**Codling moth** – So far only light catches of codling moth have been observed in Wisconsin orchards. The highest count of eight codling moths, which came from Sinsinawa (Grant Co.) this week, suggests the biofix may have occurred in some southwestern Wisconsin orchards. Southern Wisconsin apple growers can expect codling moth eggs to begin hatching once 491 GDD<sub>50</sub> have accumulated, probably not for another 8-10 days.

**Apple scab** – The first primary scab lesions are becoming evident in southern Wisconsin orchards.

**Plum curculio** – Last week plum curculio adults were first reported to be migrating into an orchard near Montello in Marquette Co., and five additional curculio were captured in pyramid traps this week. These captures indicate that plum curculio feeding and oviposition have probably begun. In the week ahead, growers are urged to inspect developing fruits for oviposition scars, particularly around the edges of the blocks.

## Human Pests (or pests of humans...)



**Picnic beetles (*Glischrochilus quadrisignatus*)** – This uninvited picnic pest is can be an annoyance at outdoor gatherings at this time of year, particularly when fruit salad is on the menu. Picnic beetles are drawn in by the scent of ripening fruit, vegetables, beer, and wine, and can really put a damper on even the best-

planned outdoor get-together. Beyond being a nuisance, picnic beetles are relatively unimportant in these settings.

Serious picnic beetle adversaries may want to prepare a bait to distract beetles from Aunt Betty's peach pie or Uncle Bob's beer. One simple recipe is as follows:

- 3 quarts Karo syrup
- 2 quarts water
- 1 packet of yeast

In a context separate from picnics and BBQs, picnic beetles can sometimes be troublesome. In the springtime picnic beetles feed on the sap of trees and may spread certain tree diseases as they move from tree to tree. Homeowners pruning trees in early spring when sap flow is high should be aware of this possibility. Oak wilt is an example of a disease that may be spread as a result of spring pruning.

**Black flies** – Swarms of highly aggressive black flies reportedly chased an exasperated turkey hunter from the woods this week. His response: to heck with it! I don't need a turkey that much. I quit! Turkeys-10; Lee-0. (Thanks for the update, Lee!)

## UW-Extension/Madison Plant Disease Diagnostic Clinic Update

Michelle Moyer, Amy Gibbs, Rachel Leisso, Catherine Wendt, Brooke Weber, Ann Joy and Brian Hudelson, Plant Disease Diagnostics Clinic

The Clinic receives samples of many plant samples from around the state. The following diseases are what we have identified since May 1, 2005:

CROP	DISEASE/DISORDER	PATHOGEN	COUNTY
<b>VEGETABLE</b>			
Potato	Bacterial Soft Rot	<i>Erwinia carotovora</i>	Waushara
	Fusarium Dry Rot	<i>Fusarium</i> spp.	Waushara, Portage
	Silver Scurf	<i>Helminthosporium solani</i>	Waushara
	Cold Injury	Environmental Injury	Waushara
	Blackheart	Physiological	Adams, Waushara
Tomato	Sunscald	Environmental Injury	Dane
<b>EVERGREEN</b>			
Arborvitae	Cladosporium Needle Blight	<i>Cladosporium</i> sp.	Waukesha
	Macrophoma Needle Blight	<i>Macrophoma</i> sp.	Dane, Portage
	Chemical Damage	Chemical Injury	Dane
	Water Stress	Physiological	Dane
	Winterkill	Environmental Injury	Dane, Rock, Waukesha
Fir (Including Balsam)	Macrophoma Needle Blight	<i>Macrophoma</i> sp.	Ozaukee
	Water Stress	Environmental Injury	Adams
Douglas-Fir	Pythium Root Rot	<i>Pythium</i> sp.	Dane
	Swiss Needle Cast	<i>Phaeocryptopus gauemanni</i>	Sauk, Washington
	Water Stress	Environmental Injury	Sauk
Hemlock	Pythium Root Rot	<i>Pythium</i> sp.	Dane
	Chlorosis	Overly high pH	Dane
Juniper	Cedar-Apple Rust	<i>Gymnosporangium</i> sp.	Dane
	Kabatina Tip Blight	<i>Kabatina juniperii</i>	Dane
	Transplant Shock	Physiological	Dane
	Winterkill	Environmental Injury	Dane
Pine (including Mugo, White)	Brown Spot Needle Blight	<i>Lecanosticta acicola</i>	Ozaukee
	Sphaeropsis Tip Blight	<i>Sphaeropsis sapinea</i>	Ozaukee
	Water Stress	Physiological	Sheboygan
Spruce (Including Colorado Blue, White)	Lirula Needle Blight	<i>Lirula macrospora</i>	Dunn
	Phomopsis Tip Blight	<i>Phomopsis</i> sp.	Dodge, Ozaukee, Waukesha
	Rhizosphaera Needle Blight	<i>Rhizosphaera kalkhoffii</i>	Adams, Dodge, Dunn, Ozaukee, Racine, Sheboygan, Waukesha
	Spruce Needle Drop	<i>Setomelanomma holmii</i>	Dodge
	Weir's Cushion Rust	<i>Chrusomyxa weirii</i>	Dunn
	Water Stress	Physiological	Vilas
<b>HERBACEOUS ORNAMENTAL</b>			
Pachysandra	Volutella Blight	<i>Volutella</i> sp.	Dane, Walworth
Sweet Potato Vine	Edema	Physiological	Dane
Tulip Bulbs	Penicillium Bulb Rot	<i>Penicillium</i> sp.	Dane
<b>ORNAMENTAL</b>			
Birch (Including River, Paper)	Cytospora Canker	<i>Cytospora</i> sp.	Waukesha
	Perennial Nectria Canker	<i>Nectria</i> sp.	Waukesha
	Seiridium Canker	<i>Seiridium</i> sp.	Dane
	Mouse Ear Syndrome	Nickel Deficiency	Kenosha
Cherry	Black Knot	<i>Apiosporina morbosa</i>	Vilas
Hawthorne (Including Washington)	Cedar-Quince Rust	<i>Gymnosporangium clavipes</i>	Dane
Honeylocust	Crown Gall (Probable)	<i>Agrobacterium tumefaciens</i>	Racine
Hypericum	Phytophthora Root/ Crown Rot	<i>Phytophthora</i> sp.	Jefferson
Lilac	Bacterial Blight	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	Rock
	Cold Injury		Rock
Maple (Including Norway)	Lichens	Non-pathogen	Sheboygan
Oak (Including English)	Phomopsis Canker	<i>Phomopsis</i> sp.	Dane
Viburnum (Including Snowball)	Cold Injury	Environmental Injury	Rock

For additional information on plant diseases and their control, visit the PDDC website at [www.plantpath.wisc.edu/pddc](http://www.plantpath.wisc.edu/pddc).



**APPLE INSECT TRAPPING RESULTS**

	Date	STLM	RBLR	CM	OBLR
<b>Grant Co.</b>					
Sinsinawa	5/13-5/20	0	0	8	0
<b>Crawford Co.</b>					
Gays Mills 1	5/9-5/15	200	25	2	
Gays Mills-W2	5/10-5/17	0	0	0	0
	5/1-5/10	10	2	1	0
Gays Mills-E2	5/12-5/18	360	22	4	0
<b>Iowa Co.</b>					
Dodgeville	5/12-5/19	8	3	0	0
<b>Richland Co.</b>					
Richland Center -W	5/12-5/18	35	0	0	0
Richland Center-E	5/12-5/18	20	7	1	0
<b>Sauk Co.</b>					
Baraboo	5/12-5/18	14	3	0	0
<b>Dane Co.</b>					
Deerfield	5/12-5/18	3	5	0	0
<b>Dodge Co.</b>					
Brownsville	5/13-5/20	4	3	0	0
<b>Green Co.</b>					
Brodhead	5/12-5/19	0	2	0	0
<b>Racine Co.</b>					
Rochester	5/12-5/19	320	10.5	0.63	0
<b>Kenosha Co.</b>					
Burlington	5/13-5/20	300	1	0	0
<b>Pierce Co.</b>					
Beldenville	5/12-5/19	24	8	0	15
Spring Valley	5/13-5/20	72	12	0	3
<b>Jackson Co.</b>					
Hixton	5/10-5/17	40	24	1	1
<b>Trempealeau Co.</b>					
Galesville	5/13-5/20	0	30	1	0
<b>Marquette Co.</b>					
Montello	5/8-5/15	720	81	1	0
<b>Brown Co.</b>					
Oneida	5/9-5/16	280	26	1	0
<b>Fond du Lac Co.</b>					
Campbellsport	5/9-5/16	200	33	0	0
Malone	5/12-5/19	15	6	0	0
Rosendale	5/10-5/19	37	23	1	0
<b>Marinette Co.</b>					
Wausaukee	5/13-5/20	45	3	0	0

*STLM, Spotted tentiform leafminer; RBLR, red banded leafroller; CM, codling moth; OBLR, oblique banded leafroller*

**Black Light Trapping Results**

Trap Site	Date	ECB	True AW	Fall AW	BCW	DCW	SCW	VCW	WBCW	CabL	CelL	CEW
<b>Southwest</b>												
Lancaster	5/13-5/17	0	9	0	2	0	0	0	0	0	6	0
<b>South Central</b>												
Arlington	5/13-5/19	0	0	0	0	1	0	0	0	0	0	0
W Arlington	5/13-5/20	0	5	0	0	1	1				2	
Mazomanie	5/12-5/19	2	0	0	3	0	0	2	0	0	0	0
West Madison	5/13-5/20	0	3	0	1	0	0	0	0	0	1	0
<b>Southeast</b>												
Janesville 1	5/13-5/19	5			1							
<b>North Central</b>												
Wausau	5/13-5/18	0	0	0	0	0	0	0	0	0	0	0
Marshfield	5/12-5/19	0	2	0	0	0	0	0	0	0	0	0
<b>East Central</b>												
Manitowoc	5/13-5/20	0	8	0	0	0	0	0	0	0	0	0

*ECB, European corn borer; AW, armyworm; BCW, black cutworm; DCW, dingy cutworm; SCW, spotted cutworm; VCW, variegated cutworm; WBCW, western bean cutworm; Cab L, cabbage looper; CelL, celery looper; CEW, corn ear worm*



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## Web Site of the Week

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### University of Wisconsin Fresh Market Vegetable Program

<http://www.hort.wisc.edu/FreshVeg/>

An ever-improving resource for Wisconsin fresh market vegetable growers. The site includes market statistics, meeting information and field day schedules, and links to the entire list of the outstanding Extension vegetable publications.

*Sorry, due to technical difficulties, the GDD map is not available this week.*

## Quote of the Week

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Here none think of wealth or fame,  
All talk of right and wrong is quelled:  
In autumn I rake the leaf-banked stream,  
In spring attend the nightingale.

Daigu (1584-1669)

<http://www.soils.wisc.edu/wimnext/tree/arbor.html>