

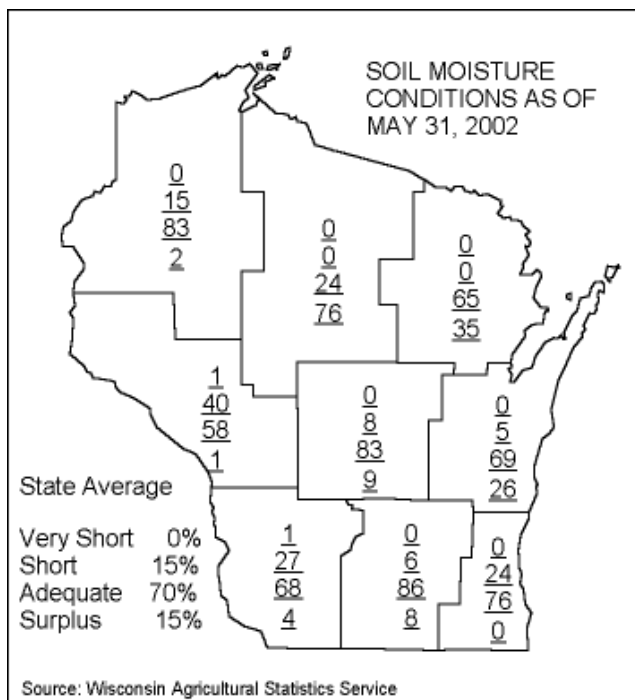
Cooperative Pest Survey Bulletin

Agricultural Resource Management

Bureau of Plant Industry

WI Department of Agriculture, Trade & Consumer Protection, PO Box 8911, Madison, WI 53708-8911 Phone: 1-800-462-2803 Fax: 608-224-4656 Web: Wisconsin.gov

WEATHER AND PESTS

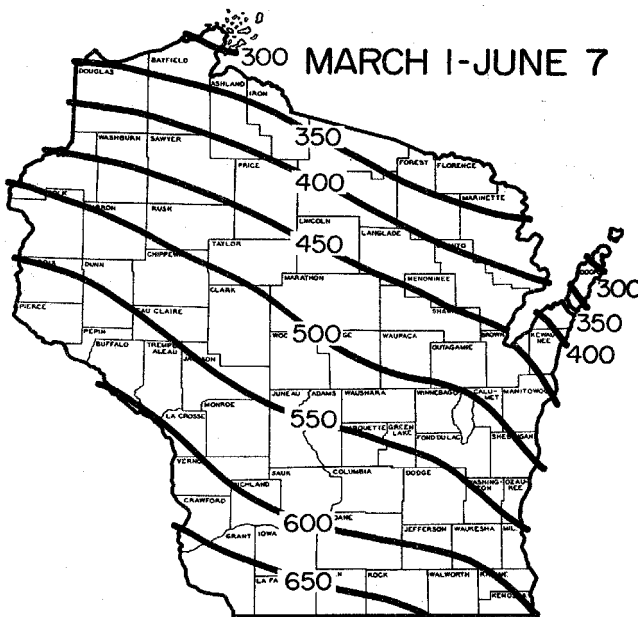


Warm, dry weather has finally allowed field work and plant development to start getting back on track. Above normal temperatures meant 5.4 days were suitable for fieldwork. Southwest Wisconsin reported flooding due to 7" of rain in 4 days.

Several exotic longhorned beetles that presumably originated in China were found this week in solid wood packing material in Milwaukee Co., and winged euonymus scale was found at several nursery dealers throughout the state

Growing degree days from March 1 through June 5 were:

Site	GDD*	2001 GDD	Normal GDD	Base 48	Base 40
SOUTHWEST					
Dubuque, IA	531	586	638	542	1030
Lone Rock	489	532	607	486	957
SOUTHCENTRAL					
Beloit	508	603	635	493	1001
Madison	464	526	605	461	920
Sullivan	472	555	583	459	945
Juneau	449	536	538	453	895
SOUTHEAST					
Waukesha	442	494	570	419	890
Hartford	424	491	533	421	852
Racine	412	435	565	390	830
Milwaukee	391	421	544	390	799
EAST CENTRAL					
Appleton	358	444	475	360	751
Green Bay	298	384	447	203	661
CENTRAL					
Big Flats	442	482	521	431	860
Hancock	430	478	519	420	841
Port Edwards	393	438	512	379	778
WEST CENTRAL					
LaCrosse	509	533	592	487	973
Eau Claire	414	476	518	399	815
NORTHWEST					
Cumberland	332	438	477	323	673
Bayfield	217	297	281	203	471
NORTH CENTRAL					
Wausau	328	388	465	329	679
Medford	293	388	451	288	620
NORTHEAST					
Crivitz	261	362	393	262	591
Crandon	261	372	375	254	561

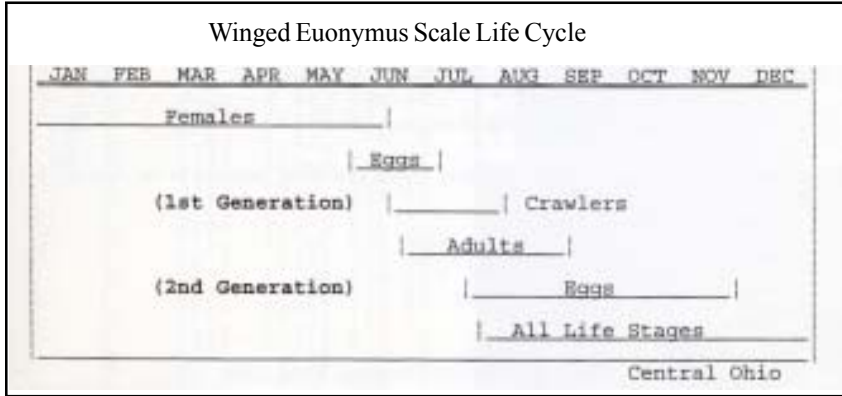


Historical Average Growing Degree-Days Accumulated Since March 1. (Wisconsin Agricultural Statistics Service)

GDD (Growing Degree-Days) are synonymous with degree-days above modified base 50°F, with no low temperature below 50°F or above 86°F used in calculation. See map for Historical Average Growing Degree Days.

ALERTS

Winged euonymus scale – Moderate infestations were found on dwarf burning bush at nursery dealers in Marathon, Ozaukee and Pierce Cos. The plant material originated from Michigan, Oregon and Tennessee. This insect is not thought to be established in Wisconsin and the plant material was ordered destroyed or returned to the supplier.



Shield through Oct. 15 of this growing season to control **Alternaria leaf and stem blight** and **Phytophthora leaf blight**. These diseases can cause loss of leaves, limit root growth and reduce yields of the harvested ginseng root. The ginseng root is the most valued part of the ginseng plant. Moist, humid growing conditions can increase the incidence of the plant diseases in Wisconsin’s ginseng gardens.

CORN

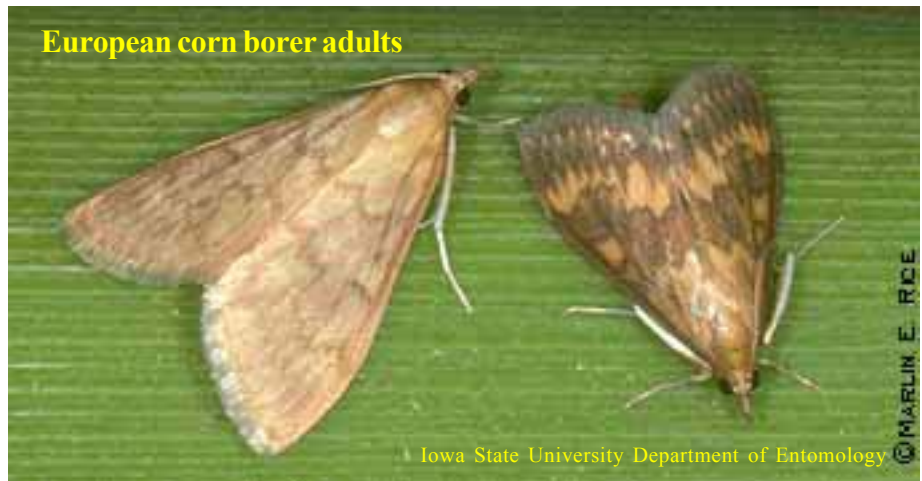
European corn borer – Low numbers of moths were observed in alfalfa fields and in the grassy borders of corn fields throughout the south during this week’s survey. Most regions of the state have exceeded or are nearing 450 DD (base 50°F), the point at which egg laying is expected to begin. Female moths will seek out the tallest, earliest planted corn for egg laying. Scouting for the earliest egg masses of the year can begin once 450 DD have accumulated. First generation eggs masses are frequently laid on the

undersides of corn leaves in rows bordering field edges.

Virus testing: Starting June 1, 2002, the UW Plant Disease Diagnostic Clinic (PDDC) will begin offering limited virus testing. The PDDC is partnering with Tom German to provide this service. The clinic will test for impatiens necrotic spot virus (INSV), tomato spotted wilt virus (TSWV), tobacco mosaic virus (TMV), cucumber mosaic virus (CMV), alfalfa mosaic virus (AMV), soybean mosaic virus (SMV), tobacco streak virus (TSV) and bean pod mottle virus (BPMV). You can submit samples through the PDDC at any time, but actual testing will occur only once every two weeks (possibly once every week if volume is high). Samples will be frozen while awaiting processing. Virus testing will cost \$25 per sample for a single virus plus \$2 per additional virus tested. Please contact the PDDC staff if you have questions regarding sample collection or submission. Phone (608) 262-2863, Fax (608) 263-2626, E-mail: bdh@plantpath.wisc.edu

Special ginseng pesticide registration granted- Wisconsin ginseng growers can make six applications of the pesticide Dithane DF or Dithane DF Rain Shield to control plant diseases under a special pesticide registration issued by the US Environmental Protection Agency to the Department of Agriculture, Trade and Consumer Protection.

The special registration means that ginseng growers can make six applications of Dithane DF or Dithane DF Rain



Armyworm – Moth captures have increased substantially at a site near Janesville in Rock Co., indicating moth activity has resumed. Regular scouting is necessary to detect larval feeding injury early on. **Armyworm** larvae usually feed inside the whorl, and often aren’t apparent until they reach the 5th and 6th instars. This can be up to six weeks after the peak of moth activity. Corn fields with grassy weed problems are highly susceptible to **armyworm** injury.

Variiegated cutworm - Adults were observed in Dane Co. on June 1.

Black cutworm – Slowed plant development and wet fields may somewhat prolong the window of susceptibility to **black**



to 1.5 adults and nymphs per sweep in fields surveyed. No fields surveyed had populations exceeding the economic threshold for **plant bugs**.

VEGETABLES

Potato disease update - In spite of cool soils and a prolonged emergence period, potatoes are emerging and stands look good. A few days of warm weather will move the crop along quickly. There seems to be very little seedpiece decay and damage from **Rhizoctonia stem canker** is low. Several products for managing **R6-rhizoctonia stem canker** were used in commercial fields this year including Tops-MZ on the seed, Moncoat MZ on seed, Maxim-MZ on seed, Moncut in-furrow, Quadris in-furrow

and Blocker in-furrow or broadcast. Now is a good time for growers to compare efficacy of these materials.

Late blight- Weather conditions during the past week pushed severity values past the treatment threshold of 18 severity values at the Hancock and Plover sites. We are still below threshold at the Grand Marsh and Antigo sites. As you recall, we begin to accumulate severity values at emergence and expect that if **late blight** inoculum is present in an area and conditions favor disease spread, late blight symptoms will appear within 14 days of reaching the severity value threshold. Severity values are based on the duration of relative humidity periods over 90% RH, temperature during each RH period and the favorability of these conditions on the development of **late blight**. At this point in the growing season, no one has detected symptoms of **late blight** on potatoes anywhere in Wisconsin. There are some volunteer potatoes growing in a few fields and a few cull piles that need to be destroyed immediately. Growers should be checking fields where they spread potatoes during the winter and where they spread waste from their storages to be sure that there are no potato plants growing in these areas. For those fields accumulating 18 severity values, fungicide sprays are recommended at once. There are several options including Curzate, Previcur, or Acrobat tank mixed with mancozeb, metiram or chlorothalonil. Gavel (containing mancozeb) and

cutworm injury in many corn fields throughout the state. In general, corn plants beyond the 5-leaf stage are large enough in diameter to be invulnerable to cutting, but with heavy rains and cool temperatures, plant growth has been at a standstill in many areas. In any event, growers should continue to scout corn through the 5-leaf stage. Fields with grassy weed problems are particularly susceptible to **black cutworm** injury at this time.

FORAGES

Potato leafhopper – Cool, wet weather has temporarily delayed the potato leafhopper population increase we typically see shortly after the arrival of this insect. Low numbers of adults were swept from alfalfa fields again this week. Nevertheless, growers should continue to scout fields, especially alfalfa regrowth. Once temperatures pick up, **potato leafhopper** development can be expected to occur at an accelerated pace, and population explosions may occur in a short amount of time.

Alfalfa weevil – Counts of 1.4-3.7 larvae per sweep were detected in a number of Adams Co. alfalfa fields. Tip feeding ranging from 5-20%.

Meadow spittlebug – Above-threshold counts exceeding 1 nymph per stem were observed in fields of 20-24" alfalfa in Wood, Adams and Marquette Cos. Most of these nymphs, however, were nearing the adult stage at which **meadow spittlebugs** are no longer injurious to alfalfa. In most cases, cutting should effectively reduce nymph populations. Only one generation of **meadow spittlebug** occurs each season.

Tanished plant bug – Adult and nymphs were observed in alfalfa regrowth late last week. Sweep net counts ranged from 0.3

Current P-Day and Severity Value Accumulations (as of June 5, 2002)		
Location	P-Day Total	Severity Value Total
Antigo – Not yet emerged	—	—
Grand Marsh emerging 5/24	73	15
Grand Marsh emerging 5/27	60	15
Hancock emerging 5/16	106	19
Hancock emerging 5/23	81	19
Hancock emerging 5/28	52	18
Plover emerging 5/15	116	22

Quadris (high label rate) is also registered for **late blight** control. In addition there are the standard materials consisting of mancozeb, metiram, fixed copper and chlorothalonil.

Early blight- P-Days are accumulating very slowly. Normally we reach 300 P-Days on the early emerging fields by about the third week in June. Given the cold conditions thus far in the season, we may not see 300 P-Days until late June or early July in central WI and later in northern areas. Initiating fungicides designed to control **early blight** normally begins at 300 P-Days since after this point, plant susceptibility steadily increases and **early blight** inoculum becomes more widespread. (UW-Madison, W. R. Stevenson)

SOYBEANS

Bean leaf beetle – Growers are encouraged to scout early-planted soybeans for feeding injury. Early-planted fields are most attractive to **bean leaf beetles** at this time of year, and soybean seedlings are particularly vulnerable to this pest.

APIARY

2002 Mid-West Master Beekeeping Workshop- This event will be held July 25-27, 2002 at the Agricultural Research and Development Center near Mead, Nebraska. Dr. Dewey Caron from the University of Delaware and author of a popular textbook, *Honey Bee Biology and Beekeeping*, will join an outstanding group of regional speakers to provide an excellent training opportunity for beekeepers. The program provides a solid foundation in bee biology and practical beekeeping. A program and registration information can be found at: http://entomology.unl.edu/beekeeping/master_workshop2002.htm

A printed program and registration form can be obtained by writing to: Dr. Marion Ellis, University of Nebraska, Department of Entomology, 202 Plant Industries Building, Lincoln, Nebraska 68506. You can also request more information by phoning 402-472-8696.

HUMANS AND ANIMALS

Deer ticks- These parasites have been found in Sheboygan, Lacrosse and Bayfield Cos.

Black fly- Complaints have been registered in Sauk and St Croix Cos.

Carpenter ants- These insects, which populate dead and dying wood, have been reported swarming throughout the state. They are an indication of wood decay in trees and buildings.

FOREST, SHADE TREE, ORNAMENTALS AND TURF

Aphids – Light to moderate numbers were recorded from

spirea, sedum and various annuals at nursery dealers in Buffalo, La Crosse, Monroe, Pierce and Sheboygan Cos.

Balsam twig aphid – Active colonies were widespread on balsam fir at a nursery in Dane Co.

Canker worms- These pests have been found on various plants in Dane and Milwaukee Cos. (UW-Madison)

Columbine leaf miner complex – A small number of serpentine mines were observed on columbine at nursery dealers in Adams, Pierce and Vernon Cos.

Cottony maple scale – This insect occurred along with **winged euonymus scale** on dwarf burning bush in light to moderate numbers at nursery dealers in Marathon, Ozaukee and Pierce Cos.

June beetles - This common pest was found defoliating pin oak in Dunn Co. (UW-Madison)

Maple petiole borer- Borers have been found in Lacrosse, Jefferson and Kenosha Co. (UW-Madison)

Spider mites – Light to moderate amounts of damage were found on arborvitae, fraser fir, hydrangea, roses and buddleia at nursery dealers in Dane, Pierce and Sheboygan Cos.

Spittle bug – Low numbers of spittle masses were observed on potentilla, aster and phlox at nursery dealers in La Crosse, Monroe, Pepin and Vernon Cos.

Thrips – Low numbers were found on impatiens and marigolds at nursery dealers in Buffalo and Sheboygan Cos.

Willow leaf beetle – A light amount of damage was found on willow at a nursery dealer in Monroe Co.

Bacterial leaf spot – Light to moderate amounts of leaf spots were found on lilac, viburnum and mock orange at nursery dealers in Rusk, Vernon, Washington and Wood Cos.

Black spot – Incidence and severity are increasing on roses at nursery dealers in Adams, La Crosse, Milwaukee, Monroe, Pierce, Portage, Sheboygan and Vernon Cos.

Botryosphaeria canker – Yellow twig dogwood at nursery dealers in Oneida, Portage and Wood Cos. had scattered plants with cankers killing shoots.

Golden twig canker – Several pagoda dogwood at a nursery dealer in Wood Co. had stem cankers from this fungal disease.

Impatiens necrotic spot virus – A low incidence of infection was found on impatiens and snapdragons at nursery dealers in La Crosse, Portage and Sheboygan Cos.

“Mystery fungus associated with spruce” – Signs of this as-yet-unnamed disease were found on Fat Albert spruce, Black Hills spruce, and possibly Serbian spruce at nursery dealers in Sheboygan Co. It was also found at a nursery in Dane Co. on Colorado spruce.

Oak tatters- This disorder has been reported in Columbia Co. Symptoms have been observed on white oak. Heavily affected trees are already producing new foliage.

Oak tatters



Powdery mildew – Signs of this disease are beginning to appear on roses and spirea at nursery dealers in Milwaukee, Portage and Sheboygan Cos. Moderate infections were obvious on dense plantings of black-eyed Susans in Dane Co. by May 31.

Rose mosaic virus complex – Ten roses were ordered destroyed at nursery dealers in Adams, Barron, Pierce and Washburn Cos. because of infection with this virus complex.

Septoria leaf spot – Light amounts of leaf spotting were observed on dogwood and spirea at nursery dealers in La Crosse, Pepin and Vernon Cos.

Sphaeropsis tip blight – Mugo pine at a nursery in Dane Co. had moderate amounts of damage to shoots.

Swiss needle cast – Moderate amounts of damage were seen on douglas-fir at a nursery in Dane Co.

Rhizoctonia root rot – Fern leaf peony were succumbing to **rhizoctonia root rot** at a peony grower in Richland Co.

Rose rosette disease – Multiflora roses in several Grant Co. pastures showed symptoms of **Rose rosette disease (RRD)**, a potential biocontrol agent for this invasive plant species. Multiflora rose (*Rosa multiflora*) is a nuisance weed, originally introduced to help stop soil erosion, serve as a

living fence and provide cover and food for wildlife. Unfortunately, the plant has proven to be quite invasive, and dense thickets of the thorny canes frequently cause problems in pastures and woodlands in the southwest corner of the state.

RRD is most likely caused by a virus, vectored by an eriophyid mite (*Phyllocoptes frutiphilus*). The disease does not spread effectively, and efforts to use the virus to control multiflora rose have focused on the rather laborious method of grafting diseased branches into healthy rose plants. Another drawback of **RRD** as a biological control agent is that the disease also infects cultivated roses.

Symptoms of RRD on multiflora rose include reddening, stunting, thickened stems, deformed leaves and witches' brooms. Blossoms may be deformed and appear leaf-like. Infected plants usually die within two years of infection.

Rust – Trace amounts were found on potentilla at a nursery dealer in Pepin Co. Another *Chrysomyxa* rust was found sporulating on Colorado spruce at a nursery in Dane Co.

White pine blister rust – Rust was sporulating on white pine at a nursery in Dane Co. Light amounts of damage were

Rose Rosette Disease



Photo courtesy of Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln

observed throughout the nursery.

Xanthomonas leaf spot – Hydrangea at a nursery dealer in Jefferson Co. were being affected by this bacterial pathogen.

STATE/FEDERAL PROGRAMS

Gypsy moth program - After one week, trappers have set 5,948 (22%) of the expected 27,000 gypsy moth traps to be set statewide. One county, Racine, has already been completed. Counties that are 50% complete or better are: Buffalo (61%), Eau Claire (56%), Florence (80%), Manitowoc (52%), Pepin (82%), Sheboygan (65%), Walworth (54%), and Waupaca (57%). Trap setting will continue for the next 4 weeks.

We set two types of traps, delta and milk carton. Delta traps are triangular in shape and about 7 inches long. They contain a pheromone string to attract male gypsy moths inside and a “glue” which cause the moth to become stuck inside the trap. They may be green or orange in color and can hold approximately 15-20 moths effectively. Delta traps are usually tied to a tree with string about chest high. Milk carton traps are shaped like a milk carton with a roof attached to it. It resembles a small bird house and is always green in color. It is usually hung from a low tree branch with string. These traps contain a pheromone string to attract male gypsy moths inside and a pest strip, which kills the moth. Milk carton traps can hold several hundred moths and are used mainly in the regulated counties. We appreciate landowner cooperation in allowing us to set traps on or near private property.

All cooperators traps have been sent out for this year.

For more information on the GYPSY MOTHS PROGRAM, please call our hotline at 1-800-642-MOTH or go to our website <http://datcp.state.wi.us> and type “gypsy moth” in the search box.

FRUIT

GYPSY MOTH TRAPPING REPORT

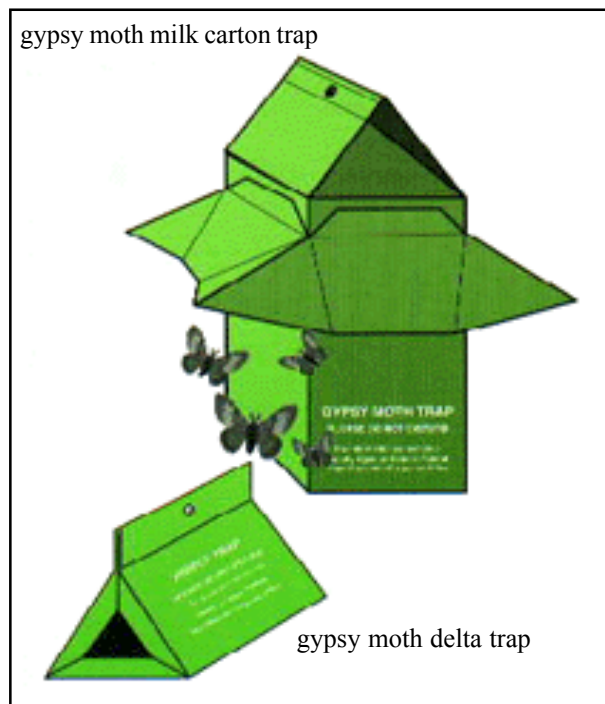
6/5/102 COUNTY	Total Traps Expected	# of Traps Set	% Complete	Counties Done
Adams	606	150	25%	
Ashland	519	60	12%	
Barron	433	5	1%	
Bayfield	986	177	18%	
Brown	161	59	37%	
Buffalo	356	217	61%	
Burnett	420	107	25%	
Calumet	79	0	0%	
Chippewa	513	69	14%	
Clark	619	144	23%	
Columbia	673	108	16%	
Crawford	301	0	0%	
Dane	1373	282	21%	
Dodge	223	0	0%	
Door	123	0	0%	
Douglas	685	127	19%	
Dunn	429	122	28%	
Eau Claire	325	181	56%	
Florence	122	97	80%	
Fond Du Lac	181	66	37%	
Forest	253	0	0%	
Grant	604	71	12%	
Green	295	138	47%	
Green Lake	89	0	0%	
Iowa	393	0	0%	
Iron	541	78	14%	
Jackson	512	168	33%	
Jefferson	141	0	0%	
Juneau	446	209	47%	
Kenosha	68	0	0%	
Kewaunee	83	0	0%	
LaCrosse	235	83	35%	
Lafayette	322	132	41%	
Langlade	215	0	0%	
Lincoln	742	181	24%	
Manitowoc	147	77	52%	
Marathon	842	398	47%	
Marinette	347	0	0%	
Marquette	253	0	0%	
Menominee	360	0	0%	
Milwaukee	90	14	16%	
Monroe	470	0	0%	
Oconto	252	94	37%	
Oneida	585	117	20%	
Outagamie	159	0	0%	
Ozaukee	59	0	0%	
Pepin	119	98	82%	
Pierce	296	0	0%	
Polk	467	88	19%	
Portage	213	0	0%	
Price	670	226	34%	
Racine	90	90	100%	X
Richland	340	30	9%	
Rock	581	148	26%	
Rusk	455	133	29%	
St. Croix	368	0	0%	
Sauk	783	211	27%	
Sawyer	637	113	18%	
Shawano	225	78	35%	
Sheboygan	127	83	65%	
Taylor	494	199	40%	
Trempealeau	370	0	0%	
Vernon	403	43	11%	
Vilas	434	128	29%	
Walworth	140	75	54%	
Washburn	408	93	23%	
Washington	107	0	0%	
Waukesha	139	0	0%	
Waupaca	188	108	57%	
Waushara	445	104	23%	
Winnebago	133	0	0%	
Wood	527	169	32%	
TOTALS	26789	5948	22%	



Apple scab- Most cooperating orchards have accumulated enough degree days to signal the end of the primary scab season. Only the cooperator in Pierce Co. is still at risk of infection from overwintered ascospores, and he should reach the model threshold today or tomorrow. The model predicts that 95% of ascospores will be mature at 910 GDD (base32) from Mac green tip, and adequate control during this period will reduce scab occurrence through the rest of the season.

Plum curculio - No injury was apparent on June 2 in northern Dane Co. On June 4, after two full days of rain, 9% of the fruits on an untreated tree were damaged.

Potato leafhopper - Adults were observed on rhubarb in Dane Co.



Apple scab – Initial symptoms were noted on a Hopa crab on June 5.

Apple Cooperator Comments:

Ozaukee Co. - Saw first **plum curculio** scars on May 30th on plums. Since seen on Pippin apples. Regarding frost injury, it looks like we have a pretty good crop on most varieties, although the fruit on the bottoms of trees in some areas was lost, and some varieties will bear only a light or moderate crop. Thinning, as always, will not be fun!

Sheboygan Co. – Codling moth biofix on June 1.

Bayfield Co. – Full bloom

Apple Development						
Orchard	green tip	latest report	accumulated GDD(base32)*	last week's GDD(base32)*	development stage	
Racine	4/15	5/31	941.6	891	fruit set	finished with primary scab
Prairie du Chien	4/15	5/28	916	916	fruit set	finished with primary scab
Fond du Lac	4/15	5/31	1008	880	fruit set	finished with primary scab
Sheboygan	4/15	6/4	933.8	690	fruit set	finished with primary scab
Pierce	4/17	6/5	901.3	468	fruit set	

*from Mac green tip

APPLE INSECT TRAPPING RESULTS

County	City	Date	STLM	RBLR	CM	OBLR
Richland Co.						
	Hill Point	5/29-6/3	44	0	4	0
Crawford Co.						
	Gays Mills-W2	5/25-6/2	0	0	0	0
Dane Co.						
	Deerfield	5/28-6/4	0	3	18	0
Green Co.						
	Brodhead	5/29-6/5	0	0	0	2
Pierce Co.						
	Beldenville	5/25-6/1	32	10	1	
	Spring Valley	5/31-6/6	197	38	6	3
Trempealeau Co.						
	Galesville	5/28-6/3	200	0	0	0
Jackson Co.						
	Hixton	5/28-6/3	30	1	1	
Fond du Lac Co.						
	Rosendale	5/30-6/1	86	13	1	0
	Malone	5/28-6/4	0.5	3	0	
Adams Co.						
	Oxford	5/27-6/3	205	15	4	3
Marquette Co.						
	Montello	5/27-6/3	73	35	2	2
		5/20-5/27	210	27	4	0
Sheboygan Co.						
	Plymouth	5/30-6/6	17	5		
Ozaukee Co.						
	Mequon	5/28-6/4	0	4.5	3.6	
Racine Co.						
	Rochester	5/30-6/6	0	0	7	0
Brown Co.						
	Oneida	5/26-6/2	80	4	3	
Bayfield Co.						
	Washburn	5/28-6/4	0	0	0	0
		5/20-5/28	336			

BLACKLIGHT TRAPPING RESULTS

through June 5

Site	Euro. Corn Borer	Army- Worm	Black Cutworm	Vari. Cutworm	Spot. Cutworm	Corn Earworm
South Central						
Mazomanie	4	12	2	0	3	0
Janesville	10	331	0	0	0	0
East Central						
Oakfield	0	1	0	0	0	0
Manitowoc						
Central						
Marshfield		21	2			
Northwest						
Chippewa	0	0	0	0	0	0

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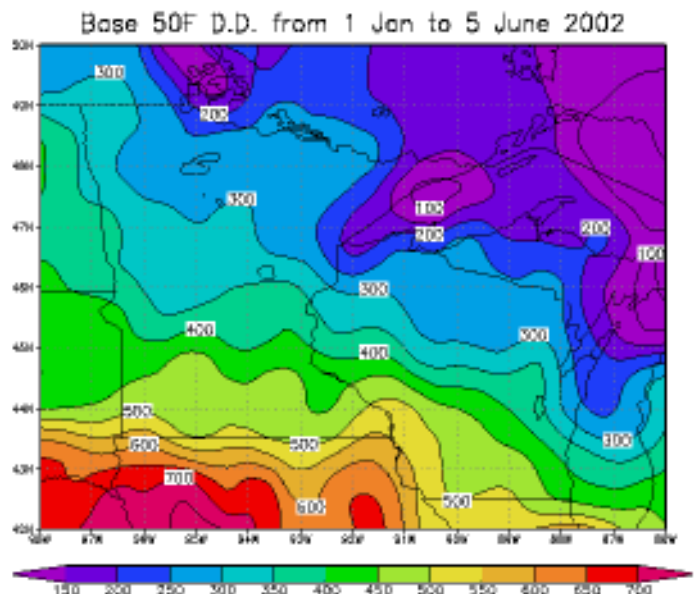


Website of the Week:

<http://www.loganbeelab.usu.edu/>

USDA Bee Systematics and Biology Laboratory

Information on bee biology, garden plants, crops, publications, sources for bees, news and more. Information on beneficial bees besides the honeybee- including bumblebees, blue orchard bees, and leafcutter bees.



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