

Wisconsin Department of Agriculture, Trade & Consumer Protection

Wisconsin Pest Bulletin

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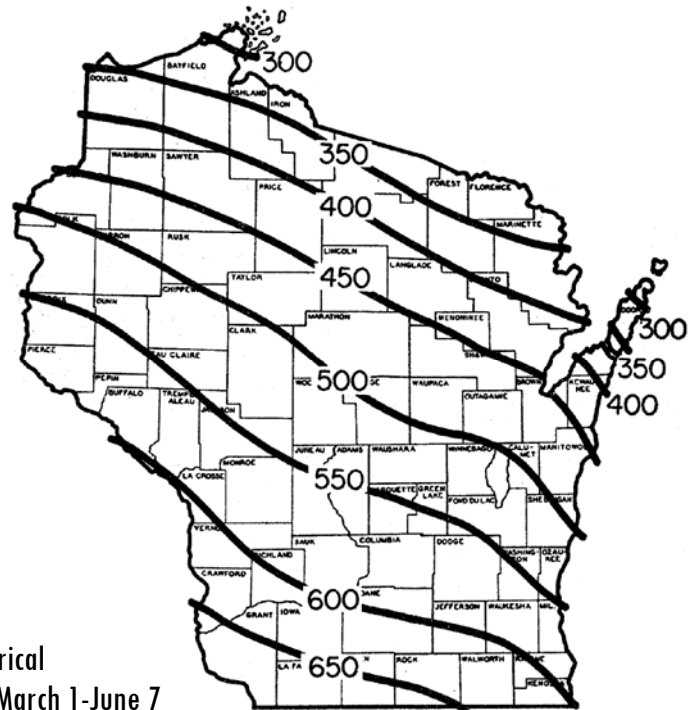
Your weekly source for crop pest news, first alerts, and growing season conditions for Wisconsin



Weather and Pests

Early June weather conditions have been both seasonable and severe. A cold front moved eastward through the state on Tuesday and met with warm air ahead, producing several tornadoes in the south central region of the state and generating thunderstorms in southwest. The high pressure system which followed brought dry weather and hot, pleasant conditions to Wisconsin on Wednesday and the climate has been agreeable in the days to follow. High temperatures this week were in the 70s and 80s.

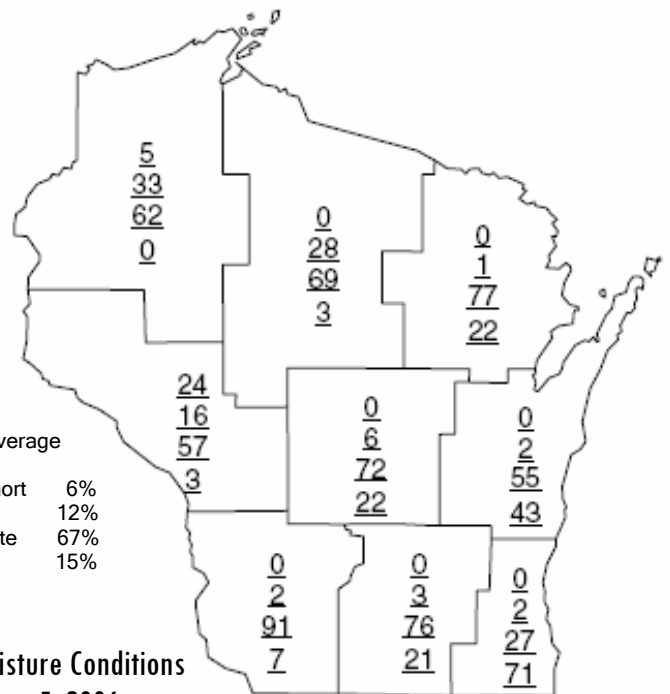
Crop conditions are variable, but generally good. Widespread weed problems have developed statewide, primarily in areas where herbicide applications were offset or delayed by frequent rains.



Historical
GDD March 1-June 7

Growing Degree Days through 6/8/06 were

	GDD 50F	2005	Sine 48F	40F
Dubuque, IA	682	701	682	1238
Lone Rock	651	666	634	1180
Beloit	718	697	719	1296
Madison	617	666	612	1154
Juneau	586	658	581	1131
Sullivan	641	683	638	1202
Waukesha	571	611	568	1116
Hartford	565	597	565	1110
Racine	521	521	540	1057
Milwaukee	530	513	536	1067
Appleton	576	541	576	1112
Green Bay	502	468	528	1027
Big Flats	629	625	610	1159
Hancock	614	596	470	1140
Port Edwards	633	584	618	1168
La Crosse	726	680	719	1310
Eau Claire	701	622	708	1273
Cumberland	606	515	596	1129
Bayfield	404	319	386	853
Wausau	549	517	523	1040
Medford	559	493	539	1059
Crivitz	496	439	499	1004
Crandon	488	466	461	943



State Average

Very Short 6%
Short 12%
Adequate 67%
Surplus 15%

Soil Moisture Conditions
as of June 5, 2006

Fields in the east central district are still drying out after the recent surplus of precipitation, while fields in the southwest missed the rainfall and could use a good soaking.

Surveys this week detected first generation corn borer larvae, true armyworm activity, increased populations of alfalfa weevil larvae and potato leafhoppers. No noteworthy insect outbreaks were observed, though it appears that populations of several pest species are on the verge of exploding in second crop hay. With crop progress advancing at a good pace, early season pests are quickly becoming a thing of the past, and activity of the mid-season round of pests is just beginning.

Looking Ahead

Soybean aphid - Our brief history with this species has shown soybean aphids begin to colonize Wisconsin soybean fields during the first and second weeks of June. Last season the first aphids were detected on June 3 and in 2004 the first aphid sighting occurred about the same time. Appropriately, the first soybean aphids were detected in western Dane Co. and Sauk Co. fields this week, as well as at the Arlington and West Madison Research Stations. Densities are very low for now. No more than nine aphids per plant on 2-4 of 100 plants were found in Dane and Sauk Cos.

In addition to the recent finds in Wisconsin, aphids have been detected in Iowa, Illinois, Minnesota and South Dakota. The award for the first aphid sighting of 2006 goes to University of Minnesota aphid-watchers who detected the earliest colonies on May 29. News of multi-state finds means it's time to begin regular scouting for soybean aphids on the undersides of the newest trifoliates. Checking once a week should be sufficient for the next two to three weeks. By early July, it may be necessary to scout fields more frequently.

Potato leafhopper - Counts are on the rise, but remain below the threshold of two per sweep in 12-14" regrowth alfalfa in the south central district. The leafhopper situation further north may be more serious, according to Monroe Co. Extension Agent Bill Halfman who reported, "There are some fields, but not by any means all fields, in the Sparta area that have sufficient alfalfa weevil and potato leafhopper numbers in second cutting growth to justify an insecticide application." Considering that nymph production is now underway (as of late last week), growers would be wise to scout regrowth carefully for escalating populations. High temperatures in the past week were highly favorable for potato leafhopper reproduction.

European corn borer - Moths counts increased significantly at several black light trapping sites and first instar larvae were detected in the tallest Sauk Co. cornfields surveyed this week. A total of 80 moths were captured in one evening near Arlington, a record-high nightly catch, according to cooperator Steve Sanborn. The weekly total for Arlington was 125 moths. Moth counts at other trapping sites were: Mazomanie 19 moths, Janesville 9 moths, Sparta 19 moths, Chippewa Falls 15 moths, and Manitowoc 7 moths. According the European corn borer GDD model, accumulations are such that peak flight should have occurred near Beloit, Sullivan, La Crosse, Eau Claire and Lone Rock

where 631 GDD were surpassed days ago. The first flight of moths is expected to peak near Madison over the weekend and in central Wisconsin in the week ahead. The June 16 report will confirm whether this week's counts represent the peak flight or if more moths will continue to emerge.



European corn borer feeding injury

Krista Lambrecht, DATCP

Alfalfa weevil - Late instar larvae have grown more abundant in fields in the past week and are reportedly reaching problematic levels in some second crop regrowth. Pupation remains at least a week away, meaning these larvae have plenty of time to continue to consume alfalfa foliage. Scouting regrowth in the week ahead is advised.

Corn earworm - Nine moths were captured near Lancaster on the evenings of June 6 and 7, and another two moths were registered at Mazomanie in western Dane Co., marking the first captures of corn earworm in Wisconsin this season. Reports of moths in the upper Midwest in early June are infrequent, but not unheard of. Bill Hutchison, Professor and Extension Entomologist at UMN, reported the first capture of 4.5 moths in Minnesota on the night of June 1, indicating moths have been arriving for more than a week. Recent weather patterns across the upper Midwest likely contributed to the south-north migration that delivered these moths into the state.



Corn earworm moth

vegipm.tamu.edu

True armyworm - Third and fourth instar larvae were active this week in Sauk and Dodge Co. cornfields. In Sauk Co. feeding injury was noted only in the outer three border rows and affected no more than four of 50 plants. These armyworm sightings are not surprising given the consistently high black light trap captures of armyworm moths at several trapping sites in the last month. They indicate crop scouts and advisors should brush up on the economic thresholds and scout fields carefully for armyworm larvae in the week ahead. See the CORN section for scouting tips and action thresholds.

Plum curculio - Weevils continued to move into orchards during the past week and significant damage from feeding and oviposition has now become apparent in parts of south central and southwestern districts. Although plum curculio has been active for more than two weeks in most areas, the first official capture of adults occurred near Rochester, Spring Valley, and Montello earlier this week. Spray applications to control plum curculio should be timed to prevent egg laying by the overwintered generation of weevils and may be warranted when 0.5-1% fruit injury is detected.

Corn rootworm - The hatch of corn rootworm larvae has likely occurred in advanced southern Wisconsin corn fields where early instar larvae are beginning to feed on roots in untreated cornfields. Survival of corn rootworm larvae during hatch is expected to be high in most areas.

Forage

Alfalfa weevil - DATCP surveys show counts of larvae are approaching economic thresholds in second crop southern and central alfalfa. A majority of the larvae swept in the south have reached the third and fourth instars, the stage at which they are capable of consuming a considerable amount of foliage. Tip feeding in 14-20" Sauk, Dane and Juneau Co. regrowth ranged from 10-50% and larvae numbered to 0.6 to 3.5 per sweep. In 6-12" Iowa, Grant and Vernon Co. fields tip feeding affecting 15-80% (averaging 49%) of the stems was noted and late instar weevils numbered 0.4-1.5 per sweep.

Interestingly, crop consultants around the state are finding high populations of larvae and unusually intense feeding in second crop regrowth. In yesterday's issue of the *Wisconsin Crop Manager* (June 8, 2006), Extension Entomologist Eileen Cullen noted, "Marvin Baker (Bakersfield Consulting, Lafayette, Green and Rock Counties in southern Wisconsin) reported June 5 that within the past several days, alfalfa weevil larval pressure on second crop regrowth is as high as he has observed in 20 years of experience in southern Wisconsin. Marvin reports fields where first crop was cut May 22-May 23 and second crop is now at 8" height with 40-60% of stems with weevil feeding. Also on June 5, Bill Stangel, UW Arlington Agricultural Research Station Asst. Superintendent and Dan Undersander, UW Madison Forage Agronomist reported significant alfalfa weevil larval pressure."

Alfalfa weevil larvae are expected to feed for another week or so, then pupate and emerge as adults around at 814 GDD (base 48F). Be on the lookout for injury to second crop hay

until that point is reached. Any fields that were not cut this week are facing intense larval pressure.

For more information read Eileen Cullen's article *Alfalfa Weevil Alert: Watch 2nd Crop Alfalfa Regrowth* at: <http://ipcm.wisc.edu/wcm/pdfs/2006/06-14Insects1.html>

Potato leafhopper - The first nymphs of 2006 were observed late last week at a residence in eastern Dane Co. confirming that reproduction by spring migrants has begun. The nymphs were nearly mature and are likely to have reached adulthood by now. With reproduction in progress, populations are apt to multiply rapidly in the next few weeks. In fact, reports from consultant around the state indicate populations are already on the verge of exploding. Under normal summer temperatures only 10 days are needed for potato leafhopper populations with overlapping generations to double in size. DATCP surveys this week found below-threshold counts ranging from 0-1.0 per sweep in 6-16" Columbia, Dane, Iowa, Grant, Vernon, and Sauk Co. fields.

Scouting for potato leafhopper is extremely important in second crop regrowth. Using a 15" sweep net, take 20 sweeps in five separate areas of the field and calculate the average number of leafhoppers per sweep. The table below will help to decide if treatment is warranted. Be sure to get a representative sample when sweeping and avoid wet fields and field edges.

Action thresholds for potato leafhopper in alfalfa

- <3 inches = 0.2 adult
- 3-6 inches = 0.5 adults
- 6-12 inches = 1.0 adult or nymphs
- 12-14 inches = 2.0 adults or nymphs

Pea aphid - An increase in the number of winged individuals during the last reporting period suggests the annual aphid migration to pea fields is getting underway. Counts of 10-36 per sweep were common in the south central alfalfa fields surveyed this week; approximately 25% of the population is winged. Scouting peas in the weeks ahead or when 50-75% of pea plants are flowering is strongly advised.

When looking for pea aphids, be sure to sample several sites within a field as densities may vary. Pea aphids that have recently migrated into peas from a nearby alfalfa field are likely to be detected in higher numbers in the edges of new fields early on. Examine 20 stems in five separate areas of the field for a total of 100 stems per field. If inspecting stems is too labor intensive and sweeping is impractical, aphids may be dislodged and counted more easily by cutting stems close to the ground and shaking or hitting them against a piece of white paper or into a white pan.

The threshold for pea aphids in peas is 2-3 aphids per 8" of plant tip at flowering. In alfalfa the threshold is 10 aphids per stem at two weeks prior to harvest. When translated into sweeps, the threshold is somewhere between 10 and 35 pea aphids per sweep. As mentioned in the April 28 issue of the Wisconsin Pest Bulletin, there is some uncertainty about action threshold in peas because of this aphid's virus transmission potential. The traditional threshold of 35 aphids per sweep does not factor in the possibility of virus transmission, but on the other hand, the revised threshold of

10 aphids per sweep now used by pea growers may be too low in years when virus problems do not develop in pea fields. For now we recommend closely monitoring pea aphid population build-up, watching for virus symptoms, considering both thresholds and using your best judgment.

Lastly, do not apply an insecticide unless the action threshold is exceeded. Predators such as ladybeetles, lacewing larvae, syrphid larvae, damsel bugs, minute pirate bugs and parasitoids help to keep populations in check; all adversely affected by insecticides.

Corn

European corn borer - Flight activity of this species has been favored by weather in the past week. High moth counts were registered at a few black light trapping sites including Arlington (125 moths) and Marshfield (30 moths). Other sites reported slightly elevated counts relative to last week. Mazomanie counts increased from 9 to 19 moths, Sparta increased from 2 to 19 moths, Chippewa Falls saw an increase from 5 to 15 moths, and Manitowoc registered the first catch of 7 moths. Counts decreased from 17 to 9 moths at Janesville.

If warm evening temperatures continue while the first flight is active, trappers should see a regular pattern of increased corn borer emergence through 631 GDD (base 50F) followed by declining counts until the second flight moth activity begins around 1400 GDD. Advanced locations such as Beloit, La Crosse, Lone Rock, Sullivan and Eau Claire have already surpassed the 631 GDD point at which peak flight (50% of the cumulative moth capture) is expected.

In addition to escalating flight activity, newly hatched first instar larvae were detected in the tallest V7 and V8-stage Sauk Co. cornfields yesterday. Counts of infested corn did not exceed 2 per 50 plants in the fields checked. The hatching of eggs signals the treatment period for first generation borers is rapidly approaching and will begin once 800 GDD are reached. This event could occur as soon as June 14 near Janesville and Beloit, June 21 near Madison and Hancock, June 26 near Wausau, and June 29 near Green Bay. The treatment window remains open for only a short period of time between 800-1100 GDD.

Corn earworm update - Although it may seem far too early for earworms, flight activity has already been documented in southwest and south central Wisconsin where traps were placed on June 6 and in Minnesota where traps were set about two weeks ago. In fact, last week, Bill Hutchison, Professor and Extension Entomologist at UMN, wrote with news that an average of 4.5 moths per trap was registered on the night of June 1 at Rosemount in southeast Minnesota (a rare occurrence for early June). Bill added, "Although we know of no sweet corn, including the earliest April planting, that is close to mid-whorl or early tassel, this could be an interesting year."

This season, DATCP will be participating in a multi-state Midwest corn earworm monitoring program. Wisconsin corn earworm counts will be shared with specialists from neighboring states and posted on UMN's VegEdge web site

at <http://www.vegedge.umn.edu/2006/CEW.htm>. Wisconsin corn earworm trappers are urged to get their Hartstack traps out over the weekend and start sending your data to Clarissa Hammond. Cooperators have three options for reporting weekly counts:

- (608) 224-4544
- Clarissa.Hammond@datcp.state.wi.us
- 1-800-462-2803 (toll-free Pest Hotline)



Corn earworm Hartstack trap

www.oznet.ksu.edu

As a reminder, please use only the Hercon, "Zea Lure-Tape" brand lures provided to you and change lures, using the following schedule: from June 1 to July 15, change lures once every two weeks; from July 15 to August 30, change lures once per week. Continue to follow weekly reports in the Wisconsin Pest Bulletin and those posted on the UMN VegEdge web site for updates as corn earworm moths make their way to the Midwest.

True armyworm - Third and fourth instar larvae were found feeding in the whorls of V7-stage corn plants in a field just south of Baraboo earlier this week. The feeding activity was confined to the outer three border rows, which were adjacent to dense weed growth. Additionally, Eileen Cullen, Extension Entomologist, UW Entomology Department, reported in the June 8 issue of the *Wisconsin Crop Manager* that first generation armyworm were detected in Dodge Co. fields by Matt Hanson, UW-Extension Dodge County Crops and Soils Agent. These sightings are not particularly surprising, given consistently high black light trap captures of armyworm moths in the last month. They indicate crop scouts and advisors should brush up on the economic thresholds and scout fields carefully for armyworm larvae in the week ahead.

The action threshold for armyworm in corn is based on the percentage of plants infested with armyworm larvae and the average size of the larvae. Measures to control armyworm feeding should be taken when there are two or more larvae at 3/4" or longer on 25% of the plants OR there is one armyworm per plant on 75% of the plants. Consider spot treatment if infestations appear to be limited to certain areas. Read Eileen Cullen's Wisconsin Crop Manager article titled **Field Note: First Generation Armyworm** at: <http://ipcm.wisc.edu/wcm/pdfs/2006/June8Cullen3.pdf>

Black cutworm - Scattered pockets of heavy infestations have been detected in northwest Wisconsin in the past two weeks, but few reports of cutworm problems have been received from other parts of the state. Although black cutworm is no longer a threat to cornfields beyond the V5 stage, the remaining 5% of corn fields still expected to be planted statewide are at heightened risk for the development of cutworm infestations. Also at risk are the numerous fields with dense weed growth that have become a serious problem statewide.

June beetles and white grubs - Peak adult flight of most of Wisconsin's native June beetle species occurs every three years, and this summer appears to be one of those peak years. During the past several weeks, unusually high numbers of June beetles have been cluttering black light traps, and a DATCP survey specialist observed hundreds of overturned carcasses littering the ground outside of a Union Center (Juneau Co.) Kwik Trap last week. In addition, retired Survey Entomologist Lee Lovett described a phenomenon that he had never experienced as he drove from Oshkosh to De Forest earlier this month. He reported an encounter with "a storm of June beetles southwest of Waupun, mostly, in grassy, savannah-like areas," and added, "They sounded like hail stones hitting the windshield and did they ever make a mess!" If it's true that peak larval damage tends to develop in the years following peak adult flight, then 2007 could be a record year for white grubs.

Common stalk borer - The characteristic pattern of feeding that is evident in the border rows of most south central cornfields indicates larvae from overwintered eggs have been active in southern Wisconsin for a few weeks. After hatching from eggs in late April and early May, the young stalk borers feed in grasses and other weeds. Within weeks, they grow too large for the grass to support and move during the nighttime hours to new, larger hosts such as corn. Migration is also prompted when grasses are killed abruptly by herbicide applications.



Common stalk borer

Marlin E. Rice

Movement from grassy areas to corn usually begins around 1,400 GDD (base 41F) and continues through 1,700 GDD. After 1,400 GDD are reached field margins should be scouted closely for stalk borer activity. Insecticides are no longer effective against larvae that have tunneled into corn plants, therefore, it is critical to detect infestations early while the larvae are still feeding in the whorl. Fields with heavy injury may benefit from spot treating infested border rows. Once corn plants grow beyond V7 stalk borer feeding is unlikely to kill the plant.

Corn leaf aphid - The first aphids of 2006 were observed in a field south of Baraboo in Sauk Co. yesterday. These early

migrants likely arrived on the latest weather from the southern U.S., much like leafhoppers, armyworms and corn earworms. When large populations of corn leaf aphids colonize corn tassels they occasionally interfere with pollination. Control of corn leaf aphids is seldom needed, but may be justified when 50% of corn plants in a field have 50 or more aphids. In instances when the threshold is exceeded, apply a single insecticide treatment before tassels emerge, but not before upper whorl leaves open to expose the tassels.



Stalk borer injury to border rows

Marlin E. Rice

Soybeans

Bean leaf beetle - The unmistakable defoliation caused by overwintered bean leaf beetles is widespread, but light in most V1 soybean fields. Surveys this week in Columbia, Dane, Juneau, and Sauk Cos. found 5-15% defoliation affecting 22-54 of 100 plants. No more than two beetles per foot of row were observed in any of the fields visited.

While defoliation is common and seemingly more widespread compared to recent years, the infestations observed this week do not warrant an insecticide treatment. Yield loss from bean leaf beetle injury to leaves and cotyledons usually does not occur until densities of the beetles are fairly high, 16 per foot of row in VC-V1 soybeans and 39 per foot of row V2+ soybeans.



Bean leaf beetle defoliation

Krista Lambrecht, DATCP

Additionally, BPMV does not appear to be an issue in Wisconsin at this time. Preliminary results of the spring survey of overwintered bean leaf beetle in alfalfa show very small percentage are carriers of BPMV. As of June 5, a total of 160 alfalfa fields had been sampled in the southern two-thirds of the state. Bean leaf beetle were collected from 61 (38%) of those sites. So far, 45 of the beetle samples have been tested for BPMV and only one Walworth Co. beetle tested positive. These preliminary findings indicate there is little reason to assume that overwintered beetle population will infect seedling soybeans with BPMV. Complete survey results will be presented in next week's issue.



Bean leaf beetle feeding in newest trifoliate

Krista Lambrecht, DATCP



Bean leaf beetle color phases

Krista Lambrecht, DATCP

Soybean aphid - As forecasted last week, soybean aphids have started to colonize Wisconsin soybean fields. Very light numbers of aphids (< 9 per plant) were found on June 8 in Dane and Sauk Co. fields. Earlier in the week, aphids were detected at the Arlington and West Madison research stations. In the weeks to come, aphid populations may build slowly or swiftly, depending on temperatures and weather conditions; temperatures above 90F slow aphid development, while temperatures from the low 70s to mid-80s are ideal for development.

At this time there is no reliable way to provide forecast aphid densities for 2006. Suction traps in place throughout eight

Midwestern states, including five in Wisconsin, captured low numbers of migrating aphids last fall, relative to previous years, but the science behind suction trap monitoring is still poorly understood. It remains unclear whether low aphid captures last fall indicate light aphid densities should be expected this summer. Further, aphid populations are influenced by variables that change from one season to the next, such as temperatures, planting dates and moisture levels.

In the short-term, scouting fields closely from the time aphids arrive to early reproductive stages is the best way to determine if densities justify an insecticide application. The action threshold for soybean aphids remains at 250 aphids per plant and populations are actively increasing. This threshold is based on an average numbers of aphids per plant on 20-30 plants sampled throughout 80% of the field. Do not treat fields unless this precise threshold is met or exceeded,

When it comes to soybean aphids, there's no substitute for routine scouting. Start spot-checking soybeans in the week ahead and continue through pod set. Aphids are usually first found on the undersides of new growth. More intensive scouting efforts should be initiated in July when reproduction is likely to accelerate. The best treatment time is just at beginning bloom (usually late July to early August) to beginning pod stages if aphids are present at threshold and actively increasing in R1 to R4 soybeans. Spraying at R6 or beyond has not been documented to increase yield. For 2006 soybean aphid management recommendations, visit the UW Soybean Plant Health web site at:

<http://www.plantpath.wisc.edu/soyhealth/aphids/mgmt04.htm>

Fruit

Codling moth - Trap counts this week indicate remarkably high levels of codling moths are still active orchards statewide. Pheromone trap captures ranged from 0-81 moths for the period June 2 to and above-threshold moth captures were recorded at 16 of 34 orchards. As a reminder, a capture of five or more moths per trap in a week's time warrants control measures. If only one of several traps exceeds the action threshold, spot treating the problem area should be sufficient.

Plum curculio - Recent high temperatures favored plum curculio movement into orchards in addition to increased feeding activity. According to Orchard IPM Specialist John Aue, significant damage from feeding and oviposition has become apparent in Richland and Crawford Co orchards, and is likely occurring in most apple growing areas in southern and central districts. Although plum curculio has been active for more than two weeks, the first official captures of adults occurred near Rochester, Spring Valley, and Montello earlier this week. Growers are advised to continue scouting in the week ahead to assess the need for plum curculio control. Spray applications should be timed to prevent egg laying and may be warranted when 0.5-1% fruit injury is detected.

Obliquebanded leafroller - The first OBLR flight of the season is in progress in the southern two-thirds of the state

where trap counts range from 0-15 moths. Flight activity for OBLR begins much later than STLM or RBLR because this insect does not overwinter in the pupal stage like the others. Instead, OBLR pass the winter months as young larvae in cocoons on the trunk of a tree. They have to develop fully as larvae and pupate before emerging as adults in early June. The highest OBLR counts this week were registered near Burlington in Kenosha Co. and near Hill Point in Richland Co. Increased flight activity signals the time to scout for larvae in here. There is no action threshold based solely on trap counts. Apple growers will need to scout for OBLR larvae to determine if an insecticide spray is justified.

Apple maggot - Red ball traps and yellow sticky boards should be placed next week in anticipation of the emergence of apple maggot flies. Both are visual traps that attract apple maggot flies based on coloration. The red ball mimics a ripening apple, attracting mated female flies preparing to lay eggs. The yellow sticky board mimics apple leaves. The key to using visual trap effectively is to hang them in a spot in the outer canopy or in an edge row where they are visible to passing flies. Trap catches can be used directly to time sprays. When one maggot fly is caught per unbaited red ball trap in a week's time, treatment is justified. The threshold increases to five flies per trap when using baited red ball traps. Because there are a few similar species of fruit flies that occur in Wisconsin, be sure to closely examine the wing banding pattern to separate the apple maggot from other fruit flies. Emergence can be expected at 900 GDD50.

Vegetables

European corn borer - Bean and potato growers are advised to be on the lookout for eggs laid on these crops in the next few weeks. More often egg laying will occur in those fields planted in corn last year. Upon hatch, about 3-7 days after eggs are deposited, the larvae will move into the stems of susceptible crops within 24-48 hours, necessitating early treatment, once egg masses are observed. Surveys in cornfields indicate egg laying and hatch are both underway.

Potato leafhopper - Look for activity to escalate on beans and potatoes in the near future, especially after alfalfa is cut, which causes leafhoppers to move to from hay to suitable hosts nearby. Reproduction started within the past week, and there is now a distinct possibility that substantial populations may develop by late June or early July.

Weeds

Surveys this week found a number of flowering weed species, including: wild mustard, cow parsnip, red clover, and black medic. Other weeds observed to be gaining a foothold in fields and ditches were smooth brome grass, horseweed and bull thistle. Yellow goatsbeard or western salsify (*Tragopogon dubius*) was also observed in the early stages of seed development.

Cow Parsnip (*Heraculum lanatum*) - Cow parsnip was observed flowering in high densities along roadsides and field ditches this week. One of the major concerns with this weed is its ability to cause phytophotodermatitis reactions when sap comes in contact with human skin. Large, painful

blisters can result when skin is exposed to the sap, followed by sun exposure. Special care should be taken when mowing roadsides or clearing cow parsnip from land.

Cow parsnip is a member of the carrot or Apiaceae family. It grows best in moist meadows and streambanks and reach heights of up to nine feet. Flowers are white in color and usually appear sometime between June and August.



Cow parsnip

bailey.aros.net

Common lambsquarters (*Chenopodium album*) - Common lambsquarters is one of the more common weed species found in Wisconsin agricultural fields. It is a summer annual, meaning it grows one year, produces seed, and dies. It can become a severe problem if left unmanaged, partly due to the fact that a single plant can produce 30,000 to 176,000 seeds (with an average 72,500).



Common lambsquarter

Barbara Pennypacker

Another factor that affects the persistence of this species is the longevity of its seeds in the soil. Studies have shown that only 50% of the seedbank will be depleted after approximately 12 years. It takes up to 78 years for 99% of the seedbank to be depleted!

Lambsquarters are one of the more difficult weeds to control. Its early emergence time is one of the main factors that make chemical control hard to achieve. Lambsquarters can get a head start on growth before crops emerge and are then more competitive later on in the season.

Small Grains

Small grains - Disease survey observations in 22 wheat fields in six counties from Dodge Co. to Manitowoc Co. found the wheat crop in very good condition. Low levels of tan spot were found in 14 fields and trace symptoms of barley yellow dwarf virus were found in ten fields. Powdery mildew was found in six fields, though at very low levels, which is a change from the past several years. No leaf rust or stem rust was detected. Bird cherry oat aphids were present in six fields, but aphid numbers in those fields were also low.

Gypsy Moth

First phase of gypsy moth Slow the Spread spraying is complete - The 2006 gypsy moth Slow The Spread treatment program completed its first phase of aerial spraying with the bio-pesticides Btk and Gypchek on Tuesday, June 6, 2006. Pesticide applications were applied at 59 sites, covering 59,595 total treatment acres. Thirty-five of these sites were treated with two separate applications of Btk on two separate dates.

Beginning in late June, spraying of Pheromone Flakes will take place at 28 sites, totaling 123,602 treatment acres, as part of the second phase of spraying. Spraying for the 2006 Slow the Spread Program should be completed by the end of July. Overall in 2006, the Wisconsin Department of Agriculture's Slow the Spread Program plans to spray 87 sites in 22 western Wisconsin counties, continuing into late July. Sites will be treated either once or twice (5-10 days apart) with Btk; or once with NPV (Gypchek) or Pheromone Flakes.

The Gypsy Moth Hotline at 1-800-642-6684 has more information on daily operations. Spray maps and updates, as well as pictures, information and links to other Web sites regarding the gypsy moth are available at www.datcp.state.wi.us. Click on the Gypsy Moth link under Popular Topics.

Forest and Landscape

Coin canker (*Phlyctema vagabunda*) - Found on Autumn Purple Ash in Brown Co. This canker is a fairly recent find, first detected on ash in 2002. The cankers are smooth, round, brownish yellow, approximately 3/4 to 1 1/2 inches in diameter with distinct reddish, cracked margins. This pathogen, which affects four to five-year-old trees of *Fraxinus americana* cv. Autumn Purple and *F. pennsylvanica* cvs. Champ Tree, Cimmaron, and Urbanite, is usually associated with Bull's eye canker of apple. Infested plants should be destroyed. No adequate controls are known.

Black knot (*Apiosporina morbosa*) - Found on Canadian Red

Cherry in Brown Co. This fungal canker is easily diagnosed based on its appearance on the host tree. In the fall, the knots appear on twigs of the current season that were infected the previous spring. They first appear as swellings on the twigs. Over the winter, it will darken and turn hard and black. The knots' surfaces are covered with the pathogen's black fruiting bodies (pseudothecia), which produce ascospores in the spring.

To avoid recurrence or development of similar problems elsewhere, remove the knots and cut at least five inches beyond the swelling before spore dispersal begins in early spring. The cut debris should be removed from the site since the fungus will continue to develop. A fungicidal spray also would be an effective treatment, but it may be needed throughout active shoot elongation. During these critical periods, an application may be needed every week.

Maple petiole borer (*Caulocampus acericaulis*) - Found on Green Mountain sugar maple in Brown Co. This borer is easily identified if numerous leaves from maple trees are suddenly found on the ground in the early weeks of June. The defining characteristic of this insect is seen when it attacks the maple tree; the individual leaves with part of the petiole still attached fall to the ground. The ends of the leaf petioles (stems) are often black, and the leaves are usually still green. The maple petiole borer is a small sawfly, overwintering as pupae in the soil. It emerges as an adult in the spring to lay eggs in the petioles of maple leaves. When the larvae hatch, they tunnel into the leaf petioles and feed there for 20-30 days; causing the leaves to fall.

Management is unnecessary. Typically, the number of leaves involved is relatively small and trees can generally tolerate some defoliation. Maple petiole borers will not compromise tree health or detract from appearance.

Exotic Pest of the Week

Mile-a-minute weed (*Polygonum perfoliatum*) - Although mile-a-minute is not known to occur in Wisconsin, it shows up on many lists as a species to watch for. It is native to Asia, but in North America it is now found in several Mid-Atlantic States and Oregon. This exotic species is thought to have made its way to North America through an accidental introduction on ornamental nursery stock.

Mile-a-minute is an annual, herbaceous vine from the buckwheat or Polygonaceae family. Despite the delicate appearance, these plants grow over the top of native vegetation, blocking out the sunlight and ultimately inhibiting the native plant's ability to photosynthesize. Mile-a-minute is sensitive to cold temperatures or frost, but not before it grows to seven feet in length and shades out existing species.

Life cycle - Seedlings establish in late April and grow rapidly between May and August. Flowers typically form from late July through August, but have been observed as early as late June. The flowers themselves are usually greenish-white to yellow and are not showy. The fruit is enclosed in a deep blue, berry-like structure which eventually shrivels with age. Birds are one of the major long distance dispersers of this plant, due to the attraction to the fruiting body.

Weekly Apple Insect Trap Counts (June 2-9, 2006)

County	Site	Date	STLM	RBLR	CM	OBLR	PC
Bayfield	Erickson	6/2-6/8	210	0	3		
Bayfield	Atkins	5/31-6/5	32	0	18		
Bayfield	Carlson 1	6/2-6/8	360	0	34	0	
Bayfield	Carlson 2	6/2-6/8			35		
Bayfield	Galazen	6/2-6/8	100	0	1		
Bayfield	Gellerman	5/29-6/5	13	0	1		
Bayfield	Feraro	6/2-6/9	243	0	0		
Bayfield	Olsen 1	6/2-6/8	33	0	3		
Bayfield	Olsen 2	6/2-6/8	39	0	2		
Bayfield	Lobermeier	6/2-6/8	117	0	0		
Brown	Oneida	5/29-6/5	30	2	15	5	
Crawford	Gay Mills	6/2-6/8	1	0	81	2	
Dane	Deerfield	6/1-6/8	59	0	3	14	
Dane	Stoughton	6/1-6/8	0	0	6	10	
Dane	West Madison	5/25-6/8	0	0	13	6	
Dodge	Brownsville	6/2-6/8	0	3	1.67 (high =5)	1	
Fond du Lac	Campbellsport 1	6/2-6/8	10	5	18		
Fond du Lac	Campbellsport 2	6/2-6/8	25	10	2		
Fond du Lac	Malone	6/2-6/8	2	0	2.3	0	
Fond du Lac	Rosendale	6/2-6/8	11	4	2	0	
Green	Brodhead	6/2-6/8	0	0	5	12	
Iowa	Dodgeville	6/2-6/8	36	0	11	0	
Jackson	Hixton	6/2-6/8	23	0	1	0	
Kenosha	Burlington	6/2-6/9	5	0	5	15	
Marquette	Montello	5/29-6/5	241	2	1	1	2
Marinette	Wauzaukee	6/2-6/8	0	0	11	0	
Ozaukee	Mequon	5/30-6/8	10	3.5	11		
Pierce	Spring Valley	6/2-6/9	25	2	1	1	1
Pierce	Beldenville	6/2-6/8	0	0	4	3	
Racine	Rochester	6/2-6/8	16	0	16.13	4	1
Racine	Raymond	6/2-6/8	41	0	12	6	
Richland	Hill Point	5/31-6/6	21	1	5	15	
Richland	Richland Center E	6/2-6/8	42	1	11	10	
Richland	Richland Center W	6/2-6/8	66	25	1	0	
Sheboygan	Plymouth	6/2-6/8	35	7	8	2	
Waukesha	New Berlin	6/2-6/8	30	0	10	4	



Oblique banded leaf roller

www.extension.oregonstate.edu



Codling moth

agspsrv34.agric.wa.gov.au

Weekly Black Light Trap Counts

Black light trapping - Each week black light traps capture a wide assortment of nocturnal moth species that go unreported, simply because they are not economically important. In today's issue, we have decided to highlight a few of these non-target moths to help familiarize trappers with some of the moth species besides corn borers, cutworms, and loopers that appear in traps during the summer months.

This week several hickory tussock moths, *Halisidota caryae* Harris, were captured at Mazomanie and Lancaster. The pattern of markings on the wings makes this species relatively easy to identify. Also, the Isabella tiger moth *Isia Isabella* AUTHOR was active in the last reporting period. This species is the most common of the woollybear moths. The larvae are the familiar black and brown banded woollybear caterpillars observed crossing roads, and on porches in the fall.

Black Light Trapping Results

	Date	BCW ¹	CabL ²	CeL ³	CE ⁴	DCW ⁵	ECB ⁶	FA ⁷	TA ⁸	ForL ⁹	SCW ¹⁰	VCW ¹¹	AlfL ¹²
Southwest													
Reedsburg	6/2 to 6/8	0	0	0	0	0	18	0	0	0	0	0	0
Lancaster	5/25 to 6/5	0	0	3	0	0	3	0	6	0	5	0	0
Lancaster	6/6 to 6/8	0	0	0	0	0	8	0	2	0	5	0	1
South central													
Mazomanie	6/2 to 6/8	0	0	0	0	0	19	0	0	0	4	2	0
Arlington	6/2 to 6/8	0	0	0	0	0	125	0	0	0	4	9	0
Rochelle, IL	6/1 to 6/6	0	0	2	0	0	170	0	0	0	2	0	0
Southeast													
Janesville	6/2 to 6/8	0	0	9	0	0	9	0	31	1	5	0	0
East Troy	6/2 to 6/8	0	0	0	0	0	32	0	3	0	0	0	0
West central													
Sparta	6/2 to 6/8	0	8	6	0	5	19	0	0	0	3	0	0
Chippewa Falls	6/2 to 6/8	20	0	1	0	0	15	0	0	0	0	0	0
Central													
Wausau	6/2 to 6/8	1	0	2	0	4	2	0	3	0	11	0	0
Marshfield	6/2 to 6/8	2	2	14	0	7	30	0	32	0	11	23	0
East Central													
Manitowoc	6/2 to 6/8	0	0	10	0	0	7	0	7	0	1	0	0

¹ Black Cutworm; ² Cabbage Looper; ³ Celery Looper; ⁴ Corn Earworm; ⁵ Dingy Cutworm; ⁶ European Corn Borer; ⁷ Fall Armyworm; ⁸ True Armyworm;

⁹ Forage Looper; ¹⁰ Spotted Cutworm; ¹¹ Variegated Cutworm; ¹² Alfalfa Looper

Black light
trap

CATCH
of
the
WEEK



Isabella tiger moth, *Isia Isabella*



Hickory tussock moth, *Halisidota caryae*

UW Plant Disease Diagnostics Clinic (diagnoses since June 8, 2006)

CROP	DISEASE/DISORDER	PATHOGEN/CAUSE	COUNTY
FIELD/FORAGE			
Alfalfa	Pythium Seedling Blight	<i>Pythium</i> sp.	Dane
	Phytophthora Seedling Blight	<i>Phytophthora</i> sp.	Dane
FRUIT			
Peach	Peach Leaf Curl	<i>Taphrina deformans</i>	Dane
HERBACEOUS ORNAMENTAL			
Blue Bottle Gentian	Phyllostica Leaf Spot	<i>Phyllostica</i> sp.	Marathon
Blue Hyssop	Downy Mildew	<i>Peronospora</i> sp.	Dane
Iris	Iris Leaf Spot	<i>Didymellina macrospora/Heterosporium iridis</i>	La Crosse, Monroe
Hydrangea	Pseudomonas Leaf Spot	<i>Pseudomonas</i> sp.	Rock
Hosta	Botrytis Leaf Spot/Blight	<i>Botrytis cinerea</i>	Kendall (Illinois)
	Sunburn	Physiological	Kendall (Illinois)
	Alternaria Leaf Spot/Blight	<i>Alternaria</i> sp.	Kendall (Illinois)
Purple Coneflower	Foliar nematode	<i>Aphelenchoides</i> sp.	McHenry (Illinois)
EVERGREEN			
Aspen	Venturia Leaf and Shoot Blight	<i>Venturia populina/Fusicladium radiosum</i>	Dane
Austrian Pine	Dothistroma Needle Blight	<i>Dothistroma pini</i>	Racine
Spruce (including Black Hills, Colorado Blue, Norway)	Spruce Needle Drop	<i>Setomelanomma holmii</i>	Calumet, Vilas, Washington
	Root Rot	<i>Pythium</i> sp.	Brown
	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	Racine
Fir (Balsam, Frasier)	Stigmina Needle Cast	<i>Stigmina</i> sp.	Racine
	Cold Injury	Physiological	Calumet
	Rhizosphaera Needle Cast	<i>Rhizosphaera</i> sp.	Portage
WOODY ORNAMENTAL			
Birch	Root Rot	<i>Pythium</i> sp.	Waukesha
Canadian Cherry	Black Knot	<i>Apiosporina morbosa</i>	Vilas
Dogwood	Golden Canker	<i>Cryptodiaporthe corni</i>	Rock
Elderberry	Elderberry Rust	<i>Puccinia bolleyana</i>	Dane
Elm	Anthraxnose	<i>Gloesporium</i> sp.	Lincoln
High Bush Cranberry	Pseudomonas Leaf Spot	<i>Pseudomonas</i> sp.	Iron
Lilac (including Persian)	Lilac Witches' Broom	<i>Candidatus Phytoplasma fraxini</i>	Rock
	Bacterial Blight	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	Dane
		<i>Gloesporium</i> sp.	Dane, Iowa, Waushara
Oak (including white)	Anthraxnose	<i>Gloesporium</i> sp.	Dane, Iowa, Waushara
	Verticillium Wilt	<i>Verticillium</i> sp.	Washington
	Phomopsis Canker	<i>Phomopsis</i> sp.	Dane
Maple (including sugar)	Cytospora Canker	<i>Cytospora</i> sp.	Waukesha
	Anthraxnose	<i>Gloesporium</i> sp.	Waukesha
	Anthraxnose	<i>Gloesporium</i> sp.	Dane
Sycamore	Contraction Damage	Physiological	Dane
		<i>Cytospora</i> sp.	Grant, Milwaukee
Willow (including corkscrew)	Cytospora Canker	<i>Cytospora</i> sp.	Grant, Milwaukee
Viburnum	Pseudomonas Leaf Spot	<i>Pseudomonas</i> sp.	Rock

For additional information on plant diseases and their control, visit the PDDC website at: <http://pddc.wisc.edu>.



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Web Site of the Week

USDA Pest Information Platform

The USDA has expanded their public soybean rust website to include soybean aphid counts. The plan is to create a comprehensive pest and disease tracking site from this beginning. Watch rust and aphids move, receive state-specific guidance and find a world of links here.

<http://www.sbrusa.net/>

Quote of the Week

“though mankind persuades
itself that every weed's
a rose, roses (you feel
certain) will only smile”

-- *e.e.cummings* (1894-1962) '95 Poems'

June 09, 2006



Mile-a-minute weed

www.nps.gov

EXOTIC Pest of the Week

Mile-a-minute weed

Polygonum perfoliatum Linnaeus