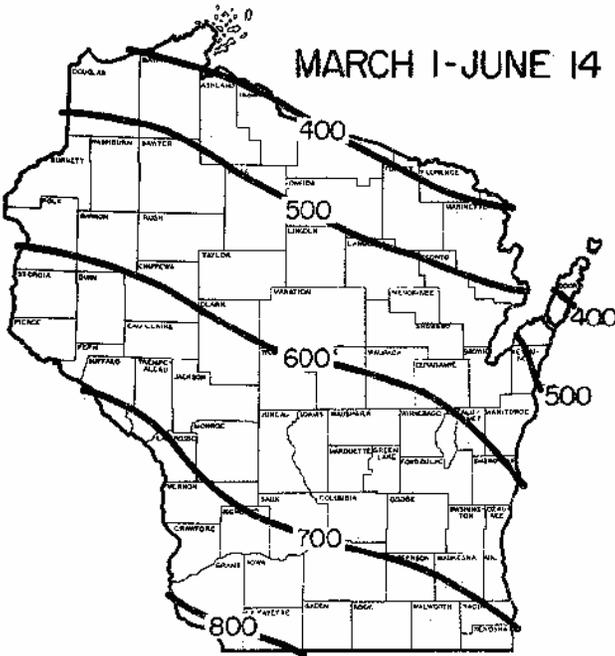


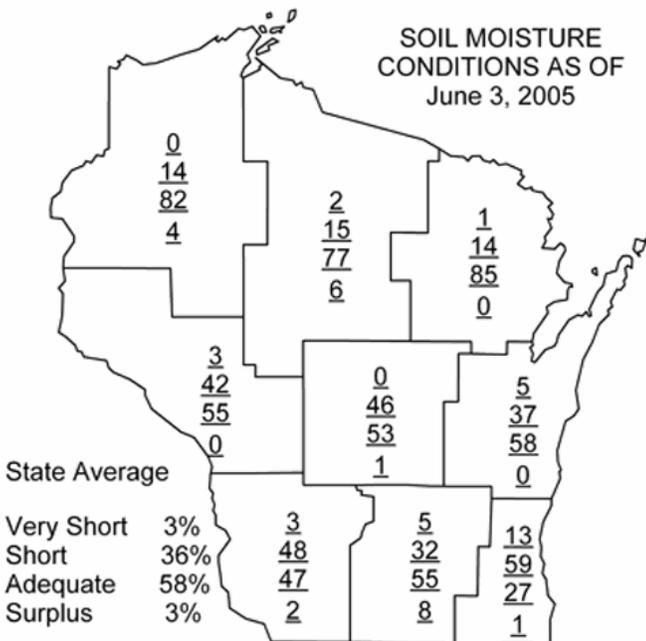
Wisconsin Pest Bulletin

Your weekly source for crop pest news, first alerts & weather information for Wisconsin.

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



Source: Wisconsin Agricultural Statistics Service

Weather & Pests

Wisconsin fields received another good dose of heat this week, resulting in measurable increases in crop growth, weed development and pest insect activity. Conditions were sunny and steamy, with scattered thunderstorms occurring throughout all regions of the state. To say that things are heating up is an understatement. Corn planting is ahead of schedule and is expected to end over the weekend. The coloration of plants has improved greatly thanks to the current warm spell. Soybean planting continued at an unprecedented pace, and should conclude by next week. As of Monday, 59% of the state's soybeans had emerged, higher than last year's 40%, and the five-year average of 52%. Harvesting of first crop hay is also coming to a close. Growers in the south fared far better than those in the north where winterkill devastated numerous acres of alfalfa.

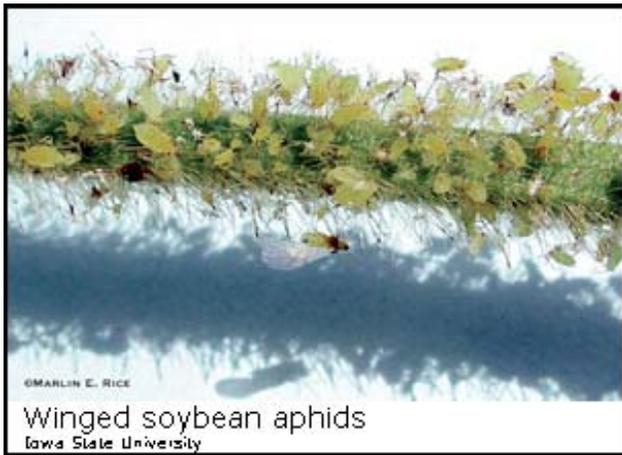
Site	Growing degree days from March 1 through June 9 were:			
	GDD*	2004 GDD	Base 48	Base 40
SOUTHWEST				
Dubuque, IA	723	767	743	1319
Lone Rock	688	698	691	1248
SOUTH CENTRAL				
Beloit	722	741	739	1289
Madison	691	655	715	1261
Sullivan	708	681	718	1266
Juneau	683	637	701	1240
SOUTHEAST				
Waukesha	636	634	643	1176
Hartford	621	596	635	1161
Racine	545	569	571	1067
Milwaukee	538	543	563	1060
EAST CENTRAL				
Appleton	565	462	577	1060
Green Bay	490	404	508	982
CENTRAL				
Big Flats	646	575	649	1171
Hancock	628	538	631	1143
Port Edwards	604	503	604	1102
WEST CENTRAL				
LaCrosse	701	693	731	1283
Eau Claire	641	538	672	1179
NORTHWEST				
Cumberland	530	400	547	1021
Bayfield	331	255	323	739
NORTH CENTRAL				
Wausau	537	426	537	997
Medford	509	388	522	974
NORTHEAST				
Crivitz	460	363	463	925
Crandon	486	348	471	913

Bug populations are booming. Several "firsts" were documented this week. The first potato leafhopper nymphs were detected in Dane Co. rhubarb; the first corn borer egg masses of the season were spotted in a field near Boaz, Lancaster and Mazomanie; and the first soybean aphids became active earlier than ever, as far north as Monroe Co.
-- Krista Lambrecht

Alerts

Soybean aphid - The first soybean aphids of the season settled into Wisconsin soybean fields just over one week ago. This week the number of reported sightings increased in Dane, Sauk, and Monroe Cos. The award for the first detection of aphids in 2005 goes to Nancy Koval of the UW Plant Pathology Department, who first spotted aphids on June 1 at the West Madison research station. Nancy's finding marks the earliest detection of aphids since the initial discovery in 2000. Beyond the research stations, soybean aphids were commonly encountered in V1-V2 south central fields surveyed this week, though levels were still relatively low (>83 aphids per plant).

First runner-up Bill Halfman, Monroe Co. Extension Agent, reported the northernmost find of a single soybean aphid near Sparta. Bill apparently fed the aphid to a ladybeetle, perhaps single-handedly eradicating soybean aphid in that particular field (what a feat, Bill!). If current high temperatures persist, growers should expect soybean aphid populations to build swiftly. Scout now for the arrival of aphids, and continue monitoring the rate of population build-up in the coming weeks. Again, the action threshold is 250 aphids per plant when populations are actively increasing. -- Krista Lambrecht



(Information on the first sighting of aphids was obtained from the June 9 *Wisconsin Crop Manager* article entitled *Field Notes: Soybean Aphid on soybeans in Wisconsin and Midwest*, by Eileen Cullen, Extension Entomologist, UW Entomology Department

Looking Ahead

Potato leafhopper - The first nymphs of the season were spotted this week on the underside of rhubarb leaves at an

eastern Dane Co. residence. Production of nymphs has started in second crop regrowth as well, though counts are very low for the time being. Look for a marked escalation in nymph numbers to occur in the week ahead. *Remember:* when assessing potato leafhopper levels, both adults and nymphs should be counted together. See **FORAGE** and **VEGETABLE** sections for potato leafhopper action thresholds in alfalfa and vegetable crops.

Bean leaf beetle - With soybean emergence well ahead of schedule throughout Wisconsin, it is highly important to monitor early vegetative-stage plants for bean leaf beetle defoliation. University of Illinois research suggests it takes densities of 16 adults per foot of row in the early seedling stage before economic injury from direct feeding will occur. By V2, the threshold increases to 39 beetles per foot of row. Defoliation caused by the overwintered generation of beetles remains mostly less than 25% in V1-V2 stage Dane and Sauk Co. soybeans.

Soybean aphid - Aphids are coming to a field near you. Begin scouting fields over the weekend if possible; absolutely begin in the week ahead. If current sweltering summer-like conditions continue, colonies may grow at an unparalleled rate. See the SOYBEAN section for aphid actions thresholds.

Apple maggot - Considering the record high levels of apple maggot flies that overran orchards last season, apple insect trappers should be prepared to place AM red ball traps and yellow sticky boards over the weekend. Emergence of apple maggot flies is expected as we approach 900 GDD50.

Western bean cutworm - Last week's Wisconsin Pest Bulletin reported a finding of a single Western bean cutworm moth at the Arlington research Station in Columbia Co., though it seemed far too early for a capture of this particular late-season pest. This week learned that the moth was not Western bean cutworm after all, but a remarkably similar looking species, *Ochropleura implecta*. For information on both *Ochropleura implecta* and Western bean cutworm, visit the **CORN** section.

Pea aphid - Despite the presence of winged aphids for more than two weeks and the widespread harvesting of first crop hay, surveys of peas in Dane and Sauk Cos. suggest a mass migration of pea aphids from alfalfa to pea fields still has not taken place. Look for considerable numbers of pea aphids to appear in pea fields next week.

Stalk borer - Light amounts of feeding were observed in nearly all of the corn fields surveyed this week. The number of infested plants was low, ranging from 2 to 8 per 100 border row plants. Scout for stalk borer injury to edge rows in the week ahead.

Forages

Alfalfa weevil - Alfalfa harvest is near completion throughout the state with mixed reports of quality and quantity depending on the severity of winterkill. Alfalfa weevil larvae are still very much active. The "frost" type injury due to high populations of large 4th instar larvae that was noticeable in

uncut fields last week has been mostly eliminated by a timely harvest. Alfalfa regrowth should be checked for weevil feeding in all areas of the state that experienced high populations in the first crop.

Second crop growth in Barron, Chippewa, Dane, Dunn, Outagamie, Sauk and Richland Cos. appears to have very low weevil levels for the time being. First and second crop hay fields in 12-35 inch Sauk and Richland Cos. averaged only one weevil larvae per sweep; no weevils were swept from the Barron, Chippewa, Dane, Dunn fields surveyed. "Windshield surveys" along Hwy 151 from Rosendale to Columbus found lush, healthy regrowth, visibly unaffected by alfalfa weevil larvae.

Weevil degree days are as follows: Beloit 722; Lone Rock 688; Milwaukee 563; Juneau 684; Madison 715; Hancock 631; Wausau 537; Eau Claire 672; Crivitz 463.

Potato leafhopper - Nymph production is in progress, thanks to the recent elevation in temperatures. The first sighting was reported on June 7 by Lee Lovett who observed a single individual on the underside of a rhubarb leaf. It has now been confirmed that Lee, a long-time survey entomologist with DATCP, has an internal leafhopper nymph detector that goes off each June once the first nymph has hatched on the rhubarb in his yard. We can think of no other explanation for his superior nymph-finding ability.

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

Lee's observations indicate nymph production is underway in south central, southwestern and west central Wisconsin counties. Be sure to review economic thresholds and monitor potato leafhopper activity closely in the weeks ahead. Potato leafhopper injury to second crop regrowth is not an uncommon event in Wisconsin.

Alfalfa blotch leafminer - Alfalfa fields across the state continued to show moderate to high levels of leaf mining this week. In Sauk and Richland Cos., an estimated 60% of the plants were infested with at least one mine. Reports of heavy mining near Platteville and Lancaster were also received, and in Chippewa and Outagamie Co. fields, 30-40% infestations were detected.



Alfalfa blotch leafminer damage
Krista Lambrecht, WI DATCP

Infestations affecting 25-50% of the leaflets in a field may result in loss of quality.



European corn borer moth
HYPP Zoology

Pea aphids - Populations remain low in general.

Representative counts in alfalfa were four per sweep in Dane and Columbia Cos., five to eight per sweep in Sauk and Iowa Cos. None were present in peas in western Dane Co. or Sauk Co.. It appears this insect may be sporadic this season.

-- Krista Lambrecht

Corn

European corn borer - The familiar cliché, *few moths is good news* (or is it "no news is good news?"), aptly described the corn borer situation this week. As a general rule, when the growing degree day model for European corn borer indicates the first moth flight is about to peak, a corresponding increase in moth captures takes place. That was not the case this week at southern black light trapping sites where moths have been active for more than two weeks, and still counts are low. While minor increases in numbers were documented near Janesville, Lancaster, and Madison, counts like these hardly suggests that a flight is underway.

Further, while egg masses were detected at the rate of 1 per 100 plants in the tallest Dane, Grant and Richland Co. corn fields surveyed this week, many fields are still too short to support larvae. No egg masses were found in a number of V5-V7 Sauk and Iowa Co. fields. It now appears that injury from the first generation of corn borers is unlikely to be high in most fields that have already emerged. Control measures, in the rare event they should be necessary, would be most effective at 800-1000 GDD50. This treatment window is expected to open as early as June 17 near Lone Rock, Madison and Juneau, June 23 near Milwaukee, June 19 near Eau Claire, and June 20 near Hancock.



Potato leafhopper nymph
The Ohio State University

Western bean cutworm - Black light trapping is a dirty job, but those of us who understand the importance of translating

moth numbers into developmental events know someone has to do it. Sorting through moth stew to bring readers accurate accounts of moth activity is thankless work. Anyone who has not experienced the thrill of running a trap may not know that black lights attract much more than just the small range of nocturnal crop pests of concern. In fact, a single week's catch often yields a quart or two of insects ranging from junebugs to stoneflies. Occasionally we misidentify a moth or two.

Last week we reported a capture of one Western bean cutworm moth at the Arlington Research Station. Upon closer examination, the Western bean cutworm suspect turned out to be *Ochropleura implecta*, an occasional pest of cranberries but not corn. The two moths are quite similar in appearance.



Because Western bean cutworm is new to the state, little is known about how it will adapt to Wisconsin conditions. According to data from 2003-2004, black light trappers can expect moths to show up in traps around mid- to late July through August. In the meantime, know that a considerable amount of work goes into delivering a basic Excel table listing the weekly moth counts. And please, thank your local black light trapper.

Stalk borer - Larval feeding injury was observed in south central fields at the rate of 2-12% in the first two border rows. Stalk borer damage is usually confined to the margins of fields that had weedy fence rows in the previous year, but under the right conditions injury is possible well into fields.

Corn flea beetle -Characteristic windowpane feeding was commonplace in south central corn fields, indicating corn flea beetles were hard at work consuming corn foliage (and potentially transmitting the Stewart's wilt bacterium). Although the incidence of windowpaning was noteworthy, the severity was insignificant. No more than 11 of 100 plants in Dane, Sauk and Iowa Co. fields showed symptoms of corn flea beetle feeding.

Armyworm - While moth catches this week were not particularly heavy, they do indicate that larvae should be watched for in the weeks ahead, particularly in susceptible crops like peas, corn, and small grains. Only light amounts of damage and small numbers of third instar larvae were detected in the grassy margins of Dane and Sauk Co. fields.

Wisconsin growers rarely experience problems with the first generation of armyworms, but the first gives rise to a second, more injurious generation in July. For that reason, it is still

important to keep a watchful eye on first generation activity. In corn that has reached the 7-8 leaf stage, treatment should be considered when larvae are less than ¾ inch in length, the population exceeds eight larvae per plant, and 25% of the leaf area has been removed. If armyworms are less than ¾ inch in length they may continue to feed for another week. Fields with larvae that are approximately 1½ inches will not require treatment, as the larvae are nearly done feeding and will cause very little additional leaf injury. -- *Krista Lambrecht*

Soybeans

The Soybean Situation...

While the early finding of soybean aphids in south central fields this week is not alarming, it is not encouraging either. Readers are strongly cautioned to avoid acting too soon as pest levels begin to escalate in the near future. Soybean aphids are manageable, and the same protocols and actions thresholds for beetles and aphids are still applicable. When it comes to bean leaf beetle injury, plants are remarkably resilient and can tolerate more defoliation than one might expect. In terms of soybean rust, it's still too early to speculate.

Soybean aphid - And so begins another cycle of soybean aphids. This season aphids are active earlier than ever and appear to be more widespread than ever (for this time of year). In addition to the recent finds in Wisconsin, soybean aphids have now been detected in Illinois and Indiana, Iowa, Michigan, and Minnesota.

Earlier in the week soybean aphids were found in several V1-V2 Dane, Grant, Monroe and Sauk Co. fields. In Dane Co. fields, 10-48% of the plants examined were colonized (4-19 per 40 plants). In Sauk Co., soybean aphids were present on 4-21% of the plants in the fields surveyed.

The number of aphids per plant ranged from 4-37. Soybean plants in Grant Co. fields averaged 2.5-4% infestations, with the highest number of aphids per plant being 83.

Although the detection of soybean aphids this early is unsettling, it's still far too soon to tell if the early

appearance of aphids will translate into damage this season. Soybean growers are strongly urged to hold off on spraying fields until aphid densities exceed the action threshold of 250 aphids per plant and populations are actively increasing.

Bean leaf beetle - The third annual survey for overwintered bean leaf beetles came to an end late last week with the finding of beetles at 51 of the 202 alfalfa fields surveyed. Survey sites extended from Grant Co. north to Buffalo Co., and east to Kewaunee Co.. Beetles collected during the



survey are currently in a frozen state waiting to be processed for BPMV at the Plant Industry Laboratory. Results may be available in next week's Wisconsin Pest Bulletin. -- *Krista Lambrecht*

Vegetables

Cabbage loopers beware - Cabbage looper monitoring has begun. Trapping supplies were sent to cooperators last week with instructions to place traps by Thursday, June 9. Cooperators should report their first counts next Thursday, June 16. Thirteen cooperators are using pheromone traps to monitor for cabbage loopers from now through September. Each trap is baited with a pheromone lure designed specifically to attract male cabbage looper moths.

The cabbage looper, *Trichoplusia ni*, is a pest of all cole crops, and also celery, lettuce, beets, peas, potatoes, spinach, and tomatoes. Cabbage loopers are night flying moths that can be found resting on the undersides of leaves during the day. Moths are a mottled brownish gray color and can have a wingspan up to 1½ inches. Adults have a mark on the wing that resembles a figure-eight. Females lay pinhead sized white eggs, singly on leaf surfaces, and usually on previously uninfested plants. Eggs hatch in 3-6 days. Young larvae feed on the underside of the leaf, not breaking through entirely, while mature larvae chew large ragged holes between the veins. Mature larvae have light white stripes along the length of the body, and can grow to be 1¼ inches long. Larvae move with a characteristic looping of the body. Pupation occurs 2-4 weeks after hatching. Moths emerge 10-14 days later and lay eggs, which give rise to the more-damaging second generation of larvae. Larvae can cause severe defoliation and stunted growth, rendering heads unmarketable or unfit for consumption.

By monitoring for cabbage looper moths, cooperators will be able to scout their cole crops more efficiently. Cooperators will benefit by knowing precisely when to scout crops for the first generation of cabbage looper eggs and larvae, as well as the more damaging second generation. Pest Survey specialists will analyze trap counts and attempt to make predictions on cabbage looper activity in different regions of the state, as well as keeping a historical record of cabbage looper activity in Wisconsin.

In addition to the thirteen traps set by cooperators, three lines of traps have been set by DATCP staff. These traps will be monitored for the next four weeks with the goal of tracking the leading edge of the cabbage looper migration into Wisconsin. Ten traps are in place along the southern border of the state on Highway 11. Six traps are in place in a line below Lake Winnebago, and four traps are in a line extending across Outagamie Co. Also, black light trapping cooperators across the state were asked to monitor for cabbage looper moths this year, so be sure to visit the black light trapping page each week for those results.

Hopefully, all this attention will make the cabbage loopers nervous and they'll decide to avoid Wisconsin altogether! -- *Rachel Klein-Koth*

Corn Earworm - DATCP is working with seven cooperators this year to trap for corn earworm. Cooperators were asked to place pheromone traps by Thursday, June 9, and begin reporting next Thursday, June 16. This start date is a bit earlier than usual for CEW trapping, but we want to be sure to catch any moths that may blow in early and any moths that may have overwintered in Wisconsin. The bulk of the moths will blow in on a storm front from southern states sometime in August. For more information on the corn earworm, see [UW Extension Publication A3655 The Corn Earworm](#). For management information see the publication [Managing Corn Earworms & European Corn Borers in Fresh Market Sweet Corn](#). -- *Rachel Klein-Koth*

Soybean aphid - Eileen Cullen, *UW field crop entomologist*, reported that soybean aphids have migrated into Wisconsin one to two weeks earlier than in previous years, and they are more abundant (this was echoed by all surrounding states as well). The bottom line is that with the weather we've been having, this is going to be a good year for aphids. This could not only have a significant impact on direct injury to legumes, but soybean aphids are also implicated in the transmission of cucumber mosaic virus and zucchini yellows in cucurbits so high numbers early in the season have the potential to transmit viruses to young cucurbit plants and at this stage, the infection has the potential to kill the crop. Michigan State entomological studies indicate that the soybean aphid transmits cucumber mosaic to zucchini with high efficiency and that they're also capable of transmitting zucchini yellows. I'll have to check if there's a PCR test for aphids to determine the percent infectivity for virus transmission. -- *Karen Delahaut, UW Fresh Market Vegetable Coordinator*

Potato leafhopper - Nymphs were found by DATCP survey entomologists in Dane Co. this week. They were primarily on alfalfa but with the first cutting of alfalfa occurring, the winged forms of the leafhoppers will migrate into vegetable crops, so begin scouting beans (including soybean), eggplant, potato, and rhubarb. For more information on the potato leafhopper thresholds and management options, see the [UW Extension Garden Facts Publication A3723 Potato Leafhopper](#). -- *Karen Delahaut, UW Fresh Market Vegetable Coordinator*

Pea aphid - Winged forms of pea aphids were spotted by DATCP entomologists in alfalfa in south central Wisconsin. Like the potato leafhopper, once the alfalfa is cut, the winged forms migrate. Pea aphids typically migrate into peas. Growers can scout for pea aphids using a sweep net. If levels approach the threshold of 100 aphids per sweep, treatment may be warranted. -- *Karen Delahaut, UW Fresh Market Vegetable Coordinator*

Fruit

Codling moth - Trap counts this week indicate that problematic levels of codling moths are occurring in many southern orchards. Pheromone trap captures ranged from 0-23 for the period June 2 to 10. Above-threshold moth captures were recorded near Dodgeville, Rochester, Beldenville, Plymouth, Richland Center and Gays Mills. As a reminder, a capture of five or more moths in a week's time in any one trap may warrant control. If only one of many traps

exceeds the threshold, spot treating the problem area should suffice.

In the southwest and south central districts development has progressed rapidly and egg hatch is expected to be 50% complete over the weekend (once 713 GDD50 are reached). The second flight of moths can be anticipated once 873-1296 GDD50 have accumulated. -*Krista Lambrecht*

Plum curculio - An increase in stings indicates activity has escalated in the southeast. The recent heat may have prompted more activity. Growers should continue scouting efforts in the week ahead to assess the need for plum curculio control.

Obliquebanded leafroller - The first official flight of the season began in the southern portion of the state with trap counts ranging from 0-10 moths. The highest count was documented at an orchard near Brodhead.

Apple maggot - Red ball traps and yellow sticky boards can be placed 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 warranted. 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 anticipated at 900 GDD50. -*Krista Lambrecht*

Apple scab - Orchard IPM Specialist John Aue advises that now is an excellent time to scout the leaves and fruits of susceptible varieties. The primary scab season has passed and lesions began showing up in the last week. There no time like the present to step-up apple scab scouting efforts.

Spotted tentiform leafminer - Growers who follow the counts posted in the apple insect trapping table may have noticed that STLM counts have been relatively low this season. This week moth numbers dipped below 43 in cooperating orchards; many orchards reported significantly lower numbers. Growers in the southern half of the state should now be seeing the characteristic speckled mines caused by the mature, tissue feeder larvae. -- *Krista Lambrecht*

Small Grains

Small grains - Wheat fields in Dane, Columbia, Dodge, Jefferson and Washington Cos. showed varying amounts of powdery mildew, Septoria, leaf rust, stripe rust and loose smut, though overall plant health was good. Powdery mildew was the most common disease detected, present in five of six fields at incidences (% of plants infected) ranging as high as 80%. Stripe rust was found in one field in Columbia Co.

and one field in Washington Co., at trace levels. Stripe rust has been relatively rare in Wisconsin, though the incidence has climbed significantly in the last few years. Leaf rust was found in one field in Dodge Co. and one field in Jefferson Co., also at trace levels. Low levels of Septoria were present in most fields. One field in Dodge Co. had significant loose smut, approaching 1%. -- *Adrian Barta*

Forest & Landscape

Powdery mildew - Light to moderate amounts of powdery mildew continue to be found on roses, lilac, columbine, scabiosa and dogwood at nursery dealers in Crawford, Marinette, Richland, Washington and Waukesha Cos.

Anthracnose - Daylilies at a nursery dealer in Waukesha Co. had moderate to heavy amounts of anthracnose affecting the foliage. Anthracnose can be confused with other daylily diseases such as daylily rust or lily leafstreak. Daylily anthracnose forms small orange-brown lesions on the leaves which could be confused with the beginning stages of daylily rust, a relatively new disease in Wisconsin. -- *Bob Dahl*



Septoria leaf spot - This foliar disease was observed on dogwood in moderate amounts at a nursery dealer in Washington Co. Septoria leaf spot typically occurs in late summer to early fall but if conditions are favorable the disease can occur anytime. Leaf spots with a red-purple border are a good indication that septoria leaf spot is present. The fungus overwinters as pycnidia (spore-containing structure) embedded in fallen, diseased leaves. Therefore, sanitation is one key to combating this disease. Rake up and remove leaves in the fall and don't compost unless the compost pile heats up considerably. Chemical treatment is usually not justified, but if the problem is large and leaf drop is occurring, then labeled fungicides may be applied at 10-14 day intervals. Susceptible species include pale, gray, pagoda, redosier and flowering dogwood. -- *Bob Dahl*

Weir's cushion rust - Rust pustules were observed on nine Colorado spruce at a nursery dealer in Marinette Co. Infected trees were also found at a nursery dealer in Bayfield Co. All trees were ordered off sale until treated, destroyed or returned. -- *Bob Dahl*



Cedar-hawthorn rust - Trace to light amounts of this fungal pathogen were found on Washington hawthorn at nursery dealers in Washington and Waukesha Cos. -- *Bob Dahl*

Tobacco rattle virus - Twenty-six bleeding heart plants were found infected with this virus at a nursery dealer in Langlade Co. See last week's Bulletin for more information. -- *Bob Dahl*

Fletcher scale - Low numbers of scales were observed on yews at nursery dealers in Marinette and Sauk Cos. Eggs will begin hatching within the coming weeks and treatment for crawlers should begin when *Hydrangea arborescens* 'Grandiflora' is in full bloom (900-1200 GDD50). --*Bob Dahl*

Dutch Elm Disease - Symptoms are evident in Green County. -- *Dave Hall*

Maple Petiole Borer - This borer, *Caulocampus acericaulis* (MacGillivray), has caused some noticeable leaf drop in Green County. -- *Dave Hall*

Gypsy Moth

First phase of gypsy moth Slow the Spread spraying is complete - The 2005 gypsy moth Slow The Spread spray program completed the first phase of spraying with the bio-pesticides Btk and Gypchek on Thursday, June 9, 2005. Spay applications have been completed at 52 sites, covering 130,584 total acres. Over 30 of these sites were treated with two separate applications of Btk on two separate dates.

Starting in late June, spraying of Pheromone Flakes will begin at 13 sites, totaling 154, 920 treatment acres, in the second phase of spraying. Spraying for the 2005 Slow the Spread Program should be completed by the middle or end of July.

Overall in 2005, the STS program will spray 65 sites in 19 western Wisconsin counties. Sites will be treated either twice (5-10 days apart) with Btk, or once with NPV (Gypchek) or Pheromone Flakes.

To find out about spraying, you can call our toll-free number at **1-800-642-MOTH** (800-642-6684). Background information, maps of spray blocks and a chart showing spray

schedules and progress can be accessed at the Wisconsin Department of Agriculture, Trade and Consumer Protection website at www.datcp.state.wi.us . Click on the **Insects and Pesticides** box and then click on the **Gypsy Moth** link under the **Insects** header to bring up the Gypsy Moth home page.

GYPSY MOTH TRAPPING PROGRAM - As of June 8, trappers have set 12,695 (33%) of the expected total number of traps. Nine counties have been completed: Adams, Calumet, Ozaukee, Pepin, Portage, Waukesha, Waupaca, Waushara and Winnebago. Trap setting will continue for the next four weeks, and most traps should be up by July 8th. Trappers will need to set over 6,000 traps per week to meet the program deadline of having traps up by the week of July 4th. Stormy weather and wet roads have made it a challenge this year to meet goals. Once all traps are set, trappers will take a short break before starting to spot check traps for the beginning of moth flight. Moth flight usually begins around mid-July in Wisconsin.

County	1998	1999	2000	2001	2002	2003	2004
Adams	1258	893	231	232	3523	3734	13035
Ashland	2	149	79	85	166	1005	2656
Barron	4	5	2	0	2	68	9
Bayfield	0	127	327	1636	352	594	2166
Brown	3423	5540	9225	12934	16058	17649	10839
Buffalo	42	7	0	1	1	43	4
Burnett	0	0	0	0	0	3	0
Calumet	828	2253	1160	3204	5879	4913	2537
Chippewa	4	12	1	3	58	444	11
Clark	130	39	14	45	280	3396	340
Columbia	1191	656	1040	3001	6250	5135	5676
Crawford	230	15	1	4	14	202	23
Dane	3167	952	787	1191	1984	6421	4716
Dodge	7007	751	1368	1611	3279	14082	2581
Door	7062	9414	20409	21958	35768	20697	21777
Douglas	0	15	4	0	3	31	4
Dunn	6	1	0	0	2	95	13
Eau Claire	39	21	3	3	50	782	22
Florence	248	780	1147	3056	13572	27052	13932
Fond Du Lac	7492	2253	3613	5233	9829	10830	6876
Forest	191	2213	1931	1675	16439	33489	6554
Grant	336	110	54	23	13	533	1093
Green	365	23	8	19	55	598	441
Green Lake	656	128	339	298	553	4120	1954
Iowa	1053	239	285	812	36	1482	1906
Iron	5	239	285	333	248	357	113
Jackson	200	26	29	48	195	2414	591
Jefferson	1967	494	540	1741	1567	7109	956
Juneau	1420	130	96	243	197	3448	6893
Kenosha	1376	1799	1354	2602	3402	3488	2587
Kewaunee	5710	7409	8821	7915	18786	12872	10150
LaCrosse	278	27	5	1	2	97	31
Lafayette	109	8	0	0	17	157	15
Langlade	157	1627	1704	2900	16940	34737	8305
Lincoln	35	616	489	474	1803	3427	1035
Manitowoc	5157	7958	11896	12703	20263	19811	11183
Marathon	440	851	666	2480	5160	8242	16262
Marinette	2915	7618	37215	85234	127815	86609	64050
Marquette	863	232	1632	442	602	1969	6709
Menominee	1014	2373	3003	3992	13442	37234	5955
Milwaukee	4769	2013	3991	8291	4363	2418	1579
Monroe	497	83	18	39	11	1011	392
Oconto	1205	4203	12278	26293	59942	50350	24449
Oneida	42	1276	1671	2244	1125	2932	4247
Outagamie	1391	3146	2203	6974	12484	20302	16869
Ozaukee	5258	5682	8952	9811	11935	5868	2274
Pepin	18	0	0	0	0	0	0
Pierce	10	0	0	0	0	17	3
Polk	2	0	0	0	0	20	0
Portage	2558	2431	1747	3474	17195	55710	10225
Price	8	273	113	156	275	674	406
Racine	2261	2029	1713	4667	4003	4328	2081
Richland	402	73	57	149	25	932	277
Rock	1274	420	208	1286	1656	3408	2561
Rusk	3	14	1	3	59	294	24
St.Croix	6	1	1	0	0	23	0
Sauk	1229	352	591	648	1101	4056	5497
Sawyer	3	59	9	0	65	158	17
Shawano	455	1263	2751	6699	15084	26796	15268
Sheboygan	3482	5701	12834	16088	20772	17141	5369
Taylor	19	172	50	28	624	1087	271
Tempealeau	56	4	3	1	1	114	11
Vernon	350	31	3	4	4	475	60
Vilas	29	1435	2632	1930	2673	3073	3294
Walworth	2176	1434	1596	4716	7083	7002	3458
Washburn	0	0	0	1	0	46	4
Washington	4540	4926	8056	12527	21566	16137	7019
Waukesha	3989	7170	10793	23756	25018	18483	3646
Waupaca	1915	1647	2569	16190	20360	30130	12145
Waushara	2480	2814	2272	3443	15019	28805	6531
Winnebago	1121	1107	998	1875	1730	4986	3963
Wood	354	397	175	1059	1644	5135	6118
TOTALS	98282	108169	188048	330484	570422	691280	372058

Black Light Trapping Results

The buzz on black lights - Celery, alfalfa and cabbage loopers can be difficult to tell apart when sorting through a black light catch. All three loopers have silvery-white markings on the wings. The marking on the cabbage looper is a figure-8. The markings on the celery and the alfalfa looper are more hook shaped. The wings of the celery looper moth are usually gray brown, while alfalfa and cabbage looper have mottled gray wings. Alfalfa and cabbage looper larvae are both potential contaminants of peas. Celery looper larvae defoliate celery and leafy greens. Alfalfa looper larvae defoliate leafy greens (in addition to alfalfa). Cabbage looper has a broader host range, including cole crops, tomato, celery and leafy greens. -- *Rachel Klein-Koth*



Black Light Trapping Results

Trap Site	Date	East Corn Borer	True Armyworm	Fall Armyworm	Black Cut worm	Diary Cutworm	Spotted Cutworm	Variagated Cutworm	Western Bean Cutworm	Cabbage Looper	Celery Looper	Corn Earworm
Southwest												
Lancaster	6/3-6/9	12	2	0	2	0	16	0	0	0	0	0
South Central												
Arlington	6/6-6/9	12	0	0	0	0	0	0	0	0	0	0
West Arlington	6/3-6/10	35	0	0	0	0	4	0	0	0	2	0
	5/27-6/3	4	4	0	2	0	1	1	0	0	9	
Mazomanie	6/2-6/9	19	12	0	0	0	4	7	0	0	0	0
West Madison*	6/3-6/9	3	3	0	0	0	1	0	0	0	6	0
Southeast												
Janesville	6/3-6/9	25	69	0	4	0	8	26	0		13	0
East Troy												
Eagle	6/9-6/9	4										
West Central												
Sparta	6/2-6/8	11	5			14			19	12		
East Central												
Manitowoc	6/4-6/10	5	9	0	0	2	7	0	0	9	0	
Central												
Wausau	6/4-6/10	4	3		1		5			11		
Plover	6/2-6/9	10										
Plainfield	6/2-6/9	4										

*trap malfunction

Apple Insect Trapping Results

APPLE INSECT TRAPPING RESULTS						
	Date	STLM	RBLR	CM	OBLR	PC
Crawford Co.						
Gays Mills 1	5/29-6/5	20	0	7		
Iowa Co.						
Dodgeville	6/2-6/9	3	0	13	3	
Richland Co.						
Hill Point	6/1-6/7	4	0	1.5	0	
Dane Co.						
Deerfield	6/1-6/8	0	0	5	5	
West Madison	6/3-6/10	0	0	4	7	
Dodge Co.						
Brownsville	6/3-6/9		5	2	3	0
Green Co.						
Brodhead	6/2-6/9			5	10	
Racine Co.						
Raymond	6/2-6/9	18	1	4	0	
Rochester	6/2-6/9	11	0.5	12.9	3.5	0.5
Ozaukee Co.						
Mequon	6/2-6/9	0	0	1.5	0	0
Waukesha Co.						
New Berlin	6/2-6/9	18	0	0	1	
Pierce Co.						
Beldenville	6/3-6/9	3	6	23	0	
Spring Valley	6/3-6/10	20	2	1	0	0
Marquette Co.						
Montello	5/30-6/5	10	0	0	0	0
Brown Co.						
Oneida	5/30-6/6	40	4	3	0	
Sheboygan Co.						
Plymouth	6/3-6/10	43	6	19	0	
Fond du Lac Co.						
Campbellsport	6/1-6/8	2	5	0	0	
Rosendale	5/26-6/9	17	6	1	0	0
Malone	6/2-6/9	0	0	7	1	
Marinette Co.						
Wausaukee	6/3-6/10	29	1	5	0	0

UW Plant Disease Diagnostics Clinic

CROP	DISEASE/DISORDER	PATHOGEN	COUNTY
VEGETABLE			
Potato	Bacterial Soft Rot	<i>Erwinia carotovora</i>	Langlade
Tomato	Charcoal Rot	<i>Macrophomina phaseolina</i>	Vernon
	Root Lesion	<i>Pratylenchus</i> sp.	Vernon
FRUIT			
Apple	Crown Rot	<i>Phytophthora</i> sp., <i>Pythium</i> sp., <i>Sphaeropsis</i> sp.	Richland
Blueberry (Including High Bush)	Phyllosticta Leaf Spot	<i>Phyllosticta</i> sp.	Dane
	Winter Injury	Environmental Injury	Dane, Marquette
EVERGREEN			
Arborvitae	Phomopsis Tip Blight	<i>Phomopsis</i> sp.	Dane
	Animal Urine Injury	Chemical Injury	Waukesha
	Water Stress	Physiological	Iowa
Cedar (Including White)	Animal Urine Injury	Chemical Injury	Langlade
Fir (Including Balsam, Frasier)	Girdling Root	Physiological	Lafayette
	Water Stress	Physiological	Dane
Juniper	Water Stress	Physiological	LaCrosse
Pine (Including Red)	Pine Needle Rust	<i>Coleosporium</i> sp.	Sauk
Spruce (Including Black Hills, Colorado Blue)	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	LaCrosse, Sheboygan
	Water Stress	Physiological	Dane, Sheboygan
HERBACEOUS ORNAMENTAL			
Anthurium	Pseudomonas Leaf Spot	<i>Pseudomonas</i> sp.	Dane
Calibrachoa	Tobacco Mosaic	Tobacco Mosaic Virus	Dane
Daylily	Leaf Streak	<i>Aureobasidium microsticta</i>	Dane
Geranium	Blackleg	<i>Pythium</i> sp.	Dane
Spurge (Leafy)	Powdery Mildew	<i>Oidium</i> sp.	Dane
ORNAMENTAL			
Birch (Including River)	Cytospora Canker	<i>Cytospora</i> sp.	Racine
	Chlorosis	Physiological	Winnebago
	Winter Injury	Physiological	Winnebago
Clethra	Botryodiplodia Canker	<i>Botryodiplodia</i> sp.	Dane
Currant (Including Alpine)	Powdery Mildew	<i>Oidium</i> sp.	Dane
Euonymus	Cytospora Canker	<i>Cytospora</i> sp.	LaCrosse
Lilac	Bacterial Blight	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	Rock
Maple	Anthracnose	<i>Gloeosporium</i> sp.	Racine
	Verticillium Wilt	<i>Verticillium</i> sp.	Washington
Miscellaneous Ornamental Trees	Growth Regulator Herbicide Injury	Chemical Injury	Dane
Oak (Including White)	Anthracnose	<i>Gloeosporium</i> sp.	Dane
	Tatters	Physiological	Dane
Trailing Arbutus	Leaf spot	<i>Sphaerulina</i> sp.	Dane

For additional information, visit the PDDC website at www.plantpath.wisc.edu/pddc.

For more information on UW PDDC, visit <http://www.plantpath.wisc.edu/pddc/pddcgraphics/index.htm>

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