



# Wisconsin Pest Bulletin

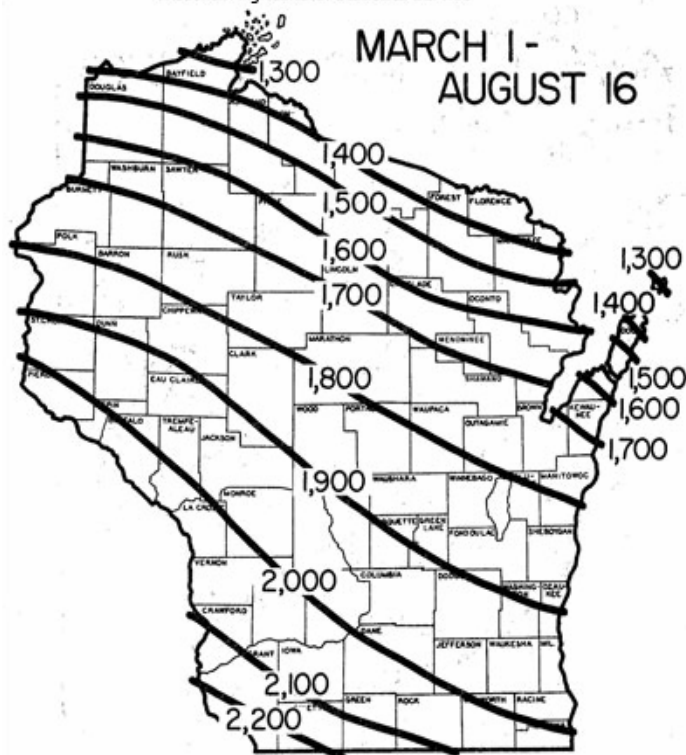
Your weekly source for crop pest news, first alerts & weather information for Wisconsin.

Volume 50 Number 17 Date 08/12/2005

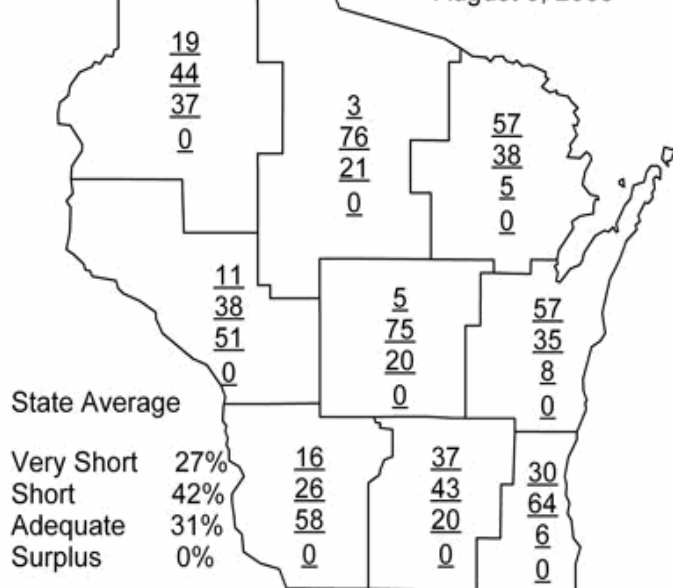
<http://pestbulletin.wi.gov>

## Historical Growing Degree Days

Wisconsin Agricultural Statistics Service



## SOIL MOISTURE CONDITIONS AS OF August 5, 2005



Source: USDA, NASS, Wisconsin Field Office

## Weather and Pests

Additional rainfall occurred over much of the state late in the week, providing moisture that will benefit the final crop of alfalfa and improve ear-fill in corn. In some regions, the rain was too late to help grain, silage and sweet corn fields which failed last week because of drought stress. Mid-season pest problems have mostly subsided, while the final round of late-season pests such as corn earworm and western bean cutworm is gaining momentum. A capture of 344 earworm moths at the New Richmond trapping site this week indicates that next week is a critical time for growers to treat susceptible fields. Earworms are usually of great concern to fresh market sweet corn growers because infested ears can offer a startling surprise for the unsuspecting consumer. Larvae are less troublesome in processed sweet corn because the washing process generally flushes them from the ears.

### Growing Degree Days through August 11 were:

Site	GDD*	2004 GDD	Base 48	Base 40
<b>SOUTHWEST</b>				
Dubuque, IA	2149	1860	1962	3424
Lone Rock	2059	1750	1980	3286
<b>SOUTH CENTRAL</b>				
Beloit	2147	1809	1947	3396
Madison	2090	1731	2013	3323
Sullivan	2102	1709	1928	3337
Juneau	2078	1696	1961	3297
<b>SOUTHEAST</b>				
Waukesha	2003	1666	1896	3203
Hartford	2002	1635	1940	3198
Racine	1920	1607	1892	3098
Milwaukee	1900	1564	1846	3076
<b>EAST CENTRAL</b>				
Appleton	1886	1418	1862	3038
Green Bay	1780	1337	1771	2920
<b>CENTRAL</b>				
Big Flats	2012	1575	1916	3207
Hancock	1979	1527	1882	3163
Port Edwards	1934	1445	1864	3096
<b>WEST CENTRAL</b>				
LaCrosse	2152	1803	1981	3428
Eau Claire	1998	1571	1973	3201
<b>NORTHWEST</b>				
Cumberland	1790	1214	1749	2927
Bayfield	1388	975	1345	2404
<b>NORTH CENTRAL</b>				
Wausau	1764	1253	1729	2871
Medford	1750	1208	1744	2856
<b>NORTHEAST</b>				
Crivitz	1690	1116	1657	2807
Crandon	1635	1190	1601	2691

## Looking Ahead

**Armyworm** - The march of armyworm caterpillars continued this week as more ravaged cornfields were detected in more counties. Alarming levels of defoliation were spotted in Crawford, Chippewa, Pierce and Marathon Co. fields where corn leaves were stripped to the midrib on 50-100% of the stalks. The larvae found in fields this week were nearly mature, thus there was little left for farmers to do in terms of control. Treatment should only be applied in instances where armyworm larvae are less than  $\frac{3}{4}$  inch in length; larvae greater than  $\frac{3}{4}$  inch are almost fully mature and are expected



to stop feeding in a day or two. See the **CORN** section for images of the infestations and details on the current armyworm situation.

**Corn rootworm** - Week two of the annual corn rootworm beetle survey found high populations of adults in the central tier of counties. The average number of beetles per plant was below the standard threshold of 0.75 beetles in 19 of 47 (40%) fields sampled, while above-threshold populations were found in 28 of the 47 (60%) of the fields. Occasional fields had levels as high as 6.9-10.9 beetles per plant. On the basis of preliminary survey findings, severe problems with corn rootworms in 2006 should be anticipated in continuous corn in the central and west central districts. Populations were mostly below threshold in east central counties such as Door, Kewaunee, and Manitowoc. Considering the high numbers of beetles currently active in Wisconsin cornfields and the heavy egg laying potential, growers are strongly urged to scout for corn rootworm beetles in the week ahead to determine if cornfields may require a soil insecticide treatment next spring.

**European corn borer** - Second flight moth activity continued across the state for a fourth consecutive week, but catches declined at most sites in the past seven days. While a high count of 128 moths was registered again this week at the Plover black light trapping site, corresponding heavy infestations of second generation larvae in cornfields have not yet materialized. Surveys of central corn fields earlier in the week found no noteworthy "problem fields". Expect moth flight to taper off rapidly within the next two weeks, and the most effective treatment period for second generation corn borers, 1500-2100 GDD50, to close in the southern and west central districts over the weekend. Southeastern, central and northern corn growers have a few more days to make management decisions. Scout fields now for second generation larvae.

**Corn earworm** - The capture of 344 moths at the New Richmond pheromone trapping site this week (St. Croix Co.), indicates that the significant flight of this species has begun. Pheromone trap catches of 5-10 moths per night for three

consecutive nights indicate that moths are probably laying enough eggs to warrant treatment. Before spraying fields, be sure to check silks for the presence of the small, spherical corn earworm eggs or tiny larvae.

**Bean leaf beetle** - Surveys found moderate to high levels of defoliation in some Dane, Jefferson and Sauk Cos. fields, ranging from 5-28%. Elsewhere levels of defoliation attributed to bean leaf beetles were less than 10%. Nevertheless, keep looking for signs bean leaf beetle activity, especially pod feeding injury.

**Grasshoppers** - Grasshoppers are the number one defoliator in northern and central Wisconsin soybean fields. Pay attention to grasshopper populations, particularly in drought-stressed fields where these insatiable pests are likely to seek out and consume any moisture-rich vegetation in sight. Soybean pods are especially vulnerable to attack at this point in the season.

**Twospotted spider mite** - Mites have thrived thanks to the heat and mostly dry weather over the last several weeks. Populations are still very high in many southern and central soybean fields where varying levels of stippling injury on the leaves were observed. Continue checking soybeans, corn and other susceptible crops in the week ahead.

## Corn

**Armyworm** - More alarming outbreaks of armyworm were detected this week in Marathon, Crawford, Chippewa and Pierce Co. cornfields. Survey specialist Sara Ott observed 100% injury to corn stalks in several fields bordering Highway 153 in southern Marathon Co. (see image below). Similarly, leaves on approximately 50-100% of the plants in fields sampled near Ellsworth, Elk Mound and Seneca had been stripped to the midrib. The larvae responsible for this striking foliar feeding were over an inch in length and nearly mature.

Many mobile caterpillar species are incorrectly termed "armyworms". The true armyworm, *Pseudaletia unipunctata* (Haworth), earns the title based on its marching behavior which typically ensues once the food supply is exhausted in the fields in which the larvae have hatched. Drove or armies of larvae move out at once to attack crops in nearby fields. While armyworms feed primarily on grasses such as oats, wheat, fall rye, corn, and barley, they can be a pest of some vegetables, including beans, cabbage, carrots, onions, peas,







peppers, radishes and sweet potatoes. The approximate developmental period of the various stages are: egg 5.5 days; larva 26 days; and pupa 7 days.

Armyworm feeding is usually confined to leaf margins, but when excessive populations develop the larvae may consume all of the leaves, leaving behind only the unpalatable midrib. Armyworm feeding generally progresses from the lower to the upper leaves, as noted in the heavily infested Crawford Co. field (see image below). Armyworm larvae are strictly foliage feeders in corn. They do not tunnel into stalks nor do they feed on the growing point, at least not on larger plants. Corn minimum- or no-tilled into grass sod, or fields with dense grass weed growth, usually prove to be most susceptible to attack.

Interestingly, there was very little advance indication that such severe armyworm problems might arise. Black light traps registered relatively few moths in recent weeks, with the exception of Janesville where counts of 48 and 40 moths were reported last week and the week before, respectively. Further, armyworm outbreaks are generally favored when conditions are cool and wet, precisely the opposite of conditions this summer. Widespread weed problems may be one of the variables that promoted the development of outbreaks this season; other variables contributing to the current armyworm situation are unclear.

The discouraging news for Wisconsin growers battling armyworms is that larvae can only be effectively controlled while they are small. By now, fifth and sixth instar larvae are common in fields, indicating that it's probably too late for control measures. Armyworm larvae that have reached the later development instars, growing beyond  $\frac{3}{4}$  inch long, are



expected to feed for only another day or two before pupating.; therefore, treating to reduce numbers of mature larvae is an ineffective strategy, and usually considered to be too little too late.

Decisions to control armyworm should consider crop size or stage, armyworm size, crop damage and the potential movement of larvae from one field to another. In corn, examine 20 plants in five locations in a field for a total of 100 plants. Determine the percentage of damaged plants in the field, note the number of larvae found and estimate the average size. Following are control recommendations for armyworm in corn.

***Corn already infested*** - According to UW-Extension recommendations, an insecticide should only be applied to corn in the whorl stage when two or more armyworms per plant are found on 25% of the plants, or one armyworm per plant on 75% of the plants. Larvae size is also critical. If armyworms are less than  $\frac{3}{4}$  inch in length they may continue to feed for another week or so. Beyond  $\frac{3}{4}$  inch are nearly done feeding and very little additional leaf injury will occur so fields should not be sprayed; it is too late for the insecticide to be economically beneficial.

***Corn adjacent to infested fields*** - A border 20-40 feet wide treated with insecticide will help to prevent armyworms from invading adjacent fields; however, if a majority of the larvae are longer than  $\frac{3}{4}$  inch there is little benefit to be gained by spraying.

***European corn borer*** - Activity of the second flight of moths is decelerating throughout much of the state. The European corn borer growing degree day model suggests second generation larvae are busily burrowing into stalks in the southern and west central districts and are no longer treatable. The most effective treatment window remains open for a few more days in the southeast and northern districts, or until 2100 GDD50 have been surpassed.

Surveys this week uncovered no "problem fields", despite unusually high black light trap counts in recent weeks. Heavy larval infestations in Portage Co. where 361 moths were registered two weeks ago have yet to materialize. A few 20-30% infestations were encountered in Portage and Waupaca Co. cornfields, but there was nothing to suggest that the high moth captures have translated into second generation corn borer problems. Infestations observed in Marathon Co. fields were even lower, averaging 5%. Evening temperatures continue to favor corn borer mating and flight activity; thus, it not immediately clear why heavier infestations haven't been detected in the central counties. One reasonable explanation may be that the egg masses being laid in drought-stressed fields are desiccating and flaking off from corn leaves before the larvae hatch. (A second and somewhat more plausible reason may be that our team of survey specialists just hasn't entered the right fields.) For growers in the northern districts it's not too late for control. Scouting for second generation larvae must be done in the week ahead.

***ECB Black light trap counts for the period of August 04-11 were as follows:***

Lancaster 36; Mazomanie 10; West Madison 75; Janesville 34; Sparta 4; Chippewa Falls 32; Marshfield 18; Plover 128; Plainfield 30; Manitowoc 11; and New Richmond 9.

**Corn rootworm** - Noteworthy numbers of corn rootworm beetles continued to be found as the annual survey progressed into the central districts this week. Counts of 0.9-4.0 beetles per plant were common, and occasional fields had 6.9-10.9 beetles per plant. The average of all fields surveyed during the past week was 1.8 beetles per plants, more than double the economic threshold.

Preliminary corn rootworm beetle survey results. Average no. of beetles per plant by county.			
County	Ave no. crw beetles per plant	Range of ave no. of crw beetles per plant	No. fields surveyed per county
Green	3.5	0.9 - 5.1	6
Portage	0.5	0.2 - 1.0	3
Rock	3	0.9 - 5.7	8
Waupaca	3.1	0.2 - 5.4	3
Marathon	1	0.6 - 2.4	4
Crawford	2	1.6 - 2.4	2
Lincoln	2.5	2.5	1
Brown	0.9	0.5 - 1.3	3
Calumet	1.3	0.7 - 1.9	2
Door	0.6	0.6	1
Kewaunee	0.5	0.2 - 0.7	2
Manitowoc	0.6	0.1 - 1.5	4
Winnebago	2.8	0.7 - 6.9	3
Sauk	2.8	0 - 10.9	6
Richland	1.2	1.2	1
Vernon	1.8	0.1 - 2.8	3

Emergence of adults should be complete soon, and scouting should wrap up by the first or second week of September. It's not too late for growers to begin a three-session sampling regimen to evaluate corn rootworm beetle populations. Scout fields three times at 7-10 day intervals between now and mid-September. Count the number of beetles per plant on a total of 50 plants (five plants in ten separate areas) and calculate the average number of beetles per plant. See the table provided below to determine if treating rootworm eggs with a soil insecticide prior to planting the field to corn next spring may be warranted.

The table below was adapted from Corn Rootworm Management, EC99-1563, Nebraska Cooperative Extension, and may be found in the Wisconsin Crop Manager article Adult Corn Rootworm Sampling and Economic Thresholds in Continuous Corn, Vol. 12, No. 22, Aug. 4, 2005, by Eileen Cullen.

Average number of western corn rootworm beetles present in cornfields that may produce an economically damaging rootworm population in corn the following year.	
	Average no. of corn rootworm beetles
	Continuous corn <sup>1</sup>
Plants per acre	Per Plant
14,000	1.28
16,000	1.12
18,000	1
20,000	0.9
22,000	0.81
24,000	0.75
26,000	0.69
28,000	0.64
30,000	0.6
32,000	0.56

<sup>1</sup>Based on a 50:50 ratio of females to males.

**Corn earworm** - The first substantial catch of the season (344 moths) was registered at the pheromone trapping site near New Richmond this week. This capture, in addition to the higher numbers of moths at other trapping sites in the past week, indicates the significant flight of this species has begun. Counts at the Stoughton trapping site increased from six to 25 in one week's time. The only noteworthy report larval earworm activity this week came from a Dane Co. source who observed almost half-grown larvae infesting 16% of untreated, fresh market sweet corn. Pheromone trap counts for the period of August 04-11 were: Sturtevant 13; Arlington 70; Coon Valley 7; Janesville 24; New Richmond 344; Mazomanie 5 (Hartstack), 0 (Scentry); and Stoughton 17 (Hartstack), 25 (Scentry).

Western bean cutworm pheromone trap catches from August 05-11, 2005.		
County	Location	No. of WBCW moths
Winnebago	Oshkosh	0
Brown	Henrysville	0
Calumet	Brillion	7
Dane	McFarland	9
Dane	Mazomanie	0
Fond du Lac	St. Cloud	10
Kewaunee	Kewaunee	1
Manitowoc	Two Creeks	0
Manitowoc	Cleveland	1
Outagamie	Freedom	3
Shawano	N Polaski	1
Marathon	Rothschild	0
Sheboygan	Sheboygan	0
Grant	Lancaster	trap down

**Western bean cutworm** - Moths counts declined this week at all but two pheromone trapping sites. The highest capture of 10 moths occurred near St. Cloud in Fond du Lac Co. Flight activity has been underway for at least three weeks, meaning larvae should be detectable in infested fields. Be on the lookout for larvae in the tips of ears when scouting for rootworms, corn borers and armyworms. Suspect larvae may be packaged in a plastic container or vial and sent to the following address for identification: Krista Lambrecht, DATCP-ARM, 2811 Agriculture Drive, PO Box 8911, Madison, WI 53718-8911.

## Forages

**Potato leafhopper** - Surveys this week found the leafhopper situation is highly variable from field to field, as well as from county to county. Numerous alfalfa fields are badly injured, likely resulting from the combination of potato leafhopper feeding and lack of substantial rainfall this summer. Centrally located alfalfa fields sampled this week averaged 5-6 leafhoppers per sweep and looked particularly poor, although nymph production appeared to be on the decline. Some northern fields also have fairly high populations, up to 7.9 per sweep, but fields don't appear to be quite as stressed as in the central districts. In contrast, most southern fields seem to be faring well after a day or two of light rains. These fields continue to retain a deep green hue, at least for the time





**Mild Hopper burn**

WDATCP-K. Lambrecht

being. As long as conditions remain generally hot and dry, growers can expect populations to persist into fall.

**Alfalfa caterpillar** - Pairs of alfalfa caterpillar butterflies fluttered in the skies above Marathon, Portage, Waupaca and Wood Co. hay fields this week, an indication that large quantities of eggs are being deposited in the forage below. In the Midwest there are two generations a year, and each is closely synchronized with the hay cutting cycle so that the larvae pupate before cutting occurs. Although alfalfa caterpillars are often abundant in second and subsequent hay crops, economic damage is unusual. Treatment is necessary only when populations exceed 10 larvae per sweep.

## Soybeans

**Soybean aphid** - Dense populations persist in only a very limited number of fields at this point, as soybean fields across the state have reached the latter reproductive stages of growth. It appears that some northwest and north central soybean fields may still be subject to lingering aphid problems, but aphid reproduction has slowed to the point where the danger of resurgence in aphid numbers has passed. While the worst may be over for a majority of the state's soybean acreage, play it safe and continue to scout fields for another week or two.

**Grasshoppers** - Foliar feeding has reached threshold levels in some central soybean fields, making grasshoppers the number one defoliator of concern. Survey specialists observed 18-35% defoliation in a number of Portage, Waupaca and Wood Co. soybean fields. Although grasshopper feeding was heavy, it appeared to not affect the pods, which is the main concern at this time of year. In late summer and fall, soybean pods should be examined. If 8% or more of the pods are damaged and pests causing damage are present, then rescue treatment may be warranted. In addition, spot treatment may be beneficial in the margins of fields with levels of defoliation exceeding 30%.

**Bean leaf beetle** - Beetles were active and defoliation ranged from 5-28% in Dane, Jefferson and Sauk Cos. fields sample this week. Defoliation had not met the threshold of 30% in any of the southern fields sampled. Be alert to the potential

for pod feeding or clipping through the month of August as beetles may turn to succulent pods as a source of moisture.

**Twospotted spider mite** - Mite problems linger throughout the state, although abrupt population crashes documented in Illinois offer hope that a similar event may soon occur in Wisconsin soybean fields. In the August 12 issue of the Bulletin (University of Illinois Extension No. 21 Article 4/August 12, 2005), Kevin Steffey noted, "the twospotted spider mite population in the soybean field (near Tolono) where our experiment is located has crashed across the board. The average numbers of spider mites per five leaflets in all eight treatments in the trial range from only 12 to 77, compared with numbers in excess of 800 mites per five leaflets in mid-July."

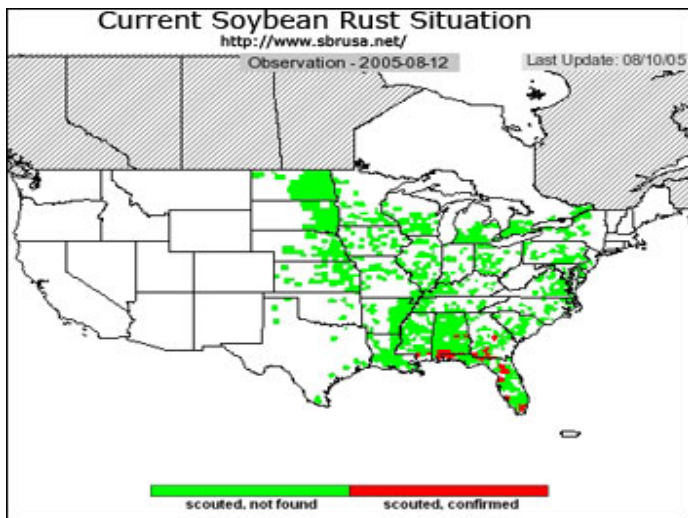
The possibility of a population crash means that frustrated growers have one more variable to consider when deciding whether a miticide should be applied in the week ahead. At this late stage of the game, the benefits of applying costly miticides are not certain. For more information on spider mites in Wisconsin visit the Wisconsin Crop Manager article: *Spider Mites-Threshold Overview, Effects of Rain*, Vol. 12, No. 21, July 28, 2005

**Soybean rust update 8/12/05** -In the southern U.S., new soybean rust finds continue to be announced regularly, but no active rust infections have been detected north of Alabama. Meanwhile, the Wisconsin soybean crop continues to develop, ever-nearer the threshold (somewhere in the R6 range, perhaps) where rust will be irrelevant.

The latest information from the USDA soybean rust web site (<http://www.sbruse.net>) states:

The latest rust finds are in Florida in Santa Rosa, Okaloosa, and Holmes counties on soybeans from sentinel plots. Elmore County in Alabama and Laurens County in Georgia are the farthest north that soybean rust has been reported in 2005. The Pearl River County in Mississippi is the farthest west that rust has been found in 2005. Alabama now has four counties reported positive with rust; Florida has 15; Georgia has seven; and Mississippi has two. New reports for soybean rust are expected to continue within states already reporting rust over the next week with new reports now coming in almost daily.

Dr. Craig Grau of UW offers this update for Wisconsin on soybean rust (8/10/05): Scenario 1 remains in effect for Wisconsin: soybean rust present in the extreme southern US, but not moving northward. Soybean rust has moved in the southern US, but has not advanced past the Gulf States. Soybean rust-like spores have been observed previously in wind vane spore traps in Tennessee and Kentucky and more recently in wind vane spore traps in Illinois and Wisconsin. One soybean rust-like spore was found in a wind vane trap located at the West Madison Agricultural Research Station. As in Tennessee, Kentucky, and Illinois, this is NOT A CONFIRMED identification of the soybean rust pathogen. Moreover, no active infections of soybean rust have been observed in Tennessee, Kentucky, Illinois and Wisconsin. Scenario 1 remains in effect for Wisconsin because the trapped spores cannot be positively identified as soybean rust, and no active infections are observed in soybean fields from Tennessee to Wisconsin. The recent hot and dry weather is not conducive for soybean rust. Until there is



evidence of active soybean rust in southern Illinois, I believe the potential for soybean rust remains exceedingly low for Wisconsin. Current information indicates there is not a need to apply fungicides for control of soybean rust.

Keep monitoring the USDA Soybean Rust Website (<http://www.sbrusa.net/>) for the latest on movement of soybean rust. Also, consult the Wisconsin Soybean Health website for the Wisconsin perspective on soybean rust <http://www.plantpath.wisc.edu/soyhealth>. Also consult the toll free voice message from the UW Plant Disease Detection Clinic at 1-866-787-8411.

## Vegetables

**Corn earworm** - The migration flight has reached Wisconsin! The cooperator from New Richmond reported 344 moths in a pheromone trap in the past week, and 70 moths were trapped at Arlington on the night of August 11. Cooperators in other parts of the state reported increased numbers of corn earworm, but light compared to New Richmond's catch. (see table below). Apparently, weather patterns carried the bulk of moths into the northwest, bypassing traps set further south. Growers who are fortunate enough to still have a sweet corn crop (unlike our Racine Co. cooperator, who reported his growing season has ended due to this year's drought) should have a pheromone trap up near each field as migration activity continues to pick up in Wisconsin. Treat silking sweet corn immediately after three moths are caught per black light trap, or five moths per pheromone trap on 2-3 consecutive nights. Moths lay eggs on silking corn, and the larvae then crawl into the ear and devour the kernels. Corn that is past the silking stage is not attractive for egg laying.



Although the major flight of moths is just arriving, light catches of corn earworm have been reported since mid-June. Early arrival was demonstrated this week by the detection of half-grown larvae at a Dane Co. site. In that field, corn earworm larvae were infesting 16% of untreated fresh market sweet corn.

In addition to corn, CEW will feed on tomatoes, lettuce, peppers, and beans. Beans should also be monitored with pheromone traps. According to the UW-Extension Veg Crop Scouting Manual, if five moths per black light trap per night or 10 moths per pheromone trap per night are present, beans which are 30-7 days from harvest should be treated. If 25 moths per black light trap or 100 moths per pheromone trap are present (like near New Richmond), beans 30-7 days from harvest should be treated on a five to seven day schedule. If over 100 moths per black light trap or 500 moth per pheromone trap are present, then beans 30-7 days from harvest should be treated on a five to seven day schedule using high rates of an effective material.

### Thresholds for Imported Cabbageworm, Diamondback, or Cabbage Looper (% plants with eggs or larvae)

#### Broccoli and Cauliflower

- Seedbed: 10%
- Transplant to first flower or curd: 50%
- First flower or curd to maturity: 10%

#### Cabbage

- Seedbed: 10%
- Transplant to cupping: 30%
- Cupping to early heading: 20%
- Early heading to mature head: 10%

**Imported cabbageworm and cabbage looper** - Late instar imported cabbageworm and/ or cabbage looper larvae were found in over 50% of cupping cabbage at a Rock Co. farm, and in over 50% of heading cabbage at a Waushara Co. farm. As per usual, cabbageworm butterflies were still active this week with at least 50 per glance fluttering around the cole crops in Waushara Co.

In the southwest, 111 cabbage looper moths arrived in the pheromone trap at the Lancaster Ag Research Station between August 4 and August 11, marking the second peak flight of the season. The first peak flight occurred here a little over 4 weeks ago, during the first week of July, with 95 moths.

The cooperator near Hancock reported 13 CL moths caught





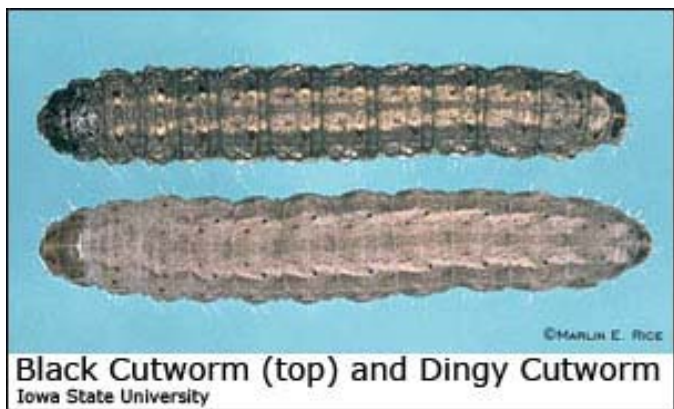
in the past week in a pheromone trap, and 27 CL moths were caught in the last week at the Arlington Ag Research Station in Columbia Co. It looks like the 2nd flight is beginning in central Wisconsin, and will probably increase in the next week.

A cooperator near Cedarburg reported finding eggs on plants this week and an increase in trap catch (average of 3.6 moths per trap) after two weeks of catching no moths, indicating the beginning of the second flight of moths in the southeast.



**Imported Cabbageworm on cabbage**  
University of Missouri-Extension

**Dingy cutworm** - The Marshfield black light cooperator reported a catch of 100 moths in two nights between August 9 and August 11, and the Wausau cooperator reported 77 moths from August 6 through August 12. While cutworms normally do not cause economic damage this late in the season, Marshfield and Wausau area growers of sweet corn and other vegetables should keep this pest in mind as a possible culprit if feeding damage occurs in the next few weeks. Dingy cutworms are mottled gray or reddish brown in color, and are smoother and less greasy-looking than the black cutworm. Both black and dingy cutworms have four tubercles or spots on each segment. The spots on the dingy cutworms are all equal in size, whereas the black cutworm has two small spots and two large spots.



**Black Cutworm (top) and Dingy Cutworm**  
Iowa State University

**Hop vine borer** - An average of three adults were caught in black light traps in near Lancaster, Madison, and Sparta in the past week. The 1st generation of hop vine borer larvae occurred from May to mid-July. (There is only one generation per year.) The moths caught this week represent the 1st adult generation, which is currently mating and laying eggs. The eggs will overwinter on grasses and hatch next May.

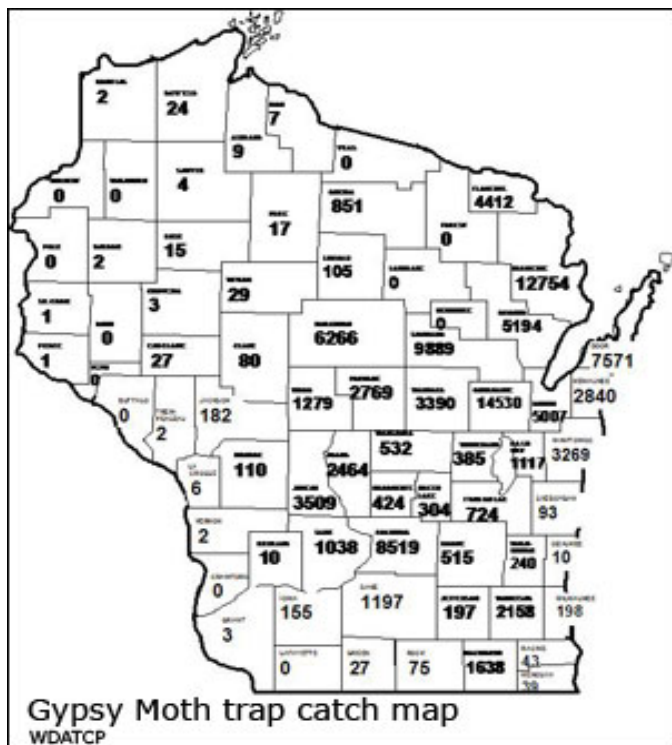
**Slug** - Damage is apparent (light) on snap bean foliage and fruit as moisture conditions have improved and vegetation density (including weeds) has increased. - *Lee Lovett, retired DATCP Pest Survey Specialist*

**European corn borer** - Second instar larvae, were found on 25% of ear tips of untreated fresh market sweet corn at a Dane Co. site this week, as reported by Lee Lovett, retired DATCP Pest Survey Specialist. Also, second to fifth instar larvae were found in Marathon Co. corn this week.

## Gypsy Moth

**Gypsy moth program** - As of August 10, trappers have checked 24,918 (73%) of the total number of traps set (34,277). Trappers have caught 106,263 male gypsy moths. Counties with the highest counts are: Adams - 2,464, Brown - 5,007, Calumet - 1,117, Columbia - 8,519, Dane - 1,197, Door - 7,571, Florence - 4,412, Juneau - 3,509, Kewaunee - 2,840, Manitowoc - 3,269, Marathon - 6,266, Marinette - 12,754, Oconto - 5,194, Outagamie - 14,530, Portage - 2,769, Sauk - 1,038, Shawano - 9,889, Walworth - 1,638, Waukesha - 2,158, Waupaca - 3,390 and Wood - 1,279. Trap check will continue this week in some northern areas while some trappers spot-check traps to help determine the end of the moth flight.

Trap takedown will probably start on August 15 or 17 in areas south of State Highway 10. Our spot check reports show that little or no flight is occurring in most southern Wisconsin locations. Moth flight is still occurring in northern Wisconsin. Trappers are doing more spot checking to see if they are catching any more moths before we take down traps. If you have any questions about the Gypsy Moth Program, please call our hotline at 1-800-642-MOTH or visit our website at: <http://www.datcp.state.wi.us/arm/environment/insects/gypsy-moth/index.jsp>



8/10/2005 COUNTY	# of Traps Set	# of Traps Checked	Positive Traps	Total # of Moths
Adams	157	157	105	2464
Ashland	895	688	8	9
Barron	922	611	2	2
Bayfield	1783	1189	19	24
Brown	82	82	80	5007
Buffalo	652	550	0	0
Burnett	869	755	0	0
Calumet	30	30	28	1117
Chippewa	1010	338	3	3
Clark	1497	1490	19	80
Columbia	202	169	156	8519
Crawford	678	534	0	0
Dane	325	269	104	1197
Dodge	99	99	80	515
Door	47	47	46	7571
Douglas	1229	781	2	2
Dunn	950	607	0	0
Eau Claire	1226	763	22	27
Florence	61	61	61	4412
Fond Du Lac	82	82	76	724
Forest	113	0	0	0
Grant	1229	827	3	3
Green	591	263	17	27
Green Lake	43	43	41	304
Iowa	921	667	51	155
Iron	661	267	7	7
Jackson	1412	1389	80	182
Jefferson	64	64	51	197
Juneau	215	215	126	3509
Kenosha	31	31	10	39
Kewaunee	35	35	35	2840
LaCrosse	529	460	6	6
Lafayette	662	350	0	0
Langlade	98	0	0	0
Lincoln	214	121	14	105
Manitowoc	68	68	63	3269
Marathon	395	394	230	6266
Marinette	165	165	165	12754
Marquette	60	60	45	424
Menominee	40	0	0	0
Milwaukee	49	49	28	198
Monroe	1140	1140	46	110
Oconto	112	56	55	5194
Oneida	301	300	64	851
Outagamie	72	72	71	14530
Ozaukee	28	28	4	10
Pepin	243	237	0	0
Pierce	585	141	1	1
Polk	935	817	0	0
Portage	98	98	83	2769
Price	1227	1032	16	17
Racine	39	39	15	43
Richland	624	203	3	10
Rock	234	234	29	75
Rusk	880	744	13	15
St. Croix	729	389	1	1
Sauk	753	529	128	1038
Sawyer	1142	896	4	4
Shawano	100	100	99	9889
Sheboygan	61	61	30	93
Taylor	1150	1086	29	29
Trempealeau	713	504	2	2
Vernon	1024	233	1	2
Vilas	254	0	0	0
Walworth	64	64	57	1638
Washburn	853	674	0	0
Washington	48	48	39	240
Waukesha	64	64	58	2158
Waupaca	84	84	84	3390
Waushara	72	72	41	532
Winnebago	51	51	28	385
Wood	206	152	76	1279
<b>TOTALS</b>	<b>34277</b>	<b>24918</b>	<b>2860</b>	<b>106263</b>

## Fruit

**Apple maggot** - The number of flies being trapped at cooperating sites has escalated in recent weeks, and light showers in the last reporting period mean emergence is likely to continue in the week ahead. The highest count this week came from Rochester where the cooperator reported a catch of 21 moths on an unbaited red ball trap placed in a wild tree. The second highest count was registered at Dodgeville where six flies were trapped on a red ball and 11 were captured on a yellow sticky board. The best defense against apple maggot flies is either to trap them out using many, many traps (a minimum of one per tree), or to kill them before the females have the opportunity to oviposit.

### Thresholds for apple maggot on red ball traps

- Baited red ball: 5 AM per trap per week
- Unbaited red ball: 1 AM per trap per week

**Obliquebanded leafroller** - As the second flight of moths picks up in the week ahead, the potential exists for significant fruit damage if a successful hatch ensues. Trees that have not been treated with a protectant for some other reason (e.g. AM) will need to have fruit monitored closely for larval hatch, starting about a week after the beginning of the flight. Fruit that occurs as doubles (two apples from the same flower cluster) or with leaves in close proximity are the most likely places to look for the characteristic two-three tiny holes just beneath the surface, where the larva enter the fruit to feed. The threshold for OBLR is 1% of the fruit.





## Apple Insect Trapping Results

	Date	STLM	RBLR	CM	OBLR	AM red ball	AM yellow
<b>Crawford Co.</b>							
Gays Mills 1	7/31-8/7	82	3	8			
Gays Mills E2	8/1-8/8	50	0	1	2		
<b>Richland Co.</b>							
Hill Point	8/3-8/9	440	6	3	1	.20 (baited)	0.25
<b>Iowa Co.</b>							
Dodgeville	8/4-8/11	42	9	31	0	6	11
<b>Dane Co.</b>							
West Madison	8/4-8/11	78	17	17	21	*5	
Deerfield	7/27-8/4	102	0	3	1	0	0
<b>Dodge Co.</b>							
Brownsville	8/5-8/11	19	2	5	0	0	0
<b>Racine Co.</b>							
Rochester	8/4-8/12	350	45	10.5	6	1.3 (baited) 0.15 (unbaited) 20 (unbaited trap in wild tree)	
<b>Ozaukee Co.</b>							
Mequon	8/5-8/11	200	0	1	0.5	0.5 (baited) 0.1 (unbaited)	0
<b>Pierce Co.</b>							
Beldenville	8/4-8/11						
Spring Valley	8/5-8/12	15	13	2	0	1.5	1
<b>Marquette Co.</b>							
Montello	7/31-8/7	24	3	0	1	0	0
<b>Brown Co.</b>							
Oneida	8/1-8/8	50	6	1	0	1 (unbaited)	0
<b>Sheboygan Co.</b>							
Plymouth	8/5-8/12	675	0	11	4	0	0
<b>Fond du Lac Co.</b>							
Malone	8/4-8/11	0	0	1	0	0	0
Rosendale	7/28-8/5	52	23	0	1	0	0
<b>Marinette Co.</b>							
Wausaukee	8/5-8/12	21	4	16	0	0	0

\* Only 1 AM for sure – 4 others had the same body mass and color, but wings were indiscernible in the stick-em. I believe that all appeared during the past 7 days and are probably all apple maggots.







## Web Site of the Week

### Emerald Ash Borer Information

<http://www.emeraldashborer.info/>

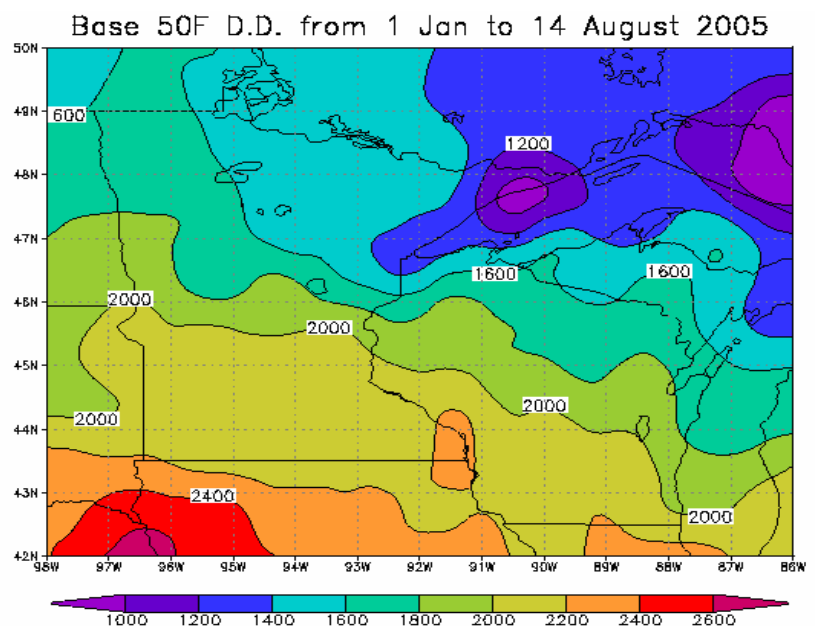
The shadow of EAB is looming over Wisconsin's ash trees--learn more about this exotic insect now, and help us prepare

## Quote of the Week

"...to hear the Insect on the leaf pronouncing on the too much life among his hungry brothers in the dust."

Charles Dickens (1812-1870) *A Christmas Carol*

August 12, 2005



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