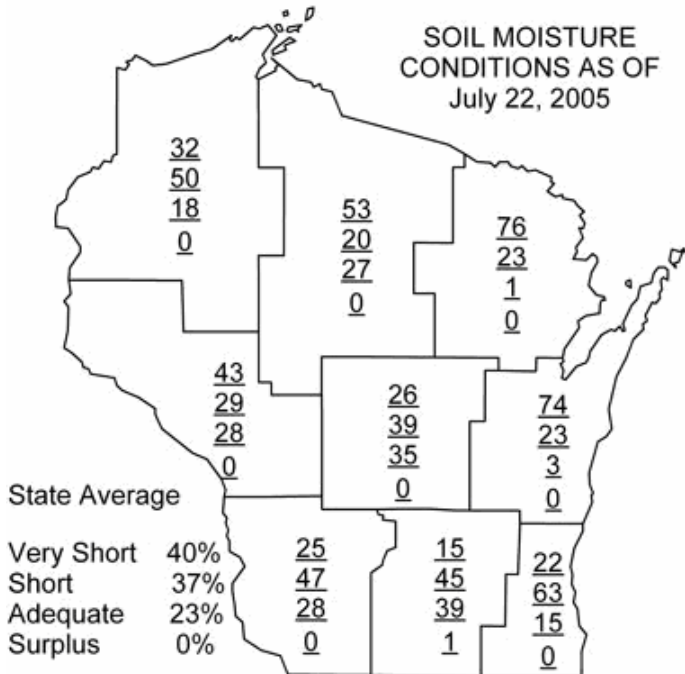
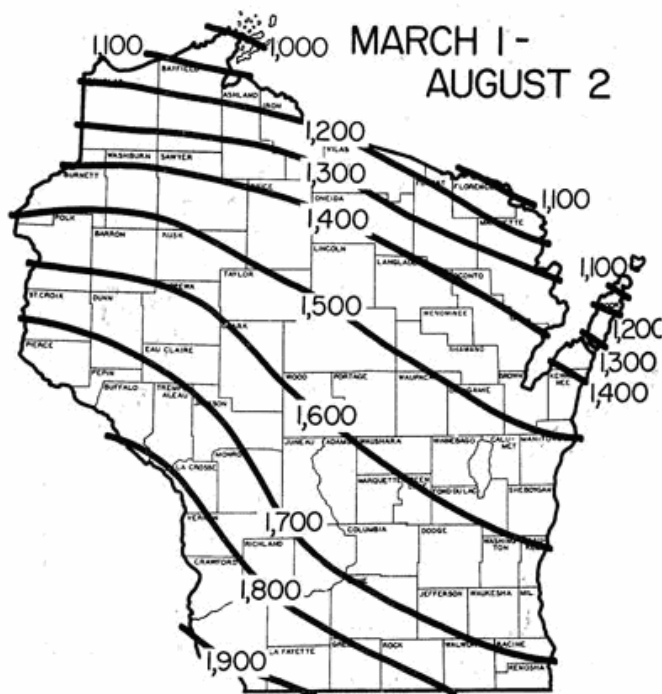


Wisconsin Pest Bulletin

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



Source: USDA, NASS, Wisconsin Field Office



Historical Growing Degree-Days Accumulated Since March 1, 2005 (Wisconsin Agricultural Statistics Service)

Weather and Pests

Oppressive heat and humidity throughout much of the month of July subsided earlier this week, giving way to rains and more temperate weather conditions. Last weekend's severe thunderstorms brought needed precipitation to crops, along with strong winds, causing corn plants to lodge in some south central fields. The timely rainfall received in most regions of the state during the past seven days will have a favorable effect on corn yields and alfalfa regrowth, as well as benefiting most other plants. However, many acres of corn and soybeans in the central and north central regions of the state are still showing signs of drought injury.

Recent weather conditions were generally favorable for European corn borer and corn rootworm activity. The summer flight of corn borers has peaked in the south and portions of the central district. The black light trapping cooperators located near Plover in the Central Sands reported an extremely high capture of 329 corn borer moths in just one week's time, an indication that hotspots of second generation corn borers are likely to arise in August.

Growing Degree Days through July 28 were:				
Site	GDD*	2004 GDD	Base 48	Base 40
SOUTHWEST				
Dubuque, IA	1821	1630	1678	2940
Lone Rock	1747	1514	1693	2825
SOUTH CENTRAL				
Beloit	1813	1582	1659	2908
Madison	1768	1489	1718	2853
Sullivan	1778	1480	1650	2860
Juneau	1753	1455	1664	2825
SOUTHEAST				
Waukesha	1684	1430	1624	2734
Hartford	1678	1393	1654	2726
Racine	1590	1361	1601	2617
Milwaukee	1571	1319	1557	2598
EAST CENTRAL				
Appleton	1568	1189	1581	2570
Green Bay	1468	1113	1497	2461
CENTRAL				
Big Flats	1698	1343	1640	2743
Hancock	1663	1298	1605	2697
Port Edwards	1621	1225	1589	2634
WEST CENTRAL				
LaCrosse	1818	1549	1698	2940
Eau Claire	1683	1345	1684	2740
NORTHWEST				
Cumberland	1491	1039	1491	2482
Bayfield	1130	815	1075	2010
NORTH CENTRAL				
Wausau	1470	1065	1461	2431
Medford	1457	1026	1455	2420
NORTHEAST				
Crivitz	1389	985	1383	2357
Crandon	1358	941	1330	2273

Alerts

NO ASIAN SOYBEAN RUST DETECTED IN WISCONSIN -

Initial reports from a private laboratory that suggested Asian soybean rust spores had been detected in Wisconsin are now believed to be inaccurate, that according to officials with the Wisconsin Department of Agriculture, Trade and Consumer Protection.

Subsequent analysis of the samples by the University of Wisconsin Plant Disease Diagnostic Clinic did not substantiate the original findings of the private lab.

"Based on the results of several rigorous tests, we've concluded that it is unlikely that spores of Asian soybean rust were present in Wisconsin," said Craig Grau, University of Wisconsin Extension plant pathologist. "Furthermore, no evidence of the disease has been found in Wisconsin soybean fields at this time," Grau emphasized.

The fungal disease of soybeans is a concern because of the potential for large crop and economic losses for soybean growers.

The University has established 20 sentinel soybean plots throughout southern Wisconsin along with specialized traps to catch air-borne rust spores. The sentinel plots are checked every few days for signs of the fungal disease. Plant disease specialists with the state agriculture department have been and will continue to survey farmer's soybean fields as well. As yet, no spores have been identified in the University traps nor have any infected plants been found in sentinel plots or farm fields.

Growers are reminded that spore detection is just one part of the disease picture.

"It's a long road from spores to disease," said Adrian Barta, DATCP plant disease specialist. "Three things are needed for a disease to become established: a suitable host, a viable pathogen and the proper environment."

Wisconsin has the host in the estimated 1.6 million acres of soybean planted in 2005. The recent weeks of hot, dry weather, however, are unfavorable for soybean rust infection.

"Even if viable spores had reached Wisconsin, the spores would rapidly deteriorate in the sunlight and the hot, dry conditions wouldn't allow the disease to become established," Barta said.

What does the future hold with the rain and cooler temperatures now in our forecast?

"The recent rains and lower air temperatures are providing more favorable conditions for the soybean rust pathogen. However, until there is evidence of active soybean rust in Illinois, I believe the potential for soybean rust is exceedingly low for Wisconsin," Grau said. "If you are planning to apply a fungicide for soybean plant health protection, now would be a good time to proceed. If you intend to apply a product specifically to protect against rust, current data from the University indicates that it is not needed at this time," Grau emphasized.

Should Asian soybean rust become established in Wisconsin, eight fungicides have been approved for use in the state under special pesticide registrations obtained through DATCP and the U.S. Environmental Protection Agency. For more information on these special registrations, go to the department's web site at <http://datcp.state.wi.us> and search on 'soybean rust'.

Soybean rust was first reported in Japan but because it is spread primarily through windborne spores, the disease is now found in Africa, Asia, Australia, Hawaii, and South America. It was first found the continental U.S. in November, 2004.

For more information on soybean rust, visit the Wisconsin Soybean Plant Health web site, <http://www.plantpath.wisc.edu/soyhealth>. Monitor the latest movement of rust on the USDA Soybean Rust web site, <http://sbrusa.net/>. In addition, a toll free voice message is available from the UW Plant Disease Detection Clinic at **1-866-787-8411**.

Looking Ahead

Western bean cutworm - The presence of western bean cutworm was confirmed this week in the easternmost counties of the state, with pheromone trap captures recorded for the first time in Calumet, Kewaunee, Manitowoc, Outagamie and Shawano Cos. Capture of moths at sites extending from Lancaster (Grant Co.) to Cleveland (Manitowoc Co.) support previous speculation of a statewide distribution for this species.

The degree day model available for western bean cutworm suggests that moth emergence is complete as far north as Appleton, and egg laying is underway in corn fields across the state. Western bean cutworm larvae should be detectable in fields in the week ahead. Look for larvae in silks, in cornfields that have tasseled. Crop scouts are strongly urged to learn to distinguish between western bean cutworm larvae and corn earworm larvae. See **CORN** section for more information on how to differentiate between the two species.

European corn borer - The summer flight of moths has peaked near Beloit, Madison and LaCrosse, where 1733 GDD50 have been surpassed. Peak second flight is likely to transpire near Hancock by the early part of next week. Egg laying is expected to be heavy at this time. Growers of susceptible crops such as sweet corn, green beans and peppers should follow black light trap reports from the nearest reporting location and closely monitor fields for early instar larvae. If warm, humid conditions continue, there is a potential for severe infestations to develop in the next three weeks. Second generation borer damage is likely to be more substantial than that of the first generation.

Corn rootworm - Despite the presence of high numbers of beetles in south central cornfields, surprisingly little silk pruning was noted during this week's surveys. Instead of being concentrated in the silks, a majority of the beetles observed were active and feeding in the tassels. Averages of 5-10 beetles per plant can seriously reduce pollination when the beetles are concentrated on plants during the early silk

stage. After pollination had occurred, such populations are of little consequence. Late fields of corn, particularly sweet corn, will become increasingly attractive to corn rootworm beetles in the coming weeks.



Northern Corn Rootworm
BugGuide.net

Soybean aphids - Densities are still quite high in untreated fields and the most effective time period for fields to benefit from aphid control is quickly passing. Soybean fields with densities exceeding 250 soybean aphids per plant that have actively building aphid populations may benefit from an insecticide treatment through R5 (beginning seed), but at R6 (full seed) and beyond, there is no advantage gained in terms of yield protection. Spraying at R6 and beyond is not advised. Decisions to control soybean aphid populations should be made in the next week in the south, and within two weeks in the far northern counties. South central fields are rapidly approaching the R4 stage of growth.

Amyworm - Monroe Co. Extension Agent Bill Halfman reported armyworm decimated a 48-acre corn field on the Monroe/Vernon Co. line in the past week. Scattered problem areas were also detected in Rusk Co., signaling scouts should be on the lookout for lingering armyworm infestations in the week ahead. A report of 106 moths at the Janesville black light trapping site this week suggests pockets of could develop in portions of southern Rock Co. as well.

Corn

European corn borer - Emergence of the summer flight of corn borer moths has peaked near Beloit, Lone Rock, Madison, Sullivan and LaCrosse, where 1733 GDD50 have been reached. First instar larvae can be found in south central, southwest and west central cornfields. The treatment window for second generation corn borer larvae remains open for another 17-19 days in these districts, or until 2100 GDD50 have accumulated.

On average, the impact of second generation corn borer is expected to be light to moderate; however, hotspots are certain to emerge. Surveys of first generation borers in mid-June found localized heavy populations in the central and south central districts, particularly in southern Juneau, Monroe and Dane Cos. (near Stoughton), but no there was

no discernable pattern to the location of hotspots. Remarkably high black light trap captures in the past two weeks near Plover in Portage Co. (329 moths) indicate some heavy infestations of second generation borer can be expected in that area as well. Next week is an ideal time to assess numbers of egg masses and stalks infested with second generation borers now to determine the need for control. Treatments in field corn should be applied at hatch and may be necessitated when 50% of the plants are infested with eggs or small larvae.

Black light trap captures from the period of July 22-28 are as follows: Plover 329; Plainfield 10; Janesville 42; Lancaster 4; West Arlington 54; Stoughton 3; Chippewa Falls 6; Marshfield 0; West Madison 39; Mazomanie 27.

Corn rootworm - Thunderstorms over the weekend brought down corn plants in the Milton area and near Johnstown in Rock Co., indicating the root systems in the affected corn fields were cut back enough by corn rootworm larvae to cause the plants to lodge. A high percentage of lodged plants can interfere with mechanical harvesting due to tangling of plants on machinery, or because the ears on lodged plants may be too near to the ground for machinery to pick up. Lodging due to corn rootworm feeding can be assessed anytime between now and late September. To determine the incidence of lodging check 25 plants in four separate areas of a field (100 plants total). All "goosenecked" or leaning plants should be pulled from the ground and examined to see if the lodging was due to root damage. Record the number of plants lodged as a result of larval feeding at each site, and then multiply by four to determine the percent lodged. Average the percentages of lodging at each of the four sites within a field.



Western Corn rootworm silk feeding
University of Illinois C-U

Western bean cutworm - The western bean cutworm trapping network radar has picked up strong signals of flight activity throughout southern Wisconsin where moths were captured in black light and milk carton pheromone trap at numerous sites between July 22 and 28. In addition, moth captures were recorded for the first time in six eastern Wisconsin counties (see next page). The highest catch of 19 moths this

week was documented near Cleveland in Manitowoc Co. Recent captures in both pheromone and black light traps indicate egg laying is occurring in cornfields across the southern half of the state. Larvae should be detectable in corn silks in the week ahead.

Given the newness of this pest and its strong potential to reduce yield, crop scout are urged to be on high alert when scouting fields in August and September. Western bean cutworm egg masses are flat, asymmetrically-shaped, and typically contain 15-50 eggs. The eggs are typically laid in the upper third of corn plants, on the upper surfaces of corn leaves. Newly-hatched larvae move to the developing tassel within the flag leaf in fields where corn has not yet tasseled. In the corn that has tasseled, the larvae move to the silks to feed. Once ears are available, the larvae move into the ear to feed on developing kernels. The larvae are apparently highly mobile and may move from plant to plant, infesting stalks within a 6 to 10 foot radius.

Larvae found feeding in the tips of corn ears in August and September could be either corn earworm or western bean cutworm. It is essential for crop scouts to be able to differentiate between these species. Young western bean cutworm larvae are dark brown with light diamond-shaped markings on their dorsal side. Larvae lighten in color with maturity, and are gray to pinkish-brown when full grown. Mature larvae grow to 1½ inches in length and have three short dark stripes running lengthwise on the first segment behind the head (see image below). These stripes may be used to separate western bean cutworm larvae from corn earworm larvae. Another obvious difference between larvae of the corn earworm and western bean cutworm is that western bean cutworm larvae are not cannibalistic, and it is possible to find several larvae infesting a single ear. Therefore, if more than one caterpillar is present in an ear, odds are they could be the western bean cutworm.



Table 1. Western bean cutworm pheromone trap catches from July 22-29, 2005.

<i>County</i>	<i>Location</i>	<i>No. of WBCW moths</i>
Winnebago	Oshkosh	0
Brown	Henrysville	0
Calumet	Brillion	1
Dane	McFarland	5
Fond du Lac	St. Cloud	0
Kewaunee	Kewaunee	6
Manitowoc	Two Creeks	4
Manitowoc	Cleveland	19
Outagamie	Freedom	1
Shawano	N Polaski	3
Sheboygan	Sheboygan	0

Corn earworm - Pheromone trapping cooperators from Rock to Chippewa Co. reported another week of minimal corn earworm activity. Counts for the 7/21-7/28 reporting period were as follows:

- Sturtevant: 4
- Lancaster: 4
- Mazomanie: 0
- Stoughton: 0
- Janesville: 0
- East Troy: 0
- Coon Valley: 0
- Chippewa Falls: 2

Corn leaf aphid - Surveyors and growers alike noted that a more uniform infestation than normal is present in most areas of the state, and very heavy populations on individual plants are common. The severity of infestations seems to have lessened with the recent rains, but in parts of the state where drought conditions persist, aphid production shows no signs of slowing. Infestations were commonly found on 60% of the plants in the Dane, Jefferson and Waukesha Co. fields sampled this week, and colonies generally contained in excess of 150 aphids per plant.

Armyworm - We may not have seen the last of the armyworm. Problems were reported from several northern counties this week, including Rusk and Monroe Cos. where isolated heavy infestations have developed. High numbers of moths were also reported at the Janesville black light trapping site. Although most of the armyworm population is nearly mature and should pupate shortly, reported lingering problems in some northern counties suggest scouting efforts should continue for another week.

Soybeans

Soybean aphid - Pest survey specialists covered a considerable amount of territory this week, sampling fields from Brown to Barron Co. Soybean aphid densities were estimated in 56 soybean fields surveyed in a total of 19 counties. Again this week densities varied widely from field to field. A total of 59% of the fields surveyed averaged fewer

than 100 aphids per plant, 18% averaged fewer than 250 aphids per plant, 14% averaged 250-700 aphids per plant, and 9% of the fields surveyed this week had average densities exceeding 1000 aphids per plant. The most heavily infested fields were found in Chippewa, Dunn, Polk, Washburn and Winnebago Cos.

In the southern districts, the finding of numerous very lightly infested fields this week (<50 aphids per plant) indicated many growers opted to treat fields to reduce aphid populations. Most of the southern Wisconsin fields were sprayed in the last week or two. The timing of these treatments was right on. Spraying at or just prior to R4 (full pod) catches aphids at peak densities before damage occurs, and reduces aphid levels to a point where it is unlikely for them to rebound later in the season. Soybean aphid densities may continue to build slowly for a few more weeks, but as soybean plants pass R5 (beginning seed) and approach the R6 (full seed) stage of growth, there is no proven advantage to spraying to control aphids and protect yields. Spraying at R6 and beyond is strongly discouraged.

Table 1. Densities of soybean aphids in Northwestern Wisconsin counties surveyed from July 25-28, 2005.

County	Average no. of aphids per plant	Ave no. of aphids per infested plant	% of 20 plants infested with aphids
Barron	487	100	487
Barron	19	100	22
Burnett	136	100	136
Chippewa	7	80	9
Chippewa	77	100	77
Chippewa	1220	100	1220
Chippewa	238	100	238
Chippewa	97	100	97
Clark	199	100	199
Clark	13	90	15
Clark	70	100	70
Dunn	166	75	163
Dunn	87	90	120
Dunn	1080	100	267
Dunn	11	50	291
Dunn	75	100	79
Eau Claire	28	90	237
Eau Claire	469	100	221
Eau Claire	34	100	97
Eau Claire	36	100	1080
Pepin	681	100	681
Pepin	17	100	17
Pierce	484	100	484
Pierce	16	95	17
Pierce	359	100	359
Polk	21	100	21
Polk	1050	100	1050
Rusk	10	60	17
St Croix	475	100	475
St Croix	247	95	260
St Croix	51	100	51
St Croix	10	75	13
Washburn	1019	100	1019

Two-spotted spider mite - Jefferson Co. Extension agent Tim Bender reported threshold levels of spider mites in soybean fields near Farmington township northeast of Johnson Creek. Tim also received calls from two Jefferson Co. growers who found spider mites in high numbers in their fields. In addition, he commented that a soybean rust sentinel plot sprayed just over two weeks ago with Lorsban for soybean aphid control is scheduled for second spraying, this time for spider mite control. Two-spotted spider mite problems are not limited to southern Wisconsin. Heavy infestations are also occurring in the central sands soybean and snap bean fields, particularly in the non-irrigated fields. Resume spider mite scouting efforts in the week ahead.



Two Spotted Spider Mite damage
Ohio State University

Bean leaf beetle - High numbers of beetles and moderate amounts of defoliation were noted in Dunn, Pierce and St. Croix Co. soybean fields where sweep net counts ranged from 10-42 beetles per 50 sweeps. Beetles were collected as far north as Polk Co. in the past week. Past surveys have seldom found high levels of bean leaf beetles in northwestern Wisconsin counties. These recent sightings are noteworthy, indicating that northern soybeans are susceptible to first generation bean leaf beetle defoliation, pod feeding and clipping.



Bean Leaf Beetle pod feeding injury
University of Illinois C-U

Vegetables

Cabbage pests - Cabbage looper (CL), diamondback (DB), and imported cabbageworm (ICW) were at or above threshold levels in all fields surveyed this week. At a Rock Co. site, at least 20% of the cole crop plants in the cupping to early heading stage had either late-instar CL larvae, early-instar ICW larvae, or ICW eggs. At a Kenosha Co. cabbage planting, 80% of plants observed had either CL mid-instar larvae, DB late-instar larvae, DB pupae, or ICW early or late-instar larvae. Imported cabbageworm butterflies were active at all locations. The cooperators at the Waushara Co. site reported seeing late instar larvae in the past two weeks, and a catch of 30 moths on Tuesday night, indicating that the second flight of moths has begun there. These moths will mate and lay eggs which will begin to hatch in 3-6 days, and give rise to the second generation of larvae.

Based on the large number of moths caught in a few pheromone traps during the first two weeks of July, it can be assumed that the late-instar larvae found this week were the bulk of first generation of cabbage looper larvae. Typically it is the second generation of larvae that is the most damaging.

Cabbage Looper Trapping Results 7/22-7/28:

- Columbia Co: 3
- Dane Co: 0
- Vernon Co: 3 (7/14-7/21)
- Waushara Co: average 10.5 (range 1-35 moths)

Western corn rootworm on squash - Aggregations of up to 15 beetles per flower were observed feeding on the flowers of squash plants at a Rock Co. vegetable farm. It is not uncommon for corn rootworm beetles to move into cucurbits after surrounding corn has matured. According to the Cornell University Vegetable MD Online, corn rootworms vector Fusarium wilt in corn, but their role in transmitting this disease or predisposing cucurbits to disease has not been investigated. And even more good news, larvae of northern and western rootworms do not feed on cucurbit roots, limiting rootworm damage to aboveground plant structures.

Fruit

Apple maggot - Fly activity continues as indicated by trapping results at several cooperating sites. Crawford, Dane, Oneida and Racine, Richland and Sauk Co. reporters documented captures of 1-4 AM flies on baited and unbaited red ball traps in the past week. Additional captures of 0.5 and 4 AM flies occurred on yellow sticky board traps at orchards near Hill Point, Malone and Gay Mills.

Codling moth - The second flight of moths has peaked where 1577 GDD have been reached. Trap counts ranged from 0-25 moths this week, with above-threshold captures reported at Campbellsport, Gays Mills, Rochester, Raymond, Plymouth, Oneida and West Madison. The action threshold for codling moth is a capture of five or more moths in a week's time.

Spotted tentiform leafminer - Recent trap captures indicate the third flight of spotted tentiform leafminer moths has been



in progress for just over two weeks in the southern districts, and is just beginning the central and northern regions. Both the sap-feeding and tissue-feeding stages of larvae are presently visible in southern orchards. Now is a good time to scout for leaf mines on the lower and upper leaf surfaces and to check for parasitism. Expect pheromone trap catches to document the peak of the third flight of moths at 2300 GDD50, not for another 28 days at advanced southern sites.

Botryosphaeria canker of apple - This season Orchard IPM Specialist John Aue has observed fruit rot symptoms not previously seen in Wisconsin apple orchards. Botryosphaeria canker and fruit rot (white rot) is caused by the fungus *Botryosphaeria dothidea*. The fungus overwinters as black pycnidia and perithecia on living and dead cankered limbs and in rotted fruits. The fungus is also commonly found on fire-blighted twigs or cankers. Apples may become infected fairly early in the season, but rotting does not develop much until the fruit is almost mature. John commented that recent high temperatures caused fruits to rot completely within just a few days of infection. The Paulas and other early varieties were most commonly afflicted. Be on the lookout for fruit rot symptoms in the week ahead. In orchards where symptoms surface, a fungicide application will be needed to prevent spread to other fruits.

Sooty blotch & flyspeck - John Aue reminds us that the time to treat for sooty blotch and flyspeck is here, particularly for orchards in the southern third of the state that have surpassed the 175 hours of leaf wetness from first cover. Most orchards have either passed or are fast approaching the 175 hour threshold.

Forest and Landscape

Rhizosphaera needlecast - This needle disease was heavy in Colorado spruce at nursery growers in Barron, Pierce and St. Croix Cos. These trees showed heavy needle loss in the lower half of the trees leaving the branches looking bare and control measures would no longer be effective. Preventative

measures would include planting Colorado spruce where good air circulation occurs, keep areas between rows of trees mowed, and control weeds under trees. When this fungus is present in trees, a spring fungicide treatment regime with Chlorothalonil is effective to control when used for two years in a row.

Red-headed flea beetle - This insect was found feeding on various dogwoods, weigela, and ninebark in Brown Co. Damage was widespread in moderate amounts.

Ash plant bug - Damage from this insect was found in light to moderate amounts on ash at Brown county nursery growers.

Lecanium scale - Ash trees at a grower in Brown Co. had localized, light amounts of this scale insect.

Bark beetles - These insects had heavily infested a white pine tree being held B&B at a nursery grower in Sawyer Co. These beetles are attracted to stressed pine, where the adults meet little resistance from the tree when piercing the thin bark and laying their eggs. Larvae tunneling under the bark caused numerous white sap runs on the trunk. Prevent stress in newly dug trees by keeping the root ball cool and moist, avoid hot soil temperatures and use a preventative insecticide treatment to keep the white pine bark beetle free. Try not to keep white pine in containers or B&B over the hot summer months.

Root collar weevil - This insect, in a few trees, was causing the death of Scotch pine in a nursery field in St. Croix Co. Look for trees turning off-color and eventually brown during the growing season. Dig around the base of the tree to check for sap runs and decay.

Chrysomya ledi - Rust spores were present in light amounts on Colorado spruce at nursery growers in Sawyer and Barron Cos. this week.

White pine weevil - Larvae were present in light amounts in Colorado spruce tips at nursery growers in Barron and Pierce Cos. Scout for dead or dying tops of Spruce or Pines. Cut out the dead section and slice the branch open to check for tan larvae, frass and excelsior cocoons. Easy control method is to cut off all dead tips back to clean growth and remove the dead tips, with larvae, from the field.

Spruce needleminer - Larval feeding had left heavy amounts of dead needles on Black Hills spruce at a nursery grower in Pierce Co. Look for loose, browned needles to be bundled with a small amount of silk that attaches them to the branch. With a magnifying lens these needles have a small hole at their base where the needleminer had entered the needle to feed. In heavy amounts, the trees have a noticeable browned color, even from a distance.

Thrips - These insects were heavy feeders on hollyhocks, and present in lighter density on 'Zestar' and 'Fireside' apple trees at a nursery grower in Pierce Co.

Bristly rose slug - Larvae were observed feeding in light amounts on the undersides of 'Carefree Wonder' shrub roses at a nursery grower in Pierce Co.

White pine blister rust - This fungal pathogen was present and killing 8-10 inch white pine trees in moderate amounts at a nursery grower in Pierce County.

Bronze birch borer - Heavy amounts of damage were seen in 'Crimson Frost' and 'Royal Frost' birch trees at a nursery grower in St. Croix County. Once this borer is present, the trees should be removed and destroyed promptly. Stressed trees attract borers and these reddish-green leafed birch seem to be easily stressed. Preventative insecticide applications may help the trees resist attack. Systemic insecticides are on the market and will last in the tree's system for up to 11 months.

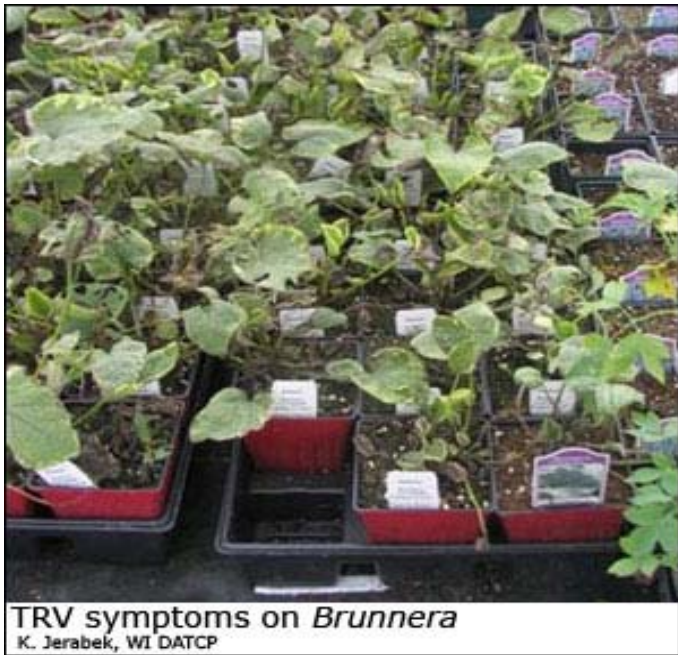
Mossy rose gall - This gall, caused by *Diplolepis rosae*, a cynipid gall wasp, are developing on rose in the parking lot terrace at the Department of Agriculture, trade and consumer protection (see photo below). The wasps lay eggs in one-year-old rose twigs and the development of galls is stimulated by the presence of newly hatched larvae. Galls are spherical hairy masses about 1 1/2 inch in diameter. Initially, they are light green with pink and light green hairs, but the galls eventually turn brown. Galls encase the cynipid gall wasp larvae until adults emerge the following spring.



Wild indigo weevil - A seed predator weevil, *Apion rostrum*, was found doing considerable damage to *Baptisia leucantha* and *B. leucophia* at a nursery in Rock Co. This weevil overwinters as an adult in the soil and starts laying eggs as the seed pods of wild indigo begin to swell. The larvae eat only the seed in the developing pod causing the plant to abort the pods. Seed production can be severely affected by this insect. In one study, "Tanglefoot" applied to the stems of wild indigo reduced the amount of seed predation by trapping the adult beetles walking up the stems. Insecticides have also been shown to reduce damage when applied in the spring and early summer. Type in "Apion rostrum" in Google and you will see several articles on this insect.

Hosta virus X - Recently tested by the Plant Industry Lab, 'Sum of All' and 'Gold Standard' came out positive by ELISA testing. The plants were from a nursery dealer in Milwaukee Co. Original source of the bare root plants was the Netherlands. 'Sum of All' was asymptomatic when brought in.

Tobacco rattle virus - See the photo below for what a wide-spread infection looks like in Brunnera.



Leafhoppers - Damage was moderate, mostly on maples, at nurseries in Brown and Jefferson Cos.

Fall webworm - Webs were becoming evident on various shade trees at nurseries in Dane, Dodge and Jefferson Cos.

Gypsy Moth

Gypsy moth program - As of July 27, trappers have checked 7,294 (21%) of the total number of traps set (34,610). Trappers have caught 14,567 male gypsy moths. Counties with the highest count are: Adams - 2,464, Calumet - 1,117, Manitowoc - 1,438, Marathon - 1,022, Portage 2,769, and Waupaca - 1,845. Trap checks will continue for another 2-3 weeks.

Moth flight is just starting in northern Wisconsin counties. The highest reported moth catches have occurred in the central counties, including Adams, Marathon and Portage. There have few or no catches so far in many western counties along the Mississippi River. 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>



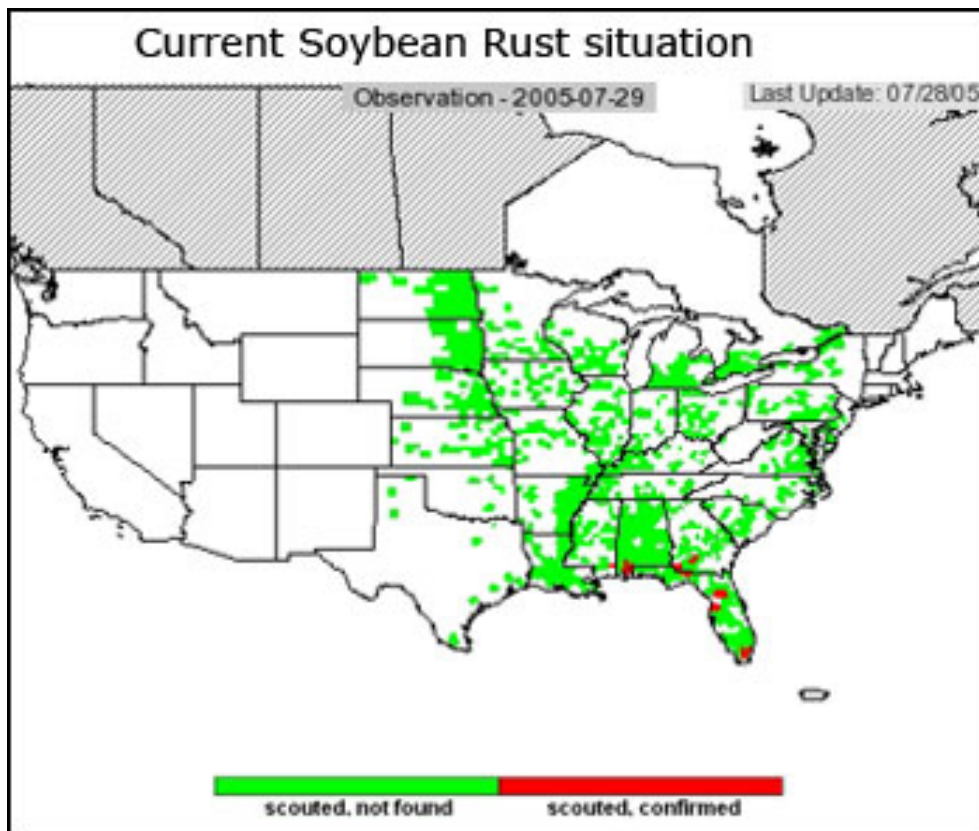
Male gypsy moth
www.ecy.wa.gov

7/27/2005 COUNTY	# of Traps Set	# of Traps Checked	Positive Traps	Total # of Moths
Adams	157	157	105	2464
Ashland	892	160	0	0
Barron	922	146	0	0
Bayfield	2127	150	1	1
Brown	78	30	27	169
Buffalo	652	245	0	0
Burnett	869	110	0	0
Calumet	30	30	28	1117
Chippewa	1010	52	0	0
Clark	1497	734	2	44
Columbia	202	0	0	0
Crawford	678	217	0	0
Dane	325	168	48	266
Dodge	99	20	13	107
Door	47	0	0	0
Douglas	1229	99	0	0
Dunn	950	93	0	0
Eau Claire	1226	151	2	2
Florence	62	0	0	0
Fond Du Lac	82	12	10	39
Forest	112	0	0	0
Grant	1229	230	0	0
Green	591	48	0	0
Green Lake	43	0	0	0
Iowa	921	276	23	76
Iron	661	27	0	0
Jackson	1412	791	7	7
Jefferson	64	0	0	0
Juneau	215	0	0	0
Kenosha	31	31	10	39
Kewaunee	35	0	0	0
LaCrosse	529	143	0	0
Lafayette	662	116	0	0
Langlade	95	0	0	0
Lincoln	214	0	0	0
Manitowoc	68	32	29	1438
Marathon	395	54	30	1022
Marinette	164	0	0	0
Marquette	60	47	36	337
Menominee	40	0	0	0
Milwaukee	49	49	28	102
Monroe	1140	649	27	57
Oconto	112	15	15	845
Oneida	301	0	0	0
Outagamie	72	0	0	0
Ozaukee	28	28	4	10
Pepin	243	47	0	0
Pierce	585	0	0	0
Polk	935	208	0	0
Portage	98	98	83	2769
Price	1227	94	0	0
Racine	39	39	15	43
Richland	624	33	1	5
Rock	234	176	19	60
Rusk	880	174	1	1
St. Croix	729	0	0	0
Sauk	753	193	41	141
Sawyer	1142	0	0	0
Shawano	100	0	0	0
Sheboygan	61	61	30	93
Taylor	1150	245	2	2
Trempealeau	713	243	1	1
Vernon	1024	149	0	0
Vilas	254	0	0	0
Walworth	64	0	0	0
Washburn	853	107	0	0
Washington	48	48	39	240
Waukesha	64	0	0	0
Waupaca	84	45	45	1845
Waushara	72	64	38	489
Winnebago	51	51	28	385
Wood	206	109	39	331
TOTALS	34610	7294	827	14567

Black Light Trapping Results

Trap Site	Date	ECB	TA	FA	BCW	DCW	SCW	VCW	WBCW	CabL	CeL	CEW
Southwest												
Lancaster	7/21-7/27	4	5		2				4			
South Central												
West Arlington	7/21-7/28	54	9		2	3	1		15		2	1
Mazomanie	7/21-7/28	27	8	0	3	2	0	0	4	2	3	1
West Madison	7/21-7/27	39	5		3				17		4	
Stoughton	7/21-7/28	3	1									1
Southeast												
Janesville	7/22-7/28	42	106		31		0		2		13	
West Central												
Chippewa Falls	7/22-7/28	6										
East Central												
Manitowoc	7/22-7/29	2	5	11	0	21	0				5	0
Central												
Hancock	7/21-7/28				1			1		2		
Wausau	7/22-7/29	6	1	4	1	22	3		17		1	
Marshfield	7/20-7/28	0	1	1	3	3	0	5	1	0	2	0
Plover	7/21-7/28	329										
Plainfield	7/21-7/28	10										

ECB- European corn borer, TA- true armyworm, FA- fall armyworm, BCW- black cutworm, DCW- dingy cutworm, SCW- spotted cutworm, VCW- variegated cutworm, WBCW- Western bean cutworm, CabL- cabbage looper, CEW- corn earworm



Apple Insect Trapping Results

	Date	STLM	RBLR	CM	OBLR	AM red ball	AM yellow
Crawford Co.							
Gays Mills 1	7/17-7/24	101	7	6			4
Gays Mills E2	7/21-7/28	280	10	25	2	1 (un) 4 (baited)	
Richland Co.							
Hill Point	7/13-7/27	72	3	0	0	0	0.5
Richland Center E	7/21-7/28	595	8	4	4	0 (un) 2 (baited)	0
Richland Center W	7/21-7/28	52	7	0	0	0	0
Sauk Co.							
Baraboo	7/21-7/28	260	15	1	0	1 (unbaited)	0
Iowa Co.							
Dodgeville	7/21-7/28	130	1	2	15	3	0
Dane Co.							
Deerfield	7/20-7/27	265	0	0	0	1 (unbaited)	0
West Madison	7/22-7/28	15	7	9	4	0	0
Green Co.							
Brodhead	7/21-7/28	11	1	0	0	0	0
Dodge Co.							
Brownsville	7/22-7/28	7	9	4	1	0	0
Racine Co.							
Raymond	7/21-7/28	157	27	6	8	0	0
Rochester	7/21-7/28	50	12	9.1	0	**1.3 (unbaited)	0
Kenosha Co.							
Burlington	7/16-7/22	100	0	2	0	0	0
Waukesha Co.							
New Berlin	7/21-7/28	153	3	3	0	0	0
Pierce Co.							
Spring Valley	7/22-7/29	156	18	0.5	0	0	1
Marquette Co.							
Montello	7/18-7/27	22	0	3	0	0	0
Brown Co.							
Oneida	7/18-7/25	200	21	6	0	*1 (unbaited)	0
Sheboygan Co.							
Plymouth	7/22-7/29	124	65	19	6	0	0
Fond du Lac Co.							
Campbellsport	7/21-7/27	150	7	9	0	0	0
Malone	7/21-7/28	50	10	2	0	0	1
Marinette Co.							
Wausaukee	7/22-7/28	0	0	0	0	0	0

*One AM fly captured per 3 unbaited red ball traps

**17 flies in 13 traps. Eight of the 17 AM flies were in a wild tree trap with 7 caught on July 27-28.

UW Plant Disease Diagnostics Clinic

CROP	DISEASE/DISORDER	PATHOGEN	COUNTY
FIELD			
Soybean	Bacterial Tan Spot	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i>	La Crosse
	Phylllosticta Leaf Spot	<i>Phylllosticta</i> sp.	Sauk
	Root Rot	<i>Pythium</i> sp., <i>Fusarium oxysporum</i>	Sauk
	Stem Canker	<i>Phomopsis</i> sp.	Sauk
	Chemical Burn	Chemical Injury	Brown
	Sunburn	Physiological	Adams
VEGETABLE			
Beets	Root Rot	<i>Pythium</i> sp., <i>Fusarium</i> sp.	Brown
	Herbicide Injury	Chemical	Brown
Ginseng	Mystery Seedling Disease	<i>Cylindrocarpon destructans</i>	Unknown
	Phytophthora root rot	<i>Phytophthora cactorum</i>	Unknown
Pumpkins	Fusarium Wilt	<i>Fusarium oxysporum</i>	Brown
	Water Stress	Physiological	Brown
Snap Beans	Root Rot	<i>Pythium</i> sp., <i>Rhizoctonia solani</i>	Vernon
Tomato	Blossom End Rot	Physiological	Dane
	Herbicide Injury	Chemical	Clark, Columbia
FRUIT			
Apple	Cedar-Apple Rust	<i>Gymnosporangium</i> sp.	Richland
EVERGREEN			
Austrian Pine	Sphaeropsis Tip Blight	<i>Sphaeropsis sapinea</i>	Dane
Colorado Blue Spruce	Rhizosphaera Needle Cast	<i>Rhizosphaera kalkhoffii</i>	Dane
Juniper	Kabatina Tip Blight	<i>Kabatina juniper</i>	Green
	Phomopsis Tip Blight	<i>Phomopsis</i> sp.	Dane
	Root Rot	<i>Pythium</i> sp., <i>Phytophthora</i> sp.	Dane
HERBACEOUS ORNAMENTAL			
Daylily	Leaf Streak	<i>Aureobasidium microstictum</i>	Racine
Marigold	Herbicide Injury	Chemical	Portage
Mun	Chlorosis	Physiological	Jefferson
Petunia	Powdery Mildew	<i>Oidium</i> sp.	Clark
Verbena	Root Rot	<i>Pythium</i> sp.	Jefferson
WOODY ORNAMENTAL			
Ash	Sphaeropsis Canker	<i>Sphaeropsis</i> sp.	La Crosse
Elm	Dutch Elm Disease	<i>Ophiostoma ulmi</i>	Clark, Dane, La Crosse, Milwaukee
Hickory	Sphaeropsis Canker	<i>Sphaeropsis</i> sp.	Dane
Maple (Including Sugar)	Anthracnose	<i>Gloeosporium</i> sp.	La Crosse, Dane
Oak (Including Pin, Red, White)	Anthracnose	<i>Gloeosporium</i> sp.	Dane, La Crosse
	Oak Wilt	<i>Ceratocystis fagacearum</i>	Dane, Portage, Rock
	Tubakia Leaf Spot	<i>Tubakia</i> sp.	Jackson
	Herbicide Injury	Chemical	Dane
Redbud	"Virus-Like Diseases"	Uncharacterized	Dane
Serviceberry	Powdery Mildew	<i>Podosphaera</i> sp.	Sheboygan
	Cytospora Canker	<i>Cytospora</i> sp.	Dane
	Sphaeropsis Canker	<i>Sphaeropsis</i> sp.	Sheboygan
	Root Rot	<i>Pythium</i> sp., <i>Fusarium</i> sp.	Dane
Sunac	Phomopsis Canker	<i>Phomopsis</i> sp.	Ozaukee
For additional information on plant diseases and their control, visit the PDCC website at: www.plantpath.wisc.edu/pddc .			Diagnoses since 7/20/2005

Web Site of the Week

Wisconsin' Eco-Apple Project

<http://www.thinkipm.org/apples/>

A partnership of WAGA and UW Extension and UW CIAS, the Eco-Apple Project is developing IPM standards and working towards an IPM label.

Quote of the Week

"In the case of news, we should always wait for the sacrament of confirmation."
Voltaire (1694-1778), French philosopher, author

Base 50F D.D. from 1 Jan to 28 July 2005

