

Wisconsin Department of Agriculture, Trade & Consumer Protection

Wisconsin Pest Bulletin

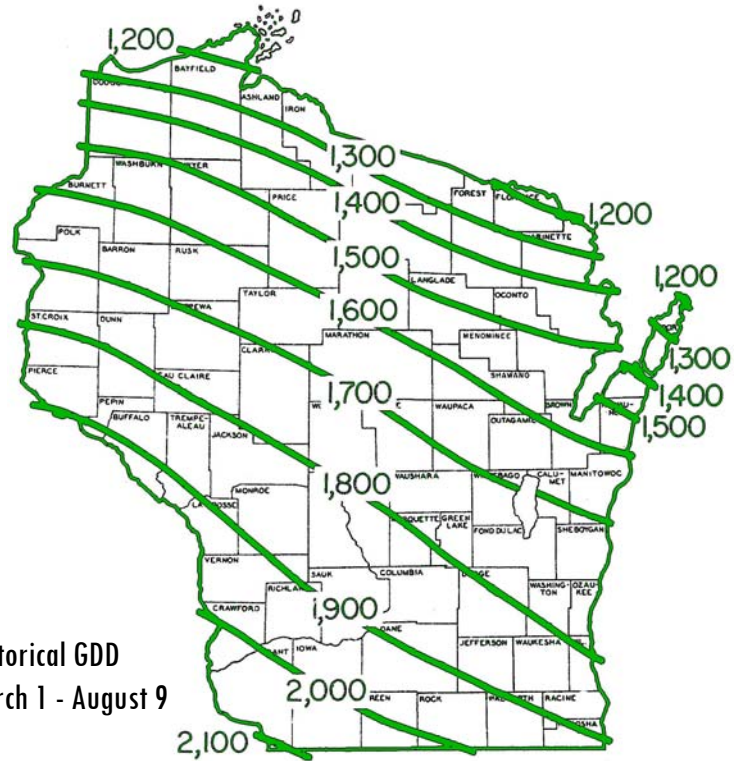
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Your weekly source for crop pest news, first alerts, and growing season conditions for Wisconsin



Weather and Pests

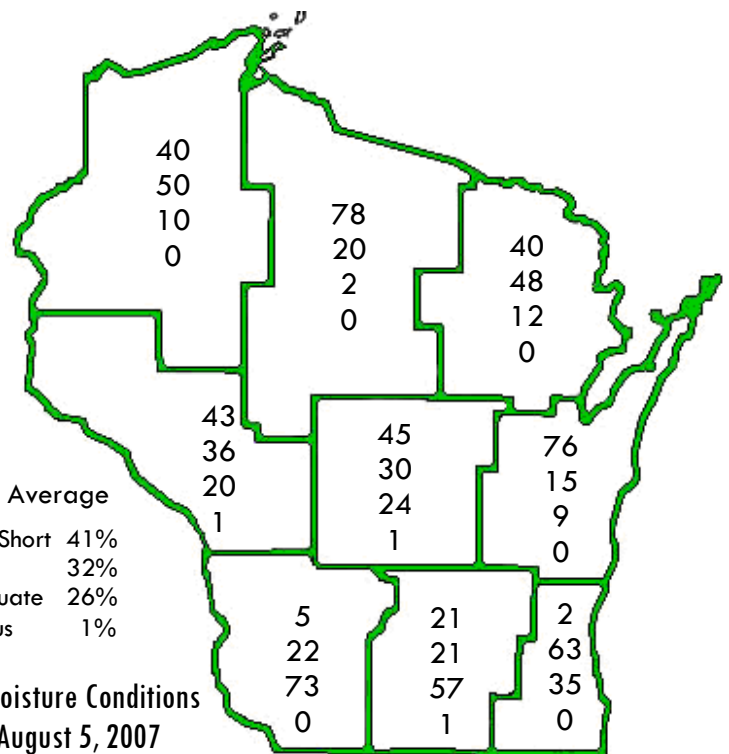
Widespread rainfall this week brought variable levels of moisture to the state. Portions of the southern agricultural areas received generous amounts of precipitation, and this has improved the prospects for late-planted sweet corn, soybeans and alfalfa regrowth. High temperatures and humidity favored an increase in some diseases that were relatively inactive during the prolonged period of dry weather. Crops in the central and northern areas remain under severe drought stress. Corn growers from the east central area report poor grain fill and attribute it to the continued dry conditions. Second and third crop hay cuttings are short and yields are generally below normal. Corn rootworm beetles are now very active and being encountered in high numbers in several counties.



Growing Degree Days through 08/09/07 were

	GDD 50F	2006	5-Yr	48F	40F
Dubuque, IA	2115	1989	2006	2194	3379
Lone Rock	2037	1924	1934	2058	3277
Beloit	2098	2071	1996	2106	3357
Madison	2004	1879	1907	2028	3236
Sullivan	1932	1912	1883	1923	3139
Juneau	1922	1803	1850	1967	3127
Waukesha	1885	1804	1806	1933	3083
Hartford	1909	1789	1803	1961	3010
Racine	1875	1774	1751	1912	3067
Milwaukee	1870	1785	1739	1906	3063
Appleton	1876	1818	1731	1909	3051
Green Bay	1752	1703	1609	1798	2915
Big Flats	1885	1890	1831	1846	3058
Hancock	1875	1858	1802	1836	3026
Port Edwards	1869	1899	1765	1873	3035
La Crosse	2178	2133	2037	2063	3462
Eau Claire	2004	2078	1903	1982	3227
Cumberland	1833	1828	1679	1822	2986
Bayfield	1465	1478	1312	1471	2500
Wausau	1744	1689	1598	1754	2861
Medford	1690	1707	1568	1708	2804
Crivitz	1687	1638	1530	1727	2799
Crandon	1588	1522	1449	1568	2634

Historical GDD
March 1 - August 9



State Average

Very Short 41%
Short 32%
Adequate 26%
Surplus 1%

Soil Moisture Conditions
as of August 5, 2007

Looking Ahead

Annual or dog-day cicada - Hot and humid weather in the past week inspired the emergence of nymphs and courtship singing by male annual cicadas. A DeForest resident reported a flurry of cicada activity in the downtown area on August 4. Two nymphs were encountered on the sidewalk; one was a final instar searching for a tree upon which to transform into an adult. From Portage to Wausau, choruses of males could be heard in the tree tops producing high-pitched, shrill songs on the warmest afternoons. Annual cicadas are biologically and morphologically distinct from the Brood XIII periodical cicadas that emerged in May and June. Nymph development in annual cicadas is not synchronized, adults are green and black and larger than the black and orange periodical cicadas, and emergence occurs in July and August. These cicadas have two- to five-year life cycles and are usually associated with oaks, maples, and other mature well-established trees. Adults are commonly found on blacktop surfaces that retain heat overnight, especially on mornings with temperatures below 55°F.



Annual or dog-day cicada

Bruce Martin 2007



Periodical or seventeen-year cicada

Calvin Hamilton 2004

Corn rootworm - Adults continue to emerge in high numbers and silk damage is evident in fields with fresh silks. Surveys revealed individual fields with economic averages of 1.0 to 11.6 beetles per plant in Calumet, Columbia, Dane, Dodge, Fond du Lac, Green Lake, Iowa, Jefferson, Manitowoc, Outagamie, Ozaukee, Rock, Sauk, Sheboygan, and Winnebago counties. Plants in these fields had been already pollinated and should not be greatly affected by silk feeding. However, an average of 1.0 beetle per plant or greater indicates a high potential for larval damage to corn roots next season. The western species, *Diabrotica virgifera*, was encountered in virtually every field as far east as Lake Michigan. In Columbia, Dodge and Green Lake counties, the northern species, *Diabrotica barberi*, appeared to be more numerous. As more fields mature, expect adults to concentrate in later planted fields with fresh silks.

Two-spotted spider mite - Prolonged dryness over the central and northern counties has been highly conducive to spider mite outbreaks. Scouting at 4- to 5-day intervals throughout August is strongly advised in fields under drought stress. Examine the plants along the margins of fields for stippling or speckling associated with early two-spotted spider mite infestation. A hand lens should be used to view the eggs, nymphs and adults. Mites may be dislodged and counted on by tapping leaves over a sheet of white paper.

White mold of soybean - A report from Barron County indicated that light infections of fluffy, white mycelium are appearing in localized spots within fields. The incidence of white mold is heavily dependent on weather conditions during soybean flowering and early pod development. Conditions that favor its development are rain, cool temperatures (< 85°F), high humidity, and moist soil in a closed canopy. It seems unlikely that this fungus will increase in intensity on soybeans in the northwest and cause damage before the crop reaches maturity.

Forages

Roundup Ready alfalfa - Conventional and organic farmers who raise alfalfa can determine if there are nearby fields of genetically engineered alfalfa by contacting a toll-free hotline offered by the USDA Animal and Plant Health Inspection Service (APHIS).

Alfalfa genetically engineered to resist the herbicide Roundup has been available in the United States since 2005. As a result of a recent lawsuit, the USDA APHIS has been directed to restrict and regulate the use of Roundup Ready alfalfa. APHIS has made available a toll-free telephone number for use by conventional and organic alfalfa farmers and prospective alfalfa farmers to inquire about the proximity of their farms or fields to Roundup Ready alfalfa. These measures offer some protections for organic farmers and others who wish to avoid growing genetically engineered crops.

According to the APHIS website, genetically engineered alfalfa is being grown in 58 Wisconsin counties. Location information can be accessed by calling 1-866-724-6408. The line will be staffed beginning August 6, 2007 from 9 a.m. to 5 p.m. Eastern time, Monday through Friday (except holidays).

To receive information, callers must be a person who either currently plants conventional or organic alfalfa or plans to do so, and must be ready to provide the operator with either the latitude and longitude coordinates or the mailing address of their farm or field where the alfalfa is or will be grown.

Potato leafhopper - Despite recent rains, leafhopper populations in many central and northern Wisconsin alfalfa fields remain above treatment thresholds. Counts ranged from 1.9 to 11.5 per sweep in 6-8, 10-12 and 14-18 inch Adams, La Crosse, Marquette and Monroe County fields, and severe yellowing was evident in some of the more mature stands. Cooperators reported moderate to high numbers in the east central and northeast regions where most of the recent rains have missed. Hopperburn is very apparent in areas that had only minimal amounts of rainfall in past weeks. The combination of continued dryness and conditions favorable for reproduction has caused persistent and widespread potato leafhopper problems this season.

Corn

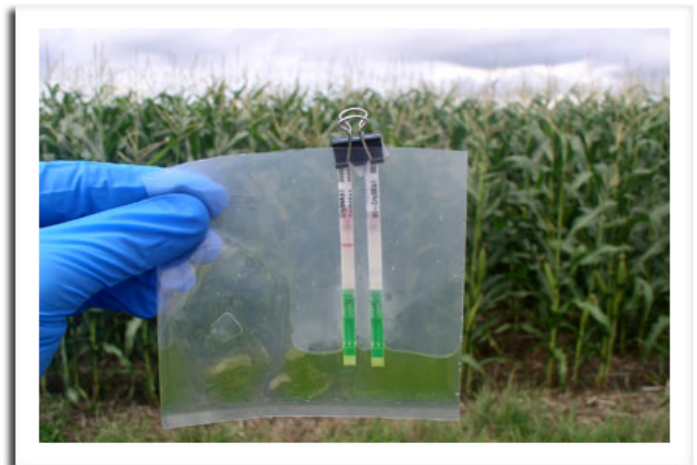
Corn rootworm - Preliminary results of the annual corn rootworm beetle survey revealed high populations in Calumet, Columbia, Dane, Dodge, Fond du Lac, Green, Green Lake, Jefferson, Manitowoc, Outagamie, and Ozaukee counties. Corn fields in these areas contained averages greater than 1.0 corn rootworm beetle per plant, which indicates a high potential for egg laying and larval damage to roots in continuous corn next season. Intermediate averages of 0.5 to 1.0 beetle per plant were detected in Iowa, Sauk, Washington and Waupaca counties, although individual fields with high populations may occur in these areas. Generally non-economic or low populations less than 0.5 beetle per plant were documented in Adams, Marquette, Richland, Waupaca and Winnebago counties. The corn rootworm beetle survey is timed to coincide with peak beetle emergence and egg laying. Final results will be published in the August 31 issue of the Wisconsin Pest Bulletin.

For the second year, the corn rootworm survey will be correlated with use of transgenic traits. DATCP survey specialists are testing plants at each field for the two Bt corn proteins available for control of corn rootworm larvae: YieldGard® and Herculex® rootworm technology. Results may reveal how widely these rootworm products are used and regional differences in adoption of the Bt rootworm hybrids. As of August 9, the YieldGard® Bt-Cry3Bb1 protein was detected in 12% of the fields surveyed, while the Herculex® Bt-Cry34Ab1 protein was detected in 1%

of the fields examined. Illustrated below are images of the mobile laboratories used by DATCP specialists to test field corn for transgenic traits.



Mobile laboratory to test Bt rootworm hybrids Krista Hamilton DATCP



YieldGard and Herculex test strips Krista Hamilton DATCP

Fall armyworm - Several plants infested with small larvae were observed in Dodge County field corn. Feeding was confined to the whorl area. Populations were light, but concentrated in areas where a number of adjacent plants were infested. On average, fewer than 5% of the plants were affected.

Western bean cutworm - The annual flight of western bean cutworm moths has ended. Moths emerged earlier than expected in Wisconsin and over the Midwest, and activity concluded rather abruptly. With a few noteworthy exceptions, including Centerville (27 moths), Eau Claire (34 moths), New Holstein (27 moths), and Princeton (21 moths), pheromone traps registered very low numbers of moths during the last week. The highest seasonal total number of western bean cutworm moths captured was 448 at Princeton in Green Lake County (July 2 to August 9, 2007). Milk jug traps should be removed in the week ahead. The DATCP Pest Survey Coordinator wishes to thank all of the cooperators who contributed counts to the 2007 monitoring network, including Bill Halfman, Bill Veith, Joanne Ray, Steve Hoffman, all of the Pioneer Hi-Bred

representatives, and Jim Nienhuis with Crop Production Services in Richmond, Illinois. An analysis of captures in the 103 milk jug traps across the southern two-thirds of the state will be included in the final seasonal issue. The 2007 data should reveal peak flight periods as well as useful information on the geographic distribution of this pest and its recent eastern expansion into Wisconsin.

European corn borer - High populations of second generation larvae were detected in the central region, particularly in Adams, Green Lake, and Marquette counties. A DATCP survey specialist reported numerous plants with shot-hole feeding injury and stalk breakage due to tunneling by larvae. The treatment window for European corn borer already closed near Dubuque, Beloit, and La Crosse by August 9, and is expected to close throughout the west central, southwest and south central areas over the weekend (August 11-12). Approximately one week remains for corn fields in the southeast, central and northern districts to be assessed for damage by the second generation of larvae. Treatment decisions should be made before 2,100 GDD (base 50°F) have been surpassed. Refer to the August 9 degree day table on page 161 for accumulations at 22 Wisconsin locations.



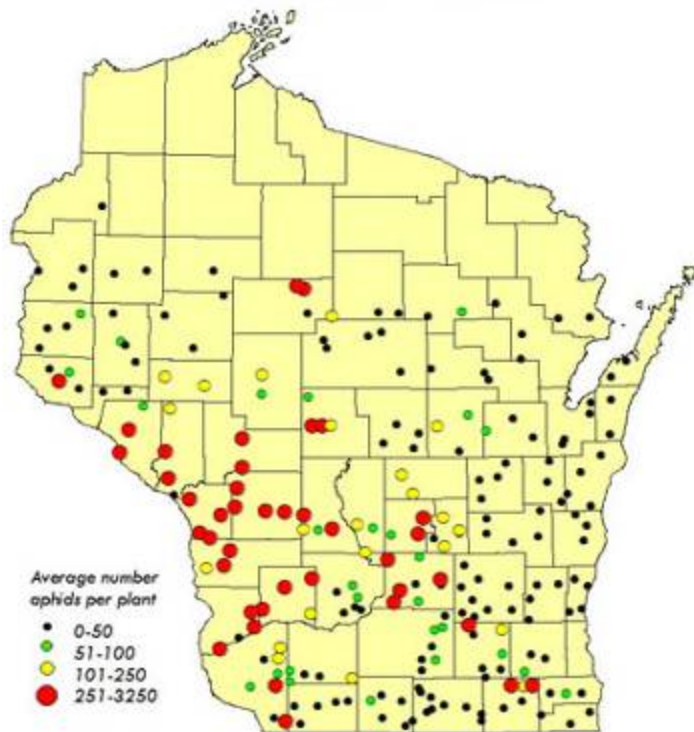
European corn borer shot-holes

Krista Hamilton DATCP

Soybeans

Soybean aphid - An annual survey of 227 soybean fields carried out from July 12 to 31 found non-economic soybean aphid populations at 82% of the survey sites. High or economic populations (> 250 aphids per plant) were detected at 18% of the sites, located principally in Columbia, Crawford, Richland, Vernon, La Crosse, Marquette, Monroe, Juneau, Jackson, Buffalo, Trempealeau, and Wood counties. Average population densities in these counties ranged from 253 to 1,071 soybean aphids per plant. The 2007 statewide average number of soybean aphids per plant was 164. This compares to 69 aphids per plant in 2006, 108 aphids per plant in 2005, 11 aphids per plant in 2004 and 618 aphids per plant in 2003. Final survey results are summarized in the adjacent map and in the table on page 169.

2007 Soybean Aphid Survey Results R2 to R4 growth stages



Two-spotted spider mite - Reports of increasing spider mite infestations continue to circulate. Mites were detected on August 1 in southern Door County in a soybean field just south of Maplewood along Hwy 42, and several Fond du Lac and Manitowoc County fields were treated earlier this month. Scattered heavy mite populations this season, although the majority of economic populations have been reported in east central and central Wisconsin. Drought conditions over the central and northern parts of the state are optimal for spider mite outbreaks at this time, and regular scouting every 4 to 5 days in these areas is critical to early detection of outbreaks and timely rescue treatments. Applying a miticide to drought stressed soybeans is an acceptable measure if leaves are stippled and two-spotted spider mites are present throughout the field. However, several variables should first be considered, such as the growth stage, timing of sprays for soybean aphids (which may aggravate mite problems), harvest intervals, and weather conditions. Fields recently sprayed for soybean aphids should be checked within 10 to 14 days to ensure mite populations are not surging. Spider mite populations are expected to persist through August or until cool weather reduces reproductive activity. Refer to the August 2 issue of the Wisconsin Crop Manager (article by Eileen Cullen, UW-Extension Entomologist) <http://ipcm.wisc.edu/WCMNews/tabid/53/EntryID/341/Default.aspx> for scouting and treatment recommendations.

Soybean virus - Virus symptoms were detected earlier this month in roughly 20% of the fields examined as part of the annual soybean aphid and virus survey. Symptomatic

plants with mottled, stunted or crinkled leaves may have been infected with alfalfa mosaic virus, bean pod mottle virus, soybean mosaic virus, or tobacco streak virus, the most common viruses occurring in Wisconsin soybean fields. These viruses often work synergistically to reduce yield and lower seed quality. Most soybean viruses cannot accurately be identified or diagnosed based on foliar symptoms. Testing underway at the DATCP Plant Industry Laboratory should reveal specifically which viruses were prevalent among the 227 Wisconsin soybean fields sampled in 2007. All of the viruses mentioned are transmitted by either the soybean aphid or bean leaf beetle.

Potatoes

Updated soil fumigant rule - Wisconsin potato growers should take note of rule changes related to the use of two soil fumigants, chloropicrin and metam sodium. The updated rule went into effect on August 1 for these products used to control nematodes in potato fields and sterilize soil prior to planting nursery tree seedlings. Revisions were made because of concerns that the fumigants may volatilize and drift from the application site. The changes are intended to prevent human exposure to any volatilized product.

The use of chloropicrin soil fumigants will be regulated in the same manner as metam sodium soil fumigants. Some existing metam sodium use requirements have been modified including post-application monitoring requirements and setback requirements for 'tarped' applications. These modifications now apply to chloropicrin as well.

For questions or copies of the rule, contact Matt Sunseri, DATCP pesticide specialist at (608) 224-4547 or visit http://www.datcp.state.wi.us/arm/agriculture/pest-fert/pesticides/chloropicrin_metam_sodium.jsp for more details on the changes and to download a copy of the rule.

Weeds

Most corn and soybean weed management programs target problem plants at emergence or during the early seedling stage of development, and this approach usually prevents yield loss. However, in exceptionally weedy fields or in spots where weeds are persistent, it can be beneficial to target other life stages, such as just prior to seed maturity and seed shed. This is especially true if weed population reduction is a long-term goal. As mid-August approaches, many of the agricultural weed species that escaped control early in the season are now forming seed.

Since crops are in the later stages of development, early-season weed management techniques generally do not apply. One approach that may reduce densities is careful management along field margins and in edge rows. In

many cases, weed densities are highest in the headrows, and mowing prior to seed maturity or bagging seed heads helps to decrease populations densities in future years, particularly if this measure becomes part of an annual weed management plan. Removing seeds reduces new additions to the seedbank. Spot spraying or hand-pulling weeds are also options for control, although these tactics are far more time consuming and labor intensive.

During surveys in corn and soybeans this week, the following species were observed with immature seeds: giant foxtail (*Setaria faberi*), yellow foxtail (*Setaria glauca*), green foxtail (*Setaria viridis*), woolly cupgrass (*Eriochloa villosa*), velvetleaf (*Abutilon theophrasti*), giant ragweed (*Ambrosia trifida*), common lambsquarters (*Chenopodium album*), redroot pigweed (*Amaranthus retroflexus*) and wild carrot (*Daucus carota*).



Yellow foxtail

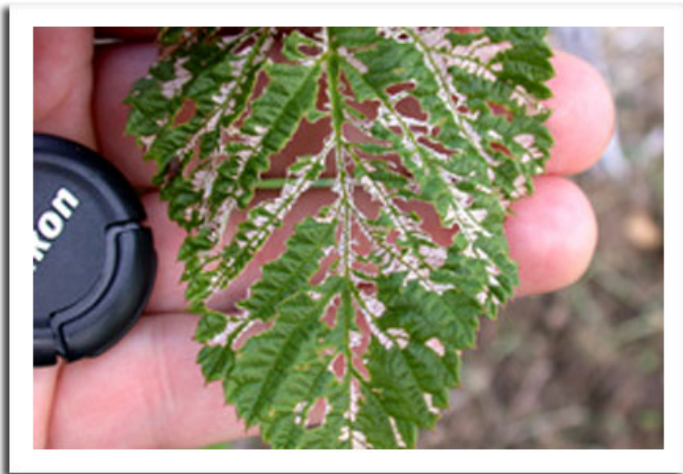
www.illinoiswildflowers.info

Fruit

Codling moth - Remarkably high numbers of second flight codling moths continue to be detected at orchards statewide. A capture of 75 moths was reported this week from Dodgeville; 61 moths were trapped at the same orchard one week ago. If warm temperatures continue, a partial third generation of codling moths could be produced in portions of southern Wisconsin. Given this possibility, apple growers should closely monitor codling moth activity until numbers decline substantially.

Apple maggot - Recent rains in the southern and western counties provided conditions favorable for the emergence of this pest. As a result, increased counts ranging as high as 22 flies per unbaited trap and 39 per baited trap were reported. Orchards in areas that missed the rains, including those near Montello and Oneida, captured no flies in the past week. This pattern of emergence is largely influenced by soil moisture levels. Soil moisture of about 20% contributes to the emergence of apple maggot flies, while very low soil moisture inhibits activity. Apple growers should continue to monitor traps well into September.

Raspberry sawfly - An infestation was reported on raspberry near Lodi in Columbia County. Irregular holes were noted and larvae were detected on the undersides of leaves. The pale green larvae are similar in color to raspberry foliage, making detection difficult. Light infestations may be controlled by handpicking larvae and destroying infested leaves. On rare occasions high populations of this insect develop and the larvae consume entire leaves except the midrib and large veins. The raspberry sawfly does not generally warrant further control unless plants are threatened with defoliation.



Raspberry sawfly defoliation

www.entomology.wisc.edu

Vegetables

Corn earworm - Moderate increases in moth counts were noted at most pheromone trap locations and in some black light traps. Weekly total corn earworm captures of 33 to 65 moths near Cottage Grove, Sun Prairie, and Oregon in Dane County indicate that the annual migration has officially begun. Although the Insect Migration Risk Forecast (IMRF) <http://agweather.niu.edu/IMRFForecast.html> has predicted a LOW RISK for migration over the next 3 to 5 days, continue to monitor trap counts to determine if treatment is necessary.

Captures greater than 10 moths per night in pheromone traps or 5 moths per night in black light traps indicate moths are likely laying enough eggs to justify treatment. When corn is silking and counts increase to 100 moths per night in pheromone traps, or 25 moths per night in black light traps, treatments should be applied and reapplied after the accumulation of 100 degree days or every 2 to 3 days, until silks turn brown.

Cabbage looper - Despite increased activity of other migratory insect pests, cabbage looper counts remained low again this week. According to the IMRF, a low risk of migration is predicted through August 11. This suggests moth counts are not likely to increase significantly in the near future. Traditionally, large migrations of this pest have occurred in Wisconsin from late August to early September.

Two-spotted spider mite - Damaging populations have escalated in soybeans in drought stressed areas of the state. In addition to soybeans, spider mites injure cucumbers, leafy greens, pumpkins, and many other vegetables. To determine the extent of spider mite infestation, examine 10 plants in 10 separate locations along field edges. Inspect plants closely for yellowed, speckled or stippled leaves, particularly on lower leaf surfaces and near major veins.

Nursery, Forest and Landscape

Aster yellows - Symptoms of this disease were noted on 'Big Sky Sunrise' coneflower in Douglas County. Aster yellows is caused by a mycoplasma-like organism, an intermediate between bacteria and viruses. It has an extremely broad host range including over 300 dicot plant species in more than 40 plant families worldwide, such as purple coneflower, daisy, dianthus, gladiolus, marigold, petunia, phlox, zinnia, snapdragon, chrysanthemum, tomato, carrot, onion, lettuce, dandelions, plantain, and thistle.

Aster yellows is transmitted from plant to plant primarily by the aster leafhopper, *Macrostelus quadrilineatus*. The highest plant infection rates in Wisconsin and across the Midwest are thought to be the result of infective aster leafhoppers migrating from southern states. Transmission by local aster leafhoppers acquiring the mycoplasma-like organism from local perennial or biennial plants accounts for only a small percentage of aster yellows infections. Aster yellows overwinters in perennial and biennial plants and can be mechanically spread on tools used to prune or cut plants.



Aster yellows on purple coneflower

www.ipm.istate.edu

Symptoms of aster yellows are commonly mistaken for damage by herbicides or eriophyid mites. Infected plants may be stunted or distorted, with yellowed or reddish foliage. Diseased purple coneflowers produce multiple distorted flower heads which remain green and do not fully develop. Flower petals also appear green and stunted and the seeds and fruits fail to develop. Other species infected

with aster yellows produce spindly adventitious, secondary shoots, giving plants a bushy appearance.

Presently there is no cure for aster yellows. An effective control measure is to immediately remove and destroy any plants or weeds exhibiting this disease. Using an insecticide to control aster leafhoppers is not an effective control and is not recommended.

Other nursery inspection finds this week include:

Southwest region: Japanese beetle feeding on chokeberry, septoria leaf spot on dogwood and 'Magic Carpet' spirea, powdery mildew on monge lilac, Fletcher's scale on taunton yew, leafstreak on daylily, shothole on Newport plum, cedar quince rust on thornless hawthorn, golden twig canker on pagoda dogwood, linden borer on little leaf linden, apple scab on ornamental crabapple, plant bug feeding on Patmore ash, fall webworm on clump birch, ash flower gall mite and oystershell scale on leprechaun ash, and anthracnose on assorted hostas in Grant County.

Maple petiole borer on maple, septoria on dogwood, elm leaf beetle and Japanese beetle on elm, shothole on purple leaf sand cherry, cedar apple rust on crabapple, leafhopper, island chlorosis and sawfly on hackberry, ash flower gall mite on ash, eastern spruce gall adelgid on blue spruce, guignardia on horsechestnut, viburnum tip borer on wayfaring viburnum, Japanese beetle on linden and sergeant cherry, powdery mildew on sycamore, tulip tree and columbine, phyllosticta on serviceberry, leafhopper and spider mites on red sunset maple, and leafminer on columbine in Rock County.

Southeast region: Phyllosticta on 'Gold Mound' spirea and hydrangea, powdery mildew on serviceberry, septoria on variegated dogwood, botrytis on peony, black spot on roses, leafstreak on daylily, aphids on concolor fir, scab on crabapple, plant bug and leafhopper on ash, dothistroma and Zimmerman moth on Austrian pine, Japanese beetle on linden, cherry and birch and twig aphid on Back Hills spruce in Walworth County.

Plant bug feeding on white ash and honeylocust, island chlorosis on hackberry, tar spot, leafhopper burn, shoot tip borer and bladder gall on maple, Zimmerman pine moth on Austrian pine, guignardia on horsechestnut, chlorosis, Japanese beetle and leafminer on birch, leafhopper on locust and maple, scab and spider mites on crabapple, elm leaf beetle on elm, cedar quince rust and cedar hawthorn rust on hawthorn, phyllosticta on spirea, powdery mildew on roses and lilac, eastern spruce gall adelgid on Colorado blue spruce, fall webworm on beech and red oak, shothole disease on purple leaf sand cherry, phyllosticta on barberry and chokeberry in Racine County.

Botrytis on New Guinea impatiens, Hosta Virus X (HVX) on 'Sum & Substance', 'Ghost Spirit' and 'Eye Catching' hosta, phyllosticta on hydrangea, Japanese beetle on birch, serviceberry and crabapple, twig aphid on Colorado blue spruce and concolor fir, cedar quince rust and

leafminer on hawthorn, tar spot on maple, elm leaf beetle on elm, blister rust on white pine and golden twig canker on pagoda dogwood in Waukesha County.

West central region: Japanese beetle on roses and other assorted stock, golden tortoise beetle on sweet potato vine, balsam twig aphid on balsam fir, eastern spruce gall adelgid on spruce, Zimmerman pine moth and pine gall rust on scotch pine and pine needle scale and white pine weevil on white pine in Sauk County.

Northwest region: Bronze birch borer on cutleaf weeping birch, leafhopper burn on Cortland apple and compact amur maple, needleminer on arborvitae, HVX on 'Silver Threads' and 'Golden Needles' hosta, aster yellows on 'Big Sky Sunrise' coneflower and powdery mildew on veronica in Douglas County.

Tar spot on silver maple, leafhopper on apples and northwoods red maple, black knot and eastern tent caterpillar on Canada red cherry, oystershell scale and plant bug feeding on green ash, eastern spruce gall adelgid, spruce needle drop and spruce needleminer on Black Hills spruce, rhizosphaera on Colorado blue spruce, powdery mildew on spotted beebalm, monarda and Jacob's ladder, lacebugs on big leafed aster, leafminer on columbine, rust on jack-in-the-pulpit, spider mites on emerald green arborvitae, linden borer on greenspire birch, and two-lined chestnut borer on swamp white oak in St. Croix County.



Tar spot on maple leaf

www.extension.umn.edu

Gypsy Moth

Gypsy moth report - Moth activity has essentially ended in the southern part of the state, and the total number of male gypsy moths caught in the state was 98,151 as of August 8. This figure is higher than the 92,000 moths collected by trappers in 2006. All counties with pheromone traps have registered captures of moths this season. Roughly 18% of the traps are still being checked, and more finds are expected to be reported in the northern and central areas in the coming weeks.

Exotic Pest of the Week

Inula spp. - Invasive plants in the genus *Inula*, most of which are accidental imports from Africa, Asia and Europe, are an increasing problem throughout the United States. Species such as Irish fleabane (*Inula salicina*) and elecampane (*Inula helenium*) have already established in Wisconsin and several other states. Over 90 species are included in this genus.

Most exotic *Inula* was probably introduced into the U.S. in hosta rootstock. *Inula* and hosta roots are difficult to distinguish. *Inula* can reproduce vegetatively from root sections and is capable of spreading rapidly. Its seeds are easily disseminated by machinery, humans, and wind.

Inula plants vary in height from 6 inches to over 9 feet. A feature shared by all species in this genus is the daisy-like flower head. *Inula* plants can be very aggressive and should be avoided to prevent further introductions. Look for *Inula* spp. in and around nurseries where hosta plants are grown or sold. If discovered, please notify DATCP by calling 1-866-440-7523.



Inula helenium flower head

Gary Fewless 2006

Black Light Trap Counts through August 9

Dingy cutworm - A sharp increase in dingy cutworm emergence was documented at two central Wisconsin black light trap sites. The Marshfield trap captured 473 moths, while the Wausau trap registered 234 moths. These counts represent an eight-fold increase over last week at Marshfield, and roughly a four-fold increase over counts at Wausau. At this time last year, Marshfield and Wausau reported seasonal high counts of 354 and 267 moths, respectively. Other dingy cutworm counts this week were reported as follows: Chippewa Falls 14, Janesville 1, Lancaster 2, Manitowoc 46, Mazomanie 17, Sparta 0.

European corn borer - Moth activity has declined at most monitoring sites and injury in the form of stalk breakage

and leaf feeding was observed in central Wisconsin field corn. Counts for the August 3 to 9 reporting period were: Chippewa Falls 40, Lancaster 16, Manitowoc 4, Marshfield 54, Mazomanie 44, Sparta 47, Wausau 19. An increase from 17 to 27 European corn borer moths occurred at Janesville in the last week.

Black light trap notes - The Marshfield black light trap registered 37 variegated cutworm moths, a seasonal high count at all monitoring locations. Forage looper numbers remained at moderate levels in several locations for the fourth consecutive week. Western bean cutworm counts decreased at all locations except Sparta, which reported 19 moths this week compared to 12 moths last week.

	ECB ¹	TA ²	BCW ³	SCW ⁴	DCW ⁵	WBCW ⁶
Southwest						
Lancaster	16	4	0	5	2	2
Reedsburg	—	—	—	—	—	—
South central						
Mazomanie	44	0	2	6	17	5
Arlington	—	—	—	—	—	—
Southeast						
Janesville	27	6	0	0	1	0
West central						
Sparta	47	23	0	0	0	19
Chippewa Falls	40	0	0	0	14	0
Central						
Wausau	19	6	5	4	234	4
Marshfield	54	6	0	9	473	2
East Central						
Manitowoc	4	2	0	7	46	0

¹European Corn Borer; ²True Armyworm; ³Black Cutworm; ⁴Spotted Cutworm; ⁵Dingy Cutworm; ⁶Western Bean Cutworm; ⁷Corn Earworm.

	CabL ⁸	Cell ⁹	AlfL ¹⁰	ForL ¹¹	FA ¹²	VCW ¹³
Southwest						
Lancaster	0	6	0	49	0	0
South central						
Mazomanie	0	0	0	0	0	0
Arlington	—	—	—	—	—	—
Southeast						
Janesville	0	21	0	19	0	0
West central						
Sparta	0	0	0	0	0	0
Chippewa Falls	0	0	0	0	0	0
Central						
Wausau	0	2	0	19	0	0
Marshfield	0	4	0	23	0	37
East Central						
Manitowoc	0	1	1	53	0	0

⁸Cabbage Looper; ⁹Celery Looper; ¹⁰Alfalfa Looper; ¹¹Forage Looper;

¹²Fall Armyworm; ¹³Variegated Cutworm.

Apple Insect Trap Counts from August 03 to 10, 2007

County	Site	Date	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM red ⁵	AM yellow ⁶
Bayfield	Erickson	07/30-08/05	780	0	3	3	0	0
Bayfield	Gellerman	07/30-08/05	33	3	0	4	0	0
Bayfield	Lobermeier	08/03-08/09	13	10	0	0	0	0
Bayfield	Bayfield Apple	08/03-08/09	136	4	9	1	0	0
Brown	Oneida	08/03-08/09	325	24	3	10	0	0
Dane	Deerfield	08/03-08/09	585	14	26	6	1	1
Dane	Stoughton	08/03-08/09	203	115	10	8	2	3
Dane	West Madison	08/03-08/08	243	6	0	8	1	0
Grant	Sinsinawa	07/27-08/02	112	96	11	0	0	0
Iowa	Dodgeville	08/03-08/09	307	13	75	7	3	22
Iowa	Mineral Point	08/03-08/09	69	99	7	2	1.7	2
Jackson	Hixton	07/27-08/02	180	21	6	0	0	0
Marquette	Montello	07/30-08/05	22	0	0	0	0.16	0
Marinette	Wausaukee	08/03-08/09	435	0	7	0	0	1
Ozaukee	Mequon	07/27-08/02	275	4.5	2.1	2.5	*4.7 **15.3	0
Pierce	Beldenville	07/27-08/02	780	0	16	0	0	0
Pierce	Spring Valley	08/03-08/10	7	2	13.3	4	*1 **5.25	0
Racine	Rochester	08/03-08/09	400	23	12.17	0	0.42	0
Racine	Raymond	08/03-08/09	2880	102	35	1	0	0
Richland	Hill Point	08/03-08/09	360	40	15	4	**5	0
Sheboygan	Plymouth	08/03-08/09		45	37	9	**19	0
Waukesha	New Berlin	08/03-08/09	1557	39	12	0	0	0

¹ Spotted tentiform leafminer; ² Redbanded leafroller; ³ Codling moth; ⁴ Obliquebanded leafroller; ⁵ Apple maggot red ball trap; ⁶ Apple maggot yellow sticky trap; *unbaited red ball trap; **baited red ball trap.

Annual Soybean Aphid Survey Results 2003 to 2007 (R2 to R4 growth stages)

District	Ave no. aphids per plant 2007 ¹	No. fields surveyed 2007	Ave no. aphids per plant 2006 ¹	Ave no. aphids per plant 2005 ¹	Ave no. aphids per plant 2004 ¹	Ave no. aphids per plant 2003 ¹
Southwest	302	35	55	43	2	149
South central	188	45	30	75	12	1006
Southeast	54	23	30	89	6	1268
West central	354	29	100	198	9	633
Central	170	26	44	207	37	680
East central	10	30	159	124	5	994
Northwest	13	14	56	305	2	566
North central	109	14	22	113	7	93
Northeast	13	11	58	42	20	170
Total/State Ave.	164	227	69	108	11	618

¹ Average based on number of soybean aphids per plant on 20 plants examined per field.



EXOTIC PEST OF THE WEEK

Inula spp., *Inula helenium* and *Inula salicaria*

Department of Agriculture,
Trade & Consumer Protection,
Division of Agricultural Resources Management
PO Box 8911
Madison WI 53708-8911

