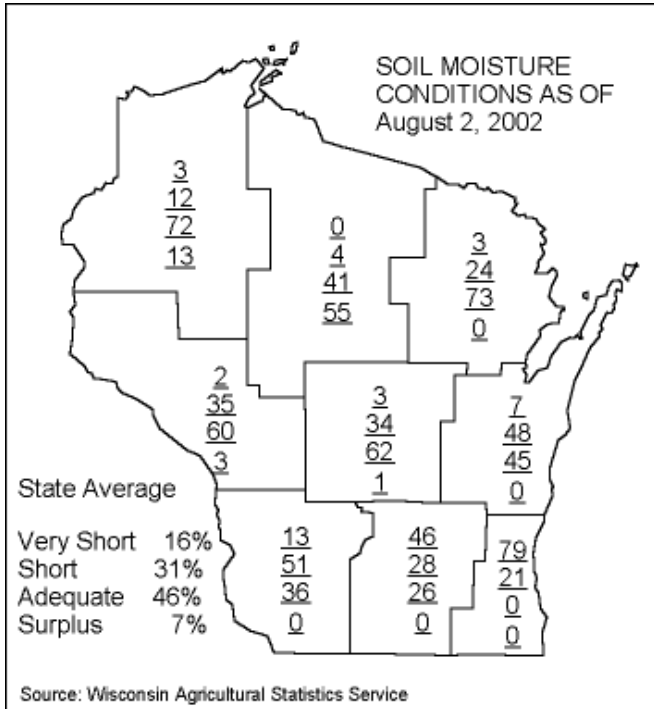


Cooperative Pest Survey Bulletin

Agricultural Resource Management

Bureau of Plant Industry

WI Department of Agriculture, Trade & Consumer Protection, PO Box 8911, Madison, WI 53708-8911 Phone: 1-800-462-2803 Fax: 608-224-4656 Web: Wisconsin.gov

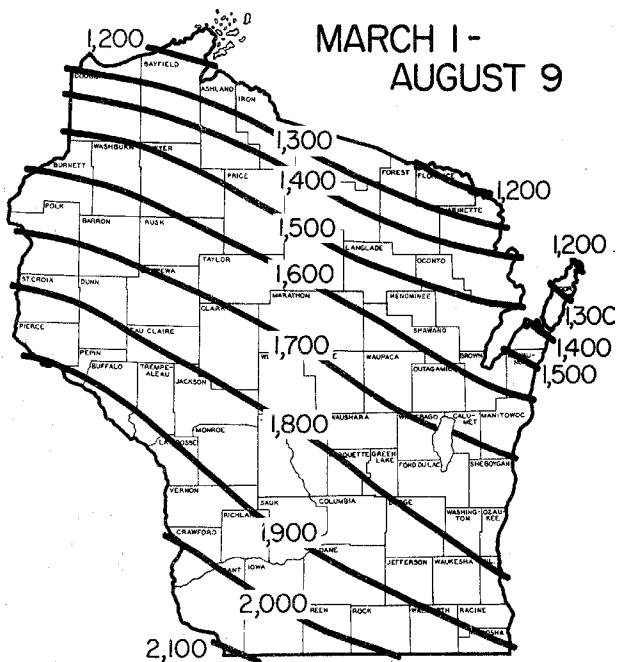


WEATHER AND PESTS

While rain perked up many fields throughout the state, crops in south and central Wisconsin are faltering without moisture. **Soybean aphid** numbers are increasing. See **SOY-BEANS** for more information.

Growing degree days from March 1 through August 7 were:

Site	GDD*	2001 GDD	Normal GDD	Base 48	Base 40
SOUTHWEST					
Dubuque, IA	1969	1990	2041	1877	3123
Lone Rock	1865	1868	1901	1765	2992
SOUTHCENTRAL					
Beloit	1962	2014	1932	1770	3134
Madison	1840	1884	1853	1726	2957
Sullivan	1888	1955	1804	1715	3044
Juneau	1831	1919	1728	1702	2943
SOUTHEAST					
Waukesha	1855	1880	1804	1686	2986
Hartford	1807	1867	1728	1687	2903
Racine	1815	1786	1810	1692	2907
Milwaukee	1766	1754	1774	1662	2840
EAST CENTRAL					
Appleton	1690	1746	1655	1632	2740
Green Bay	1562	1633	1562	1514	2574
CENTRAL					
Big Flats	1776	1789	1758	1696	2848
Hancock	1762	1795	1714	1684	2827
Port Edwards	1679	1698	1718	1652	2711
WEST CENTRAL					
LaCrosse	1961	1934	1887	1809	3100
Eau Claire	1809	1838	1756	1711	2872
NORTHWEST					
Cumberland	1600	1711	1637	1609	2577
Bayfield	1200	1719	1130	1241	2054
NORTH CENTRAL					
Wausau	1551	1576	1605	1603	2539
Medford	1464	1565	1608	1510	2419
NORTHEAST					
Crivitz	1459	1541	1480	1445	2434
Crandon	1388	1515	1435	1406	2315



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

GDD (Growing Degree-Days) are synonymous with degree-days above modified base 50°F, with no low temperature below 50°F or above 86°F used in calculation. See map for Historical Average Growing Degree Days.

CORN

European corn borer – Moths are abundant over much of the state. Counts increased dramatically at nearly all black light trap locations last week, and continue to be fairly high at most sites. Based on the degree day model for European corn borer, the peak emergence of moths should have occurred in most areas by now (1733 DD base 50°F), and up to 8 days ago at some of the more advanced sites in the southern region of the state. In these areas, a partial third generation is likely to begin developing, especially if temperatures remain warm.

Levels of infestations were variable this week. In Portage, Marathon and Wood Cos., infestations involved 3% to 54% of the plants in corn fields. Most fell below 32%. Both fifth instar larvae and pupae were detected in these central counties. In Adams Co. fields, levels of infestations ranged from 0-37%, and pupae, 1st and 2nd instar larvae were detected in infested fields. In the west central region, both fresh and recently hatched egg masses were observed.

European corn borer adult



University of Minnesota Extension Service
<http://www.extension.umn.edu/distribution/cropsystems/DC7055.htm>

Corn rootworm- No obvious trends emerged during this week's survey, as counts remained highly variable from county to county. The lowest counts, ranging from 0.1 to 1.1 beetles per plant, were observed in the central part of the state. Beetles were most numerous in fields surveyed in the south central region, where counts ranged from 3.1 to 4.3 per plant. In LaCrosse, Monroe and Trempealeau Co. fields, counts ranged from 0.3 to 2.6 per plant, with an average of 1.3 per plant. Some leaf and silk feeding was evident in areas with heavy populations. Continue to check fields at 7-10 day intervals, calculating the number of beetles per plant, to determine whether treating with a soil insecticide next spring is warranted. The economic threshold for corn rootworm in Wisconsin is 0.75 per plant if planting back to corn.

Corn leaf aphid – Colonies were present in virtually every corn field surveyed in the central district earlier this week. Fortunately, numerous predators and parasites were also observed in many of the heavily infested fields. Corn leaf



aphid infestations typically peak close to tassel emergence then decline rapidly due natural enemies and migration to other hosts. Beyond the pollen shed stage, corn leaf aphid outbreaks are rarely economically important.

FORAGES

Potato leafhopper – A decreasing proportion of small nymphs in the central and south central alfalfa fields suggests reproduction may be slowing, at least temporarily. In recently cut Marathon and Portage Co. stubble, counts averaged 0.2 to 2.3 per sweep, with adults predominating. In 12-16" fields in the central region of the state, counts of 0.2 to 4.9 were documented. Most central fields had counts under 2 per sweep, the economic threshold for potato leafhopper in 12" alfalfa. In mature, badly hopperburned Adams Co. alfalfa fields, counts of nymphs and adults exceeded 11 per sweep. Despite declining numbers of nymphs in most areas, potato leafhopper still poses a threat to some 3rd crop alfalfa stands. Continue to monitor fields.

Alfalfa caterpillar – Larvae ranging from 2nd - 5th instar were observed in all alfalfa fields surveyed, and adults were observed fluttering above alfalfa fields across the state. In Marathon, Portage and Adams Co. fields, counts ranged from 1.9 - 2.7 larvae per sweep. No fields had counts exceeding the economic threshold of 10 larvae per sweep.

Pea aphid – Counts have declined in many southern fields, but remain moderate in the central region. In Dane, Adams and Sauk Cos., counts averaged fewer than 6 per sweep. Counts farther north ranged from 18 to 32 per sweep.

Alfalfa plant bug – In contrast to potato leafhopper, alfalfa plant bug reproduction shows no signs of slowing. High counts of primarily nymphs and some adults were found in Marathon, Portage, Wood and Adams Co. fields. Counts of 4.6 - 14 nymphs per sweep were common.

Alfalfa plant bug nymph

Photo by Scott Bauer Image Number K7865-1 ARS Image Gallery

SOYBEANS

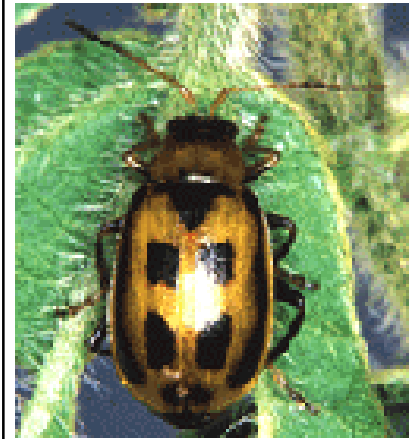
Soybean aphid – Throughout southern Wisconsin soybean aphid numbers are now beginning to reach levels warranting treatment. There is no specific number of aphids that must be present to spray, but growers can consider spraying when several hundred aphids are present on the upper trifoliolate leaves, petioles and stems and before plants show noticeable signs of damage. Consultants at Total Crop Management, LLC reported finding counts of hundreds of aphids per plant in fields between Sullivan and Palmyra that were later sprayed, and several fields in western Dane Co. were treated for the aphid as well.

Population densities continue to increase in the west central region, where 83% of the fields surveyed had 100% of the plants infested. In LaCrosse Co., the average number of aphids per plant ranged from 47-179. The surveyor in that area reported finding up to 460 aphids on a single plant. Vernon Co. fields averaged 107 per plant, with the highest count being 385 aphids on a single plant. In Trempealeau Co., averages were 53 and 60 aphids per plant; however, in one field only 7.5% of plants were infested with an average of 0.2 per plant. It is unclear why the counts were so low in this particular field.

Infestations in the northern part of state still remain relatively low. In Marathon, Portage and Wood Cos., in a majority of the fields surveyed had fewer than 25 aphids per

plant. Despite these low counts, escalating populations in the south signal there may be more to come. Growers should continue to monitor fields closely.

Bean leaf beetle – More and more growers reported defoliation reaching levels necessitating control measures. Several Dane Co. fields were treated late last week and it's likely that numerous acres were sprayed throughout the south to control this pest. Soybean growers may consider treating fields when there are 10 or more bean leaf beetles per foot of row and 20 percent defoliation, or at least 15 bean leaf beetles per foot of row and at least 10 percent pod damage is evident.

Bean leaf beetle

University of Nebraska Cooperative Extension

FOREST, SHADE TREE, ORNAMENTALS AND TURF

Bagworm – An infestation of this usually southerly insect was found on arborvitae at a nursery in Ozaukee Co.

Balsam needle gall midge was observed on balsam fir in moderate amounts at a nursery in Sawyer Co.

Bronze birch borer – Paper birch and whitespire birch were being attacked by this flat-headed borer at nurseries in Ozaukee and Sheboygan Cos.

Eastern spruce gall adelgid - Moderate numbers of galls were observed on white spruce at nurseries in Polk, Sawyer and St. Croix Cos.

Fall webworm- Webs were enlarging on various shade trees at nurseries in Ozaukee, Polk and Sheboygan Cos.

Leafhopper – Red and Freeman maples were hardest hit at nurseries in Ozaukee, Pierce, St. Croix, Walworth and Washburn Cos.

Lacebug – Nymphs were observed feeding on native plant seedlings, *Solidago rigida*, and Aster in moderate amounts at a nursery in St. Croix Co.

Linden borer – Damage was moderate on little leaf linden at a nursery in St. Croix Co. Some of the infested trees had fallen over from so much borer activity.



Eriophyid mites on purple coneflower

Eriophyid mite on purple coneflower – An eriophyid mite was found on purple coneflower by a homeowner in Dane Co. The mite attacks the seed head causing a distortion similar to aster yellows.



Eriophyid mites on purple coneflower- close-up

Pine needle scale – Scotch pine at a nursery in Ozaukee Co. had moderate amounts scale infesting the needles.

Root collar weevil – Moderate numbers of Scotch pine were being killed by this insect at a nursery in Pierce Co. Heavy infestations in Scotch pine Christmas trees in Adams Co. were causing scattered branch flagging in trees.

Spruce gall midge (*Mayetiola piceae*) – Moderate numbers of galls were observed on white spruce at a nursery in Sawyer Co. and on Colorado spruce at a nursery in Taylor Co.

Spruce needleminer- Needle loss due to light amounts of spruce needleminer was observed in Black Hills Spruce at a nursery in St. Croix County.

White pine weevil- Larvae were found feeding in heavy amounts causing the loss of terminal shoot tips of white pine, Norway and white spruce at a nursery in Sawyer Co.

Zimmerman pine moth – A severe infestation was found on Scotch pine at a nursery in Pierce Co.

Apple scab fungi- Moderate to heavy amounts were observed on various crabapple varieties at nurseries in Polk, St. Croix and Sawyer Cos.

Cedar-quince rust – Light amounts of rust were detected on fruits and twigs on cockspur hawthorn at nurseries in Ozaukee and Walworth Cos.

Cyclaneusma needlecast- This fungus was present in light amounts in a Scotch pine Christmas tree field in Adams Co.

Frogeye leaf spot – Robinson crabapple had moderate amounts of this disease at a nursery in Sheboygan Co.

Leaf blotch of horsechestnut – Moderate amounts of leaf blotch were found on horsechestnut at nursery in Polk Co.

Red pine pocket decline- A small area of a red pine stand in Adams Co. was declining. Trees are showing slightly off color needles, thin crowns, and tufted foliage at the ends of the branches.

Rust – Roses at a Waukesha Co. nursery had moderate amounts of rust forming on the leaves.

Septoria leaf spot – Red twig, gray and pagoda dogwood at nurseries in Ozaukee, Polk, Sheboygan, Taylor, Walworth and Waukesha Cos. had moderate to heavy amounts of leaf spotting due to this fungus.

Sphaeropsis shoot blight- This fungus was found on Scotch pine Christmas trees in Adams Co.



Spruce gall midge

Spruce needle rust - Orange pustules on the undersides of needles were noticeable in moderate amounts on Colorado spruce and white spruce at nurseries in Sawyer and St. Croix Cos.

Tar spot – Silver and Freeman maples had moderate numbers of leaf spots caused by this fungus at several nurseries in Ozaukee and Waupaca Cos.

White pine blister rust - White pine at nurseries in Polk and Sawyer Cos. had moderate amounts of **blister rust** causing mortality. White pine in a Christmas tree field in Adams Co. has a bleeding stem canker causing chlorosis of entire tree.



WEBSITE OF THE WEEK

<http://www.wisconsinagconnection.com/>

Wisconsin Ag Connection.

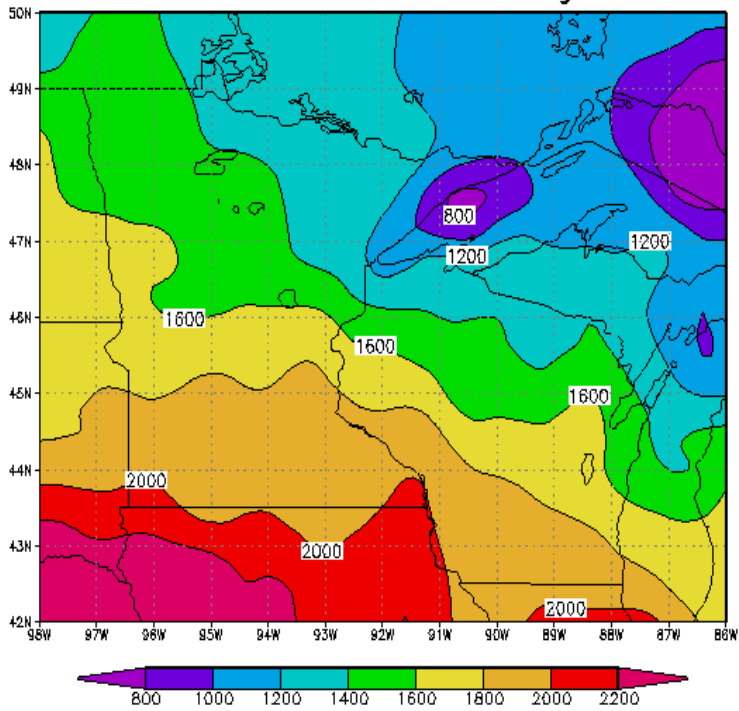
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BLACK LIGHT TRAPPING RESULTS									
Trap Site	Euro. Corn Borer	Army-Worm	Black Cutworm	Vari. Cutworm	Spot. Cutworm	Celery Looper	Forage Looper	Corn Earworm	Corn Earworm <i>Pheromone</i>
Southeast									
Racine									5
South Central									
Arlington ^{2 through 8}	180								
Madison									
Mazomanie	112	27	0	0	0	13		6	
Janesville	170	47	0	0	0	61	27	2	
Reedsburg	61	6		2					
West Central									
Coon Valley									6
East Central									
Oakfield	83							0	3
Central									
Marshfield	3	3	1	0	9	0	8	6	
Northwest									
Chippewa	58		2						4
Cameron	4								
New Richmond	11	1							406

APPLE INSECT TRAPPING RESULTS

County	Date	STLM	RBLR	CM	OBLR	AM	AM
City						<i>red ball</i>	<i>sticky</i>
Crawford Co.							
Gays Mills-W2	7/26-8/3	50	3	3	2	0	0
Gays Mills-E2	7/29-8/5	210	12	9	0	1	0
Richland Co.							
Hill Point	7/23-8/7	183	0	1	1	0	0
Richland Center-W	7/29-8/5	370	43	3	2	1	0
Richland Center-E	7/29-8/5	170	2	3	3	0	0
Dane Co.							
Deerfield	7/30-8/6	480	8	3	1	2	0
Green Co.							
Brodhead	7/31-8/7	54	13	3	12	0	0
Fond du Lac Co.							
Rosendale	7/30-8/5	89	12	3	1	0	0
Malone	7/30-8/5	30	8	4	4	0	0
Sheboygan Co.							
Plymouth	7/31-8/6	325	3	0	0		
Adams Co.							
Oxford	7/29-8/5	504	4	1	2	0	0
Ozaukee Co.							
Mequon	7/30-8/5	65	0	0.9	11		
Racine Co.							
Rochester	8/1-8/8	850	2	32	1	0.08	0
Brown Co.							
Oneida	7/29-8/5	30	22	2	0	0	0

Base 50F D.D. from 1 Jan to 7 August 2002



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