

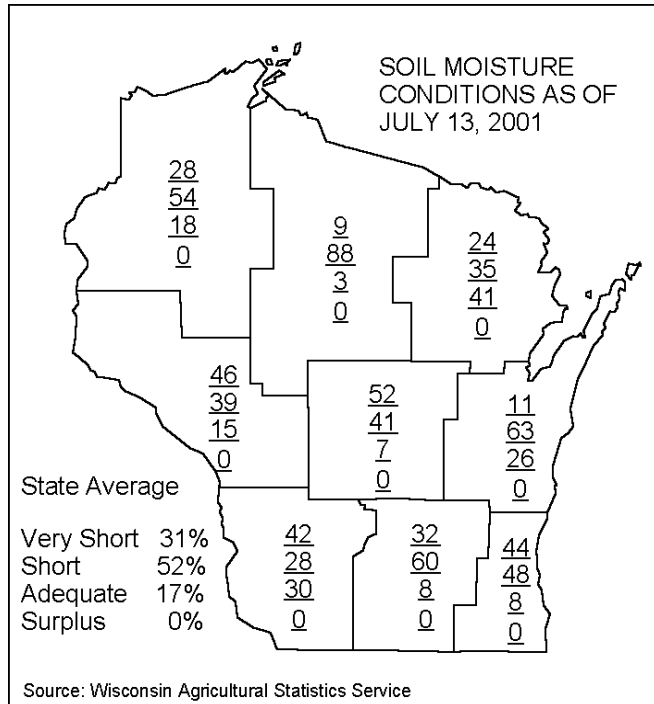


COOPERATIVE PEST SURVEY BULLETIN

State of Wisconsin
Department of Agriculture
Trade & Consumer Protection

Agricultural
Resource

BUREAU OF PLANT INDUSTRY P.O. BOX 8911 MADISON, WI 53708-8911
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WEATHER AND PESTS

Moisture stress is visible throughout the state, showing in the form of dormant pastures, wilting vegetable crops and spiking corn leaves. There are no areas of surplus soil moisture.

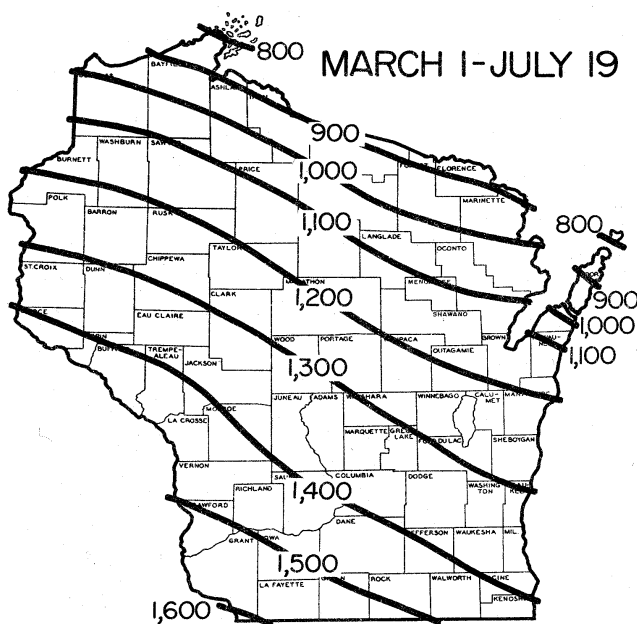
Gypsy moth flight has started in parts of the state (see STATE & FEDERAL PROGRAMS).

Growing degree days from March 1 through July 18 were:

Site	GDD*1	2000 GDD	Normal GDD	Base ¹ 48	Base ¹ 40
SOUTHWEST					
Dubuque, IA	1459	1552	1562	1489	2446
Lone Rock	1355	1446	1454	1346	2330
SOUTHCENTRAL					
Beloit	1481	1458	1492	1458	2503
Madison	1365	1360	1437	1401	2336
Sullivan	1420	1363	1381	1398	2428
Juneau	1392	1382	1317	1391	2381
SOUTHEAST					
Waukesha	1349	1331	1370	1367	2325
Hartford	1341	1329	1307	1377	2306
Racine	1265	1282	1366	1341	2204
Milwaukee	1240	1234	1343	1312	2164
EAST CENTRAL					
Appleton	1241	1235	1199	1287	2156
Green Bay	1146	1134	1131	1212	2040
CENTRAL					
Big Flats	1276	1270	1310	1230	2190
Hancock	1278	1269	1294	1247	2194
Port Edwards	1201	1210	1295	1223	2082
WEST CENTRAL					
LaCrosse	1400	1580	1424	1301	2354
Eau Claire	1319	1478	1311	1259	2239
NORTHWEST					
Cumberland	1230	1208	1228	1217	2116
Bayfield	907	821	809	939	1639
NORTH CENTRAL					
Wausau	1119	1125	1188	1135	1961
Medford	1099	1092	1182	1160	1940
NORTHEAST					
Crivitz	1082	1038	1023	1117	1940
Crandon	1088	1005	1025	1080	1894

¹Data from Bill Bland et. al., Soil Science, Univ. of Wisconsin-Madison.

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.



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

CORN

European Corn Borer—The early second flight of **European corn borer** moths is underway in the southern region of the state. Black light trap catches are on the rise, and an increasing number of moths are being observed in weedy areas adjacent to corn fields. Based on current levels of infestations in corn fields and the variable rate of corn growth, the potential for significant **European corn borer** pressure resulting from this moth flight is high.

After emerging, this midsummer flight of moths will migrate to dense, grassy areas to feed and mate, and will eventually produce the second generation of **European corn borers**. At this time of year, while corn is in the silking and tasseling stages of growth, females will deposit eggs on the basal two-thirds of the undersides of the three leaves above the ear, on the underside of the ear leaf, and on the three leaves below the ear (data from ISU. NCRE Publication No. 327). The eggs can be expected to hatch in 3-5 days, depending on the weather. Stalk boring doesn't occur until larvae have reached the 3rd or 4th instar.

In the tassel-stage fields surveyed this week, sheath and collar feeding and stalk boring were occurring. In Columbia, Green Lake, Portage and Marquette Co. corn fields, 5th instar larvae and pupae were found. Levels of infestation ranged from 0-50%. Additionally, 5th instar larvae from the first moth flight were detected in early peppers.

5th Instar European Corn Borer Larva

<http://www.ipm.iastate.edu/pest/cornborer/ecblifstag5.html>



Corn Rootworm—Low numbers (fewer than 3/10 plants) of **Northern** and **Western corn rootworm** beetles were observed in Walworth, Columbia, Green Lake and Marquette Cos. The **Western corn rootworm** typically emerges before the **Northern corn rootworm** and is more likely to feed on corn foliage. **Northern corn rootworms** tend to be silk

feeders. Although adults can cause extensive damage, the injuries caused by larvae are generally more severe. Larvae occur from June through August, and feed on the corn root system. Reduced yields and lodging are two effects associated with larval feeding.

Western Corn Rootworm



<http://www.ent.iastate.edu/imagegal/coleoptera/rw/3936.69wcrw.html>

Northern Corn Rootworm



<http://www.ent.iastate.edu/imagegal/coleoptera/rw/3936.68ncrw.html>

Maize Dwarf Mosaic Virus (MDMV)—Several sweet corn

fields in Rock Co. displayed symptoms of **MDMV**. **MDMV** is transmitted by a number of aphid species.

FORAGES

Potato Leafhopper – Above-threshold populations of adults and nymphs were encountered in several alfalfa fields throughout the state. Fields surveyed in Columbia and Green Lake counties had populations ranging from 1.8 to 2.1 leafhoppers per sweep in 10-14 inch alfalfa. Keep in mind the threshold for **leafhoppers** in 8-11" alfalfa is 1.0 per sweep, and 2.0 in alfalfa 12" or higher. In the 14-16" Marquette Co. fields surveyed, populations remained below the economic threshold, while the shorter 10-12' fields were plagued with above-threshold populations. Additionally, a majority of the fields surveyed suffered from moderate to heavy amounts of hopperburn, the type of injury associated with **potato leafhopper** feeding. **Potato leafhopper** feeding injury may result in yield loss, but more often a reduction in quality and overall plant vigor occurs. Producers are encouraged to scout now to determine whether treatment is necessary. Fields within 7 days of cutting should not be sprayed.

Viruses – Symptoms of **tobacco streak virus** have been observed on soybeans in Rock Co. and symptoms of **bean pod mottle virus** have been observed in Dane, Rock and Walworth Cos. **Tobacco streak virus** is transmitted by thrips, while **bean pod mottle virus** may be transmitted by the **bean leaf beetle**.

Rhizoctonia root rot – A field in Walworth Co. had low levels of plants killed by **Rhizoctonia root rot**. **Rhizoctonia** is characterized by reddish lesions at or near the soil line, and may cause either preemergence or postemergence damping off.

Soybean Aphid – An increasing number of infestations are being detected across the state while levels of infestation remain highly variable. UW Entomologist Dave Hogg reported population explosions in some regions, but little or no change in others. He also noted a trend in aphid movement from the growing point toward the base of the soybean plant. The reason for this movement on individual plants is unclear. Further, in Jefferson Co. infestations reached levels warranting treatment.

County Surveyed	Alfalfa Height	PLH per Sweep	Above Threshold?	% Hopperburn
Adams	6-8	.2-4	No	NA
Columbia	14	2.1	Yes	20%
Columbia	12-14	1.9	No	40%
Green Lake	10	1.8	Yes	40%
Green Lake	12	2.1	Yes	30%
Marathon	14	.6-7	No	NA
Marquette	14-16	1.0	No	NA
Marquette	14-16	12	No	20-30%
Marquette	10	1.4	Yes	30%
Marquette	12	2.1	Yes	50%
Portage	8-10	1.5	Yes	90%

During this week's survey work, **soybean aphid** infestations were encountered in Columbia, Green Lake, Marquette and Portage Cos. In these counties, infestations were assigned ratings of 1 or 2, meaning the number of aphids per plant ranged from either 1-10 (1 rating) or 11-25 (2 rating). For the most part populations in the North and Central regions remain low, but as demonstrated earlier, these populations can explode rapidly and require control.

Further south, in Dane and Walworth Cos. infestations were assigned higher ratings of 3 or 4, with aphid counts ranging from 29-99 (3 rating) per plant or 100+ per plant (4 rating). The rating scale currently used to assess the severity of **soybean aphid** infestations is listed below. A total of 30 plants are examined in each field.

Rating	Aphids Observed on
	1 plant in 45 seconds or less
0	0
1	1-10
2	11-25
3	26-99
4	100+

SMALL GRAIN

Stem rust- A wheat field in Green Co. had a moderate to severe **stem rust** infection, along with **glume blotch** (caused by *Septoria* sp. and *Stagonospora* sp.) and **ergot**.

Ergot – **Ergot** continues to be easier to find in wheat fields this year compared with years past.

Rye leaf rust – A field in Green Co. had moderate levels of **leaf rust**.

SOYBEANS

GINSENG

Plant disease diagnostic clinic – Dr. Brian Hudelson reports two samples of two year old plants, both with symptoms of **Mystery Seedling Disease/Rusty Root**. One sample tested positive for **Cylindrocarpon** and **Fusarium**, the other for **Pythium** and **Rhizoctonia**.

Cultivated ginseng survey – A heavy snow burden caused damage to lath shade structures in the ginseng growing area during the past winter. Several gardens were abandoned due to high labor cost of clean up and low ginseng sales prices. Storms accompanied by strong winds moving through Marathon County during the first week of July ripped out cloth shading and transported whole sheets for several hundred yards where they were dropped onto another garden. The grower was able to recover the cloth shading and re-use it which saved the foliage in the exposed gardens from sun scorch.



Ginseng research garden – Dr. Michael Drilias reports that preliminary results from **Alternaria leaf** and **stem blight** test plots show promising results for **Quadris**. Test plots that were treated alternating **Dithane DF**, **Quadris** and **Bravo** showed better control of **blight** than plots treated only with **Dithane DF**. Testing **Quadris** with or without a spreader/sticker showed no significant difference in **Alternaria** control.

FOREST, SHADE TREE, ORNAMENTALS AND TURF

European spruce sawfly - Small numbers of larvae were observed feeding on white spruce at a nursery in Lincoln Co.

Fall webworm - This pest has been observed on oaks, maples and willow at nurseries in Grant and Kenosha Cos. Larvae are fairly small at this time and webbing is difficult to see yet.

Honeylocust pod gall midge - A nursery in Calumet Co. had light damage from this small insect.

Imported Willow Leaf Beetle - Willow at nurseries in Crawford, Grant, and Richland Cos. had moderate amounts of feeding damage.

Leafhopper - Moderate amounts of damage were recorded from Siberian pea shrub and thermopsis at a nursery in Dane Co. Various maple species had light to moderate amounts of damage at nurseries in Calumet, Grant, Kewaunee and Marathon Cos.

Pear slug - Larvae were skeletonizing leaves of *Prunus* spp. and mountain ash in a Grant Co. nursery.

Viburnum shoot tip borer - Light amounts of damage were noted at a Dane Co. nursery on nannyberry.

Zimmerman pine moth - Austrian pine in a Calumet Co. nursery had damage from this pitch-forming insect.

White pine weevil - Pupae and adults were still in wilted terminal leaders of jack pine in Juneau Co. (DNR)

Eastern pine shoot borer - Broken, wilted branches were present on sapling jack pine in Juneau Co. The pith of the branches had been hollowed out by the caterpillars feeding. (DNR)

Post oak locust - Grasshoppers were feeding on understory red oak leaves in Juneau Co. (DNR)

Red pine shoot moth - Damage was showing up on red pine in Juneau Co. (DNR)

Eastern gall rust - Rust spores were present on the underside of red oak leaves in Juneau Co. (DNR)

Anthraxnose - Daylilies at nurseries in Vernon and Crawford Cos. had light amounts of damage from this fungal disease.

Botrytis - Oriental lilies at a nursery in Dane Co. was infected with this fungal disease.

Dothistroma - Austrian pine in Vernon and Grant Cos. had characteristic banding on the needles from this disease. Damage was light to moderate.

Impatiens necrotic spot virus - Impatiens at a greenhouse in Fond du Lac Co. had the typical ringspots this virus causes.

Nectria canker - This fungal disease was noted on honeylocust in a Calumet Co. nursery. Small numbers of cankers were observed on several trees.

Phyllosticta leaf spot - Maples at a nursery in Marathon Co.

had lights amounts of damage.

Waukesha Co. nurseries.

Rhizosphaera needlecast- A nursery in Lincoln Co. had this disease on their Serbian spruce.

Rust - Different types of rust were found on elderberry in a Richland Co nursery, on serviceberry in Washington Co. and on spiderwort from a nursery in Dane Co.

Septoria leaf spot- This common fungal disease was found on various dogwood species and varieties in Calumet, Crawford, Dane, Grant, Kenosha, Marathon, Richland, Washington and

STATE/FEDERAL PROGRAMS

Gypsy moth program - Trappers have basically completed setting traps statewide. The final 2 counties will be completed on 7/20/01. Trappers have set 28,809 (86%) of the expected total this year. Usually 90% or better is set but there were a number of large delimitation blocks this year that did not have a lot of access to them. A note of appreciation to all trappers who worked very hard to get the traps up this year.

Trappers have started to check traps this week south of State Highway 10. A report on this will be sent in next week. Trap checking will begin north of State Highway 10 on July 23 and will continue for 3 weeks.

Moth flight has been recorded in Dane, Marinette, Sheboygan, Waukesha, and Waupaca Counties.

FRUIT

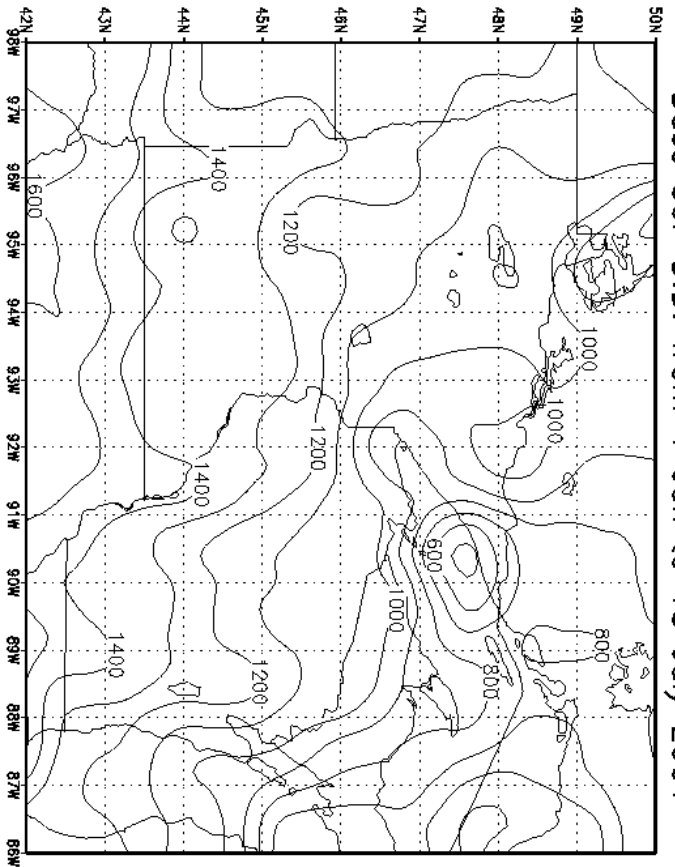
County	Date	STLM	RBLR	CM	OBLR	AM	AM
Grant Co.							
Sinsinawa	7/12-7/19	4				yellow	red ball
Crawford Co.							
Gays Mills-E2	7/9-7/16	190	2	0	0		0
Gays Mills-W2	7/8-7/15	70	3	0	3	0	0
Richland Co.							
Hill Point	7/10-7/16	135	6	2	4	0	1
Richland Center-E	7/9-7/16	285	6	0	0		0
Richland Center-W	7/9-7/16	442	0	3	0		1
Iowa Co.							
Dodgeville*	7/12-7/19	1	46	31	0	0	0
Sauk Co.							
Spring Green	7/11-7/18	23	56	10	11		
Dane Co.							
Middleton	7/11-7/18	100	102	2	18		
Deerfield	7/10-7/17	425	23	0	0	1	2
Green Co.							
Brodhead	7/12-7/18	40	54	0	3	0	0
Juneau Co.							
Mauston	7/9-7/15	146	3	4	0	0	0
Trempealeau Co.							
Galesville	7/9-7/16	120	3	0	2	0	0
Dunn Co.							
Menomonie	7/9-7/16	350	0	0	7	0	1/3
Pierce Co.							
Beldenville	7/9-7/16	520	9	0	8	0	0
Spring Valley	7/11-7/17	110	8	0	0	0	0
Fond du Lac Co.							
Rosendale	7/10-7/16	37	11	1	1	0	0
Malone	7/9-7/16	12	14	3	0	0	0
Marquette Co.							
Montello*	7/8-7/15	502	70	0	0	0	0
Ozaukee Co.							
Mequon	7/10-7/18	125	0	1	4		
Racine Co.							
Rochester*	7/12-7/18	819	35	4	0	0	0
Brown Co.							
Oneida	7/9-7/16	15	0	2	0	0	0

* indicates NEW COOPERATOR!



Department of Agriculture,
Trade & Consumer Protection,
Agricultural Resource Management Division
PO Box 8911
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Base 50F D.D. from 1 Jan to 18 July 2001



BLACKLIGHT TRAPPING RESULTS

For the week ending July 18

Euro.

Site	Corn Army- Borer	Worm	Black Cutw.	Vari. Cutw.	Spot. Cutw.	Corn Earw.	Pheromone Corn Earw.
Central							
Marshfield	6	1	14	11	19		
South Central							
Middleton	14	0	22	2	0		
Mazomanie	22	14	6	6	11	9	
Reedsburg	96	6		2			
West Central							
Coon Valley							7
Northwest							
Chippewa	42		1				7

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