

STATE OF WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION PLANT INDUSTRY BUREAU 2811 Agriculture Dr. Madison, WI 53718 • http://pestbulletin.wisconsin.gov

## WEATHER & PESTS

Scattered showers and cooler conditions provided limited relief to drought-stressed summer crops. Daytime temperatures during the week were near to below normal, ranging from the high 60s in north-central Wisconsin to the lower 80s in portions of the south. Light rain moistened topsoils and benefited pastures, although amounts were insufficient to reverse the moisture deficits of the past few months. Meanwhile, alfalfa continued to recover and higher yields are expected from the fourth crop. Prospects for soybeans have also improved but yields are likely to vary considerably. Development of this year's crop continues to advance at a rapid pace. Seventeen percent of soybeans entered the pod setting stage during the week, leaving progress at 81% complete, 12 percentage points ahead of last year and 15 points ahead of the 5-year average. According to the Wisconsin Agricultural Statistics Service, 41% of the crop was reported in good to excellent condition, up slightly from last week but 41 points below the same time last year. Insect and mite pressure has moderated but not ceased.

# LOOKING AHEAD

CORN ROOTWORM: The statewide beetle survey is complete in all but the northeast area. Preliminary review of the field data indicates that counts are generally lower

than last year in south-central, southwestern and central Wisconsin. Beetle counts in the northwest and north-central counties are somewhat higher. Results of the survey are summarized on page 117.

CORN EARWORM: Migrants continue to appear in the south-central and central areas. Counts during the past week ranged from 2-250 per trap, with the highest number of moths being registered in the Westport trap. The latest activity indicates that routine scouting and control regimens in sweet corn should be maintained until harvest.

WESTERN BEAN CUTWORM: The seventh annual trapping survey has documented no significant change in counts in the state. The 2012 average moth count is 25 per trap, the exact same average as in 2011. A few moths persist in the east-central and northern areas, but the flight has essentially ended. Cumulative trap counts from June 15-August 15 are shown in the CORN section.

SPOTTED WING DROSOPHILA: Fly emergence is expected to intensify next month and continue through October or early November. Research has shown that SWD is most active in mid- to late summer and that daily high temperatures in the 70s are ideal for reproduction and growth. Fruit growers concerned about this pest should place vinegar traps now and report any suspects to Krista Hamilton at DATCP. Spotted wing drosophila has been detected in Crawford, Dane and Racine counties since October 2010.

SOYBEAN APHID: Densities remain extremely low in most fields. The highest count noted during surveys this week was only 64 aphids per 20 plants in a Jackson County field. Fourteen of 19 sites checked had no detectable aphid population. Many soybean fields are approaching R5.5-R6, the growth stages at which no yield benefit is gained by insecticide treatment. Final aphid assessments should be made in the week ahead.



Soybean aphids

Krista Hamilton DATCP

#### FORAGES

**POTATO LEAFHOPPER:** Rainfall and cooler temperatures have reduced leafhopper activity. Numbers in the southwest and west-central counties varied from 0.2-2.6 per sweep in the past week, with an average of 1.1 per sweep. Only 4 of 19 surveyed fields had economic counts of 2.0 or more per sweep. Nymphs are appearing less frequently in sweep nets.

**PEA APHID:** Populations in alfalfa remain very low. Surveyed fields in Eau Claire, Jackson, La Crosse, Monroe, Richland and Vernon counties contained average counts of 1-3 per sweep. This insect has been scarce for much of the season, with the exception of a brief peak in activity in May.

## CORN

CORN ROOTWORM: The statewide beetle survey is incomplete but populations thus far are lower than last

# DEGREE DAYS JANUARY 1 - AUG 15

LOCATION	50°F	2011	NORM	48°F	40°F
Dubuque, IA	2566	2221	2112	2310	4090
Lone Rock	2512	2134	_	2230	3994
Beloit	2645	2250	2145	2310	4189
Madison	2530	2078	2045	2220	4026
Sullivan	2509	2075	2029	2207	4004
Juneau	2429	1999		2157	3881
Waukesha	2308	1858	—	2091	3718
Hartford	2285	1853	_	2089	3687
Racine	2291	1792		2142	3687
Milwaukee	2248	1777	1945	2101	3639
Appleton	2261	1815	1972	2114	3643
Green Bay	2170	1713	1833	2074	3524
Big Flats	2268	1840	_	2023	3656
Hancock	2291	1866	1985	2023	3699
Port Edwards	2215	1816	1948	2033	3580
La Crosse	2489	2096	2235	2230	3956
Eau Claire	2295	1909	2016	2132	3689
Cumberland	1987	1711	1887	1974	3298
Bayfield	1670	1378	-	1736	2835
Wausau	2003	1667	1849	1930	3295
Medford	1995	1687	1692	2000	3291
Crivitz	2001	1614	_	1964	3298
Crandon	1774	1509	1442	1775	2992

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2012. NORMALS based on 30-year average daily temps, 1981-2010.

year in the south-central, southwestern and central districts and higher in the southeastern and northern areas. In the central districts, averages range from 0.5-0.6 per plant, which is comparable to 0.5-0.8 per plant last year. Counts in the north are generally low at 0.3-0.5 per plant but represent as increase from 2011 levels. Economic counts of 0.75 or more beetle per plant have been found in 45 of 180 (25%) fields surveyed, compared to 27% last season. Final survey results will be published in the August 29 issue of the Bulletin.

**CORN EARWORM:** A major migration of corn earworm moths is in progress. Counts at the Ripon trapping sites increased to 271 and 503 moths per trap last week, while counts at four of five Dane County sites escalated to 81-250 per trap this week. Larvae of various maturities can be found statewide. Examination of field corn in Buffalo, Chippewa, Eau Claire, Jackson and Trempealeau counties found minor infestations of 2-6%. Most earworms were in the intermediate to late instars, although a few were very small. Sweet corn growers should continue to monitor fields for egg laying as long as moth activity persists and green silks are present. Counts this week were: Aztalan 130, Chippewa Falls 10, Columbus 81, Coon Valley 38, Janesville 10, Manitowoc 0, Marshfield 2, Oregon 36, Ripon<sup>a</sup> 146, Ripon<sup>b</sup> 206, Sun Prairie 130, Wausau 0 and Westport 250.

WESTERN BEAN CUTWORM: Damage to corn was noted this week in Buffalo, Chippewa, Monroe and Trempealeau counties, where an estimated 2-10% of ear tips were infested with late-instar larvae. Most of the population is advanced and should enter the pre-pupal stage by early September. A few late moths are still appearing in traps but the flight has basically ended.



#### 2012 Western Bean Cutworm Trap Counts

SOYBEANS

SOYBEAN APHID: Review of the July 23-August 1 survey data indicates that densities were at an all-time low last month. The state average aphid count based on examination of 158 soybean fields was less than three aphids per plant. Current field surveys suggest that populations are still extremely low in most fields, due to a combination of earlier unfavorable heat and spider mite controls, which are also effective against the aphids. A second set of field visits is now in progress and the results should show where populations have increased. A few exceptional soybean fields in the R4-R5.5 stages may still qualify for treatment, but most sites are beyond the R5.5 stage now and chemical control is no longer advantageous.

TWO-SPOTTED SPIDER MITE: Mites have shown a marked decline as a result of chemical intervention and intermittent rainy weather. Pressure has largely subsided and further outbreaks are not anticipated this year. As is the case with the soybean aphid, treatment of this pest is not beneficial after the R5 to R5.5 or full pod growth stages.



Two-spotted spider mite leaf stippling

Krista Hamilton DATCP

GREEN CLOVERWORM: This insect is common in soybeans across much of the state. However, populations are not nearly the levels of 2010 or 2011. Larvae range from very small to nearly full grown.

## FRUITS

CODLING MOTH: Low to moderate flights were registered at several monitoring locations in the past week, indicating that codling moth pressure has not diminished in all areas. High counts of 13-19 moths per trap were reported from Oneida and Chippewa Falls.

STINK BUG: Nymphs and adults are very active in field crops and may become abundant in orchards just before harvest. The feeding and probing by both nymphs and adults results in visible injury, posing an economic risk to maturing fruits. A single adult or nymph in the orchard can potentially damage many apples. If the feeding occurs just prior to harvest, depressions on the fruit surface may not develop until after a period of time in storage. Scouting is strongly advised at this time. The highest numbers usually occur on the edges of orchards bordering woods or agronomic crops.



Green stink bug nymph

Larry552 flickr.com

SPOTTED TENTIFORM LEAFMINER: The third and last flight of the season has peaked and is now declining at most orchards. Trap counts ranged from 10-432 moths from August 9-15, with the high count registered at Hillpoint in Richland County. Moth activity should continue throughout the month and subside by mid-September.

#### VEGETABLES

LATE BLIGHT: Conditions this month have been favorable for late blight development. Potato fields infected with this disease have to date been confirmed in Adams, Barron, Oneida, Portage and Waushara counties. Continued scouting of potatoes and tomatoes for symptomatic leaves and stems is advised. Organic growers should maintain preventative copper-containing fungicide treatments (approved for organic use) on a 5-7 day schedule.

TWO-SPOTTED SPIDER MITE: Home gardeners and fresh market vegetable growers are reporting that mite problems persist at a few locations. Recent rain and cooler temperatures have reduced mite populations, but have not eliminated all existing problems. Mite development is still occurring, just at a slower rate. Monitoring of cucumbers, squash, pumpkins and other vegetables for spider mite is suggested for 1-2 more weeks.

POTATO VIRUS Y: The soybean aphid and green peach aphid, both vectors of potato virus Y (PVY), are appearing in northern Wisconsin suction traps. Aphid counts and the risk of virus transmission are considered very low at this time, but growers should not dismiss the possibility of late season problems in peppers, potatoes and tomatoes. Symptoms vary by cultivar, environmental conditions and the strain of PVY. The most distinctive is a wrinkled mosaic pattern on the leaves.

Insecticidal controls directed against aphids are futile, but other integrative and preventative measures, such as purchasing seed certified free of PVY, selecting resistant plant varieties, reducing bare soil around plants, planting a barrier crop and planting and top-killing potatoes early, are useful in preventing PVY.



Potato virus Y symptoms on potato leaf

gardener.wikia.com

## WEEDS

GIANT RAGWEED: Severe ragweed control problems are apparent in corn and soybean fields statewide following this season's record drought. The most advanced plants are now more than 10 feet tall. Historically, the distribution of giant ragweed was limited mostly to undisturbed habitats such as roadsides, fencerows and open areas, but it now commonly occurs among row crops. Earlier planting and reduced tillage practices are thought to be primary factors contributing to its spread, survival and adaptation to modern cropping systems. Also influencing its success are its innate competitive traits, including early emergence, staggered emergence times, a rapid growth rate and resistance to glyphosatebased herbicides. This "superweed" is expected to become even more common and abundant in the future, requiring growers to be more proactive in developing long-term ragweed management programs.

#### **NURSERY & FOREST**

ISLAND CHLOROSIS: This recently identified virus is infecting hackberry trees at nurseries in Dodge, Ozaukee and Washington counties. Symptoms include blocky, bright yellow spots on the leaves that follow the veins, with a distinct margin between the green and yellow areas. Severely affected foliage turns mostly yellow by late summer. The disorder has long been suspected of infecting hackberries but official confirmation was not made until 2008. It is thought to be spread by seed and insect probing, but much is still unknown. As with all viral diseases, there are no practical curative treatments. Maintaining tree vigor is the best preventative measure.



Island chlorosis on hackberry

Konnie Jerabek DATCP

GYPSY MOTH: Seasonal workers have removed 14% of the estimated 19,000 traps placed this year and reported a total of 105,583 moths as of August 15. Although numbers in the western counties remain low, there appears to have been a very large moth emergence in northern to northeastern Ashland and Bayfield counties. Dispersal of moths from these areas may lead to a significant increase in moth counts in northern Sawyer and Washburn counties. Final results of the annual trapping survey will not be available until November.

**PEONY RED SPOT:** Peonies at a nursery in Crawford County are exhibiting late-season symptoms of this fungal disease, namely large, irregular blighted areas on the leaves. The lesions first appear in spring as circular, reddish-purple leaf spots. Since all above-ground portions of peonies are susceptible to red spot, cutting foliage back to ground level in fall is strongly recommended. Fungicides are effective, but only if applied to the soil around plants in spring, when new shoots are 2-4 inches high. A second post-emergence application may be necessary.



Red spot on peony leaves

Liz Meils DATCP

HACKBERRY NIPPLE GALL: Many hackberry trees across the state are showing trace to moderate infestations of nipple galls, formed by the hackberry nipple gall psyllid. The characteristic galls develop on the undersides of the leaves in response to feeding by a tiny, yellowish-orange psyllid nymph inside. Hackberry is the only known host of this psyllid.

#### **APPLE INSECT & BLACK LIGHT TRAP COUNTS AUGUST 9 - 15**

COUNTY	SITE	STLM <sup>1</sup>	RBLR <sup>2</sup>	CM <sup>3</sup>	OBLR⁴	OBLR⁵	AM RED <sup>6</sup>	YELLOW <sup>7</sup>	GDD 50°F
Bayfield	Keystone	15	0	1	0		4	2	
Bayfield	Orienta	97	0	0	0		0	0	
Brown	Oneida	250	41	13	5		1	0	
Chippewa	Chippewa Falls		10	19	0		0	0	
Columbia	Rio	400	35	6	8		0	0	
Crawford	Gays Mills								
Dane	Deerfield								
Dane	Mt. Horeb	220	43	1			1	0	
Dane	Stoughton	20	26	2	0		0	0	
Dane	West Madison		21	1	1		0	0	
Fond du Lac	Campbellsport	150	62	0	130		0	0	
Fond du Lac	Rosendale	121	7	3	1		0	2	
Grant	Sinsinawa		7	8	18				
Green	Brodhead	0	6	1	4		0	0	
lowa	Mineral Point	110	19	1	0		*1	0	
Jackson	Hixton	36	5	0	0		0	1	
Kenosha	Burlington	90	7	0	0		*3		
Marinette	Niagara	92	0	0	0		0	0	
Marquette	Montello	81	21	1	0		*]	0	
Ozaukee	Mequon	20	8	2	0		*2		
Pierce	Beldenville								
Pierce	Spring Valley	63	45	3	4		*4	*0	
Polk	Turtle Lake		36	5			**0		
Racine	Raymond	141	5	0	1		0	0	
Racine	Rochester		32	8	0		*1	0	
Richland	Hillpoint	432	11	0	1		**3	**]	
Sheboygan	Plymouth								
Walworth	East Troy	10	0	0	4		0	0	
Walworth	Elkhorn	11	3	0	3		0	0	
Waukesha	New Berlin	92	12	11	1		0	0	

<sup>1</sup>Spotted tentiform leafminer; <sup>2</sup>Redbanded leafroller; <sup>3</sup>Codling moth; <sup>4</sup>Obliquebanded leafroller EASTERN; <sup>5</sup>Obliquebanded leafroller WESTERN; <sup>6</sup>Apple maggot red ball; <sup>\*</sup>Unbaited AM trap; <sup>\*\*</sup>Baited AM trap; <sup>7</sup>AM yellow board.

COUNTY	SITE	ECB <sup>1</sup>	TA <sup>2</sup>	BCW <sup>3</sup>	SCW <sup>4</sup>	DCW⁵	CE <sup>6</sup>	CEL <sup>7</sup>	WBC <sup>8</sup>	FORL <sup>9</sup>	VCW <sup>10</sup>
Chippewa	Chippewa Falls	6	0	0	0	0	0	0	1	0	0
Columbia	Arlington	0	0	0	0	0	0	0	0	0	0
Crawford	Prairie du Chien										
Dane	Mazomanie	4	0	0	0	4	1	0	0	0	1
Fond du Lac	Ripon	4	0	0	0	0	3	0	0	0	0
Manitowoc	Manitowoc	0	6	0	0	9	0	0	0	7	0
Marathon	Wausau	0	2	1	1	54	0	0	0	5	0
Monroe	Sparta										
Rock	Janesville	1	1	0	0	0	0	0	0	2	0
Vernon	Coon Valley	3	10	0	0	12	0	0	0	3	0
Walworth	East Troy	0	2	1	0	2	0	0	1	1	0
Wood	Marshfield	1	1	0	1	8	0	0	0	0	0

<sup>1</sup>European corn borer; <sup>2</sup>True armyworm; <sup>3</sup>Black cutworm; <sup>4</sup>Spotted cutworm; <sup>5</sup>Dingy cutworm; <sup>6</sup>Corn earworm; <sup>7</sup>Celery looper; <sup>8</sup>Western bean cutworm; <sup>9</sup>Forage looper; <sup>10</sup>Variegated cutworm.