

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

Cooler and drier air settled over Wisconsin early in the week, replacing the intense heat and humidity endured throughout much of August. Breezy westerly winds and partly cloudy skies persisted before diminishing on Thursday, when skies became mostly clear. Afternoon high temperatures ranged from the lower 60s in the north to the mid-80s in the far southwest. Drying conditions were favorable and harvesting of alfalfa and oats was undertaken, but some fields were still too wet after the heavy rain of last week. Lodging is common in small grains, and giant ragweed appears to have overrun many oat fields in the southern counties. Third and fourth crop alfalfa looks superb in those fields where farmers were able to harvest the second crop on time. Humid and wet conditions in late July and August have resulted in the development of corn and soybean foliar diseases at many sites.

LOOKING AHEAD

CORN EARWORM: Moth collections are on the increase. A surge from 132 to 519 moths was registered at the Marshfield Agricultural Research Station this week, and the count at Coon Valley increased from 72 to 221. Another 226 migrants were captured in the Chippewa Falls trap and 59 were reported from Wausau. These counts are indicative of a very large and potentially destructive flight of corn earworm migrants capable of laying many eggs in silking sweet corn. All susceptible fields should be checked at this time and until harvest.

SOYBEAN APHID: Surveys indicate populations remain abnormally low. The average count during the period of August 2-19 was 17 aphids per plant, based upon examination of 154 soybean fields in the R5-R6 stages. Only 7% of surveyed fields contained 50-100 per plant, and none had economic counts of 250 or more aphids per plant. Final treatments must be applied before R5.5 for any yield advantage to be realized.

WESTERN BEAN CUTWORM: Damage to corn was noted this week in Clark, Dunn, Eau Claire, Monroe and Vernon counties, where 4-25% of ear tips were infested with lateinstar larvae. Most of the population is advanced and should complete development by early September. All larval stages can be found due to the prolonged adult flight period this year. A few moths are still appearing in black light traps.

FALL PESTS: The annual invasion of fall nuisance insects, activated by decreased day length and lower temperatures, can be expected by early to mid-September. Reports of boxelder bug activity have been received from Dane and Green counties, and strawberry root weevils are entering homes in scattered locations around the state. Homeowners are reminded to seal all openings and

cracks around windows, doors and other entry points to reduce pest problems next month. Chemical treatments may be applied to the siding or foundations of homes in late September or early October, but under no circumstance should insecticides be used indoors.



Boxelder bugs

truan flickr.com

FORAGES

POTATO LEAFHOPPER: Numbers have not changed significantly since the last report. Alfalfa surveyed in the central, northwest and west-central areas contained 0.2-4.3 per sweep, with an average of 1.5 per sweep. Three of 17 fields checked in Clark, Dunn and Eau Claire counties showed economic counts above 2.0 per sweep, but these were exceptional. Nymphs remain numerous in sweep net collections.

ALFALFA CATERPILLAR: Populations in alfalfa are variable. Surveyed fields had as few as 0.1 larva per sweep or as many as 4.2 per sweep. The average is less than 1.0 per sweep. Parasitized larvae were collected from 15% of sampled fields.

PLANT BUG: Adults and nymphs are still abundant in most fields. Representative counts vary from 0.4-3.9 per sweep, which is below the economic threshold of 5.0 per sweep. The alfalfa plant bug is the predominant species in the central and northern counties.

CORN

CORN ROOTWORM: Surveys this week yielded economic counts above 0.75 beetle per plant in 8 of 28

DEGREE DAYS JANUARY 1 - AUG 19

| LOCATION | 50°F | 2009 | NORM | 48°F | 40°F |
|--------------|------|------|------|------|------|
| Dubuque, IA | 2494 | 1891 | _ | 2482 | 3908 |
| Lone Rock | 2442 | 1828 | | 2429 | 3826 |
| Beloit | 2608 | 1888 | | 2536 | 4029 |
| Madison | 2425 | 1820 | 2099 | 2445 | 3798 |
| Sullivan | 2475 | 1867 | 2142 | 2391 | 3851 |
| Juneau | 2377 | 1830 | | 2411 | 3733 |
| Waukesha | 2271 | 1889 | _ | 2342 | 3605 |
| Hartford | 2229 | 1836 | _ | 2329 | 3566 |
| Racine | 2241 | 1828 | — | 2320 | 3575 |
| Milwaukee | 2177 | 1798 | 1952 | 2287 | 3499 |
| Appleton | 2219 | 1686 | 1956 | 2306 | 3560 |
| Green Bay | 2072 | 1563 | 1886 | 2207 | 3389 |
| Big Flats | 2220 | 1660 | _ | 2228 | 3539 |
| Hancock | 2252 | 1687 | 2061 | 2246 | 3576 |
| Port Edwards | 2171 | 1611 | 1985 | 2219 | 3491 |
| La Crosse | 2443 | 1868 | 2279 | 2385 | 3831 |
| Eau Claire | 2237 | 1755 | 2059 | 2263 | 3586 |
| Cumberland | 2021 | 1549 | 1967 | 2075 | 3312 |
| Bayfield | 1631 | 1212 | 1545 | 1705 | 2841 |
| Wausau | 1999 | 1442 | 1896 | 2084 | 3289 |
| Medford | 1988 | 1454 | 1720 | 2081 | 3284 |
| Crivitz | 1974 | 1449 | _ | 2081 | 3263 |
| Crandon | 1806 | 1298 | 1533 | 1874 | 3044 |

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2010. NORMALS based on 30-year average daily temps, 1971-2001.

(29%) fields evaluated in the southwest, south-central and central areas. This figure is slightly lower than the 35% that had economic levels when the same sites were examined last season. Populations in Dodge, Columbia and Grant counties varied from 0-2.7 per plant and averaged 0.8 per plant. In Green Lake, Marquette and Waushara counties, counts were similar and ranged from 0-2.5 beetles per plant, with an average of 0.6 per plant. The highest populations were found near Lancaster and Markesan. The annual survey is now underway and the final results should be available by early September.

CORN EARWORM: The major migration of corn earworm moths is in progress statewide. Counts at Coon Valley Chippewa Falls, Marshfield and Wausau have increased considerably to reach the highest levels of the season.

Three consecutive weeks of significant flights have produced localized heavy infestations, and larvae of various maturities can be found from Grant County in the southwest to Marinette County in the northeast. Examination of corn fields in Clark, Dunn, Eau Claire and Jackson counties found infestation rates of 5-30%. 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 for the period of August 12-19 were as follows: Chippewa Falls 226, Coon Valley 221, Janesville 29, Marshfield 519, and Wausau 59.

CORN WILT DISEASES: Inspections for export regulatory pests were performed at seed corn production fields in Columbia, Dane, Rock and Sauk counties in the past three weeks. Laboratory testing is incomplete, but preliminary results indicate an increase in the incidence of wilt diseases this year. Six of 10 sites tested positive for Goss's wilt, while 5 tested positive for Stewart's wilt. Unlike Stewart's wilt, Goss's wilt is not insect-transmitted. Environmental conditions which favor its development and spread are early hail storms, heavy rain and high winds. Seed corn from fields found to have either disease cannot be exported to most foreign countries.

NORTHERN CORN LEAF BLIGHT: Survey observations and reports from seed corn and sweet corn producers indicate a widespread and severe occurrence of this fungal disease throughout the state. The characteristic symptoms are large, elliptical lesions on the leaves. Under favorable weather conditions, the disease can develop rapidly on the foliage and substantially reduce corn yields.

SOYBEANS

GREEN CLOVERWORM: Larvae of the third generation are causing light-moderate defoliation of soybeans in Chippewa, Clark, Dunn, Eau Claire and Monroe counties. Damage is prevalent, but not especially severe. Further control this year is probably unwarranted.

JAPANESE BEETLE: Defoliation by this insect is still very common, but numbers throughout southern Wisconsin appear to be lower than in previous years. This development may be associated with a protozoan pathogen that regulates populations in areas where the beetle has been long established. The economic threshold for Japanese beetle and other leaf feeding pests is 35% defoliation between seed-fill and harvest. WHITEFLY: Light infestations have been noted in soybeans from Grant County to Chippewa County. This pest of greenhouse plants and commercial vegetables is remarkable for its high reproductive potential and capacity to develop resistance to insecticides. Although yield reductions resulting from sap removal, sooty mold, and incomplete soybean pod filling have not been documented in the Midwest, but economic damage has been reported from Georgia and Florida.



Whiteflies on underside of soybean leaf

Joe Spencer Illinois NHS

SUDDEN DEATH SYNDROME: Symptoms of this disease are appearing in southern Wisconsin soybean fields. Surveys conducted in Grant, Green, Lafayette and Rock counties last week found foliar symptoms in 5 of 57 fields checked. Results in Brown, Fond du Lac, Ozaukee and Sheboygan counties were negative.



Sudden Death Syndrome leaf symptoms

Adrian Barta DATCP

Diagnostic indicators are similar to those of brown stem rot (BSR) and include small, circular spots that enlarge to form a yellowish-brown discoloration of the leaves around veins. The two diseases can be differentiated by splitting the stem to check for brown discoloration of the vascular and pith tissues typical of BSR.

Wet soil conditions at planting followed by heavy rainfall during the flowering period are thought to be major contributing factors. All infected fields were at or beyond the R6 stage, which could limit impact on yield.

FROGEYE LEAF SPOT: Nine of 25 (36%) soybean fields examined in Green Lake, La Crosse, Marquette, Monroe and Sheboygan counties showed trace-heavy infection with this foliar malady, caused by *Cercospora sojina*. Frogeye leafspot is typified by angular lesions with light gray centers and reddish-purple margins that eventually enlarge to a diameter of about ¼ inch. These latest detections are in addition to previous finds in Lafayette and Rock counties two weeks ago.



Frogeye leaf spot lesions

Krista Hamilton DATCP

FRUITS

OBLIQUEBANDED LEAFROLLER: Orchardists are reminded to monitor pheromone traps for this insect and the Oriental fruit moth regularly throughout September, long after spraying is discontinued. Large flights have been documented at some sites this month, and the resulting second generation of larvae can cause significant fruit damage late in the growing season.

NURSERY & LANDSCAPE

CHESTNET BROWN BARK BEETLE: Localized infestations were found on white pines in an Ozaukee County nursery. Similar to other bark beetles, this species is very responsive to changes in tree vigor and rapidly colonizes pines under physiological stress. Balled-and-burlapped pines and pines that have been recently dug and replanted are at increased risk of attack. Nursery stock growers and dealers should avoid holding balled-and-burlapped white pines on site for more than three weeks, as the beetles will find them. It is best to dig trees on the basis of demand, plant immediately, water often, and keep the root balls cool, moist and covered until the trees have been planted.

ANTHRACNOSE: 'Redmond' Lindens at nurseries in St. Croix County were exhibiting foliage with brown, necrotic spots and premature leaf loss due to this fungal disease. Anthracnose rarely causes permanent damage to trees unless severe symptoms persist for several consecutive years. Pruning branches to promote air flow and raking fallen leaves may reduce its incidence next season.

DOGWOOD SAWFLY: The powdery white larvae of this insect were observed on the foliage of redosier dogwoods in St. Croix County. Damage caused by the larval stages, namely skeletonized leaves, usually appears early in summer. By late August, the foliage has been fully consumed so that only the midvein remains. Chemical control can be effective against early-instar larvae (less than ³/₄ inch), but is not advised at this time. Varieties most susceptible to sawfly infestation are the gray and redosier dogwoods.



Dogwood sawfly larvae on redosier dogwood Konnie Jerabek DATCP

GYPSY MOTH: Seasonal workers have removed 11% of the traps distributed in western Wisconsin and collected a total of 72,085 gypsy moths. The moth count was 19,902 at the same time last year and 97,040 in 2008.

APPLE INSECT & BLACK LIGHT TRAP COUNTS AUGUST 13 - 19

| COUNTY | DATE | SITE | STLM ¹ | RBLR ² | CM ³ | OBLR⁴ | OBLR⁵ | AM RED ⁶ | AM YELLOW ⁷ |
|---------------|-----------|------------------|-------------------|-------------------|-----------------|-------|-------|---------------------|------------------------|
| Bayfield | 8/13-8/19 | Keystone | 22 | 1 | 0 | 3 | | *6 | *8 |
| Bayfield | 8/13-8/19 | Bayfield | | | | | | | |
| Bayfield | 8/09-8/16 | Orienta | 44 | 0 | 0 | 0 | | *] | 0 |
| Brown | 8/13-8/19 | Oneida | | | | | | | |
| Chippewa | 8/13-8/19 | Chippewa Falls 1 | | | | | | | |
| Chippewa | 8/13-8/19 | Chippewa Falls 2 | | | | | | | |
| Dane | 8/13-8/19 | Deerfield | 816 | 30 | 5 | 3 | | *3 | 0 |
| Dane | 8/13-8/19 | McFarland | | 0 | 0 | 0 | | | |
| Dane | 8/12-8/18 | Stoughton | 114 | 25 | 3 | 23 | | 0 | 0 |
| Dane | 8/13-8/19 | West Madison | | | | | | | |
| Dodge | 8/13-8/19 | Brownsville | | | | | | | |
| Fond du Lac | 8/13-8/19 | Campbellsport | 120 | 20 | 0 | 5 | | *2 | 0 |
| Fond du Lac | 8/13-8/19 | Malone | 40 | 25 | 4 | 4 | | 0 | 0 |
| Fond du Lac | 8/13-8/19 | Rosendale | | | | | | | |
| Grant | 8/13-8/19 | Sinsinawa | | | | | | | |
| Green | 8/13-8/19 | Brodhead | | | | | | | |
| lowa | 8/13-8/19 | Dodgeville | | | | | | | |
| lowa | 8/13-8/19 | Mineral Point | 34 | 143 | 6 | 7 | | 0 | 0 |
| Jackson | 8/13-8/19 | Hixton | 48 | 1 | 10 | 0 | 0 | 0 | *] |
| Kenosha | 8/13-8/19 | Burlington | 50 | 14 | 5 | 0.5 | | *1 | 0 |
| Marinette | 8/13-8/19 | Niagara | | 4 | 21 | 9 | | *3 | *] |
| 0000Marquette | 8/13-8/16 | Montello | 5 | 10 | 2 | 0 | | 0 | 0 |
| Ozaukee | 8/13-8/19 | Mequon | | | | | | | |
| Pierce | 8/13-8/19 | Beldenville | 50 | 6 | 0 | 6 | 0 | 0 | 0 |
| Pierce | 8/12-8/19 | Spring Valley | 62 | 78 | 6.25 | 9 | 0 | **4.25 | 0 |
| Racine | 8/13-8/19 | Raymond | 716 | 236 | 22 | 11 | | 0 | 0 |
| Racine | 8/13-8/19 | Rochester | | | | | | | |
| Richland | 8/11-8/17 | Hillpoint | 230 | 105 | 1 | 0 | 8 | 0 | 0 |
| Sheboygan | 8/13-8/19 | Plymouth | | | | | | | |
| Walworth | 8/13-8/19 | East Troy | | | | | | | |
| Walworth | 8/13-8/19 | Elkhorn | | | | | | | |
| Waukesha | 8/13-8/19 | New Berlin | 33 | 55 | 23 | 4 | | 0 | 0 |

¹Spotted tentiform leafminer; ²Redbanded leafroller; ³Codling moth; ⁴Obliquebanded leafroller EASTERN; ⁵Obliquebanded leafroller WESTERN; ⁶Apple maggot red ball; ^{*}Unbaited AM trap; ^{**}Baited AM trap; ⁷Apple maggot yellow board.

| COUNTY | DATE | SITE | ECB ¹ | TA ² | BCW ³ | SCW⁴ | DCW⁵ | CE ⁶ | CEL ⁷ | WBC ⁸ | FORL ⁹ | VCW ¹⁰ |
|-----------|-----------|-------------|------------------|-----------------|------------------|------|------|-----------------|------------------|------------------|-------------------|-------------------|
| Chippewa | 8/13-8/19 | Chipp Falls | 11 | 1 | 0 | 0 | 70 | 1 | 0 | 7 | 0 | 0 |
| Columbia | 8/13-8/19 | Arlington | — | | — | — | — | | — | — | — | — |
| Grant | 8/13-8/19 | Lancaster | — | | — | | — | | — | — | | |
| Manitowoc | 8/13-8/19 | Manitowoc | — | — | — | — | — | — | — | — | — | |
| Marathon | 8/13-8/19 | Wausau | 3 | 2 | 1 | 23 | 36 | 3 | 2 | 0 | 1 | 0 |
| Monroe | 8/13-8/19 | Sparta | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 8 | 0 |
| Rock | 8/13-8/19 | Janesville | 2 | 13 | 1 | 0 | 14 | 4 | 32 | 0 | 1 | 0 |
| Walworth | 8/13-8/19 | East Troy | — | | — | — | — | | — | — | — | — |
| Wood | 8/12-8/19 | Marshfield | 25 | 17 | 3 | 33 | 35 | 13 | 25 | 0 | 9 | 4 |
| Vernon | 8/13-8/19 | Coon Valley | 4 | 22 | 3 | 14 | 19 | 6 | 11 | 3 | 2 | 1 |

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