

WISCONSIN PEST BULLETIN

Timely crop pest news, forecasts, and growing season conditions for Wisconsin



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

Warmth returned following last week's cool weather pattern. Near- to above-normal temperatures prevailed as afternoon highs ranged from the 70s in the north to the mid-80s across the south. Showers and thunderstorms developed in western Wisconsin on Sunday and again on Tuesday and Wednesday, preventing farmers from planting the last intended corn acres and further delaying an already very late alfalfa harvest. Some of the storms on Wednesday were severe, with heavy rain and damaging winds gusts of 65 mph. More than one inch of rain fell in less than an hour in several locations. Many fields still wet from previous weeks did not dry sufficiently between rain events to allow significant planting progress to be made. Based on the latest USDA NASS Wisconsin Field Office report, alfalfa harvesting was only 17% complete at the start of the week, compared to 90% last year and a five-year average of 58%. Corn planting advanced to 81% complete, but few additional acres will be sown this year as farmers instead opt to plant soybeans or take prevent-plant insurance payments.

LOOKING AHEAD

SOYBEAN APHID: Colonization of VC-V1 soybeans was documented for the first time this season on June 4 by UW-Madison researchers in Dane County. DATCP

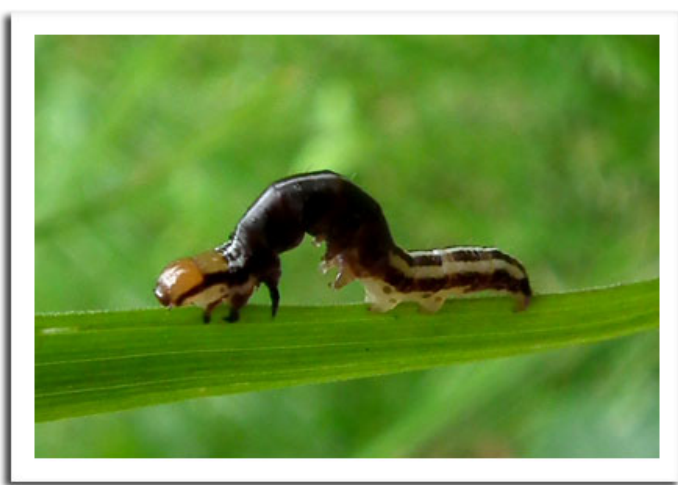
surveys in the last reporting period found aphids at 10 additional sites in Dane, Iowa, Monroe and Richland counties. Densities ranged from 1-30 aphids per infested plant on 1-18% of plants. The relatively early colonization of soybeans this year indicates that crop advisors and growers will need to initiate a regular aphid-scouting program in the next two weeks.

EUROPEAN CORN BORER: The peak in moth activity should occur next week in southern and central Wisconsin following the accumulation of 631 degree days (modified base 50°F). Oviposition on vegetable and weed hosts has increased with recent warmer temperatures and larval emergence is beginning in the far south. Since development of this pest is not well synchronized with corn growth this year, most first generation larvae are likely to develop on hosts other than corn.

BLACK CUTWORM: Larvae from earlier flights of moths that oviposited in cornfields last month are in the damaging late-instar cutting stages. Light injury has been observed in Columbia, Green, Green Lake, Marquette, Rock, Sauk, Waupaca and Waushara counties in the last two weeks, suggesting that corn growers must remain vigilant for signs of cutworm activity. Scouting may be discontinued after the V4 stage.

STALK BORER: Migration of larvae from grasses and broadleaf weed hosts into corn is expected to accelerate

in the week ahead. Spot treatment may be warranted for fields that show 5-10% of plants with leaf feeding. Damage should become pronounced by late June.



Stalk borer larva

jclucier flickr.com

CORN EARWORM: Another significant flight of 154 moths was registered at Janesville from June 6-12. The primary flight ordinarily does not occur until August, but early attention to this species may be in order this season. Routine monitoring of corn and other vegetable such as peas, peppers and cabbage is recommended later this month.

FORAGES

POTATO LEAFHOPPER: Surveys in the southern and central areas indicate that levels of this insect remain below established economic thresholds in both the first and second crops. Counts in 12- to 34-inch alfalfa in Dane, Green, Iowa, Monroe and Sauk counties ranged from 0.1-1.6 per sweep and averaged 0.5 per sweep. The economic threshold for leafhoppers in alfalfa taller than 12 inches is 2.0 per sweep. Second growth alfalfa is most susceptible to leafhopper feeding and should be closely monitored throughout June.

ALFALFA WEEVIL: Larval counts and tip feeding have increased considerably in the southern and central counties where counts ranged from 0.3-10.4 per sweep and many unharvested fields are showing 50-90% defoliation. Much of the damage now occurring could have been prevented if rainy weather had not delayed harvest of the first alfalfa crop. Alfalfa fields must be cut during the next rain-free period and monitored for carry-over of alfalfa weevil larvae.

DEGREE DAYS JANUARY 1 - JUNE 12

| LOCATION | 50°F | 2012 | NORM | 48°F | 40°F |
|--------------|------|------|------|------|------|
| Dubuque, IA | 633 | 1041 | 757 | 674 | 1158 |
| Lone Rock | 603 | 1037 | — | 630 | 1108 |
| Beloit | 711 | 1077 | 766 | 727 | 1249 |
| Madison | 599 | 1009 | 722 | 628 | 1101 |
| Sullivan | 626 | 994 | 700 | 647 | 1128 |
| Juneau | 553 | 944 | — | 596 | 1038 |
| Waukesha | 534 | 853 | — | 567 | 1005 |
| Hartford | 504 | 842 | — | 540 | 966 |
| Racine | 492 | 800 | — | 531 | 962 |
| Milwaukee | 475 | 785 | 603 | 513 | 932 |
| Appleton | 478 | 846 | 654 | 517 | 917 |
| Green Bay | 424 | 769 | 605 | 461 | 857 |
| Big Flats | 500 | 913 | — | 524 | 939 |
| Hancock | 506 | 905 | 712 | 537 | 940 |
| Port Edwards | 473 | 867 | 691 | 506 | 888 |
| La Crosse | 533 | 1006 | 805 | 577 | 1005 |
| Eau Claire | 478 | 890 | 711 | 517 | 892 |
| Cumberland | 419 | 747 | 635 | 439 | 789 |
| Bayfield | 270 | 559 | — | 262 | 567 |
| Wausau | 432 | 760 | 622 | 453 | 807 |
| Medford | 435 | 758 | 557 | 460 | 810 |
| Crivitz | 387 | 711 | — | 408 | 779 |
| Crandon | 399 | 667 | 496 | 400 | 736 |

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2013. NORMALS based on 30-year average daily temps, 1981-2010.

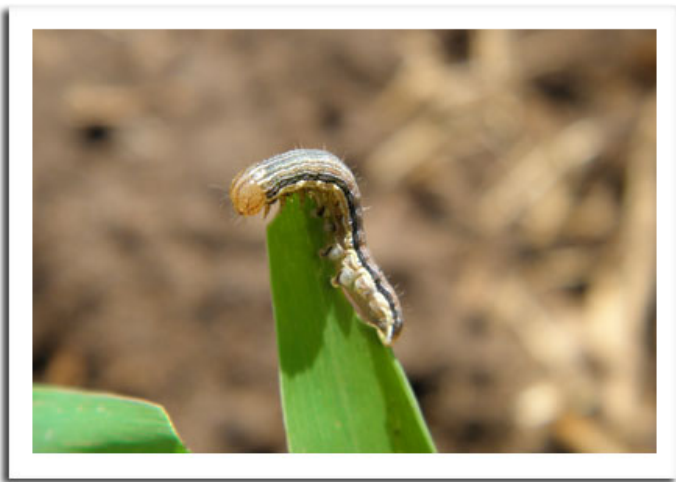
PLANT BUG: Adults and nymphs were found in low numbers of less than one per sweep again this week. Reproduction has accelerated and nymphs of both the tarnished and alfalfa plant bug are common in most field collections, although the tarnished plant bug is currently more numerous.

MEADOW SPITTLEBUG: Spittle masses are increasing in size and most nymphs are currently 1/2-3/4 grown. The highest population encountered was 13 per 50 stems near Sparta in Monroe County, which is low in comparison to the economic threshold of one nymph per stem. Most surveyed fields had significantly fewer spittlebugs.

CORN

TRUE ARMYWORM: Minor feeding injury was noted in five of 60 cornfields sampled in the southern and west-central areas from June 6-12. Larvae ranging in length from 3/4-1 inch were found in two of the fields. Although

infestation rates were very low, actual populations may be larger and more widespread than indicated by our surveys. Continued scouting of corn and wheat is advised. A rescue treatment is justified if 25% of plants are infested with two or more small larvae ($\frac{3}{4}$ inch or shorter) or 75% of plants are infested with larvae of any size.



True armyworm larva

Krista Hamilton DATCP

SLUGS: Damage consisting of narrow, irregular longitudinal tracks or streaks in the lower leaves was observed in several damp, weedy fields in Dane, Green, Monroe, Rock and Walworth counties. These mollusks thrive during periods of wet weather and could become an increasing problem in no-till systems and very weedy corn where surface residue and high moisture favor their development. Emerging to four-leaf stage corn is at greatest risk of injury.



Slug leaf feeding

Krista Hamilton DATCP

EUROPEAN CORN BORER: The spring flight of moths continued for the fourth week, with only a single moth

registered in the black light trap near Janesville. The European corn borer degree day model suggests that the peak in moth activity has occurred near Beloit in Rock County and should occur before June 14 in the Madison area and June 21 near Hancock. Most corn is unsuitable for larval development at this time, so egg deposition is likely occurring on peas, peppers, potatoes, snap beans and various weed hosts.

CORN ROOTWORM: Larvae hatching from overwintered eggs during the next several weeks are likely to encounter saturated soils, potentially resulting in high mortality in areas affected by flooding. Corn rootworm larvae have difficulty accessing corn roots under extreme wet conditions.

SOYBEANS

SOYBEAN APHID: This insect has begun to colonize soybean fields in southern and central Wisconsin. Alates and nymphs were detected on 1%-18% of the plants in 10 of 17 fields surveyed in Dane, Iowa, Monroe and Richland counties from June 6-12. Densities ranged from 1-30 aphids per infested plant, with a high count of 79 aphids per 100 plants in western Dane County. Twenty additional VE-V1 fields examined in Dodge, Green, Jefferson, Rock, Sauk and Walworth counties had no detectable aphid population.



Soybean aphids

Krista Hamilton DATCP

BEAN LEAF BEETLE: Soybean fields in Dane, Jefferson, Monroe, Richland, Rock and Sauk counties are showing 5-25% of plants with minor defoliation caused by this insect. Although damage is currently limited to a few holes in the leaves, injury could become more severe

next week as additional beetles migrate to emerging soybeans.

FRUITS

CODLING MOTH: Large flights were registered for the second week, with nine of the 29 monitoring locations registering economic counts of five or more moths per trap. The weekly high count of 81 male codling moths was documented near Beldenville in Pierce County. Egg deposition has accelerated and a strong potential exists for damaging populations if treatments are not applied on time. Apple orchards that established the biofix from May 19-22 are approaching the 250 degree day point at which a larvicide should be applied.



Codling moth

Shane Farrell ukmoths.org.uk

SPOTTED TENTIFORM LEAFMINER: Moth counts were again very low in the last week and ranged from just 2-120 per trap, with an average of 15 per trap. These low counts signal most apple orchards are in between flights and populations consist primarily of late-instar tissue feeder larvae. Counts are expected to increase abruptly in 1-2 weeks as the second flight begins. The economic threshold for STLM increases from 0.1 to 1.0 mine per leaf for the second generation of sapfeeder larvae.

REDBANDED LEAFROLLER: Counts of this pest also remained fairly low during the last reporting period. The first flight peaked several weeks ago and relatively few moths have been collected in the interim. The second flight should start at most orchard locations by late June. Apple growers are reminded to replace pheromone lures for both RBLR and STLM in anticipation of the second flights.

OBLIQUEBANDED LEAFROLLER: The spring flight began between June 6 and 12 with the capture of moths as far north as Edgar in Marathon County. Late-instar larvae and rolled leaves are still evident at many sites, indicating that moths should continue to emerge over the course of several weeks. The recommended scouting procedure for OBLR is to begin checking terminals for small larvae 7-10 days after the first moths are captured. Although there is no direct correlation between trap counts and larval populations, scouting is imperative since orchards that register even low counts (< 5 moths per trap) can develop significant larval problems a few weeks after a flight has occurred.

VEGETABLES

COLORADO POTATO BEETLE: Overwintered adults are now colonizing potato fields in the Central Sands region of the state. The bright orange-yellow eggs deposited by the females should be apparent on the undersides of leaves in the week ahead. At normal June temperatures, the eggs hatch in 4-8 days and larvae mature to the third instar stage in another 5-9 days. These early individuals are usually less destructive than the summer generation. Treatment is justifiable for potatoes when defoliation of pre-flowering, 6-8 inch plants surpasses 20-30%.



Colorado potato beetles

Krista Hamilton DATCP

CORN EARWORM: A cumulative total of 223 moths have been registered in the Janesville pheromone trap since May 30. These very early migrants are unlikely to impact sweet corn, but peas, peppers, cabbage and other vegetables may be at risk later this month. Corn earworm larvae are surface feeders on most garden plants and can be easily removed by hand. Additionally, the bacter-

ial pesticide *Bacillus thuringiensis* (Bt) applied periodically before the larvae start burrowing is an effective form of control.

SLUGS: Surplus rainfall this season has favored activity by these nocturnal pests. Light defoliation has been noted in scattered cornfields in the southern and central areas, and problems are expected to increase if wet weather continues. Control may be required in some instances to reduce field crop or home garden damage.

NURSERY & FOREST

BOTRYTIS: Botrytis, or gray mold, was observed by nursery inspectors on begonia, bell flower, geranium, New Guinea impatiens, peony and salvia in Jefferson, Milwaukee, Rock and Washington counties. This very common disease of greenhouse floral crops is characterized by chlorotic lower leaves or distinct brown leaf lesions that develop a grayish brown mass of fungal spores. Symptoms can develop at any stage and may affect any plant part. Measures that increase air circulation should minimize its occurrence.



Botrytis on peony leaves

gardening.about.com

INVASIVE SPECIES RULE: Nursery inspectors report that the invasive plants, *Ampelopsis brevipedunculata* 'Elegans' (variegated porcelain berry), *Elaeagnus angustifolia* (Russian olive) and *Hesperis matronalis* (dame's rocket) were being offered for sale at nurseries and garden centers in Milwaukee, Outagamie and Washington counties. Under the Chapter NR 40 Wisconsin Invasive Species Rule, it is illegal to transport, import, transfer, sell or introduce any species included in the rule's prohibited or restricted categories. It is

important for nursery operators and brokers to become familiar with these species since some may be available from out-of-state sources. Refer to the following website for a list of Chapter NR 40 invasive species:

<http://dnr.wi.gov/topic/invasives/classification.html>.



Autumn olive 'Ruby', a NR 40 restricted plant Konnie Jerabrak DATCP

SEPTORIA LEAF SPOT: Dogwood and spirea shrubs in Jefferson and Washington counties were showing symptoms of this common fungal disease, including small, dark purple lesions that first appear on the lower leaves and stems and later enlarge and spread to the upper leaves. Control consists of spacing plants to increase airflow.



Septoria leaf spot on dogwood 'Ivory Halo'

Liz Meils DATCP

APPLE INSECT & BLACK LIGHT TRAP COUNTS JUNE 6 - 12

| COUNTY | SITE | STLM ¹ | RBLR ² | CM ³ | OBLR ⁴ | AM RED ⁵ | YELLOW ⁶ |
|-------------|----------------|-------------------|-------------------|-----------------|-------------------|---------------------|---------------------|
| Bayfield | Keystone | 5 | 11 | 0 | 0 | | |
| Bayfield | Oriente | 3 | 1 | — | — | | |
| Brown | Oneida | 120 | 0 | 9 | 0 | | |
| Chippewa | Chippewa Falls | — | 2 | 11 | 0 | | |
| Crawford | Gays Mills | 7 | 0 | 0 | 0 | | |
| Dane | Deerfield | 36 | 2 | 1 | 0 | | |
| Dane | McFarland | 0 | 10 | 5 | 8 | | |
| Dane | Mt. Horeb | 0 | 0 | 1 | 1 | | |
| Dane | Stoughton | 8 | 0 | 19 | 1 | | |
| Dane | West Madison | 20 | 0 | 3 | 0 | | |
| Fond du Lac | Campbellsport | 12 | 0 | 0 | 0 | | |
| Fond du Lac | Malone | 2 | 1 | 4 | 0 | | |
| Fond du Lac | Rosendale | 7 | 18 | 3 | 0 | | |
| Grant | Sinsinawa | 0 | 0 | 17 | 8 | | |
| Green | Brodhead | 3 | 0 | 0 | 2 | | |
| Iowa | Mineral Point | 6 | 0 | 19 | 0 | | |
| Jackson | Hixton | 32 | 12 | 3 | 2 | | |
| Kenosha | Burlington | 10 | 0 | 0 | 2 | | |
| Marathon | Edgar | 37 | 113 | 4 | 7 | | |
| Marinette | Niagara | 25 | 2 | 2 | 0 | | |
| Marquette | Montello | 2 | 0 | 0 | 0 | | |
| Ozaukee | Mequon | 0 | 0 | 8 | 0 | | |
| Pierce | Beldenville | 5 | 16 | 81 | 0 | | |
| Pierce | Spring Valley | 8 | 21 | 1 | 0 | | |
| Polk | Turtle Lake | 28 | 8 | 2 | 0 | | |
| Racine | Rochester | 7 | 0 | 11 | 5 | | |
| Richland | Hillpoint | 3 | 0 | 4 | 0 | | |
| Sheboygan | Plymouth | 15 | 5 | 15 | 0 | | |
| Walworth | East Troy | 3 | 2 | 0 | 0 | | |
| Walworth | Elkhorn | 0 | 6 | 0 | 0 | | |
| Waukesha | New Berlin | — | — | — | — | | |

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

| COUNTY | SITE | ECB ¹ | TA ² | BCW ³ | SCW ⁴ | DCW ⁵ | CE ⁶ | CEL ⁷ | WBC ⁸ | FORL ⁹ | VCW ¹⁰ |
|-------------|------------------|------------------|-----------------|------------------|------------------|------------------|-----------------|------------------|------------------|-------------------|-------------------|
| Chippewa | Chippewa Falls | — | — | — | — | — | — | — | — | — | — |
| Columbia | Arlington | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crawford | Prairie du Chien | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dane | Mazomanie | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fond du Lac | Ripon | 0 | 21 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0 |
| Manitowoc | Manitowoc | 0 | 25 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 |
| Marathon | Wausau | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| Monroe | Sparta | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Portage | Plover | — | — | — | — | — | — | — | — | — | — |
| Rock | Janesville | 1 | 12 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Walworth | East Troy | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood | Marshfield | 0 | 14 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |

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