

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

Showery weather persisted, slowing the final stages of corn and soybean planting and causing localized flooding. Partly cloudy skies prevailed throughout the week and precipitation was scattered with isolated areas of heavy rain (0.5-1.5 inches) occurring primarily in the western and northern regions. Madison recorded eight successive days with measurable rain from June 16-23. Meanwhile, high temperatures were seasonable and ranged from the mid-60s near Lake Michigan to the upper 80s at inland locations. Lows were in the 40s to upper 60s. The excessive precipitation prevented planting of some remaining fields in the northern counties, but this week's heat and humidity spurred crop growth statewide. The most advanced corn in southwestern Wisconsin has reached the eight-leaf (V-8) growth stage and soybeans are likely to enter the initial reproductive stages (R1) by the first week of July.

LOOKING AHEAD

EUROPEAN CORN BORER: The treatment window for first generation larvae has opened near Beloit, La Crosse, Madison, Spring Green and other advanced southern and west-central locations. Close inspection of susceptible cornfields and Bt refuge areas is advised during the next 2-3 weeks to determine the percentage of whorls

infested with small larvae and if control is justified. Conventional or organic treatments directed against the early instar stages must be applied before boring into stalks and midribs begins at approximately 1,100 degree days (modified base 50°F).

APPLE MAGGOT: Degree day accumulations in portions of southwestern and south-central Wisconsin are appropriate for fly emergence. Red sphere and yellow sticky traps should be placed at this time to detect the earliest emerging adults. The treatment threshold for apple maggot remains at five flies per trap per week for traps enhanced with ammonia lure and one fly per trap per week for unbaited traps.

WESTERN BEAN CUTWORM: The annual trapping survey is now in progress and the results obtained over the next eight weeks are expected to reveal the peak emergence period, potential problem areas, and the relative abundance of western bean cutworm adults in 2014. A few early moths could begin collecting in pheromone traps before the end of the month.

JAPANESE BEETLE: Emergence of the first beetles of the season was noted on June 24 in La Crosse and Rock counties. Damage to fruit trees, ornamentals, nursery stock and field crops should be anticipated during the next two months throughout the southern two-thirds of the state. Populations of this beetle are now established

as far north as Barron County in northwestern Wisconsin and Oconto County in the northeast.

TRUE ARMWORM: Significant flights of 52-121 moths were registered in the Coon Valley, Janesville, Manitowoc and Marshfield black light traps from June 19-25. This development emphasizes the need for continued monitoring of corn, wheat and other susceptible crops in July.

CORN ROOTWORM: Research indicates that 50% of overwintered eggs hatch between 684 and 767 degree days (modified base 52°F), a threshold expected to be reached by July 1 near Madison. Evidence of root injury should become noticeable in heavily infested fields next month, especially where soils remain saturated. The first beetles ordinarily appear around July 4.



Western corn rootworm beetle M. Auer www.raabauen.fauna.inseketen

FORAGES & GRAINS

ALFALFA WEEVIL: Damage is expected to subside by early July as remaining third and fourth instar larvae enter the non-feeding pupal stage. Larvae are common but not numerous in second-crop alfalfa. The average count from June 19-25 was less than 0.1 per sweep and leaf feeding ranged from only 0-5%.

PEA APHID: This insect continues to be abundant in most alfalfa fields in the southern half of the state. Densities currently range from 1-20 per sweep and average 4.9 per sweep. The rainy, humid weather of the past two weeks promotes the spread of fungal pathogens that regulate these aphids and could cause an abrupt population collapse next month.

POTATO LEAFHOPPER: Counts in alfalfa remain low in most fields and moderate at a few sites. Surveys conducted in Columbia, Dane, Green, Green Lake, Iowa, La Crosse, Marquette, Trempealeau and Waushara counties found 0.2-0.8 leafhoppers per sweep, with an average of 0.4 per sweep. Levels in Calumet, Fond du Lac and Winnebago counties in the east-central area were much lower at only 0-0.02 per sweep. Nymphs were collected in about 10% of alfalfa fields checked and populations appear to be increasing.

MEADOW SPITTLEBUG: The adult stage of this insect was swept from alfalfa in Columbia, La Crosse and Trempealeau counties, signaling that the population has matured and their characteristic spittle masses will not reappear until next spring. The highest number collected this week was two per 10 sweeps.

CORN

EUROPEAN CORN BORER: Larvae resulting from the spring flight are in the early instar stages and fresh whorl-feeding injury is evident in a few southern and central cornfields. Surveys found very low infestations of 1-3% in six of 36 (17%) fields examined this week, in Columbia, Green, Green Lake and Trempealeau counties. The optimal treatment window for first generation larvae has opened in the southernmost areas of the state with the accumulation of 800 degree days (modified base 50°F).



European corn borer leaf feeding

Krista Hamilton DATCP

TRUE ARMYWORM: Light injury was observed in 33% of cornfields sampled from June 19-25. This should serve as an indication for crop advisors and growers to continue inspecting corn and small grains for developing

infestations. Treatment is justified when 25% of corn plants are infested with two or more small larvae ($\frac{3}{4}$ inch or shorter) or 75% of plants are infested with armyworms of any size.

STALK BORER: Surveys indicate that 1-4% of edge row plants in several Green Lake, La Crosse, Marquette, Trempealeau and Waushara County fields are infested with small, $\frac{1}{2}$ to 1-inch larvae. This pattern is consistent with the stalk borer, a mid-season pest that migrates from perennial grasses and broadleaf weed hosts in early June and infests the first 4-6 rows of corn. As stated last week, Bt corn hybrids suppress but will not completely control stalk borers, so field scouting is recommended through the V-7 stage.



True armyworm larva

Krista Hamilton DATCP

SOYBEANS

SOYBEAN APHID: Densities remain very low and aphids have colonized no more than 15% of plants at most sites. Average counts in 12 of 36 (33%) soybean fields sampled this week were less than two aphids per plant and 13 per infested plant, based upon examination of 40 plants per field. Twenty four of the fields had no aphids. Populations are expected to increase next month as soybean fields enter the reproductive stages of growth. Routine monitoring should begin by early July.

ROSE CHAFER: This defoliating scarab beetle has become more common in the past two weeks and light damage is now evident in soybean fields on sandy soils in the central areas of the state. Defoliation levels, however, have not exceeded 30% in any vegetative field checked as of June 25, so treatment is not warranted.

SAND CHAFER: Localized heavy populations were encountered in the Centerville area of Trempealeau County on June 24. These beetles, notable for their similarity to Japanese beetles and an attraction to light-colored clothing, are not known to cause economic damage to crops in the adult stage, though damage to potato tubers by the immature grubs has been reported. Only minor leaf feeding was observed in the fields with significant numbers of chafers.



Sand chafer beetle

Krista Hamilton DATCP

FRUITS

CODLING MOTH: The spring flight has peaked in most orchards, although counts remain high at some sites. Economic counts of five or more moths per trap per week were registered at nine of 27 locations during the June 19-25 monitoring period. Larvicides or other controls should be maintained to prevent problems by the current and subsequent summer generation of larvae. Apple growers are reminded that pheromone lures degrade rapidly at warm temperatures and should be replaced every 3-4 weeks. Scouting fruits for tiny, circular entry wounds is recommended in the week ahead.

REDBANDED LEAFROLLER: Moth counts are expected to increase by early July as the second flight accelerates. Minimal RBLR activity was noted this week, with average counts varying from 0-38 moths per trap and averaging only 7.4 per trap.

ROSE CHAFER: This vineyard and orchard pest is emerging and may soon skeletonize grape leaves and consume developing fruit clusters in Wisconsin vineyards. Biweekly scouting is advised for vineyards on

sandy soils and those with a history of rose chafer problems as soon as the first beetle is observed. An average of two beetles per vine has been suggested as the basis for initiating controls. Systemic soil drench insecticides are usually very effective when applied at least 20 days in advance of the adult emergence period. Commercially available traps attract more beetles from surrounding areas and are not recommended for use in vineyards.



Rose chafer beetle

Krista Hamilton DATCP

SPOTTED TENTIFORM LEAFMINER: The second flight continued this week, with pheromone trap counts ranging as high as 950 per trap. The peak in moth activity should occur by July 15 throughout most of southern Wisconsin and a week or more later in the southeast, central and northern areas. Apple orchards with populations greater than one mine per leaf or a history of infestation are candidates for control of second generation larvae.

OBLIQUEBANDED LEAFROLLER: Larvae are emerging across the southern half of the state. The small, newly-hatched caterpillars are controlled by most products applied for codling moth (except granulosis virus and mating disruption), but scouting is still recommended to determine if codling moth sprays have effectively reduced OBLR populations or if additional measures are needed to prevent fruit damage. Sampling for fruit and foliar feeding should begin seven days after the first moths are captured in pheromone traps.

FIRE BLIGHT: Shoot blight and other symptoms of this bacterial disease are appearing in many orchards. Removing or pruning strikes at least twelve inches below the cankers should help suppress the spread of fire blight. Sterilizing pruning tools with a 10% bleach solution between cuts is advised.

VEGETABLES

LATE BLIGHT: Disease severity value accumulations near Grand Marsh, Hancock and Plover have met or exceeded the late blight risk threshold, indicating conditions are favorable for disease development. Home gardeners, whether conventional or organic, should consider preventative fungicide applications to protect their tomatoes and potatoes. No cases of late blight have been confirmed in Wisconsin as of June 25.

POTATO LEAFHOPPER: Counts in snap beans and potatoes in Adams, Portage and Waushara counties remain low to moderate. Recommended treatment thresholds for potatoes are one adult per net sweep or 15 nymphs on the undersides of 50 potato leaves. For snap beans, the threshold is 0.5 per sweep for seedlings and one per sweep in the third trifoliate to bud stages.

SQUASH VINE BORER: Moth emergence has started in parts of southern and west-central Wisconsin. Close inspection of pumpkins, squash, gourds, and other vine crops for eggs and evidence of larval feeding is advised from 900-1,000 degree days (modified base 50°F). Insecticidal controls are only effective if applied before the larvae bore into vines and reapplication may be required during the adult flight period.



Squash vine borer moth

Bruce Bolin flickr.com

IMPORTED CABBAGEWORM: Larvae ranging in size from 1/2-3/4 inch were the cause of moderate defoliation of red cabbage in a La Crosse County vegetable garden. Manual removal of the caterpillars will usually give reasonable control, although a Bt insecticide may be required for larger cabbage plantings.

STRIPED CUCUMBER BEETLE: These yellow and black striped beetles were noted earlier this week on pumpkin near Stoughton in Dane County. Their appearance signals that cucurbit growers should begin inspecting cucumbers, melons and squash for early beetle activity. Control is recommended for home gardens and commercial muskmelon or cucumber operations if populations exceed four beetles per 50 plants.



Striped cucumber beetle [Jeremy Sell thelifeofyourtime.wordpress.com](http://thelifeofyourtime.wordpress.com)

NURSERY & FOREST

PEONY RED SPOT: Peonies at garden centers in Wausara County were infected with this fungal disease, characterized by small, circular, reddish or purplish leaf spots that appear on the upper surfaces of young leaves shortly before bloom. Later in the season the lesions expand and merge to form large, irregular blighted areas. All above-ground parts of the peony are susceptible to red spot. This disease is an aesthetic problem that can be controlled by cutting back plants to ground level in fall and destroying infected foliage. Fungicides labeled for peony red spot are also an effective control and should be applied to the soil around plants in spring, when new shoots are 2-4 inches tall. A second post-emergence application may be necessary.

APPLE SCAB: Ornamental crabapple trees in Dane and Jefferson counties were expressing light to moderate leaf spotting symptoms associated with this fungal disease. Infected leaves initially develop brown or olive lesions that later turn black. These primary spring infections produce secondary spores which continue to infect leaves and fruits during wet periods throughout the growing season, often resulting in severe defoliation. Cultural

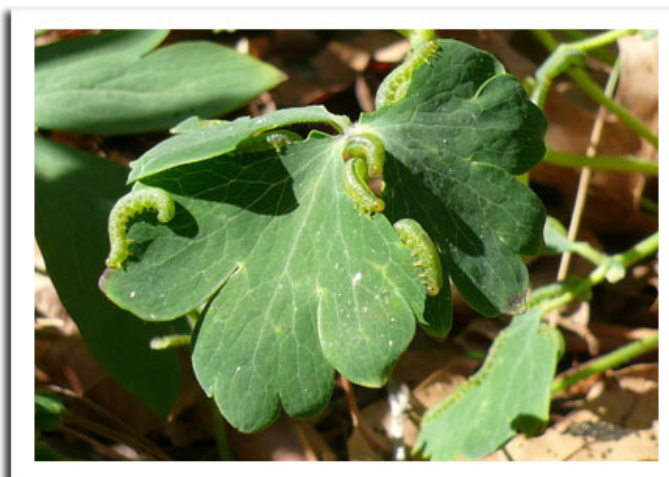
practices such as pruning, planting resistant varieties, thorough sanitation, and watering can usually control apple scab. Fallen leaves should be removed in autumn to reduce the amount of inoculum available to start the infection cycle the following year. Fungicides are generally not warranted for nursery stock, except in years when the disease is particularly severe.



Apple scab on crabapple

[Liz Meils DATCP](#)

COLUMBINE SAWFLY: The green, caterpillar-like larvae of this sawfly are feeding on the leaves of columbine in Bayfield County, severely defoliating plants in a grower's field. Damage may be reduced by manually removing the larvae and infested leaves. Most garden insecticides or insecticidal soaps are also effective. The columbine sawfly has just one generation per year, so scouting beyond June is not necessary.



Columbine sawfly larvae

[goshmom 2008 davesgarden.com](#)

MAPLE BLADDER GALL MITE: Infestations of this maple foliar pest were evident on silver maple leaves in

northern Douglas County. The maple bladder gall mite overwinters in the buds or just under bud scales on young silver and red maples, and beneath bark scales on older trees. The mites enter leaves as expansion begins in spring and initiate abnormal leaf growth, which produces noticeable yellowish-green leaf protrusions that quickly turn pink to red and eventually black. The galls are most common on the lower, interior part of the crown. No corrective action is needed since maple bladder galls seldom, if ever, cause permanent injury to a tree.



Maple leaf bladder mites

Tim Allen DATCP

VENTURIA SHOOT BLIGHT: Quaking aspen at nurseries in Dane County are showing the black, blighted shoots indicative of this fungal disorder. Early symptoms appear in May as irregular brown or black spots on the leaf surfaces, which later expand to new shoots and cause the characteristic shepherd's crook. Secondary infection cycles can occur throughout the shoot elongation period, especially during extended periods of wet weather. Pruning blighted shoots below the margin between healthy and diseased tissue is advised.

FIR-FERN RUST: This needle rust was observed on Fraser firs grown in close proximity to ferns in an Eau Claire County Christmas tree field. Symptoms on firs include chlorotic, yellow needles with white fruiting bodies on the undersides. Some fir-fern rust species develop on and kill infected fir needles in one season, subsequently overwintering on the alternate fern host. Other rust species overwinter in living fir needles and twigs and kill the infected needles over the course of several seasons. Infected needles dry out and drop prematurely, often in quantities that render trees unmarketable at fall harvest. Management options

include removing alternate fern hosts, particularly bracken ferns, from the periphery and within fields by mowing or applying herbicide sprays.



Fir-fern rust

Konnie Jerabek DATCP

WHITE SMUT ON GAILLARDIA: This fungal disease was found in eastern Bayfield County on Gaillardia (blanket flowers) plants at a landscaper's holding yard. White smut can be identified by white to yellow-green spots up to ¼ inch in diameter that sometimes have smaller brownish spots at the center. The fungus is seed-borne and likely overwintered as spores amidst plant material. Proper sanitation and increased plant spacing will help reduce its occurrence. Removal of affected leaves and severely infected plants is also recommended.



Gaillardia with white smut

Tim Allen DATCP

APPLE INSECT & BLACK LIGHT TRAP COUNTS JUNE 19-25

COUNTY	SITE	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM RED ⁵	YELLOW ⁶
Bayfield	Keystone	0	0	2	0		
Bayfield	Oriente	12	0	0	0		
Brown	Oneida	950	0	0	17		
Columbia	Rio	—	—	—	—		
Crawford	Gays Mills	330	0	1	0		
Dane	Deerfield	140	0	23	10		
Dane	McFarland	418	18	1	7		
Dane	Mt. Horeb	101	33	1	1		
Dane	Stoughton	184	26	18	4		
Dane	West Madison	136	38	0	1		
Fond du Lac	Campbellsport	44	0	0	17		
Fond du Lac	Malone	20	0	1	6		
Fond du Lac	Rosendale	—	—	—	—		
Grant	Sinsinawa	82	—	—	—		
Green	Brodhead	20	35	4	5		
Iowa	Mineral Point	250	22	6	2		
Jackson	Hixton	12	1	4	6		
Kenosha	Burlington	98	5	5	14		
Marathon	Edgar	54	0	2	9		
Marinette	Niagara	8	0	3	19		
Marquette	Montello	449	2	0	3		
Ozaukee	Mequon	5	0	12	8		
Pierce	Beldenville	14	0	0	0		
Pierce	Spring Valley	0	0	0	7		
Racine	Raymond	96	0	21	13		
Racine	Rochester	270	9	8	7		
Richland	Hillpoint	880	1	1	3		
Sheboygan	Plymouth	25	2	5	20		
Walworth	East Troy	—	—	—	—		
Walworth	Elkhorn	—	—	—	—		
Waukesha	New Berlin	300	1	32	13		

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

COUNTY	SITE	BCW ¹	CEL ²	CE ³	DCW ⁴	ECB ⁵	FORL ⁶	SCW ⁷	TA ⁸	VCW ⁹	WBC ¹⁰
Chippewa	Chippewa Falls	—	—	—	—	—	—	—	—	—	—
Crawford	Prairie du Chien	0	1	0	0	0	3	0	1	0	0
Dane	Mazomanie	0	0	0	0	1	0	1	11	0	0
Fond du Lac	Ripon	0	0	0	0	3	3	0	4	0	0
Manitowoc	Manitowoc	0	0	0	0	0	0	8	71	0	0
Marathon	Wausau	0	3	4	0	0	0	8	39	0	0
Monroe	Sparta	0	0	0	0	0	0	0	0	0	0
Rock	Janesville	0	10	0	0	0	5	1	121	0	0
Vernon	Coon Valley	0	7	0	0	7	0	4	52	0	0
Walworth	East Troy	0	0	0	0	0	0	3	3	0	0
Wood	Marshfield	0	3	0	0	1	1	16	73	0	0

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