

# 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

Cold, occasionally rainy weather continued for a second week, slowing crop emergence and development. Below-normal temperatures prevailed and a devastating late spring frost occurred across much of the state on May 15, as morning lows plummeted to the mid-20s in portions of northern and central Wisconsin and to the lower 30s in the far southeast. Near-record cold temperatures caused widespread damage to grapes and other fruit crops, with losses in excess of 50% reported from many vineyards and orchards. Cool conditions persisted through mid-week before milder weather returned, allowing planting of the last acres of oats and potatoes to resume. After a period of rapid planting earlier this month, over 76% of this year's intended corn acres have been sown, four percentage points behind last year but 29 points ahead of the five-year average. Statewide, more than 17% of the corn crop has emerged. Soybean planting advanced 15 percentage points during the week ending May 15 to 33% complete and the first alfalfa harvest is beginning across southern Wisconsin.

## LOOKING AHEAD

**BLACK CUTWORM:** Migrants continue to arrive in significant numbers and oviposition is expected to increase with warmer weather predicted for next week. Early signs

of cutworm infestation should be apparent in emerging corn. Larvae thrive best in reduced tillage and no-tillage fields, especially those with previous winter annual weed infestations, which is where growers and consultants are advised to scout for evidence of cutworm feeding.

**TRUE ARMYWORM:** Larvae were swept in low numbers from alfalfa in Monroe and Vernon counties this week. The ¼-inch worms are the offspring of moths that arrived in April. Black light trap have been registering low number of moths for several weeks and growers should anticipate more armyworms appearing in fields by early to mid-June.

**PLUM CURCULIO:** Unseasonably cold temperatures during the last reporting period delayed weevil migration into orchards, but the first oviposition scars are likely to become evident in the two weeks following petal-fall. Apple growers are advised to begin examining early cultivars for the crescent-shaped scars indicative of plum curculio egg laying once fruitlets reach 5 mm.

### ORCHARD PEST MANAGEMENT AFTER FROST:

Continued pest management is recommended for apple orchards impacted by Sunday's hard freeze, even for orchards expecting 100% crop loss. Failure to control key apple pests such as codling moth, apple maggot, plum curculio and powdery mildew this season could com-

pound insect and disease pressure in 2017. Adjustments to treatment plans should be made for orchard blocks or areas with only small amounts of fruits or no fruit.

**CODLING MOTH:** Emergence of the first spring moths began near Rochester in Racine County on May 18, despite low temperatures. No other trapping locations reported moth captures. Daily monitoring of pheromone traps is recommended in the week ahead or until the biofix has been determined.

## FORAGES & GRAINS

**ALFALFA WEEVIL:** Larval counts in the southern half of the state remain low. Alfalfa surveyed in Dane, Dodge, Green, Jefferson, La Crosse, Monroe, Richland, Rock, Sauk, Trempealeau and Vernon counties contained only 1-36 weevils per 100 sweeps, and 50% (25 of 50) of fields sampled still had no apparent larval population. Based on the low number of larvae collected and the fact that alfalfa harvest has started, significant damage should not develop before most first-crop alfalfa is cut, except in rare fields or if harvest is postponed beyond the first week of June. Routine sampling for larvae and leaf tip feeding should be under way and continue through first harvest and early second-crop regrowth.

**PEA APHID:** Densities varied widely from 9-1,200 aphids per 100 sweeps and averaged 262 per 100 sweeps, which is a considerable increase from last week's average of 68 per 100 sweeps. The appearance of winged females, an indicator of imminent dispersal from alfalfa into nearby pea and vegetable fields, was noted in several fields surveyed from May 12-18.



Pea aphids

Krista Hamilton DATCP

## DEGREE DAYS JANUARY 1 - MAY 18

LOCATION	50°F	2015	NORM	48°F	40°F
Dubuque, IA	361	460	396	346	702
Lone Rock	336	435	—	315	642
Beloit	371	445	405	361	701
Sullivan	247	299	355	227	480
Madison	305	416	378	287	580
Juneau	251	352	—	236	489
Racine	228	257	—	212	474
Waukesha	247	299	—	227	480
Milwaukee	218	258	297	206	454
Hartford	247	299	—	227	480
Appleton	215	312	—	202	433
Green Bay	178	251	293	169	387
Big Flats	292	393	—	244	495
Hancock	292	393	367	244	495
Port Edwards	276	373	356	239	495
La Crosse	360	446	421	352	687
Eau Claire	318	368	363	297	593
Cumberland	277	312	308	248	489
Bayfield	172	212	—	139	264
Wausau	217	305	306	180	391
Medford	220	293	268	191	402
Crivitz	168	232	—	138	289
Crandon	190	254	246	143	304

*Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2016.  
NORMALS based on 30-year average daily temps, 1981-2010.*

**TARNISHED PLANT BUG:** Counts of this insect are low and range from 2-25 per 100 sweeps, with an average of seven adults per 100 sweeps. The first small nymphs should begin appearing in sweep net collections before the end of the month.

**MEADOW SPITTLEBUG:** Nymphs and their characteristic frothy spittle masses were observed in alfalfa fields earlier this week. Populations are currently less than four per 100 stems.

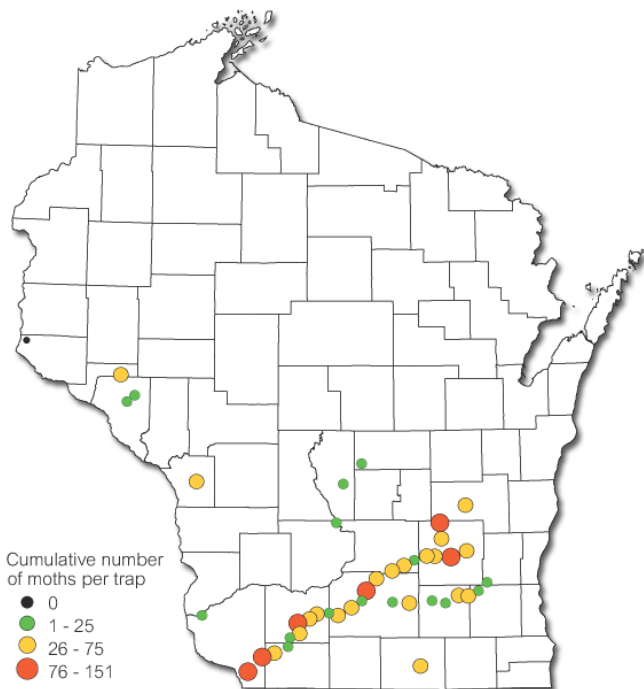
## CORN


**BLACK CUTWORM:** Development of this insect has slowed in response to below-normal temperatures over the past two weeks. Larvae from migrants that arrived in mid- to late April are mostly in the second and third instars, and are expected to grow large enough to begin cutting corn plants next week. Another large weekly capture of 337 moths was documented during the May

12-18 reporting period, signaling that oviposition should intensify as soon as weather conditions are conducive to moth activity.

The annual migration that was first documented on March 29 has yielded 1,725 moths in 43 traps to date, or an average of 40 per trap. This count is substantially higher than the 272 moths in 44 traps that had been collected by this time last year and indicates an elevated risk of localized cutworm problems this season.

### Black Cutworm Counts Spring 2016



Wisconsin Department of Agriculture, Trade and Consumer Protection 

**EUROPEAN CORN BORER:** Degree day accumulations in advanced southwestern and western locations have reached the 374 units (modified base 50°F) required for corn borer flight to start. Black light trap contents should be carefully examined in the next two weeks to ensure the earliest emerging moths are not overlooked.

## SOYBEANS

**BEAN LEAF BEETLE:** Overwintered beetles were found in four of 50 alfalfa fields sampled this week. The first appearance of this insect was noted on May 3 in Richland County. Although the low number of beetles collected thus far would ordinarily suggest only a minor

threat of defoliation to the earliest emerging soybeans, beetle populations are forecasted to be moderate or high this spring following an unusually mild winter. The estimated 33% of soybean acres that have been planted as of May 18 are at increased risk of infestation by overwintered adults and should be checked for evidence of beetle feeding.



Bean leaf beetle

Krista Hamilton DATCP

## FRUITS

**SPOTTED TENTIFORM LEAFMINER:** Moth counts were mostly low this week and ranged from 0-400 moths per trap, with the exception of 1,238 moths reported from Marathon County. The May 12-18 average of 105 moths per trap is the lowest in several weeks and indicates that STLM populations are between the first and second flights. Numbers are expected to increase again by early June as the second flight begins. The economic threshold for STLM increases from 0.1 to one mine per leaf for the second generation of sapfeeder larvae.

**OBLIQUEBANDED LEAFROLLER:** Late-instar larvae and rolled leaves were noted on May 17 in La Crosse County, signaling that the first flight of OBLR moths is likely to gain momentum before the end of the month. Most larvae in southern and central Wisconsin are in the intermediate to late-instars at this time. A few early moths were captured in pheromone traps this week.

**PLUM CURCULIO:** Inspection of fruits for crescent-shaped PC egg laying scars should be under way in apple orchards beyond petal-fall, while sampling for adults using a beating tray is the preferred method in northern Wisconsin orchards where tree development is

less advanced. Female weevils show a strong preference for early-sizing apples and fruitlets beyond 10 mm will be most attractive. Organic control options include PyGanic (pyrethrin) applied at dusk to the outer rows and Surround WP (kaolin) on the interior trees. Both materials should be applied on a warm evening since most oviposition occurs at night.



Plum curculio crescent-shaped oviposition scar

umaine.edu

**FROST DAMAGE:** An informal survey of the state's grape growers conducted this week by the Wisconsin Grape Growers Association found that 30 vineyards lost more than 50% of their crops, although the full extent of damage to vineyards and apple orchards will not be known for one or two more weeks. Grapes are particularly sensitive to frost damage. Mild frosts may result only in wilted shoot tips and blackened leaves, but heavy frosts such as the one on May 15 can kill all shoot tissue. Grape frost damage is erratic. It is not unusual to see undamaged shoots next to damaged ones.

Most grape vines will recover as secondary buds at the base of the damaged shoot break dormancy and produce new shoots for the current growing season. However, these shoots are seldom as productive as the primary shoots, so fruit yields will be greatly reduced this year.

## VEGETABLES

**ONION MAGGOT:** Peak emergence is anticipated next week in the southwestern, south-central and west-central counties, following the accumulation of 680 degree days (simple base 40°F). Flies of the spring generation are often the most damaging. Rotating this year's plantings as far away as possible from last year's onions is

perhaps the most basic approach to onion maggot control. Preventative soil insecticides may be considered if 5-10% of last year's crop was damaged by onion maggot.

**IMPORTED CABBAGEWORM:** Larvae are emerging in advanced southern and western areas of the state. Cabbageworms chew large, irregular holes in leaves, bore into heads, and drop brown fecal pellets that contaminate the marketed product. Cole crops can tolerate considerable defoliation at the thinning or transplanting stages, but frequent sampling is recommended to assess populations. The biological insecticide, *Bacillus thuringiensis* (Bt), is effective against early-instar caterpillars and is an OMRI-approved control for infestations affecting 30% or more of plants during the transplant to cupping stages. Treatments should be carefully targeted to avoid disrupting natural enemies.



Imported cabbageworm larva

debsgardens.wordpress.com

## NURSERY & FOREST

**VIRUSES ON IRIS:** Recent nursery inspections in Iron and Washington counties found numerous iris plants infected with potyviruses. Cultural practices such as increasing spacing to reduce contact between plants and controlling aphid vectors may limit the spread of viruses, but there are currently no controls for virus-infected plants. Once a plant is diagnosed with a virus, DATCP requires it to be removed from sale and destroyed.

**OAK LEAFMINER:** Damage caused by this foliar pest was observed on northern red oaks at a garden center in Clark County last week. The larvae of this tiny moth feed between upper and lower leaf surfaces, just below the upper epidermis, forming irregular blotchy mines. Oak

leafminers are usually controlled by natural enemies, therefore chemical treatment is not recommended.



Oak leafminer

DATCP Nursery Program

**MITES:** Mandevillas at a garden center in Manitowoc County were exhibiting damage attributed to mites. Symptoms of mite infestation vary by mite species and host plant, but usually include stippling, bronzing, mottling and chlorosis of leaves. The species most commonly found in greenhouse settings are the two-spotted spider mite and the cyclamen mite. Successful control of mites requires accurate identification of the species involved.



Spider mite damage on maple

DATCP Nursery Program

**BOTRYTIS BLIGHT:** This gray mold disease was noted by inspectors on hydrangeas in Clark County. Symptoms of botrytis appear as brown spots on flower petals and irregularly-shaped necrotic areas on the leaves. The leaf spots develop a grayish mass of fungal spores that disperse with splashing water or wind. Botrytis can develop

at any stage and may affect any plant part. Reducing humidity levels below 85% and increasing air circulation can help minimize its occurrence. Treatment with an appropriate fungicide or removal from the greenhouse is recommended for symptomatic plants.

**PEONY RED SPOT:** Peonies at nursery stock retailers in Richland 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 also provide red spot 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.



Red spot on peony

DATCP Nursery Program

**GYPSY MOTH:** Aerial treatments continued for the second week, with Btk applications completed on blocks in Chippewa, Crawford, Dunn, Eau Claire, Grant, La Crosse, Lafayette, Richland, Rusk and Vernon counties. Extensive frost damage to oaks in the Dunn county treatment sites temporarily slowed spraying operations there, as Gypsy Moth Program specialists determined the best course of action. Treatments are planned for Barron, Green, Lafayette, Rusk and Sawyer counties next week. Gypsy moth larvae were predominantly in the first instar as of May 19.

## APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 12 - 18

COUNTY	SITE	STLM <sup>1</sup>	RBLR <sup>2</sup>	CM <sup>3</sup>	OBLR <sup>4</sup>	APB <sup>5</sup>	LPTB <sup>6</sup>	DWB <sup>7</sup>	AM RED <sup>8</sup>	YELLOW <sup>9</sup>
Bayfield	Keystone	8	12	0	1	0	0			
Bayfield	Orienta	0	0	—	—	—	—			
Brown	Oneida	400	36	0	0	0	0			
Columbia	Rio	—	—	—	—	—	—			
Crawford	Gays Mills	83	17	0	0	—	—			
Dane	DeForest	2	8	2	2	—	—			
Dane	Edgerton	39	24	—	—	0	—			
Dane	McFarland	35	47	—	—	—	—			
Dane	Mt. Horeb	48	53	0	0	0	0			
Dane	Stoughton	36	24	0	0	0	0			
Fond du Lac	Campbellsport	21	14	0	1	0	0			
Fond du Lac	Malone	4	7	0	0	0	0			
Fond du Lac	Rosendale	27	81	0	0	0	0			
Grant	Sinsinawa	0	12	0	0	—	—			
Green	Brodhead	9	17	0	2	0	3			
Iowa	Mineral Point	16	3	0	0	4	2			
Jackson	Hixton	41	44	0	1	2	0			
Kenosha	Burlington	35	13	0	0	0	0			
Marathon	Edgar	1238	29	0	0	0	0			
Marinette	Niagara	20	10	—	—	0	0			
Marquette	Montello	324	58	—	—	—	—			
Ozaukee	Mequon	20	8	0	0	—	—			
Pierce	Beldenville	23	0	0	0	0	0			
Pierce	Spring Valley	44	49	0	0	0	0			
Racine	Raymond	—	—	—	—	—	—			
Racine	Rochester	100	26	1	0	0	0			
Richland	Hill Point	33	11	0	0	0	0			
Sheboygan	Plymouth	225	40	—	—	0	0			
Walworth	East Troy	62	26	0	1	0	0			
Walworth	Elkhorn	21	20	0	0	0	0			
Waukesha	New Berlin	—	—	—	—	—	—			

<sup>1</sup>Spotted tentiform leafminer; <sup>2</sup>Redbanded leafroller; <sup>3</sup>Codling moth; <sup>4</sup>Obliquebanded leafroller; <sup>5</sup>American plum borer; <sup>6</sup>Lesser peachtree borer; <sup>7</sup>Dogwood borer; <sup>8</sup>Apple maggot red ball; <sup>\*</sup>Unbaited; <sup>\*\*</sup>Baited; <sup>9</sup>Apple maggot yellow board.

COUNTY	SITE	BCW <sup>1</sup>	CEL <sup>2</sup>	CE <sup>3</sup>	DCW <sup>4</sup>	ECB <sup>5</sup>	FORL <sup>6</sup>	SCW <sup>7</sup>	TA <sup>8</sup>	VCW <sup>9</sup>	WBC <sup>10</sup>
Adams	Grand Marsh	0	0	0	0	0	0	0	0	0	0
Adams	Oxford	0	7	0	0	0	0	0	0	0	0
Columbia	Arlington	0	0	0	0	0	0	0	3	0	0
Columbia	Pardeeville	0	1	0	0	0	0	0	0	0	0
Dodge	Beaver Dam	1	0	0	0	0	0	0	0	0	0
Fond du Lac	Ripon	0	0	0	0	0	0	0	0	1	0
Manitowoc	Manitowoc	0	0	0	0	0	0	0	3	0	0
Monroe	Sparta	0	0	0	0	0	0	0	0	0	0
Rock	Janesville	0	2	0	0	0	5	0	55	1	0
Walworth	East Troy	0	0	0	0	0	0	0	4	0	0
Waushara	Plainfield	0	0	0	0	0	0	0	0	0	0
Wood	Marshfield	0	0	0	0	0	0	0	3	0	0

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