

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

Drier weather with milder temperatures returned to Wisconsin, allowing spring fieldwork to proceed. Afternoon highs ranged from the 50s to 70s and were near or slightly above seasonal averages, while night-time lows fell below freezing in some locations. Planting of corn, oats, potatoes and early soybeans advanced in the southern and western areas, though light to moderate rainfall and low soil temperatures continued to hamper full-scale fieldwork in eastern and northern Wisconsin. The latest USDA NASS Wisconsin Crop Progress report shows pronounced disparity in planting progress between the state's crop districts at the start of May. Corn producers in southwestern Wisconsin have planted more than 50% of this year's acreage, while only 2-10% of the corn crop has been planted in the east-central and northern areas. Approximately 25% of the crop has been planted in the south-central, central and western counties. Planting conditions should improve statewide with the warming trend beginning May 6.

# LOOKING AHEAD

ALFALFA WEEVIL: Larvae are expected to emerge soon in southern and western alfalfa fields. Regular scouting is advised beginning with the accumulation of 300 degree days (sine base 48°F) in the week ahead. **BLACK CUTWORM:** Substantial numbers of migrants were collected again this week. Pheromone traps registered a total of 494 moths, with a high count of 54 moths near Middleton in Dane County. The cumulative total count as of May 4 is 1,170 moths in 43 traps. The abundance of migrants entering the state since mid-April signals that higher-than-normal egg deposition is occurring on winter annuals such as common chickweed, peppergrass, and yellow rocket in weedy cornfields. The start of the primary corn-cutting period has been projected for May 20 near Janesville, Lancaster, Platteville and other warmer southern Wisconsin locations.

COMMON ASPARAGUS BEETLE: Adults are depositing eggs on asparagus spears in the Monroe area of Green County and in areas of the state where 150 degree days (simple base 50°F) have been exceeded. Optimal control of this pest requires eliminating the overwintered adults early in the season, before egg laying begins. Treatment is justified if 5% of plants are infested with beetles.

**EUROPEAN CORN BORER:** Pupation of overwintered larvae has started and the first spring moths could appear by May 15 near Beloit, May 17 near La Crosse, and May 21 near Hancock. Black light traps should be installed several days in advance of the flight.

CODLING MOTH: Emergence is likely to begin next week in southern and central Wisconsin apple orchards.

Daily monitoring of pheromone traps is suggested once the first moth is collected and until the biofix, or first sustained moth catch on consecutive nights, occurs. A report from Ozaukee County indicates the non-target species *Proteoteras aesculana*, also known as the maple tip borer, has been captured in codling moth traps.



Codling moth

Giancarlo M. www.naturamediterraneo.com

PLUM CURCULIO: Migration from hibernation sites into apple orchards could begin next week. A mean daily temperature of 55-60°F for three to four days induces the spring emergence and dispersal of this fruit pest.

# FORAGES & GRAINS

ALFALFA WEEVIL: Alfalfa surveyed this week had very low counts of 1-3 adults per 100 sweeps, and no larvae. Adult weevils are becoming more common and spring egg deposition in alfalfa stems is expected to increase with next week's warming trend. Sampling for larvae should commence during the week of May 9.

**PEA APHID:** Surveys in Columbia, Dane, Grant, Jefferson, La Crosse and Monroe counties found a range of 7-80 aphids per 100 sweeps and an average of 33 per 100 sweeps, a two-fold increase over the 14 per 100 sweeps average noted last week.

TARNISHED PLANT BUG: Counts of this insect are still low at less than 12 per 100 sweeps. Plant bug levels in alfalfa in May and June are rarely of economically importance, but as noted last week, their relative abundance is an indicator of potential problems for other fruit, flower and vegetable hosts. The numbers observed this week suggest populations are low but increasing, and scouting of apples and strawberries is in order.

# DEGREE DAYS JANUARY 1 - MAY 4

LOCATION	50°F	2015	NORM	48°F	40°F
Dubuque, IA	253	297	250	250	497
Lone Rock	233	280	—	221	457
Beloit	260	283	255	248	499
Sullivan	163	184	217	148	321
Madison	208	264	238	194	404
Juneau	164	217	—	152	327
Racine Waukesha Milwaukee Hartford	147 163 138 163	149 184 152 184	 184 	137 148 130 148	314 321 295 321
Appleton	129	194	—	118	268
Green Bay	102	150	173	95	233
Big Flats	195	253		170	334
Hancock	195	253	224	170	334
Port Edwards	187	241	222	168	337
La Crosse	254	295	264	254	495
Eau Claire	218	247	223	210	412
Cumberland	180	210	181	162	324
Bayfield	93	149	—	78	139
Wausau	139	190	182	127	258
Medford	143	185	154	130	270
Crivitz	93	138		71	158
Crandon	115	153	140	95	184

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

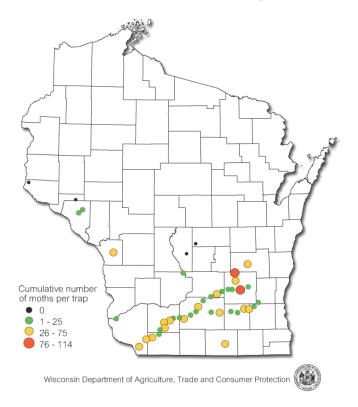
# CORN

SEEDCORN MAGGOT: Localized problems associated with this soil pest are a distinct possibility this spring, particularly in the east-central and northern areas where cold soil temperatures and damp fields are prolonging seedling emergence. Poor stand establishment may indicate a seedcorn maggot problem.

**BLACK CUTWORM:** Large numbers of moths arrived with the storm systems last weekend. The 43 pheromone traps in southern and western Wisconsin collected 494 more moths during the April 28-May 4 reporting period, for a cumulative total of 1,170 moths since March 29. This year's migration is already more than three times the size of the 2015 flight, which consisted of only 361 moths captured in the same number of traps.

Substantial cutworm migrations such as this one should be considered an advanced warning of potential larval outbreaks later this month and in early June. Based on the current degree day accumulations, 188 degree days (modified base 50°F), or 15 calendar days, remain before larvae in the Janesville, Lancaster and Spring Green areas grow large enough to begin cutting corn seedlings.

#### Black Cutworm Counts Spring 2016



**EUROPEAN CORN BORER:** Most overwintered corn borers are entering the pupal stage, though a few early spring moths could emerge during the week of May 15. A very small flight is anticipated based on last fall's record low population of only 0.02 borers per plant.



European corn borer pupa

Krista Hamilton DATCP

### SOYBEANS

**BEAN LEAF BEETLE:** The first beetles were collected from Richland County alfalfa on May 3. The early appearance of this insect indicates soybeans emerging in the next 2-3 weeks will be highly attractive to overwintered beetles and should be checked shortly after emergence for feeding injury to the cotyledons, stems, and unifoliate leaves.



Bean leaf beetle

Krista Hamilton DATCP

# FRUITS

SPOTTED TENTIFORM LEAFMINER: Moths of the spring flight have been active for four or more weeks, and peak emergence has occurred in some orchards. Populations are now transitioning into the larval stages. The recommended sampling period for first generation sapfeeder larvae is 10-14 days after a peak capture is recorded. Pheromone trap counts for the period of April 28-May 5 ranged widely from 0-1,134 moths, with the high count registered at Edgar in Marathon County.

CODLING MOTH: The first sustained capture of moths on consecutive nights, referred to as the "biofix", is anticipated in the next two weeks. Daily monitoring of traps is advised until the biofix date is established.

BROWN MARMORATED STINK BUG: Adult specimens have been collected from 22 locations so far this spring, 16 in Dane County, two in Jefferson County, and one each in Dodge, Iowa, Waukesha and Winnebago counties. According to UW Entomologist PJ Liesch, many of the cases consisted of lone adults found indoors, although in some instances dozens of stink bugs were reported from a single property. In the most extreme case, just south of the UW-Madison campus near Camp Randall Stadium, over 100 specimens were found in an apartment.

The sharp increase in BMSB reports already this season suggests mild winter temperatures favored survival of this new invasive pest. Reproducing populations are established in Dane County and potentially in parts of south-central and southeastern Wisconsin. Since the first U.S. detection in 1998, BMSB has spread to 42 states and two Canadian provinces, posing severe agricultural problems in six states and nuisance problems in nineteen others.

OBLIQUEBANDED LEAFROLLER: These yellowish-green larvae with black head capsules are currently feeding on apple blossoms and shoots, and signs of their activity are detectable with a 10X hand lens. Pheromone traps should be placed soon to detect the first OBLR moths of the season, expected to appear in traps around fruit set.



Obliquebanded leafroller moth and pupa

Krista Hamilton DATCP

**REDBANDED LEAFROLLER:** Larvae are emerging in locations where 228 degree days (simple base 45°F) have accumulated, including advanced parts of southern and western Wisconsin. The first RBLR caterpillars generally appear around petal fall, which is when scouting should start.

# VEGETABLES

CABBAGE MAGGOT: Peak emergence of flies theoretically has occurred near Beloit, Eau Claire, La Crosse and Lone Rock following the accumulation of 300 degree days (simple base 43°F) as of May 4. Emergence should peak next week across the southeastern and central counties. Damage by this pest can be reduced by planting or transplanting cole crops two weeks from now, after most of the population has pupated.

IMPORTED CABBAGEWORM: Butterflies have been observed around home gardens depositing eggs on cruciferous weeds and cabbage transplants. Close examination of young plants for eggs and small larvae is most important during this oviposition period. Infestation levels in cabbage that exceed 30% during the transplant to cupping development stages may require chemical treatment.



Imported cabbageworm larva

extenison.umn.edu

COLORADO POTATO BEETLE: Overwintered adults will soon begin emerging from hibernation and dispersing to plants near field edges. The early colonizing population is seldom damaging to young potatoes protected with a systemic neonicotinoid, but monitoring beetle abundance is advised to ensure effectiveness of insecticide products. Egg deposition and larval hatch can be expected by mid-May. The orange-yellow eggs are deposited in clusters of 15-30 on the undersides of leaves.

FLEA BEETLES: Spinach, chard, kale and other earlyseeded and transplanted leafy vegetables should be inspected every 1-2 days during the two weeks after emergence (or transplant date), when young plants are most susceptible to flea beetle damage. A soil insecticide application or another form of chemical control may be justified for commercial fields if floating row covers or other cultural controls have failed to prevent beetles from moving onto newly planted crops. Established control thresholds vary by crop, but start at two beetles per plant for tomatoes and eggplant less than three inches. For cole crops and horseradish, control should be considered when the beetles cause stand reduction on small plants.

# **NURSERY & FOREST**

FOLIAR NEMATODE: Plant pathologists at the Plant Industry Laboratory diagnosed these microscopic roundworms on Oriental lily bulbs from a greenhouse in Kewaunee County. The most recognizable symptom of foliar nematode infestation is the brown necrotic leaf streaks that develop as the nematodes feed on leaf tissues between the veins. The leaf streaks first appear in June as minor discoloration and usually become severe by late summer.

This pest readily spreads among hostas by water splash and vegetatively-propagated plant material. Some infested plants may be symptomless until nematode populations are high. Although the nematodes do not kill their host, they can reduce plant vigor and salability. Systematic removal of infected plants and reducing leaf wetness are recommended to decrease the spread of foliar nematodes from infected to healthy plants. Chemical control is not effective.



Foliar nematode on hosta

DATCP Nursery Program

THRIPS: DATCP nursery inspectors found thrips injury on gerbera daisy plants at a greenhouse in Outagamie County. Feeding by thrips causes stippled, silvery or bleached foliage, and yellowing or leaf drop in some cases. Because of their size, these minute insects are difficult to detect until damage becomes severe. Successful thrips management requires accurate identification of the species involved. **CEDAR-APPLE RUST:** Mature galls on juniper are sporulating in Richland County. The bright orange, gelatinous tendrils that emerge from these galls release spores which can infect apples and related fruit trees 2-3 miles away. Cedar-apple rust alternates between junipers and rosaceous plants and requires both hosts to complete its life cycle. Removal of the galls before sporulation is recommended to limit spread of the disease to the alternate hosts, which include apple, crabapple, hawthorn, quince, pear and serviceberry.

PINE NEEDLE SCALE: Emergence of first-generation crawlers has started across southern and west-central Wisconsin, where lilacs are in full bloom. Controls applied against this mobile stage shortly after egg hatch are most effective. The proper timing of insecticidal treatments should be determined by monitoring infested pines for newly emerged crawlers.



Pine needle scale

arbortech.biz

GYPSY MOTH: Egg mass hatch was observed for the first time this season on April 25 and is now under way throughout the state. Aerial spray treatments are scheduled to begin the week of May 9 in southwestern Wisconsin. Spraying may start at sunrise and last throughout the day as weather permits. At most sites, a second application will be made three to seven days after the first application. Treatments are expected to be complete by early June. Additional spray program updates, including information on treatment locations and progress, are available at gypsymoth.wi.gov.

# APPLE INSECT & BLACK LIGHT TRAP COUNTS APRIL 28 - MAY 4

COUNTY	SITE	STLM <sup>1</sup>	RBLR <sup>2</sup>	СМ₃	OBLR⁴	APB⁵	LPTB6	DWB <sup>7</sup>	AM RED <sup>8</sup>	YELLOW <sup>9</sup>
Bayfield	Keystone	0	0			0	0			
Bayfield	Orienta	0	0							
Brown	Oneida	750	68							
Clark	Greenwood									
Columbia	Rio									
Crawford	Gays Mills	119	108							
Dane	DeForest									
Dane	Edgerton	116	51							
Dane	McFarland	66	81							
Dane	Mt. Horeb	47	86							
Dane	Stoughton	149	45							
Fond du Lac	Campbellsport	5	28							
Fond du Lac	Malone	0	7	0						
Fond du Lac	Rosendale	5	61							
Grant	Sinsinawa	47	123							
Green	Brodhead	5	37							
lowa	Mineral Point	230	116							
Jackson	Hixton									
Kenosha	Burlington	115	15							
Marathon	Edgar	1134	61							
Marinette	Niagara									
Marquette	Montello	891	41							
Ozaukee	Mequon	7	7							
Pierce	Beldenville	320	200	0	0	3	0			
Pierce	Spring Valley	97	128							
Racine	Raymond	286	0			0	0			
Racine	Rochester	160	53							
Richland	Hill Point	31	22	0						
Sheboygan	Plymouth	125	25			2	0			
Walworth	East Troy									
Walworth	Elkhorn									
Waukesha	New Berlin	0	0			0	0			

<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	<b>BCW</b> <sup>1</sup>	CEL <sup>2</sup>	CE <sup>3</sup>	DCW⁴	ECB⁵	<b>FORL</b> <sup>6</sup>	SC W7	TA <sup>8</sup>	VC W <sup>9</sup>	WBC <sup>10</sup>
Columbia	Arlington										
Columbia	Pardeeville										
Crawford	Prairie du Chien										
Fond du Lac	Ripon										
Manitowoc	Manitowoc										
Marathon	Wausau										
Monroe	Sparta	0	0	0	0	0	0	0	7	0	0
Rock	Janesville	0	0	0	0	0	0	0	11	0	0
Walworth	East Troy										
Wood	Marshfield										

<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.