

Wisconsin Department of Agriculture, Trade & Consumer Protection

Wisconsin Pest Bulletin

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Your weekly source for crop pest news, first alerts, and growing season conditions for Wisconsin

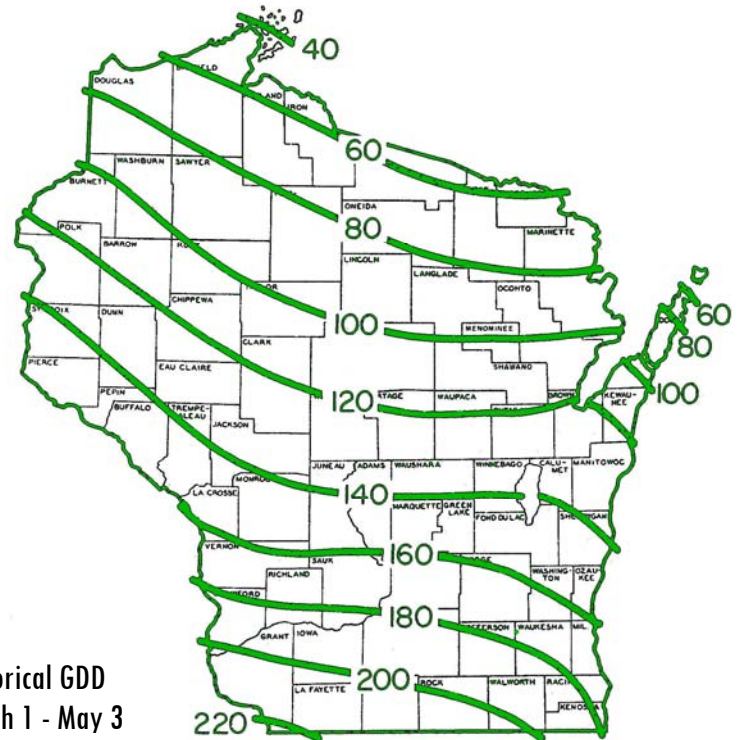
Weather and Pests

The first days of May were breezy and mild with abundant sunshine. With no precipitation to slow their progress, Wisconsin farmers continued planting corn, oats, and potatoes, making up for time lost last month. At the end of April, corn planted was at 11% complete, well behind last year's average of 27%. However, the planting gap has narrowed after several days of favorable weather this week. Degree day accumulations indicate that the season is ahead of last year. Accumulations were 231 GDD at the Madison airport on May 3 compared to 215 on the same date in 2006. From insect observations, it appears the recent mild conditions accelerated development for many species. The most conspicuous spring flowers this week were those in shades of bright gold, such as dandelion, yellow rocket and swamp buttercup.

Growing Degree Days through 05/03/07 were

	GDD 50F	5-yr Ave	Sine 48F	40F
Dubuque, IA	283	265	291	581
Lone Rock	266	250	262	545
Beloit	258	259	261	549
Madison	231	228	230	502
Sullivan	220	233	214	479
Juneau	212	214	208	470
Waukesha	213	207	206	470
Hartford	209	198	204	465
Racine	197	178	193	446
Milwaukee	194	176	190	443
Appleton	195	175	186	424
Green Bay	167	141	160	392
Big Flats	230	220	216	469
Hancock	219	209	202	445
Port Edwards	222	202	210	452
La Crosse	278	258	280	568
Eau Claire	239	222	237	492
Cumberland	215	180	203	436
Bayfield	127	099	109	305
Wausau	192	169	177	401
Medford	189	163	177	398
Crivitz	147	132	134	342
Crandon	159	136	137	342

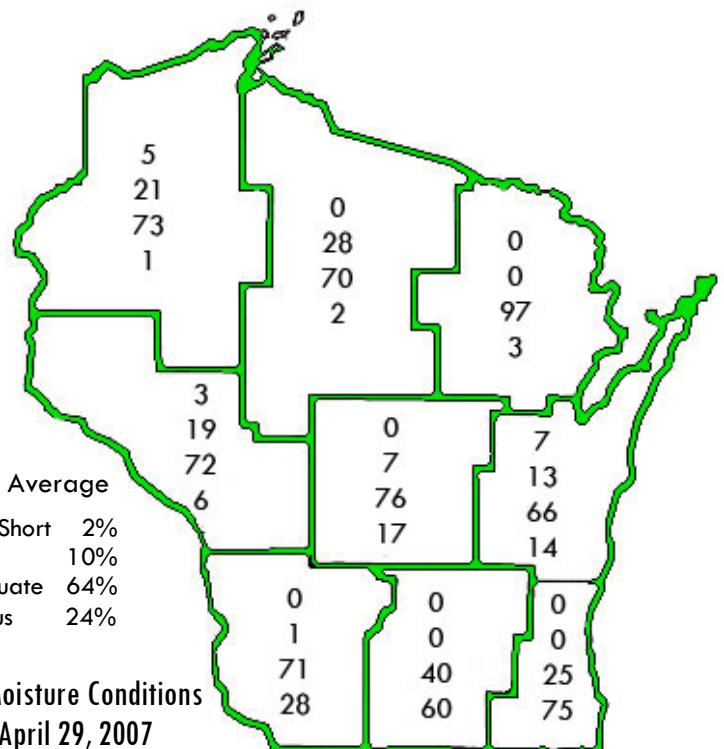
Historical GDD
March 1 - May 3



State Average

Very Short	2%
Short	10%
Adequate	64%
Surplus	24%

Soil Moisture Conditions as of April 29, 2007



Looking Ahead

Alfalfa weevil - Adult activity is increasing and a few first instar larvae hatched from overwintered eggs have been collected in advanced southern areas. No larvae were detected in the La Crosse and Monroe County fields checked, but adults numbered 1-2 per 50 sweeps. In the southwest, as many as 11 adults were netted per 50 sweeps.



Alfalfa weevils

Krista Hamilton DATCP

Pea aphid - Populations of this species, *Acyrtosiphon pisum*, are low but on the increase. Since hatch of overwintered eggs was first noted on April 24, numbers of adults and nymphs have increased up to nine per 50 sweeps in 8-12" fields. A sharp rise in numbers is likely to occur during the second week of May.

Meadow spittlebug - Hatch has begun but nymphs are difficult to find. The first nymph of the season was swept on May 2, which corresponds closely to last year's date of May 4. Spittle masses should begin to appear over the weekend (May 5-6). On rare occasions this insect reaches damaging levels in first crop alfalfa.

Potato leafhopper - No early migrants were found in the alfalfa fields checked this week, but a small number of leafhoppers are sure to arrive in the near future. Generally a few early potato leafhoppers are detected during the second week of May, although the primary influx isn't expected until the third or fourth week of the month.

Bean leaf beetle - Emergence of overwintered adults is underway in southern Wisconsin. The first bean leaf beetle of 2007 was swept from a Lafayette County alfalfa field on May 1. A spring survey for this pest is scheduled to begin in the southwest and south central regions of the state by mid-May.

True armyworm - A total of 19 true armyworm moths were captured at the Janesville black light trap site between April 27 and May 2, and more migrants could soon follow. The University of Illinois-Extension's *The Bulletin* reported a capture of 270 moths last week in southern Illinois.

European corn borer - Overwintered larvae are pupating near Dubuque, Beloit and La Crosse where 246 GDD (base 50F) have accumulated. Black light traps could register the first moths of the season in the week ahead. Although larvae appear to have survived the winter months well, a light first brood flight is anticipated based on last fall's statewide average of 0.29 borer per plant.

Codling moth - Look for emergence of moths to escalate in advanced areas of southern and western Wisconsin next week. The first codling moths of the season usually appear in traps between 201-340 GDD (base 50F). The lower range of this threshold has already been reached as far north as Cumberland in Barron County and Hancock in Waushara County.

European red mite - With orchards in bloom, now may be a good time to begin scouting for this mite. Using a hand lens, closely examine the first leaves to unfurl around clusters as nymphs are likely to be found in these areas first.

Wireworm - Adult wireworms, also known as click beetles, are common in forages and small grains, which suggests egg laying is occurring in susceptible fields. Surveys this week found 3-6 adults per 100 sweeps in La Crosse, Marquette and Monroe counties. Wireworm larvae attack many plants, including corn, oats, beans, beets, cabbage, carrots, peas and potatoes.

Alfalfa caterpillar - Larvae in all stages of development number up to 6 per 50 sweeps in scattered southern fields. One in four collected last week was heavily parasitized by the braconid wasp, *Cotesia medicaginis*. Many larvae are at an advanced stage, suggesting alfalfa caterpillar butterflies should soon emerge.



Alfalfa caterpillar parasitoid

Krista Hamilton DATCP

Eastern tent caterpillar - Webbing has begun appearing on chokecherry trees along the Interstate from Madison to La Crosse. Webs are no longer small and inconspicuous. Most are about three inches high and five inches long, and in many cases two or more are present in the same tree. Larvae are mostly in the second instar.

Black light traps - Traps should be installed this week and

counts reported each Thursday beginning May 10. Included in the list of possible captures in the week ahead are black cutworm moths, true armyworm moths, first brood European corn borer moths, and variegated cutworm moths.

Corn

European corn borer - Pupation of overwintered larvae began on April 30 near La Crosse and May 1 near Beloit. In southern Wisconsin the pupal stage of development requires roughly ten days to complete, after which first brood moths emerge. Corn borer moths comprising this flight are considered the *first brood* rather than the *first generation*, as they are actually second generation carryovers from last summer. The eggs and larval offspring of first brood moths are regarded as the start of the first generation. Moths of the first brood could appear in black light traps near La Crosse on May 9, Beloit by May 11, Madison by May 17, Hancock by May 21, Wausau by May 22, and Green Bay by June 8, if mild conditions continue. A somewhat light first flight is expected based on a statewide average of 0.29 borer per plant (29 borers per 100 plants) documented during the 2006 fall abundance survey.

Black cutworm - Projected cutting dates were established for south central and southwestern Wisconsin based on concentrated captures of moths on April 23-24 near Gratiot and April 25-26 near Janesville. Since the first concentrated capture was documented near Gratiot, a total of 95 GDDs (base 50F) have accumulated. Based on the current rate of accumulation (about 11 units per day), corn in the southwest will be at risk of cutting by May 21. Near Janesville, a total of 72 degree days have accumulated since the first concentrated capture of black cutworm moths occurred on the evenings of April 25 and 26. After 228 more GDDs build up, corn seedlings will be highly susceptible to cutting by cutworm larvae. The projected cutting date for Janesville, Beloit and other south central locations is May 31 (*based on GDDs as of 5/03/07).

True armyworm - Although the Illinois State Highway Authority imposes a hefty toll on motorists passing to and from Illinois, such political boundaries as the Wisconsin-Illinois border are arbitrary to migratory species like the armyworm, which drift into the state each spring from as far away as Texas and eastern Mexico. Therefore, if the University of Illinois-Extension should report a high capture of 270 armyworm moths in southern Illinois, as it did last week, then Wisconsin farmers should take notice. The Illinois capture either signals that an influx of migratory true armyworms is headed north, or that Illinois growers of cereal and forage crops may see heavy infestations of larvae later this month. On the other hand, the intense captures of moths sometimes mean nothing more than a lot of armyworm moths flew into a trap one night.

Black light traps established near Janesville and Lancaster in southern Wisconsin have not registered captures similar to those in Illinois. Counts this week ranged from 3-19

moths. Furtive true armyworm larvae feed at night, defoliating corn and clipping off seed heads of small grains as they increase in size. All grasses may be attacked, including corn, oats, rye, wheat, barley, sorghum, and grassy weeds.



Pea aphid

Krista Hamilton DATCP

Forages

Pea aphid - Hatch of overwintered eggs began on April 24 and light populations are now present in most southern and central fields. Numbers throughout the west central region of the state are low, seldom exceeding 9 per 50 sweeps. In alfalfa fields where populations of pea aphids appear to be highest, numbers of beneficial insects such as ladybeetles and the damselbug, *Nabis ferus*, are also proportionately higher.

Alfalfa weevil - Overwintered eggs have begun to hatch in a small number of advanced southwestern Wisconsin fields. Low numbers of first instar larvae, apparently of this species, were collected in 8-12" Green and Lafayette County fields at the rate of 0-4 per 75 sweeps. Larvae were not detected in six of 10 southwestern fields checked. Similarly, surveys in La Crosse, Monroe and Marquette County fields failed to detect any newly-hatched larvae in the 15 fields checked. Adult activity has escalated noticeably, which signals increased egg laying is occurring. Alfalfa weevil adults were far more numerous this week compared to last, with counts ranging up to 11 per 75 sweeps in the southwest.

Alfalfa weevil GDD model (base 48°F)

Stage of Development	GDD Required to Complete Life Stage	Accumulated GDD
Egg	300	300
1st instar	71	371
2nd instar	67	438
3rd instar	66	504
4th instar	91	595
Pupa	219	814

Clover leaf weevil - Larvae ranging in size from second instar to nearly full-grown fourth instar are present in many southern and west central alfalfa fields, especially those containing some amount of clover. Trace to light leaf feeding is apparent, particularly on the clover plants. Populations are low to moderate, and range up to 22 per 50 sweeps in 10-12" alfalfa. Any light feeding observed this week can be attributed to these more advanced weevil larvae and not the alfalfa weevil.



Parasitized alfalfa caterpillar

Krista Hamilton DATCP

Alfalfa caterpillar - Larvae in all stages were swept this week and the first alfalfa caterpillar butterflies were noted on April 28. One in four larvae collected last week near Lodi in Columbia County was parasitized by the braconid wasp *Cotesia medicaginis*. When the alfalfa caterpillar larvae were brought indoors for observation on April 25, as many as 14 *Cotesia* larvae emerged from a single alfalfa caterpillar. At room temperature, pupation of the parasitoid larvae began almost immediately and wasps emerged in five days, by April 30. Images of a parasitized alfalfa caterpillar and the braconid wasp, *Cotesia medicaginis*, are shown above and below.



Alfalfa caterpillar parasitoid

Krista Hamilton DATCP

Aster leafhopper - Migrant adults are present in a majority of west central Wisconsin alfalfa fields. Populations range from 1-5 per 50 sweeps in La Crosse and Monroe counties. Aster leafhopper is an annual problem for

carrot growers in the Midwest because of its ability to transmit aster yellows, a mycoplasma-like pathogen. The primary source of Wisconsin's population is a spring migration of adults from reservoirs in the southern U.S. In addition to carrots, other susceptible vegetable hosts are lettuce, celery, carrots and parsnip.

Tarnished plant bug - Adults average about 3 per 50 sweeps in alfalfa and winter grains in the southern and west central regions of the state. No nymphs were detected during surveys this week.

Small Grains

English grain aphid - Migrants are appearing in very low numbers in grain fields, with counts ranging from 1-4 per 50 sweeps in La Crosse and Monroe counties. None were found in the other fields surveyed in the central part of the state. The English grain aphid is one of the most common and destructive aphid pests of wheat and other small grains in the U.S.



English grain aphid

University of Nebraska Ent.

Greenbug aphid - Several different aphids infest grains in Wisconsin, but the most numerous are this species, *Schizaphis graminum*, and the English grain aphid, *Macrosiphum avenae*. English grain aphids have black legs and cornicles ("tail pipes"), but the greenbug has legs and cornicles that are the same as the body color. Another distinguishing characteristic is the overall color; greenbug aphids are generally pea green while English grain aphids are darker green.

Bird cherry-oat aphid - A single adult was swept from a La Crosse County wheat field during surveys this week. This species is readily distinguished from other grain-infesting aphids by its dark olive-green color and the brownish patch near the cornicles. Winged forms are predominantly black. Bird cherry oat-aphid is a particularly efficient vector of Barley Yellow Dwarf Virus (BYDV) and should be monitored closely in small grains. The economic threshold for this aphid and the English grain aphid is 12-15 per stem during the seedling to boot stage.

Rust of small grains - The latest Cereal Rust Bulletin (May 01, 2007) reported the only cases of wheat stem rust in the southern United States so far were in varietal plots in southwest Louisiana and two wheat plots in southern Texas. Wheat leaf rust is widespread and increasing throughout the south, and with continued favorable conditions for rust development, leaf rust incidence and severity is expected to increase in the next few weeks in areas where freeze damage did not slow the rust development. According to the CRB report, many of these southern areas will provide rust inoculum for areas further north. Wheat stripe rust is present only at very low levels, oat stem rust reportedly is increasing in plots in Texas and Louisiana, and oat crown rust is also increasing in the southern U.S. oat growing fields. The Cereal Rust Bulletin is available at

http://www.ars.usda.gov/SP2UserFiles/ad_hoc/36400500/Cerealrustbulletins/07CRB3.pdf.

Soybeans

Bean leaf beetle winter survival - Included in the April 20 issue of the Wisconsin Pest Bulletin was a map depicting bean leaf beetle winter 2006-2007 mortality rates. The 60-100% mortality rates shown were calculated using a predictive model developed by Lam and Pedigo (2000a) at Iowa State University. The percentages listed for southern Wisconsin, which ranged from 60-73%, seemed fairly high considering that previous spring surveys have shown this insect overwinters reasonably well in the southern three tiers of counties. Bill Hutchison, Associate Professor and Extension Entomologist at the University of Minnesota (UMN), noted our use of the ISU model, and referred us to a revised predictive model developed by researchers at UMN.

Carillo et al. (2005) studied bean leaf beetle overwintering survival in Minnesota and found beetles survived well in southern areas of the state, even in years when the ISU model predicted high percentages of mortality. Their study determined the ISU model overestimated mortality (underestimated winter survival) in southern Minnesota. Using Minnesota winter mortality data, they revised the ISU model and found the new version consistently predicted higher percentages of survival. The principle difference between the two models was the method used to assess overwintering mortality. Carillo et al. (2005) monitored caged populations of beetles while Lam and Pedigo (2000a) sampled natural populations of overwintering beetles and compared them to an initial density of beetles at the beginning of winter. By beginning with a fixed population, Carillo et al. (2005) were able to determine precisely how many beetles went into the cages in fall, how many came out in spring, and they controlled for other mortality factors. In the corresponding ISU study, variables other than cold temperatures (such as predation) may have influenced winter mortality.

Bean leaf beetle 2006-2007 winter mortality rates were calculated using both the UMN and ISU models. The

revised UMN model predicts 36-60% winter mortality for 12 Wisconsin localities, while the ISU model predicts 60-100% mortality. Results of both models are compared in the table below.



Bean leaf beetle, *Ceratoma trifurcata*

Marlin E. Rice

Predicted mortality of bean leaf beetles ISU and UMN models compared

Location	% Mortality (ISU Model)	% Mortality (UMN Model)	% Survival (UMN Model)
Arlington	80	47	53
Hancock	87	50	50
Spring Green	73	43	57
Beloit	70	43	57
La Crosse	73	43	57
Milwaukee	60	36	64
Boscobel	67	40	60
Green Bay	74	43	57
Madison	71	43	57
Eau Claire	86	50	50
Wausau	88	51	49
Rhineland	100	60	40
Duluth, MN	100	64	36

References:

Carillo, M. A., R. L. Koch, E. C. Burkness, K. Bennett, D. W. Ragsdale and W. D. Hutchison. 2005. Supercooling point of bean leaf beetle (Coleoptera: Chrysomelidae) in Minnesota and a revised predictive model for survival at low temperatures. *Environmental Entomology*. 34(6): 1395-1401.

Lam, W., and L. P. Pedigo. 2000a. A predictive model for the survival of overwintering bean leaf beetles (Coleoptera: Chrysomelidae). *Environmental Entomology*. 29: 800-806.

Weeds

Alfalfa weeds - Alfalfa stands range from 8-12" in height

across the southern two tiers of Wisconsin counties, but many of the weeds in those fields have reached heights more than 4" taller. Weeds in alfalfa have been shown to decrease yield, overall quality, and the longevity of a stand. Dense weed growth often develops in weak or thinning stands, which result from inadequate fertility, improper timing of mowing, low soil pH, or poorly timed insect management.



Mustard species in alfalfa

Clarissa Hammond DATCP

The most abundant weed species observed during surveys of alfalfa this week were common dandelion (*Taraxacum officinale*), shepherd's purse (*Capsella bursa-pastoris*), wild mustard (*Brassica kaber*), pineapple weed (*Matricaria matricarioides*) and common chickweed (*Stellaria media*). At low densities these plants are usually inconsequential, but at higher densities, overall forage quality may be affected.

Herbicides are overwhelmingly the most common approach to weed control, but simple mechanical methods such as timely mowing can reduce weed competition, and more importantly, prevent seeds from spreading. Perennial weed species are more difficult to control in alfalfa, and the timing of each subsequent cutting can help deplete soil reserves for some problem species. However, timing cutting to optimize forage yield and quality does not always coincide with the timing of weed control. If an



Shepherd's purse

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herbicide application is the preferred weed management option, consider stand age, the weed species present, soil conditions, application timing, and crop and land use restrictions prior to making a selection since each of these factors can influence the long-term efficacy of an herbicide program.

Fruit

Codling moth - The capture of a single moth near Deerfield represents the start of the first flight in Wisconsin. Flight activity is expected to increase this week in southwestern, south central and west central orchards where 201 GDD have been surpassed. Cooperators monitoring this pest should begin checking traps twice weekly for the first sustained flight of male moths. Be alert for the codling moth look-alike, *Proteoteras aesculana*, which sometimes appears in pheromone traps in advance of the target species. Two prominent anatomical features which distinguish codling moth from *Proteoteras* are the lack of black bumps on the forewings and the presence of bronze scales near the tip of the wings. A growing degree day model for codling moth is provided below.

CODLING MOTH EVENT	GDD (50F)
1st flight begins	201 - 340
1st egg hatches	491
1st flight peak	500
Egg hatch 50% complete	713
2nd flight begins	873 - 1296
2nd flight peak	1577

Plum curculio - The critical time to monitor plum curculio activity is during the first few days of warm weather following petal fall, when temperatures exceed 70°F. Plum curculio panel traps should be in place to catch the first active beetles of the season moving into orchards. Early-blooming varieties are more likely to be attacked by this pest as they are the first to offer suitable sites for feeding and egg laying. While some feeding is likely to occur on petals, buds and blossoms, little injury actually takes place until fruits are available. Eggs are laid singly, in small niches underneath the fruit skin. When temperatures are mild, eggs typically hatch in seven days. Plum curculio injury can be prevented with insecticide applications timed to prevent adult feeding and egg laying in the fruit. Control recommendations for this insect suggest an insecticide spray be applied as early in petal fall as possible, and treating on a variety by variety basis if needed. Adult plum curculio weevils are active for a period of approximately 5-7 weeks.

Spotted tentiform leafminer - Peak flight activity of the first brood of moths has passed and egg laying is in progress. Look for sap-feeder mines to appear on the undersides of apple leaves in orchards where 329 GDD (base 50F) have accumulated. Trap counts are still reasonably high, ranging from 0 to 1,400 moths in southern and central

orchards. Scouting should begin in the southern one-half of the state this week, particularly if warm temperatures persist. See the FRUIT section in the April 27 issue of the Wisconsin Pest Bulletin for control options. The action threshold for first generation STLM is 0.1 mine per leaf.

Redbanded leafroller - Heavy flight activity continued in southern and central orchards for the third consecutive week, although counts have decreased somewhat. According to the GDD model for this insect, first generation larvae are active wherever 167-228 GDD (base 50F) have been reached. The Ashland County cooperator reported the first capture of 49 RBLR moths, confirming the window for peak flight activity (106-160 GDD) has opened in the far north. Egg hatch is projected to occur approximately 10-12 days after the first RBLR moth is registered. Control of first generation RBLR is usually achieved by sprays directed at other insects at petal fall. Trap catches ranging from 0 to 1,800 moths from April 27-May 04 indicate the first peak flight has occurred in most southern and central orchards.

GDD Base 50°F

INSECT EVENT	STLM	RBLR
1st moth occurs	22-70	25-78
1st eggs occur	75-127	82-162
1st peak flight	150	106-160
1st larvae	209-231	167-228
1st leaf mines	329-403	NA
2nd flight begins	780-937	539-750

Vegetables

Seedcorn maggot - The subterranean larvae of this insect exploit seeds that are delayed from emerging due to cool soil temperatures and high moisture levels. Seeds that remain in the ground for an extended period of time after planting are at an increased risk of attack. Recent warm, windy conditions have not been particularly favorable to seedcorn maggot outbreaks, as most soils have dried sufficiently and temperatures have been mild enough to stimulate seedlings to emerge from the ground. However, freshly plowed fields and fields with decaying organic matter are attractive egg laying sites for female flies. Seed corn maggots commonly re-infest fields in which susceptible crops are planted in succession.

Emergence of seed corn maggot adults from the soil has been underway statewide for approximately two weeks, since 200 GDD (base 39°F) were reached. Peak emergence is projected to occur around mid-May. During this period, swarms of flies may be noticeable over recently-tilled fields and egg laying is expected to be intense. Corn and soybeans are not the only crops susceptible to sporadic outbreaks of this pest. Peas, beans, beets, cucumber, melon, onion, turnips, radishes, peppers, squash, and potatoes are also attacked. Five generations occur in Wisconsin; each requires about 3-4 weeks to complete.

Maggot GDD March 01 to May 03, 2007

Location	Base 39 ^a	Base 43 ^b	Base 40 ^c
Arlington	457	305	417
Hancock	401	266	365
Spring Green	490	338	449
Beloit	522	369	483
La Crosse	547	396	505
Milwaukee	434	279	392
Boscobel	552	391	510
Green Bay	374	232	335
Madison	457	305	417
Eau Claire	455	318	419
Wausau	354	226	320
Rhineland	289	180	258
Duluth, MN	160	82	138

^aseed corn maggot base temperature ^bcabbage maggot base temperature ^conion maggot base temperature



Seedcorn maggot adult

University of Nebraska

Nursery, Forest and Landscape

Cold damage or frost injury - Nursery dealer and early nursery grower inspections are officially underway. Inspectors have observed relatively few insect and disease problems to date, but one very widespread problem, frost injury, was found throughout the state this week. In early spring, when buds begin to swell and break, young leaves and new growth are highly susceptible to extreme temperature fluctuations. Exposure to frost at these early stages of development can kill new leaf tissue. Unfurling or exposed leaves affected by frost injury may show jagged or open spaces between the major veins, or may suddenly turn brown or black. The necrotic tissues eventually fall off or remain as brown, curling edges on leaves. Symptoms of this abiotic injury look very similar to the fungal disease Anthracnose. Treatment following frost injury is neither recommended nor helpful, as plants ordinarily outgrow its symptoms.

Other nursery inspection finds this week:

Southeastern region: *Botrytis* on cascade and French vanilla geraniums in Racine Co., cold damage on daylilies, dianthus, English daisy, *Limonum*, *Echinopsis*, *Penstemon* and Anthracnose on hostas in Washington Co.

East central region: Rust on hollyhock in Outagamie Co., fungus gnat larvae on astilbe, *Botrytis* on dianthus 'artic fire' and tobacco rattle virus on bleeding heart in Kewaunee Co., shoreflies and fungus gnats on purple coneflower and hostas in Brown Co.

Northeastern region: Dothistroma needlecast on Austrian pine in Oneida Co., spruce needledrop on Colorado blue spruce, cankers on ivory halo dogwood and prairie fire crabapple in Wood Co., apple scab on madonna crabapple, frost damage on ornamental pear and crabapple in Taylor Co.



Frost injury on oak

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Cedar apple rust - The unmistakable orange telial horns are starting to protrude from the galls on red cedar in Iowa and Sauk counties. This fungus disease has the principle alternate hosts apple, flowering crab and hawthorn. The best way to suppress the problem is to plant resistant varieties of the deciduous hosts and to remove the galls from the evergreen hosts prior to spore horn formation. A list of resistant varieties and further recommendations are available in UWEX Publication A2598 at <http://learningstore.uwex.edu/pdf/A2598.pdf>.



Cedar apple rust gall on red cedar

Krista Hamilton DATCP

Exotic Pest of the Week

Asiatic garden beetle (*Maladera castanea*) - This Japanese import closely resembles a miniature version of the common June beetle and has the indiscriminate palette of the familiar, metallic green Japanese beetle. The Asiatic garden beetle was first discovered in New Jersey in 1922 and may have entered the U.S. on any of its 100 known host plants or as a grub in infested soil. In the 85 years since it was introduced, its geographic range of has expanded considerably throughout New England, south to North Carolina, and west to northern Indiana.

The primary concern with the Asiatic garden beetle is its exceptionally wide host range. Both the larval and adult stages are damaging to plants. The larvae prefer roots of grasses and weeds in early spring, while the adults feed on the flowers of asters, dahlias, mums, roses and the foliage of various trees and vegetables. Although the Asiatic garden beetle is most common in northeastern states such as Connecticut, Vermont and New York, it is not nearly as destructive there as its relative, the Japanese beetle. The most significant injury attributed to this insect has been noted in southern states in its range where larval populations up to 100 per square foot have developed in soil under favored hosts.

Maladera castanea completes one generation per year in the U.S. The larvae overwinter below ground and pupate in late May and June. Adults are active from late June through October, with peak populations occurring between mid-July and mid-August. These small scarabs take flight whenever temperatures exceed 70F but remain on the ground at lower temperatures. Adults do most of their feeding at night and are attracted to light.

The Asiatic garden beetle has not been found in Wisconsin, but like many exotic insects (e.g. hemlock woolly adelgid, emerald ash borer, and Sirex woodwasp), its range is expanding eastward. In 2006, beetles were collected for the first time in Allen, Porter, and St. Joseph Counties in northern Indiana. There is a high risk of introduction associated with infested nursery stock, particularly because this insect feeds on so many different plants. In addition, both the eggs and grubs (larvae) may be spread in infested soil.

Black Light Trap Counts through May 03

	Date	ECB ¹	TA ²	BCW ³	Cell ⁴
Southwest					
Lancaster	4-30 to 5-3	0	3	0	0
Southeast					
Janesville	4-27 to 5-3	0	19	1	3
Central					
Marshfield	4-26 to 5-3	0	4	2	0
East Central					
Manitowoc	4-28 to 5-3	0	0	0	0

Black Cutworm & Apple Insect Trap Counts from April 27 to May 03, 2007

Black Cutworm Counts

No.	Town	4/23	4/26	4/30	5/03
1	W Fairplay	0	0	0	0
2	Fairplay	1	1	0	2
3	Prairie Corners	1	1	0	0
4	W Hazel Green	3	0	0	4
5	N Hazel Green	1	0	0	11
6	Lead Mine	0	0	0	5
7	N New Diggings	0	3	8	2
8	Shullsburg	0	0	0	1
9	E Shullsburg	3	0	0	15
10	W Gratiot	0	4	0	10
11	Gratiot	0	8	0	10
12	E Gratiot	1	0	0	1
13	E South Wayne	1	4	0	1
14	Browntown	0	0	0	0
15	Cadiz Springs	0	0	0	2
16	E Cadiz Springs	2	0	0	7
17	W Monroe	0	2	0	0
18	E Monroe	0	0	0	1
19	Juda	0	1	0	4
20	E Juda	1	0	0	1
21	Brodhead	2	1	0	3
22	Orfordville	0	1	0	4
23	Footville	0	0	0	0
24	E Footville	1	1	0	3
49	Janesville	1	9	0	3
25	Barneveld	1	4		0
26	West Ridgeway	0	1		1
27	East of Dodgeville	2	0		1
28	West of Dodgeville	1	1		0
29	Edmund	1	1		0
30	Cobb	2	1		1
31	East Montfort	0	1		0
32	West Montfort	4	0		0
33	East Preston	3	---		---
34	West Preston	0	---		1
35	Fennimore	1	---		0
36	West of Fennimore	1	---		0
37	Waunakee	6		2	4
38	Indian Lake	0		0	2
39	N Mazomanie	2		1	2
40	W Mazomanie	1		2	1
41	Arena	0		4	4
42	W Arena	4		1	3
43	Helena	1		1	1
44	Spring Green	1		2	6
45	W Spring Green	4		1	4
46	Lone Rock	0		0	0
47	W Lone Rock	1		1	2
48	Gotham	3		1	3
50	Tomah		0		3
51	Cataract		0		9

Apple Insect Counts

County	Site	STLM	RBLR	CM	OBLR
Ashland	Lobermeier	5	49		
Bayfield	Carlson				
Bayfield	Erickson	940	0		
Bayfield	Ferraro				
Bayfield	Galazen				
Bayfield	Gellerman				
Bayfield	Bayfield Apple	0	0		
Bayfield	Shuga				
Brown	Oneida	972	185		
Crawford	Gays Mills E				
Crawford	Gays Mills W				
Crawford	Turkey Ridge	360	202		
Dane	Deerfield	287	216	1	41 [?]
Dane	Stoughton	45	170	0	
Dane	West Madison	10	75	0	5
Dodge	Brownsville	138	110		
Fond du Lac	Campbellsport	37	140		
Fond du Lac	Rosendale	43	76		
Fond du Lac	Malone	630	55		
Grant	Sinsinawa	3	88	0	
Green	Brodhead	7	22		
Iowa	Dodgeville				
Iowa	Mineral Point	20	208		
Jackson	Hixton	120	27	0	2
Kenosha	Burlington	395	93	0	0
Marquette	Montello	55	71	0	0
Marinette	Wausaukee				
Ozaukee	Mequon	585	30	0	
Pierce	Beldenville	56	1800	0	8
Pierce	Spring Valley	406	62		
Racine	Rochester	490	77		
Racine	Raymond				
Richland	Hill Point				
Richland	Richland Ctr E				
Richland	Richland Ctr W	120	51	0	
Sauk	Baraboo				
Sheboygan	Plymouth	1400	121		
Trempealeau	Galesville				
Waukesha	New Berlin				



EXOTIC PEST OF THE WEEK

Asiatic garden beetle, *Maladera castanea*

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