Volume 52 Number 15 July 20, 2007

Wisconsin Department of Agriculture, Trade & Consumer Protection

Wisconsin Pest Bulletin

PO Box 8911 • Madison, WI 53718 • Phone 1-800-462-2803 • Fax: 608-224-4656

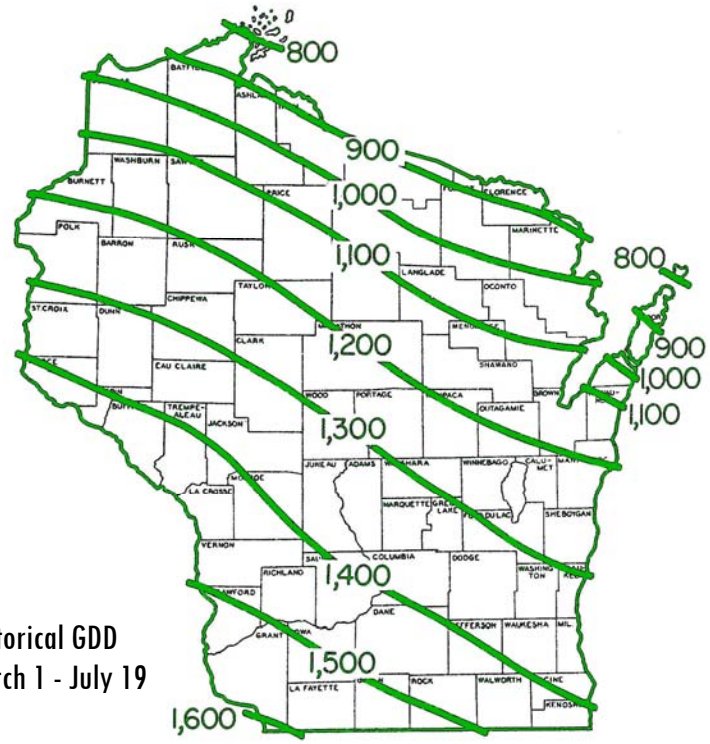
Your weekly source for crop pest news, first alerts, and growing season conditions for Wisconsin

Weather and Pests

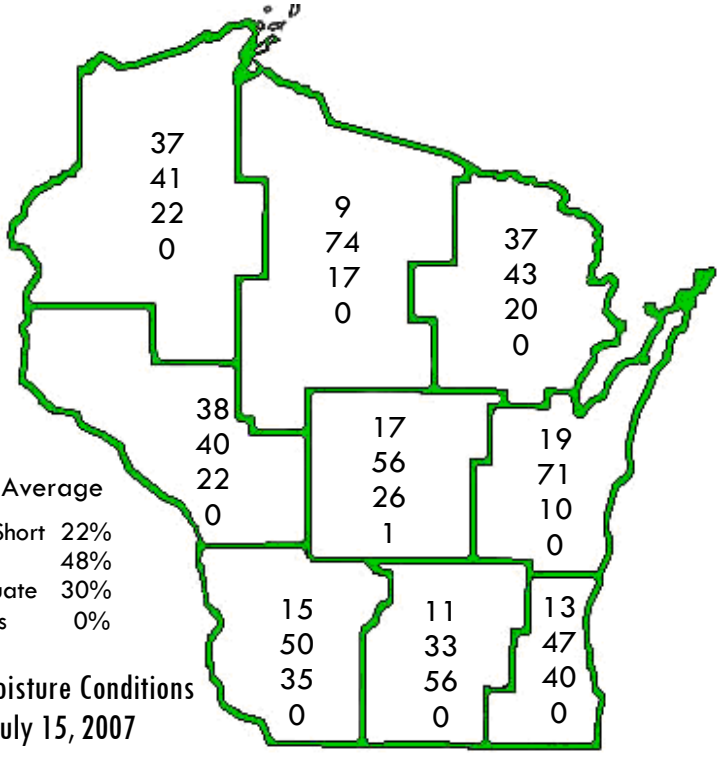
The lack of significant rainfall for several weeks continues to put an extreme amount of stress on Wisconsin crops. Conditions are very dry in most regions of the state, with the exception of the far southwest where very heavy rainfall earlier in the week produced substantial flooding south of Prairie du Chien along the Mississippi River. Portions of Grant County received 4 to 8 inches of rain in a two-day period, while other areas did not see a drop. The extended forecast calls for dry weather over the next 7-10 days, which could push crops on light, sandy soils to the point of failure. The weather in the last week has been very favorable for the development of many insects, the most noteworthy being the soybean aphid, potato leafhopper, and European corn borer.

Growing Degree Days through 07/19/07 were

	GDD 50F	2006	5-Yr	48F	40F
Dubuque, IA	1648	1485	1522	1707	2702
Lone Rock	1578	1424	1457	1618	2603
Beloit	1616	1541	1509	1645	2658
Madison	1532	1387	1429	1586	2547
Sullivan	1471	1413	1414	1482	2462
Juneau	1462	1324	1380	1507	2453
Waukesha	1434	1311	1343	1484	2419
Hartford	1450	1302	1334	1502	2437
Racine	1413	1269	1278	1465	2391
Milwaukee	1407	1282	1268	1458	2386
Appleton	1412	1332	1271	1468	2368
Green Bay	1301	1229	1164	1359	2248
Big Flats	1441	1403	1364	1454	2397
Hancock	1422	1377	1337	1424	2354
Port Edwards	1415	1415	1308	1452	2364
La Crosse	1695	1594	1530	1668	2756
Eau Claire	1535	1553	1418	1557	2537
Cumberland	1390	1356	1228	1405	2328
Bayfield	1046	1051	0884	1088	1870
Wausau	1307	1254	1180	1338	2210
Medford	1262	1260	1151	1305	2165
Crivitz	1244	1188	1103	1285	2141
Crandon	1172	1126	1061	1177	2010



Historical GDD
March 1 - July 19



State Average

Very Short	22%
Short	48%
Adequate	30%
Surplus	0%

Soil Moisture Conditions
as of July 15, 2007

Alert

Soybean aphid – Extremely high, potentially damaging populations of this pest have developed in the west central region. Surveys in La Crosse and Vernon counties found densities well above the economic threshold in 86% of the soybean fields sampled in the last week. Averages ranged from 228 to 1,160 aphids per plant with 100% of the plants infested. In the most heavily infested fields, soybean stems, petioles and leaves were saturated with up to 2,000 aphids per plant, and the lower leaves had become sticky with honeydew. In other areas of the state, this insect is being found at moderate or low levels below 250 per plant, with a few exceptions. Soybean fields must be evaluated without delay if soybean aphid populations are to be optimally controlled. Foliar sprays are most effective in reducing aphid numbers and minimizing resurgences when applied during the R2 (full bloom) to R4 (full pod) stages of soybean growth. Spraying at or beyond R6 (full seed) has not been shown to prevent yield loss. To assess soybean aphid densities, examine 20 to 30 plants over 80% of the field. Closely inspect all parts of the plants for aphids, particularly the stem, newest trifoliates, and undersides of the lower leaves. Treatment is warranted when the economic threshold of 250 aphids per plant on 80% of the plants is exceeded.

Soybean aphids, La Crosse County field *Krista Hamilton DATCP*

Looking Ahead

True armyworm – The larval offspring of moths monitored in black light traps during late June should soon be detectable in the margins of infested fields. Locally heavy populations of second generation larvae could develop in alfalfa, small grains, corn and peas before the month's end. Dry weather generally suppresses armyworm outbreaks, but under such conditions armyworm problems may be aggravated as larvae move to succulent corn plants when grasses dry up. The last time widespread armyworm problems occurred in Wisconsin, during the 2005 season, the earliest signs of an impending outbreak were noted around the third and fourth weeks of July.

Corn rootworm - Peak adult emergence remains about two weeks away. Growers of multi-year corn should begin assessing beetle populations in early August and continue a scouting regimen at 7-10 day intervals through mid-September. Corn rootworm beetle sampling serves two purposes: to determine if beetle populations are high enough to interfere with pollination and to determine if a soil insecticide, commercial seed treatment, or corn rootworm transgenic corn hybrid should be used the following planting year.

Western bean cutworm – The emergence of western bean cutworm moths continued to escalate this week at Wisconsin trap locations. The highest pheromone trap count of 122 moths was registered at Princeton in Green Lake County, while the highest black light catch recorded was 58 moths at Mazomanie in western Dane County. According to the degree day model for western bean cutworm, 25% emergence is expected around 1,319 GDD, 50% emergence is expected around 1,422 GDD, and 75% emergence is expected around 1,536 GDD (base 50°F).

Bean leaf beetle - Surveys in Rock, Green, Kenosha, Racine and Walworth counties revealed high numbers of bean leaf beetle adults on soybean foliage. Defoliation was estimated to be 5-10% on about 65% of the plants in some fields. Pod feeding and clipping by this generation of beetles is a distinct possibility in moisture stressed fields.

Grasshoppers – Traditionally more of a problem during August than earlier in the season, various species of grasshopper are appearing in alfalfa fields, soybeans, and along roadsides in the central districts, particularly in the Central Sands. The populations of adults and nymphs present in many fields are not alarming, but are of concern since dry conditions are affecting growth of soybeans and third crop hay in these areas. Grasshoppers are a definite threat to dry forage crops and treatments can be applied to control potato leafhoppers simultaneously. Some fields should be cut immediately and treatments applied to regrowth. In soybeans, treatment should be considered if the economic threshold of 20% defoliation is exceeded.

Japanese beetle – DATCP surveys and reports from cooperators, consultants and residents indicate Japanese beetles are extremely numerous this season in soybeans, orchards, nurseries and backyards. Intensive trapping at 10 sites in Brown County resulted in the capture of 20 to 12,000 specimens per site (information from Vijai Pandian, Brown County UWEX). Of particular concern to Wisconsin apple growers is the attraction of Japanese beetle to young plantings of honeycrisp apples. In orchards where populations are high and feeding is noted on susceptible varieties or immature trees, control measures may be necessary. Survey specialists observed moderate to high levels of defoliation (11-20%) attributed to this insect in Dodge County, and low levels of defoliation (<10%) in soybean fields in most southern and west central counties. Soybean growers are advised to be alert to lacy or skeletonized leaves in soybean fields; both are indicators of Japanese beetle activity. No more than 20% defoliation

should be tolerated in soybeans between bloom and pod fill.

Japanese beetle defoliation *Krista Hamilton DATCP*

Forages

Potato leafhopper – Economic populations of adults and nymphs are present in alfalfa, potatoes and beans over much of the state. Counts in central and east central Wisconsin alfalfa fields remain above the treatment threshold and hopperburn has become more apparent in those fields deficient in soil moisture. Surveys in Brown, Calumet, Fond du Lac, Sheboygan and Winnebago counties documented economic levels of potato leafhoppers in 64% of the fields sampled. Counts ranged as high as 5 per sweep in 8-10 and 12-14 inch alfalfa in Calumet County. Numbers were considerably lower in the southwest, possibly due to recent spraying. Potato leafhopper counts averaged in 0 to 0.1 in 12-18 inch alfalfa in Lafayette County and 0 to 0.8 in 12-24 inch alfalfa in Richland County.

Continue to scout fields on a weekly basis as long as hot or dry weather conditions favor the rapid build-up of populations. Other susceptible hosts such as beans, potatoes and apples should be closely monitored, as dense potato leafhopper populations are likely to be forced into these crops when alfalfa fields are harvested. Economic thresholds for potato leafhopper are as follows: 0.2 per sweep in 3 inch alfalfa, 0.5 per sweep in 6 inch alfalfa, 1.0 per sweep in 8-11 inch alfalfa, 2.0 per sweep in alfalfa taller than 12 inches.

Corn

European corn borer - Emergence of the summer flight of European corn borer moths continued for the second week in southwest and south central Wisconsin, and began in the southeast and central counties. Peak flight activity could be registered at advanced locations where 1,733 GDD (base 50°F) accumulate in the next week. Expect captures of moths in black light traps to increase as the second flight of moths gains momentum. Eggs and first instar larvae are present in some southern and western corn fields at this time. The treatment window for second generation larvae remains open for another two weeks, or until 2,100 GDD have been surpassed. Follow black light trap reports (see page 139) at the nearest participating location and closely monitor corn and other susceptible hosts for eggs and newly hatched larvae during the remainder of the month.

Western bean cutworm – An exceptional pheromone trap located near Princeton in Green Lake County captured 122 moths between July 13 and 19. All other traps registered captures ranging up to 49 moths during the past week. Although relatively low, these numbers reflect 50-75% emergence of this species. Western bean cutworm moths should continue to appear in traps for another two to three weeks before flight activity declines in early August. Aside from the Princeton numbers, captures this season have been low since the first moth was registered on June 20, indicating larval populations are also likely to be low. A large percentage of the 100 traps included in the Wisconsin monitoring network have yet to register a single moth. High pheromone trap counts this week were: Princeton 122, Lancaster 27, Newark 19, Orfordville 18, and Roxbury 25. High black light trap captures were: Arlington 33, Lancaster 48, Mazomanie 58, and Sparta 50. Egg laying is underway in corn fields across the southern half of the state and both eggs and larvae should be detectable at this time.

Corn rootworm – Emergence of corn rootworm adults is well underway throughout the state. Limited surveys revealed counts of 0.9 to 4.4 beetles per plant in southwest and west central corn fields with fresh silks. Silk clipping was neither widespread nor severe, and the threat is quickly passing in the southwest areas where fields with brown silks have grown increasingly common in the last week. Barren or poorly filled ears result when silks are clipped before or during the maximum period of pollen shed. Once the silks turn brown, indicating pollination is complete, silk feeding by corn rootworm beetles is usually inconsequential. Poor pollination from silk clipping is more likely to occur when plants are under drought stress. Use an economic threshold of 5 beetles per plant when silks are clipped back to ½ inch or less before 50% of the plants are pollinated to decide if treatment is necessary.

Western (left) and northern (right) corn rootworm beetles Marlin E. Rice

Corn leaf aphid – Populations of this aphid have not been particularly high thus far. Surveys this week revealed light to moderate colonies had established on 5-22% of the corn plants in the west central counties, but the vast majority of the colonies were insignificant. Similar densities were found on Portage County corn where no more than 15% of the plants were colonized by corn leaf aphid. With weather conditions generally favorable for the build-up of this species, colonies may become sizeable on late planted corn. Dry weather promotes population growth and limits the spread of fungal pathogens that regulate corn leaf aphid populations. No measurable impact is expected on corn that has tasseled.

Soybeans

Soybean aphid - A systematic survey to estimate peak soybean aphid population densities and detect endemic and exotic soybean viruses began this week. Preliminary results from 65 soybean fields in 18 Wisconsin counties indicate aphid densities are generally erratic, with economic populations scattered throughout the southeast, south central and west central portions of the state. Considerable variation in densities exists between soybean fields in the east central area and those in the west central area. Soybean aphids are most numerous in west central soybean fields at this time. Survey results are based on a sample size of 20 plants (4 sets of 5 plants throughout the field).

Economic or high populations of soybean aphids were detected in most La Crosse and Vernon County fields, where densities averaged 251 to 1,160 aphids per plant and 100% of the plants were infested in every field sampled. Individual plants in these counties contained as many as 2,000 soybean aphids. Occasional Grant, Marquette and Walworth County fields were 100% infested with an average of 293 to 414 aphids per plant.

Moderate populations of 101 to 250 soybean aphids per plant were detected in some Dane, Green, Racine, Rock and Walworth County fields in the south central and southeast regions. As soybean aphid populations continue to escalate, many of the fields in these areas will likely develop economic infestations in the week ahead. Soybean fields should be examined and foliar sprays applied during the R2 to R3 (full bloom to beginning pod) stages, while insecticides directed against soybean aphids are still beneficial in protecting yield. Some benefit is offered at the R4 stage (full pod), but the most opportune treatment window is rapidly closing in the southern counties.

Non-economic or low populations of fewer than 100 soybean aphids per plant were detected in Columbia, Dane (in part), Dodge, Kenosha, Lafayette, Racine and Washington counties in the southern regions. Low populations were also noted in Brown, Calumet, Fond du Lac, Outagamie, Sheboygan and Winnebago counties in the east central region, and in Portage County in the central region. The lightest soybean densities detected thus far, averaging fewer than 25 aphids per plant, were observed in east central Wisconsin soybean fields.

Soybean aphids on new trifoliate, Vernon County Krista Hamilton DATCP

As part of the annual survey, soybean foliage and soil samples are being collected and screened for bean pod mottle virus, alfalfa mosaic virus, soybean mosaic virus,

soybean dwarf virus (first detected in Wisconsin soybeans in 2003), Asian soybean rust, and soybean cyst nematode by the DATCP Plant Industry Laboratory. Upon completion of the survey, the incidence, severity and geographic distribution of each pest will be mapped and published.

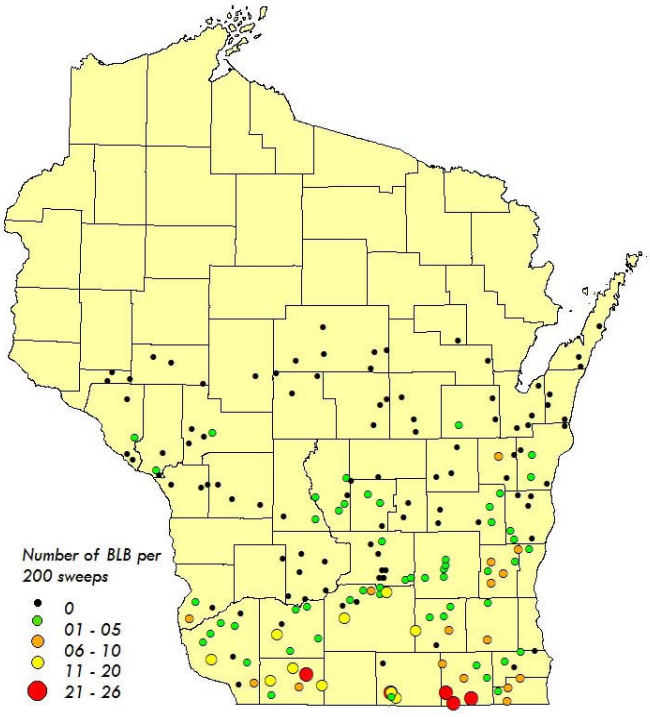
Soybean plant saturated with aphids *Krista Hamilton DATCP*

Bean leaf beetle – The two maps on the right summarize the results of a spring survey for overwintered bean leaf beetles in alfalfa conducted between May 9 and June 13. The first map depicts the number of beetles collected at each site. A total of 53% of the survey sites had zero beetles, 30% had 1-5 beetles, 8% had 6-10 beetles, 6% had 11-20 beetles and 3% had 20-26 beetles. Counts ranged from 0 to 26 beetles per site, with the highest numbers of beetles swept from fields in Lafayette, Rock and Walworth counties.

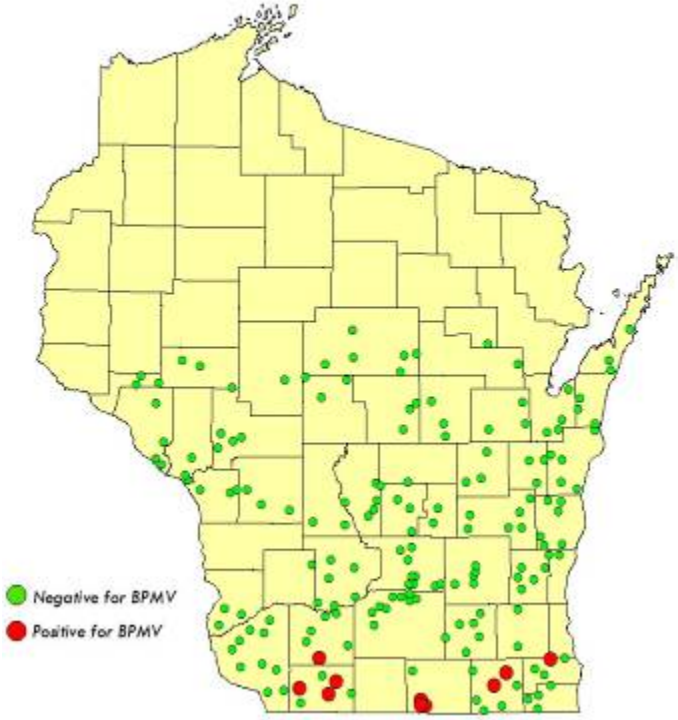
The spring survey yielded both a higher total number of beetles and a higher average number of beetles per site, as compared to the previous four years. Overwintered bean leaf beetles were collected from 86 of 183 (47%) first crop alfalfa fields. The total number of beetles collected was 509, which compares to 171 beetles in 2006, 180 beetles in 2005, 180 beetles in 2004, and 151 beetles in 2003. The average number of bean leaf beetles collected per site was 2.8. This represents nearly a three-fold increase over the 2006 average of 0.8 beetles per 200 sweeps and the 2005 average of 0.9 beetles. Survey results suggest more adult bean leaf beetles emerged from the 2006-2007 winter compared to preceding years. However, this increase probably reflects a normal population fluctuation.

The second map depicts the distribution of beetles that tested positive for Bean Pod Mottle Virus (BPMV). ELISA tests conducted at the DATCP Plant Industry Laboratory revealed that overwintered beetles from 11 alfalfa fields in Iowa, Lafayette, Racine, Rock, Walworth counties carried BPMV. This is the highest number of sites with bean leaf beetle/BPMV detected since 2003. Alfalfa fields were sampled by taking 200 sweeps (4 sets of 50 sweeps). A systematic sampling pattern was used to ensure a representative sample from each field. The soybean survey currently in progress will confirm the presence or absence and incidence of BPMV in Wisconsin fields this summer.

2007 Spring Survey for Overwintered Bean Leaf Beetles and BPMV in Alfalfa



2007 Spring Survey for Overwintered Bean Leaf Beetles in Alfalfa



Weeds

Invasives alert – Cut-leaved teasel (*Dipsacus laciniatus*) and spotted knapweed (*Centaurea stoebe*) were flowering along southern Wisconsin roadsides this week. These plants are very close to forming seed, making now an opportune time for seed head removal. This measure will prevent seeds from developing and dispersing, and can minimize spread of these aggressive invasive plants.

Cut-leaved teasel – *Dipsacus laciniatus* is a monocarpic perennial, sometimes also described as a biennial. During the first year or two of development, it forms a rosette and in the second or third year, a long stem shoots up from the rosette and distinctive, egg-shaped flower heads appear. An additional year may be required before flower heads appear. The length of time spent in each stage depends on resource availability.

Senesced teasel plants may persist for a year or longer after the seeds have been shed and the leaves have dried. Where dried plants are observed, more individuals are likely to emerge the following year. Common teasel closely resembles cut-leaved teasel, but its flower bracts are longer than the flowering parts, whereas cut-leaved teasel bracts are as long as or shorter than the flower head. Common teasel flowers are pink or purple, in contrast to the white flowers of cut-leaved teasel.

Cut-leaved teasel, July 18, 2007 *Clarissa Hammond DATCP*

Control of *D. laciniatus* is challenging and time consuming due to its perennial life cycle. Individual plants can be dug from the ground, but care should be taken to remove the entire plant and root system to prevent resprouting. Clipping flower heads is a second option, but this action must be carefully timed so that plants do not send up another shoot. Flower heads should be removed from the infested site and properly disposed of, as they may continue to mature when separated from the mature plant.

Soybean weeds – Most of the soybean fields examined this week were relatively weed free, with only a few scattered fields in moderate competition with weed species. The most prevalent weeds observed were common lambsquarters, redroot pigweed, giant ragweed, foxtail species, quackgrass, milkweed, annual sowthistle, and volunteer corn. One of the less prevalent weeds noted was Venice mallow (*Hibiscus trionum*) (see image below), also called flower-of-an-hour and shoo-fly. Venice mallow is comparatively less competitive than most agricultural weeds, but has an interesting life cycle. It produces dramatic, showy flowers that last only a few hours before the petals fall off; thus the name, " flower-of-an-hour". Few botanists have had the rare pleasure of observing the Venice mallow flower.

Venice mallow *Clarissa Hammond DATCP*

Fruit

Apple maggot – The emergence of flies has begun in Bayfield County orchards where 900 GDD (base 50°F) were surpassed in the last week. Apple growers in this county should expect an increase in captures of flies on red ball trap and yellow sticky boards. The apple maggot fly is distinguished from similar fruit flies attracted to AM visual traps by an F-shaped wing banding pattern and conspicuous white spot on the thorax. In the advanced southern orchards, peak adult emergence is expected to occur this week, following the accumulation of 1,600 GDD.

Japanese beetle – Damage to non-bearing trees and certain varieties such as honeycrisp is evident in numerous orchards. While feeding is usually concentrated on the foliage, fruit feeding can occur on apples, especially as the fruits ripen or if other surface injury is present. Even the smallest blemish is enough to attract aggregations of beetles. Control measures are justified in orchards where populations are high and Japanese beetles are feeding on susceptible varieties or immature trees.

Codling moth – Flight activity remained high at several monitoring sites during the last reporting period. The peak second flight of codling moths is anticipated at southern and west central sites where 1,577 GDD (base 50°F) have been reached. Numbers ranged as high as 48 moths at trap locations this week, and above-threshold counts were registered at 12 of the 31 reporting orchards.

Woolly apple aphid – Populations of this insect are increasing in southern orchards. Woolly apple aphid is not controlled by normal orchard chemicals, therefore, colonies should be watched in the next few weeks. Occasionally populations increase dramatically in late July and August, which can lead to problems during picking later in fall.

Potato leafhopper – Curling and damage to terminals and shoots caused by potato leafhopper nymphs should not be mistaken for green apple aphid populations. Potato leafhoppers nymphs have matured but their damage may still be evident in non-bearing orchard blocks. Just one or two nymphs per leaf can cause leaf curling if allowed to feed for 4-7 days. Insecticides on nursery trees and in non-bearing blocks may be justified at the first sign of injury.

San Jose scale – Careful monitoring for crawlers is advised in orchards where damage by the first generation was noted earlier this month.

Spotted tentiform leafminer – Sapfeeder larvae, the progeny of the second flight of moths, are present on the undersides of apple leaves in southern and central orchards. Examine leaves for the sap feeder stages of STLM before applying chemical sprays. The economic threshold for second generation leafminers is 1 mine per leaf. Pheromone trap counts this week ranged from 0 to 1,377 moths per trap.

Vegetables

Corn earworm – Although numbers are still very low overall, corn earworm moth activity appears to be accelerating slowly. The high pheromone trap count this week was reported at Chippewa Falls where 20 adult males were captured. Other trap locations reported counts in the single digits. Treatment for this pest is warranted if 3 moths are captured in black light traps in two to three consecutive nights, or 5 moths are captured in a Hartstack trap in one night. Pheromone trap counts for the period of July 13-19 were: Lancaster 5, Reedsburg 2, Mazomanie 0, Janesville 0, Coles Valley 2, Coon Valley 8, Westby 2, Marshfield 1, Manitowoc 0.

Cabbage looper – The high count this week was reported from Bourbonnais, Illinois, where 29 moths were caught in a Scentry mesh pheromone trap during a 10-day period. The Chippewa Falls trap documented a decrease from 33 to 9 moths. Other sites reported as follows: East Troy 4, Lancaster 1, and Verona 1. Cabbage looper is another migratory species which arrives in Wisconsin each summer on strong southerly winds.

Spider mites – Hot, dry weather favors development and rapid build-up of this pest in squash, pumpkins and cucumbers. Areas that were missed by rainfall this week may be at risk for increased spider mite populations. Examine 10 plants in 10 different locations along field edges for yellowing or speckled leaves. Spider mites are usually evident on the lower leaf surface at the junction of the veins and petioles.

Squash vine borer – Frass and tunneling was observed in zucchini near DeForest in northeastern Dane County this week, and the larvae responsible for this injury were ½ inch in length. Ordinarily plants should be checked for feeding around 900-1,000 GDD (base 50°F). Although southern areas of the state are well past this mark, degree day accumulations in northern area such as Bayfield County only surpassed this threshold. Squash vine borer affects pumpkins, squash, gourds, and other vine crops. Larval feeding may last 14 to 30 days.

Nursery, Forest and Landscape

Dothistroma needle blight – Trace amounts of this needle blight were detected on Austrian pines in a Walworth County nursery. Dothistroma is a common disease of pines caused by the fungus *Mycosphaerella pini*. The fungus is active throughout the growing season and infects needles during periods of wet weather. In Wisconsin, Dothistroma needle blight occurs most frequently on Austrian pines.

Austrian pine needles with Dothistroma www.ipm.iastate.edu

Symptoms first appear five weeks to six months after inoculation, depending on environmental factors. Affected needles initially develop dark green, water-soaked spots. The spots turn brown or reddish brown and expand to encircle the needle, forming a characteristic band. The needle tips beyond the band turn brown, but the needle bases remain green. It is in this stage that the disease overwinters the first year. The following spring, the fungus resumes development in the infected needles, and small black conidial stromata erupt through the needle surface in late spring. The erupted spores can be carried to new growth by wind or rain. Diseased needles may drop prematurely in late summer or early autumn, several months after they are infected. The most severely affected branches are generally those near the base of the tree. Trees infected with Dothistroma needle blight progressively lose needles, decline, and may die within a few years.

Preventive cultural controls are the most effective way to limit the spread of this disease. Plant pines to promote air circulation throughout trees and rows, and irrigate during the morning hours to allow needles time to dry sufficiently. Fungicide sprays containing copper may be used to prevent new infection if symptoms are found. Sprays should be applied twice in the spring, once to protect the new growth in May or June and again 4 to 6 weeks later. Spraying may be discontinued when symptoms are no longer found. Removing infected needles from around the bases of trees is another measure that may reduce the number of spores that survive to infect new growth.

Austrian pine with loss of lower needles *www.ipm.iastate.edu*

Other nursery inspection finds this week include:

Southwest region: Apple scab on ornamental crabapple, chlorosis, Japanese beetle and black spot on rose, Japanese beetle on serviceberry, grape vine and chokeberry, powdery mildew on bee balm and serviceberry, slugs on hosta and cedar apple rust on crabapple in Dane County.

Southeast region: Ash plant bug on green ash, septoria on aster and hydrangea, powdery mildew on monarda, phlox and serviceberry, Tobacco Rattle Virus (TRV) on bleeding heart, spruce needle drop on spruce, leafhopper on ligularia, leafminer and bronze birch borer on birch, needleminer on arborvitae, cytospora canker on red oak, Fletcher's scale on yew, aphids on dogwood, Dothistroma on Austrian pine, phyllosticta on serviceberry, bladder gall and tarspot on maple, canker on willow, spindle gall on linden, elm flea weevil on elm, scab on crabapple, island chlorosis and nipple gall on hackberry, guignardia on horse chestnut, verticillium wilt on ash, black knot on Canadian cherry, white pine blister rust on white pine, and spider mites on honeylocust in Walworth County.

Northwest region: Slug feeding on assorted hostas, black spot on 'Polar Joy' tree rose, powdery mildew on lilac and virus on wisteria in Pepin County.

Leaf streak on daylily, leafhopper burn on 'Prairie Magic' apple, cedar apple rust on serviceberry and Hosta Virus X (HVX) on 'Blue Monday', 'Gold Standard' and 'So Sweet' hosta in Pierce County.

Bronze birch borer on cutleaf weeping birch, canker and shoot tip borer on autumn blaze maple, leafminer on columbine and black spot on assorted roses in Dunn County.

Northeast region: Septoria on pagoda dogwood, leafhopper burn on sugar maple, Japanese beetle feeding on hazelnut, cherry, and swamp white oak and root rot on white pine in Wood County.

Spruce needle drop, needle miner, eastern spruce gall adelgid, spruce needle rust and rhizosphaera on Colorado blue spruce, white pine blister rust and white pine tip weevil on white pine in Lincoln County.

REMINDER: Mark your calendars for the 2007 Joint WNA/WCTPA Field Day on Friday, August 10 at Northern Christmas Trees & Nursery in Merrillan, Wisconsin.

Black Light Trap Counts through July 19

Black light trap report – Western bean cutworm moth numbers escalated for the second week, with the highest counts reported in the southwest at Lancaster (48), Mazomanie (58) and Sparta (50). Other locations reported as follows: Janesville 8, Arlington 33, Chippewa Falls 0, Marshfield 4, Wausau 7, Manitowoc 1. In the south central, southwest and west central counties, 75% emergence is expected following the accumulation of 1,536 GDD (base 50°F). Scouting for eggs and larvae is advised in all areas where high numbers were registered. Western bean cutworm eggs are laid on the top side of upper leaves, frequently on the flag leaf. Newly laid eggs are initially white, but turn purple just before hatching.

Warm weather in the past week favored European corn borer emergence and activity, and as a consequence higher numbers were reported at several black light trap locations. Moths of the second flight are appearing in all areas of the state where 1,550 GDD (base 50°F) have been surpassed. Activity has been very light thus far, as indicated by black light trap collections, but numbers are expected to increase as the peak flight period approaches.

European corn borer moth on soybean leaf *Krista Hamilton DATCP*

With the exception of an increase in variegated cutworm numbers at Manitowoc (7 to 17 moths) and Marshfield (9 to 21 moths), counts of occasional pests monitored in black light traps remained stable. Variegated cutworm larvae feed on garden crops, trees, vines, grasses, field crops and ornamentals. Outbreaks of this pest are sporadic in Wisconsin. Also worthy of note are the forage looper counts, which doubled from 21 to 46 moths at Marshfield. Forage looper larvae feed on clover, alfalfa, grasses, ragweed and occasionally small grains. Counts this week were: Lancaster 21, Mazomanie 5, Janesville 8, Sparta 0, Chippewa Falls 0, Wausau 0, Manitowoc 21.

	ECB[1]	TA[2]	BCW[3]	SCW[4]	DCW[5]	WBCW[6]
Southwest						
Lancaster	6	3	3	0	0	48
Reedsburg	8	—	—	—	—	—
South central						
Mazomanie	18	0	0	0	0	58
Arlington	21	4	9	0	1	33
Southeast						
Janesville	7	24	3	0	0	8
East Troy						
West central						
Sparta	20	0	0	0	0	50
Chippewa Falls	6	0	0	0	1	0
Central						
Wausau	4	3	2	6	1	7
Marshfield	11	9	2	1	2	4
East Central						
Manitowoc	1	0	8	2	5	1

[1]European Corn Borer; [2]True Armyworm; [3]Black Cutworm; [4]Spotted Cutworm; [5]Dingy Cutworm; [6]Western Bean Cutworm; [7]Corn Earworm.

	CabL[8]	CelL[9]	AlfL[10]	ForL[11]	FA[12]	VCW[13]
Southwest						
Lancaster	1	18	0	21	0	1
South central						
Mazomanie	0	2	0	5	0	0
Arlington	0	9	0	3	0	3
Southeast						
Janesville	0	14	0	8	0	0
East Troy						
West central						
Sparta	0	0	0	0	0	0
Chippewa Falls	1	0	1	0	0	0
Central						
Wausau	0	2	0	0	0	0
Marshfield	0	17	0	46	0	21
East Central						
Manitowoc	0	8	0	21	0	17

[8]Cabbage Looper; [9]Celery Looper; [10]Alfalfa Looper; [11]Forage Looper; [12]Fall Armyworm; [13]Variegated Cutworm.

Exotic Pest of the Week

Leek moth - The leek moth, *Acrolepiopsis assectella*, is native to Africa, Asia, and Europe. In Asia and the U.K it is considered a minor pest of leeks and onions. However, in continental Europe, it has caused considerable damage, particularly to leeks. In 1993 this exotic species was discovered in Ottawa, Canada, and since then a local population has established there. Given the close proximity of the Canadian infestation, it is probable that leek moth will be introduced into the northern U.S. In addition to onions and leek, this insect attacks garlic, shallot, and chives.

Adult leek moths emerge in the spring and lay up to 100 eggs on the lower surfaces of leaves. Hatched larvae mine through the leaves and progress inward toward the heart of the plant, occasionally attacking the bulb and stem. The larvae are pale yellowish-green with brown heads, and roughly ½ inch long when full-grown. Most plant damage is reported at the perimeters of fields. Symptoms of leek moth infestation include mining and pinhole damage on inner leaves. Plants generally appear distorted due to this damage and rotting may occur. Often leek moth injury goes unnoticed until the produce is stored. It is during storage that plants and bulbs develop secondary rots caused by the tunneling of larvae.

Leek moth *Robin Barfoot ukmoths.org.uk*

Leek moth mine *Ian Smith ukmoth.org.uk*

Apple Insect Trap Counts from July 13 to 20, 2007

County	Site	Date	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	AM red[5]	AM yellow[6]
Bayfield	Erickson	07/13-07/19	575	0	5	3	0	0
Bayfield	Gellerman	07/09-07/15	22	0	0	2	0	0
Bayfield	Lobermeier	07/13-07/19	39	150	0	7	0	0
Bayfield	Bayfield Apple	07/13-07/19	816	2	0	13	2	0
Bayfield	Bayfield Apple	07/13-07/19	1377	0	2	1	2	0
Brown	Oneida	07/13-07/19	400	61	3	0	0	0
Crawford	Gays Mills	07/13-07/19	190	130	19	2	1	0
Crawford	Turkey Ridge	07/13-07/19						
Dane	Deerfield	07/13-07/19	283	7	2	0	0	0
Dane	Stoughton	07/13-07/19	146	154	11.5	4	1	2.5
Dane	West Madison	07/13-07/19	117	10	9	5	4	0
Dodge	Brownsville	07/14-07/19	24	8	0	0	0	0
Fond du Lac	Campbellsport 1	07/13-07/19	0	40	0	1	0	0
Fond du Lac	Campbellsport 2	07/13-07/19	0	50	0	3	0	0
Fond du Lac	Rosendale	07/13-07/20	36	11	2	1	0	2
Fond du Lac	Malone	07/13-07/19	75	12	2	1		
Grant	Sinsinawa	07/13-07/19						
Green	Brodhead	07/13-07/19	0	0	1	0	0	0
Iowa	Dodgeville	07/13-07/18	133	8	21	3	2	0
Iowa	Mineral Point	07/13-07/19	10	21	0	0	0	0
Jackson	Hixton	07/13-07/19	70	8	1	12	0	0
Kenosha	Burlington	07/13-07/19	100	13	4.5	1	3	0
Marquette	Montello	07/08-07/15	120	0	0	0	0	0
Marinette	Wausaukee	07/13-07/19	3	27	0	0	1	0
Ozaukee	Mequon	07/13-07/19	50	9	0.7	0	*0.1 **0.6	0
Pierce	Beldenville	07/13-07/19	270	64	48	0	1	0
Pierce	Spring Valley	07/13-07/19	452	45	1	0	1.5	0
Racine	Rochester	07/13-07/19	0	3	5.4	0	0.3	0.5
Racine	Raymond	07/13-07/19	660	52	3	2	0	0
Richland	Hill Point	07/12-07/18	200	20	11	0	**7	0
Richland	Richland Ctr E	07/13-07/19	255	63	32	1	0	0
Richland	Richland Ctr W	07/13-07/19	110	90	7	0	0	0
Sauk	Baraboo	07/13-07/19	270	124	11	0	1	0
Sheboygan	Plymouth	07/13-07/19	585	175	16	0	**9	0
Waukesha	New Berlin	07/13-07/19	292	11	9	2	0	0

[1] Spotted tentiform leafminer; [2] Redbanded leafroller; [3] Codling moth; [4] Obliquebanded leafroller; [5] Apple maggot red ball trap; [6] Apple maggot yellow sticky trap; *unbaited red ball trap; **baited red ball trap.

Department of Agriculture,
Trade & Consumer Protection
Division of Agricultural Resources Management
PO Box 8911
Madison WI 53708-8911

EXOTIC PEST OF THE WEEK

Leek moth, *Acrolepiopsis assectella*