

Weather and Pests

Picture-perfect summer weather over much of the state helped the wheat and oat harvests to get off to a good start, and allowed farmers to put some good second-crop hay in the barn. Temperatures a bit below normal kept both crop and insect development throttled back just a bit, a concern with so many late-planted fields, but most of the state is reporting a majority of both corn and soybeans in good to excellent condition. Growers in the northwest region are still looking for a little more rain, as they're still a couple of inches below normal rainfall for the year.

Alerts

Reports on common scab of potatoes wanted, and an important note on early blight fungicide resistance management--see "Potatoes" section for more information.

Looking Ahead

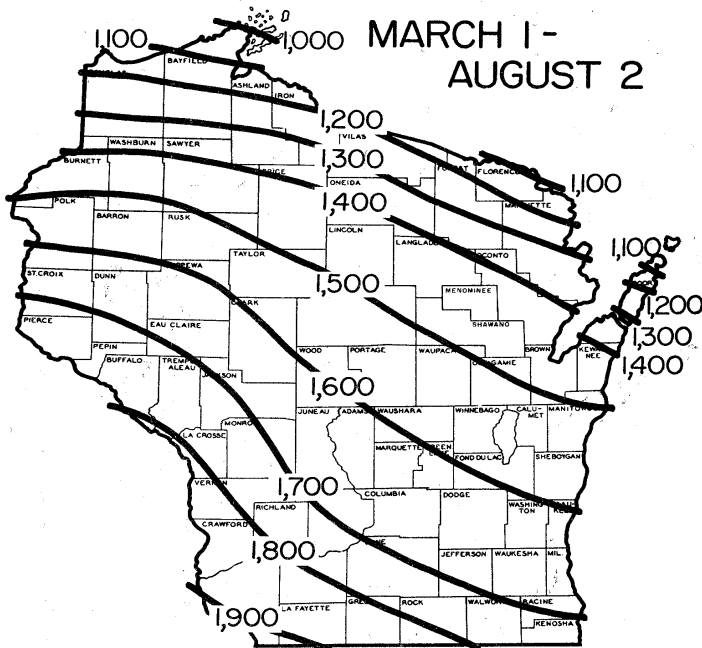
Soybean aphid – Populations across southern Wisconsin averaged fewer than 40 aphids per plant this week. Although no serious infestations have been detected this season, continue to scout fields. Densities are likely to increase in the week ahead, and some heavy populations could develop in later-planted fields. No fields warranting treatment have been encountered since aphid infestations were first observed in Wisconsin in early July.

Bean leaf beetle – Defoliation is widespread, but primarily light throughout southern Wisconsin. During the R4-R6 growth stages, treatment should be considered when 10+ bean leaf beetles per foot of row are present and 20% defoliation is observed, or at least 15 bean leaf beetles per foot of row are observed in combination with 10% pod damage. Scout for injury to developing pods as second generation beetles begin to emerge in the weeks ahead.

Potato leafhopper – High populations persist in many southern alfalfa fields and current conditions are highly

No current GDD information available this week--a computer crash (complete with smoke, we're told) has prevented the compilation. Until next week, information on GDD accumulated since April 1 is available for a few locations around the state at <http://emily.soils.wisc.edu/cgi-bin/aws/wxrepinfo.pl?17826>

We apologize for any inconvenience.



Historical Average Growing Degree-Days
Accumulated Since March 1.
(Wisconsin Agricultural Statistics Service)

favorable for nymph production. Crop scouts should continue to monitor leafhopper activity in susceptible crops.

European corn borer – Moth activity is escalating in the south, indicating growers should begin scouting for second generation egg masses in both corn and snap beans. The second flight is expected to peak in the next two weeks in southern Wisconsin. The most effective treatment window for second generation corn borers, 1550 to 2100 DD (base 50°F), has opened in the south and west central districts, and is rapidly approaching in the central Wisconsin.

Corn rootworm – As the emergence of beetles continues, growers are urged to begin monitoring corn rootworm populations closely. Counts are currently variable throughout the southern districts, but high populations are likely to develop in some southern and western Wisconsin fields. To accurately assess corn rootworm conditions, plan to scout three times at 7-10 day intervals through early September. Control may be justified when an average of 0.75 beetle/plant is detected during any one of the three scouting trips.

Armyworm – Although most infestations are spotty and primarily affect weedy fields, continue to scout this week. Outbreak conditions still exist in some northern and eastern fields, and armyworm moths are reappearing in lawns and grassy areas in the south.

Corn earworm – Low numbers of moths continue to appear in black light and pheromone traps. Some injury is likely to occur in sweet corn as egg laying continues and larvae development begins. Scout for larvae in corn ears in the week ahead. Expect moth activity to peak as degree-day accumulations approach 1550 (base 55°F).

Codling moth – Growers can anticipate the peak emergence of second generation adults at 1,600 DD (base 50°F) and peak egg laying by second generation adults at 1,700 DD. In the south, peak egg laying is likely to occur within the next two weeks.

Apple maggot – The degree day model for apple maggot indicates peak adult emergence occurs around 1,600 DD (base 50°F), peak egg laying around 1,750 DD, and the end of adults emergence at 2,800 DD. In the southern and west central districts, peak egg laying is rapidly approaching.

Corn

European corn borer – An increase in black light trap counts at reporting sites indicates the emergence of moths has picked up considerably this week. Egg laying is underway at advanced southern sites, and hatch can be anticipated wherever 1550 DD (base 50°F) have accumulated. Second generation moths are common in

corn fields with dense weed growth. Additionally, pupae and 5th instar larvae continue to be detected. Close monitoring of susceptible crops should begin this week. Peak flight of summer moths is expected at 1733 DD.

Corn rootworm – Considerable variation in corn rootworm beetle populations were noted during this week's survey efforts, but none of the southeastern fields examined had counts exceeding the threshold of 0.75 beetle per plant. As mentioned in last week's Bulletin, now's the time for growers who intend to plant continuous corn to begin monitoring populations closely. The number of adults present this season can be used to estimate next year's population. Beginning in the week or two ahead, check fields at least 3 times, at 7-10 day intervals, continuing to do so through mid-September. Examine 50 plants and count the number of beetles per plant. Corn rootworm beetles often hide in the silks and axils, so examine plants closely, placing your hand over the silks while counting beetles to prevent them from escaping while counting. Calculate the number of beetles per plant during each of the three samplings. Treating with a soil insecticide the following year may be warranted when an average of 0.75 beetles per plant is found during any of the samplings. A second option for growers is to rotate to a crop other than corn (and other than soybeans if possible). Corn rootworm does not generally present problems in fields where any crop other than corn was grown in the previous year.

Corn earworm – Pheromone trap catches remain low at the trapping sites throughout the state. A few moths have turned up in black light traps, but the bulk of activity isn't expected for another two to three weeks. Producers are encouraged to scout now for larvae in sweet corn tips.

Forages

Potato leafhopper – Weather conditions in recent weeks have been extremely favorable for potato leafhopper nymph production. Counts were high in southeastern alfalfa and soybean fields, ranging up to 12 per sweep, with nymphs predominating. Many acres of alfalfa across the state are now showing the yellowing symptoms associated with leafhopper feeding. In southeastern Wisconsin, 31%-66% hopperburn was noted in several alfalfa fields.

Potato leafhopper injury is frequently mistaken for drought stress or nutrient deficiency at this time of year. Be sure to scout using a 15" sweep net to confirm whether heavy potato leafhopper populations are responsible for extreme yellowing. Continue to monitor populations closely to prevent injury to third crop alfalfa and other susceptible crops.

Alfalfa caterpillar – The light to moderate amounts of

defoliation evident in Racine, Kenosha and Walworth Co. alfalfa fields were attributed to the moderate numbers of large, late instar larvae. An average of 0.5 to 2.1 third to fifth instar larvae were collected per sweep from fields of 10"-16" alfalfa. The threshold for alfalfa caterpillar is 10 per sweep. Alfalfa caterpillar populations rarely reach economic levels, and as with most other occasional pests of alfalfa, cutting is usually effective in reducing populations.

Soybeans

Bean leaf beetle – Contrary to earlier forecasts, the bean leaf beetle hasn't developed into a significant pest yet this season; however, that could change in the weeks ahead as second generation beetles begin to emerge. Moderate amounts of defoliation attributed to bean leaf beetle feeding have now been observed throughout southern and west central Wisconsin, indicating that fields may be susceptible to pod feeding injury as they approach the latter reproductive stages in August. While pod feeding does little direct economic injury, it leaves surface lesions that make pods more susceptible to secondary infections. Further, defoliation is still an issue in many areas. According to the University of Illinois-Extension Pest Management and Crop Development Bulletin, soybeans become increasingly vulnerable to defoliation during the early reproductive stages and can withstand only 20% defoliation during the R4-R6 stages. In several parts of the state soybean fields are fast approaching these stages. Continue to monitor levels of defoliation and pod feeding in the weeks ahead, and remain alert to the possibility of bean leaf beetle problems as pods begin to develop.

Soybean aphid – Population densities throughout the state continue to increase, but at a much slower rate than initially expected. While infestations are becoming more prevalent in the south, colonies remain relatively low. Fields in Racine and Kenosha Cos. had anywhere from 5%-80% of the plants with 5-27 aphids per plant. No field surveyed had 100% of the plants with aphid colonies. In fact, this year's levels appear to be the lowest since 2000.

In most areas of the state, soybean aphid populations are unlikely to reach economically important levels this season. Some scattered problems could arise in late-planted beans, but on the other hand, aphid densities usually decline substantially in mid- to late August in Wisconsin, which leaves little time for current populations to build. Nonetheless, growers are encouraged to continue to monitor aphid levels closely, and are cautioned to avoid treating fields unnecessarily. University of Wisconsin-Extension recommends an action threshold of 250 aphids per plant from the late vegetative through R3 growth stages, when populations

are actively increasing. Populations are on the increase, but no fields with an average even close to 250 aphids per plant have been detected this summer.

Grasshoppers – Nymphs are maturing rapidly and consuming up to 30% of soybean foliage in some southeastern fields. While injury was heaviest at field margins, some defoliation was observed in field interiors as well. The nymphs noted were the redlegged species, *Melanoplus femurrubrum*. Grasshopper control is justified when defoliation reaches 30% prior to bloom, or 20% between bloom and pod fill.

Potatoes

We're past the midpoint in the season for most fields and the end is almost in sight. There is still **no late blight in the state!** The Healthy Grown growers should be able to once again capitalize on the absence of late blight through increased IPM scores and reduced toxicity scores. The entire industry benefits from savings in sprays, use of lower cost materials and savings from reductions in postharvest losses. Additional fields are now being vine killed in preparation for harvest and vine growth is slowing, meaning that we can maintain coverage with protectant materials that will also manage early blight. There is definitely a gradient of severity value accumulation from south to north with the Grand Marsh station now exceeding 100 severity values.

Early blight is slowly but steadily progressing, particularly in fields where symptoms of early dying are appearing through the plantings. By now the supplemental treatments with nitrogen have been applied and the early blight materials such as azoxystrobin, pyraclostrobin and boscalid have also been sprayed on the foliage. Given the amount of early blight in some fields, there is discussion by some in the field about whether to apply more of these products at the highest label rates. This is a very bad idea and one that needs to be put in the circular file. Using these products with focused modes of actions in a curative mode, i.e. after early blight has gained a foothold, increases the risk of selecting isolates of the early blight fungus with increased levels of resistance to the early blight fungicides. Applying the early blight fungicides in a curative mode is also contrary to label directions. In our statewide monitoring of early blight isolates over the past two years, we've observed a shift in sensitivity to azoxystrobin fungicide. This shift applies to the Group 11 materials and should be taken seriously when considering use patterns. We've been recommending up to three treatments with the Group 11 materials and early season use alternated with a protectant material since these products were registered. Application of more than three Group 11 sprays (Quadris, Amistar, Headline, Gem, Tanos) has marginal value beyond what is achieved with

three sprays and we should not be applying these materials late in the season when they will be used in a curative manner. We've reported on the shift in sensitivity in earlier meetings and newsletters, but it doesn't hurt to keep thinking about resistance management. For those growers who are concerned with the progress of early blight in their fields, consider the application of TPTH (Super Tin) tank mixed with mancozeb or chlorothalonil. In past years, we've observed that these mixes in late July to early August delay the progress of early blight. TPTH should not be mixed with spreader/stickers, oil-based insecticides or MH-30. These mixes can lead to severe phytotoxicity problems. Also growers should avoid TPTH treatment during hot and humid conditions since treatment under these conditions can lead to speckling of treated leaves.

UW is receiving samples of **common scab** from around the state and in some field locations, the problem is serious. We normally think of common scab as a problem when there is a moisture shortage and stress during the early tuberization period. This doesn't seem to be the case this year since many fields were plagued with excess water and temperatures were cool. At this point in the season, there doesn't appear much that can be done to reduce losses to scab. It would be very useful to receive feedback from growers who are observing abnormal amounts of scab in their fields. Information on location, soil pH, soil type, a three year cropping history, a history of fumigation in the problem fields and cultivars affected would all be appreciated. Information should be sent to Walt Stevenson at wrs@plantpath.wisc.edu or 608-262-6291. (Walt Stevenson, UWEX)

Current P-Day and Severity Value Accumulations for 2004 (<http://www.plantpath.wisc.edu/wivegdis/index.htm>)

Calculation date 7/28/04

Location	P-Day Total	Severity Value Total
Antigo emerging June 4	370	36
Antigo emerging June 12	315	29
Antigo emerging June 24	227	25
Grand Marsh emerging 5/12	528	103
Grand Marsh emerging 5/17	504	97
Grand Marsh emerging 5/22	469	93
Hancock emerging 5/12	531	83
Hancock emerging 5/17	507	77
Hancock emerging 5/22	472	73
Plover emerging 5/11	539	76
Plover emerging 5/25	457	59
Plover emerging 6/20	272	27

Vegetables

European corn borer – Moth activity is escalating, indicating that pressure in beans and other susceptible crops can be expected to increase in the weeks ahead.

Growers are encouraged to begin scouting for egg masses on snap beans.

Cabbage looper – The flight is well underway in Columbia County where 52 moths were caught since Monday. Catch is lighter in other parts of the state but growers should definitely be scouting their cole crops for eggs and larvae. Eggs are yellowish white or greenish, round and about the size of a pinhead. Eggs are usually deposited singly, although clusters of up to 7 eggs are not uncommon. Deposition occurs near the outer fringes of lower leaves, on both the upper and lower leaf surface. A female moth can lay 200-350 eggs over a 10-12 day period. Eggs hatch in 2-5 days. Larvae are green with lengthwise white stripes and will grow from ¼ inch to 1 ½ inches long. This is the first generation of larvae in Wisconsin. Usually the second generation larvae, which will occur in late August and September, are more damaging.

Imported cabbageworm – Lots of butterfly activity has been observed in Grant, Lafayette, Green and Sauk counties. Scout crops now for eggs and larvae. Females lay single yellow, oblong, and longitudinally deeply ridged eggs. Larvae are velvety green with light yellow stripes down the back and can grow over 1 inch long. Larvae feed on the first formed outer leaves of their host plants. Infested leaves become riddled with irregularly shaped holes. Unlike the cabbage looper, imported cabbageworm overwinters in Wisconsin; their first generation occurred in May. Larvae of the 2nd generation, which are usually found in late July, cause the most damage to cole crops.

Scouting for ICW and CL – Examine 25-50 plants in at least 4 different areas of the field. A plant is considered infested if one or more eggs or larvae are present on the plant. For example, if 3 of 50 plants have 1 or more eggs or larvae, the infestation level is 6%. Treat according to the chart below.

Consult UW-Extension publication A-3422, Commercial Vegetable Production in Wisconsin, available at <http://cecommerce.uwex.edu/pdfs/A3422.PDF>, for treatment information.

(Information from K. Delahaut, UWEX):

Cabbage Looper Trapping Results		
County	7/15-7/22	7/23-7/29
Racine	19	N/A
Columbia	NA	52
Waushara	4	7
Vernon	0	2

Bean leaf beetle --The first generation of bean leaf beetle adults are now emerging. These are ¼ inch long, yellow-green to red beetles with 4 black spots on their backs. Adult beetles chew small holes into the leaves

from the lower surface. The beetles also feed on developing pods, distorting them and creating a point of entry for disease organisms. The larvae feed on the roots and stems below the soil line and may girdle the plant. Threshold levels for management on snap beans are 6-10 holes per leaf on 10% of the plants between the seedling stage and when they produce their first trifoliolate leaves. The best control is prevention – imidacloprid seed treatment at planting. Otherwise any insecticides used to control corn borers in snap beans will also control bean leaf beetles.

Summer adults of the **Colorado potato beetle** are beginning to appear. This is probably the most difficult stage to control. Anyone growing potatoes should monitor their crop regularly and carefully as these summer adults can cause severe defoliation. Flowering plants can only tolerate 5-10% defoliation while the threshold after bloom goes up to 30% before yield is affected. Keep in mind that Colorado potato beetles really like eggplant and that eggplants can be defoliated at any stage of development and may suffer total yield loss.

Spotted cucumber beetles (aka the Southern Corn Rootworm) are also present in cucurbit plantings in the southern part of the state. This species is of less importance than the striped cucumber beetle that's been around for a couple months already. Spotted cucumber beetles don't overwinter in Wisconsin, hence their later

ICW and Cabbage Looper Threshold information		
Crop	Growth Stage	Threshold (% infestation)
Cabbage	Seed bed	10%
	Transplant to cupping	30%
	Cupping to early head	20%
	Mature head	10%
Broccoli	Seed bed	10%
	Transplant to first flower	50%
	Flower bud to harvest	10%
Cauliflower	Seed bed	10%
	Transplant to first curd	50%
	Curd present	10%

arrival in the crop.

One note on insecticide control of cucumber beetles. The manufacturer of Adios bait – carbaryl with buffalo gourd extract (cucurbitacin) – is discontinuing manufacturing the product because of low usage.

Northern & western corn rootworm beetles have emerged. Threshold level is 1 beetle per 10 corn plants. The critical issue for sweet corn growers is silk clipping which results in poor ear fill. Cucurbit growers may see blossom feeding, and may mistake the pest for the striped cucumber beetle. In most cases, it's not the striped cucumber beetle but rather the western corn

rootworm in search of pollen. Turn the insects over and look at their bellies: striped cucumber beetles will have a black belly while western corn rootworms will have a yellow-green belly. The northern corn rootworm (the light green one) also likes to eat the ray flowers of sunflowers.

The first **corn earworm moths** have been caught in blacklight traps in Mazomanie and Arlington. Flights remain low in MN. Little activity is expected until the second week of August based on historical data but sweet corn growers should have their traps out.

The first summer moths of the **European corn borer** will begin to emerge once 1400 DD50 have accumulated and the first eggs will be laid at 1450 DD50. The treatment period for the summer generation is between 1550-2100 DD50. This means that the moths should be flying in an area southwest of a diagonal line that extends from just north of La Crosse down to Walworth. In the northern counties (north of a line from Green Bay to Stevens Point to Eau Claire), the first generation treatment period is occurring (800-1000DD50).

Corn leaf aphids are beginning to appear and we expect populations to build over the next few weeks.

Powdery mildew is prevalent on pumpkin in many areas of the state given our wet spring and early summer and now our high humidity. Growers are encouraged to begin preventative fungicide treatment at the first signs of symptoms. Any of the strobilurins (Quadris, Cabrio, Flint, Amistar) alternated with thiophanate-methyl (Topsin-M) will provide good control if started early.

Alternaria and Cercospora leaf blights continue to infect carrot plantings. Since carrots grow well into the fall, blight susceptible carrot varieties need to be monitored carefully and protectant fungicide programs implemented as needed. Disease appears later and progresses more slowly on varieties with field resistance to these diseases (Apache, Bolero, Caro-choice, Caropak, Cellobunch, Early Gold, Enterprise, Kuroda, Magnum, Nevis, SugarSnax 54, Sweet Bites are some). Fewer sprays and longer intervals between sprays generally suffice for these resistant cultivars. (K. Delahaut, UWEX)

Forest, Nursery and Landscape

Spider mite – Moderate amounts of damage were observed on white and Colorado spruce at nurseries in Dane and Walworth Cos.

Leafhopper – Maples and elms were seeing moderate amounts of damage from leafhoppers at nurseries in Door, Fond du Lac, Jefferson, Marathon and Walworth Cos. Numbers of leafhoppers have been on the increase and we can expect to see more damage in the coming

weeks.

Spruce needle miner – Light to moderate amounts of mining activity were noticed on Black Hills and Colorado spruce at nurseries in Barron and Outagamie Cos. See the July 2, 2004 Wisconsin Pest Bulletin for more information.

Fall webworm – Webs are starting to become noticeable on various trees around the state.

Balsam gall midge – Balsam fir at a nursery in Lincoln Co. had light to moderate numbers of leaf galls. See the Christmas Tree Pest Manual <http://www.na.fs.fed.us/spfo/pubs/misc/xmastree/> for additional information.

Chrysanthemum lace bug – A heavy infestation in an ornamental planting was observed at a nursery in Dane Co.

Tar spot – Tar spot is starting to become noticeable as the overwintering structures on the leaves turn a dark, black color. Light to moderate amounts of tar spots were observed on silver, red and Freeman maples at nurseries in Dane, Barron, Fond du Lac, Grant and Outagamie Cos. Two species of fungi cause tar spot. The most common species is *Rhytisma punctatum*, or small tar spot. This species can infect red, bigleaf, mountain Rocky Mountain, silver, striped sugar, sycamore, vine maples and boxelder. This is the most common species we find on silver, red and silver/red hybrids. Another species, *Rhytisma acerinum*, forms larger leaf spots and can be found on Norway maples. Treatment for tar spot is seldom warranted but if there is a continuous problem fungicides may be used to control it. A labeled fungicide should first be applied when buds are opening and then two more times at 10-day intervals.

Apple scab – Defoliation was starting to occur on susceptible apples and crabapples at nurseries in Dane, Fond du Lac, Jefferson, Outagamie, Walworth and Waukesha Cos.

Powdery mildew – It's an early year for powdery mildew with the usual suspects showing signs first. Moderate to heavy amounts of powdery mildew were recorded from phlox, monarda, roses, purpleleaf plum and amelanchier at nurseries in Dane, Marathon, Oneida, Outagamie, Walworth and Waukesha Cos.

Quince rust – Cockspur hawthorn was showing light to moderate numbers of twig swellings at nurseries in Dane, Grant, Jefferson, Walworth and Waukesha Cos. Quince rust (*Gymnosporangium clavipes*) is one of the most damaging of the Gymnosporangium rusts to woody, rosaceous plants. Unlike hawthorn rust or cedar-apple rust, quince rust attacks the fruit, green stems and petioles of hawthorn. Stems of hawthorn attacked by

quince rust become swollen, girdling the stem and eventually killing the stem towards the tip. These galls, when abundant, stunt the tree and cause disfigurement, making the tree unmarketable. Old galls may remain on the tree for a number of years. Fruit attack by quince rust supports numerous fruiting structures which give the tree an orange cast. Attacked fruits eventually shrivel and fall from the tree. There are no known resistant commercial species of hawthorn but susceptibility does vary. Particularly susceptible is the hawthorn *Crataegus crusgalli* var. *inermis*.

Like the other rusts mentioned above, quince rust's alternate host is juniper. On juniper it persists as perennial, spindle-shaped galls. Damage to juniper from the galls can cause a general lack of vigor and apparently diminishes winter hardiness. On juniper, telia are produced in the spring of the year. Teliospores germinate in place and form basiospores, which is the stage that infects the rosaceous host, in this case hawthorn. Telia formation generally coincides with the blooming of hawthorn and can be used to time fungicide applications. Infection may continue into early June if conditions are favorable.

Elimination of the alternate host, juniper, is often listed as a management tactic, but in practical terms is unfeasible. In nursery settings it would be wise to plant junipers and hawthorns in different fields. In nurseries where quince rust is an annual problem, protective fungicide applications are recommended. Timing is the same as for cedar-apple rust. Watching when the gelatinous telial horns form on cedar can help time fungicide applications. Horns can form and swell several times in the spring so it is important to monitor the galls until early June. Once the galls no longer swell after a rain, fungicide treatments can be stopped.

Guignardia leaf blotch – Heavy amounts of leaf blotching was occurring on horsechestnut at nurseries in Dane, Jefferson and Waukesha Cos.

Venturia shoot blight – Light amounts of tip blight was observed on aspen and hybrid poplars at nurseries in Jefferson and Marathon Cos. Affected stems and leaves turn black and distorted. Repeated attacks on small trees may weaken them and allow invasion by other disease organisms. Resistant varieties are available.

Lirula needle cast – Balsam fir had light amounts of this needle disease at a nursery in Lincoln Co. See the Christmas Tree Pest Manual <http://www.na.fs.fed.us/spfo/pubs/misc/xmastree/> for additional information.

Didymellina leaf spot – Iris at nurseries in Lafayette and Oneida Cos. had moderate amounts of leaf spotting from this fungal pathogen. This common disease of iris

generally affects the upper half of the leaf but can sometimes consume the entire leaf. Raking up and removing old leaves in the fall will help to lessen the inoculum level the next year.

Gypsy Moth

Trappers have been checking traps in the southern and central parts of the state. As of July 28, trappers have checked 6,552 traps or 22% of the total traps set. A total of 1,303 moths have been caught so far. Most catches have been in the south central and southeast part of the state. Trap checking will start in the northern part of the state next week.

Trap check will end in the southern part of the state on August 6 and a week later in the central part of the state. Once trap check is complete, trappers will do some spot-checking to help determine the end of moth flight. When moth flight is over trappers will begin to take traps down. Typical start dates for trap takedown is mid-August in the southern part of the state.

If you have any questions about the GYPSY MOTH PROGRAM, please call our hotline at 1-800-642-MOTH or visit the Department's gypsy moth web site at <http://www.datcp.state.wi.us>, keyword "gypsy moth".

Fruit

Codling moth - Peak emergence of second generation adults can be anticipated at 1,600 DD (base 50°F) and peak egg laying by second generation adults at 1,700 DD.

Apple maggot – The degree day model for apple maggot indicates peak adult emergence can be anticipated around 1,600 DD (base 50°F), peak egg laying around 1,750 DD, and the end of adults emergence at 2,800 DD. In many southern and west central parts of the state, peak egg laying is rapidly approaching.

Apple scab – One grower commented that after visiting other orchards in the area besides his own, he believes scab problems this year are as bad as 2002 and the worst he'd seen in years.

Calendar

August 5 Crop and Pest Management Workshop Arlington Agricultural Research Station 10:00 a.m.-3:30 p.m. \$30 (includes lunch). For more information or to register, contact Dan Heider at 608-262-6491 or via email at djheider@wisc.edu.

August 5-7 WI Christmas Tree Convention Central Wisconsin Evergreens, Merrill WI For more information, call WCTPA at 608-742-8663

Aug 7-8 Go Wild! Native Landscaping Conference Madison, WI contact Sue Ellingson at 608-259-1824 or Marian Farrior at (608) 265-5214

Aug 9 Fruit, Vegetable and Flower Twilight Tour Hancock Ag Research Station, Hancock, WI For more information contact the Hancock Ag Research Station, N3909 County Hwy V, Hancock, WI 54943-7547 at 715-249-5961 or fax 715-249-5850.

August 10 Crop and Pest Management Workshop Marshfield Agricultural Research Station 10:00 a.m.-3:30 p.m. \$30 (includes lunch). For more information or to register, contact Dan Heider at 608-262-6491 or via email at djheider@wisc.edu. (Repeat of Aug. 5 workshop.)

August 11 Crop and Pest Management Workshop Chippewa Falls 10:00 a.m.-3:30 p.m. \$30 (includes lunch). For more information or to register, contact Dan Heider at 608-262-6491 or via email at djheider@wisc.edu. (Repeat of Aug. 5 workshop.)

August 18 Vegetable/Horticulture Tour Spooner Agricultural Research Station. For more information, contact 715-635-3735

Aug 17 Fall Garden Twilight Tour Ashland Ag Research Station, Ashland, WI State Farm Road, Ashland, WI 54806-9338 at 715-682-7268 or fax 715-682-7269.

Aug 18 Twilight Garden Tour Spooner Ag Research Station, Spooner, WI For more information contact the Spooner Agricultural Research Station, W6646 Highway 70, Spooner, WI 54801 at 715-635-3735 or Fax 715-635-6741.

August 19 Vegetable/Horticulture Tour Marshfield Agricultural Research Station. For more information, call 715-387-1723

Aug 19 Twilight Garden Tour Marshfield Ag Research Station, Marshfield, WI For more information contact the Marshfield Agricultural Research Station, 8396 Yellowstone Dr., Marshfield, WI 54449-8401 at 715-387-2523 or fax 715-387-1723.

Aug 21 West Madison Horticulture Field Day West Madison Ag Research Station, Verona, WI, 10:00 to 3:00. There will be vegetables of all types to taste, herbal vinegars, roasted garlic and peppers, sweet corn, and Asian vegetables. Also 4 seminars in the building: Invasive Weeds, Insects in the Garden, Diseases in the Garden, and one on Prairie Plants. For more information contact Asst. Superintendent Judy Reith-Rozelle, 8502 Mineral Point Rd., Verona, WI 53593-9689 at 608-262-2257 or fax 608-829-3074.

Black Light Trapping Results											
Trap Site	Date	ECB	AW	BC	VC	SC	DC	Cell	FL	CabL	CEW
Southwest											
Lancaster	7/21-7/29	1	17	4	1	0	0	21	22	0	0
South Central											
Arlington											
W Arlington											
W Madison	7/21-7/29	3	148	19	1	0	0	42	23	1	3
Mazomanie											
West Central											
Sparta	7/21-7/28	0	5	3	0	0	0	3	0	1	
Coon Valley											1*
Central											
Marshfield	7/23-7/29	17	18	1	3	0	0	0	19	0	
Plover											
Plainfield											
East Central											
Manitowoc	7/23-7/29	15	10	1	0	0	17	3	0	0	0
Northwest											
Chippewa Falls	7/23-7/29	4	0	0	0	0	0	0	0	0	

ECB--European corn borer; **AW** --armyworm; **BC**--black cutworm; **VC**--variegated cutworm; **SC**--Spotted cutworm; **DC**--dingy cutworm; **Cell**--celery looper; **CEW**--corn earworm; **FL**--forage looper; **CabL**--cabbage looper

* Coon Valley cabbage looper is pheromone trap

Apple Insect Trapping Results through July 30, 2004

	Date	STLM	RBLR	CM	OBLR	AM (red)	AM (yellow)
Grant Co.							
Cuba City		20	0	1	0		
Sinsinawa							
Crawford Co.							
Gays Mills-E2							
Gays Mills-W2							
Iowa Co.							
Dodgeville	7/23-7/29	10	0	30	0	11	22
Richland Co.							
Hill Point	7/21-7/27	220	3	2	0	3	2
Richland Center -W							
Richland Center-E							
Sauk Co.							
Baraboo							
Dane Co.							
Deerfield							
Dodge Co.							
Brownsville							
Green Co.							
Brodhead	7/23-7/29	22	7	1	0	0	
Ozaukee Co.							
Mequon	7/22-7/28	15	6	1	0	1	
Racine Co.							
Raymond	7/23-7/29	85	12	0	0	0	0
Rochester	7/22-7/29	116	7	2	0	5	0.5
Kenosha Co.							
Burlington							
Waukesha Co.							
New Berlin	7/23-7/29	164	2	7	1	0	0
Pierce Co.							
Beldenville	7/17-7/24	26	14	0	0	2	
Spring Valley	7/24-7/30	354	10	0	0	0	0
Jackson Co.							
Hixton	7/21-7/27	64	0	0	0	1	0
Marquette Co							
Montello	7/18-7/25	0	0	0	0	0	0
Brown Co.							
Oneida	7/19-7/23	50	10	1	0	0	0
Sheboygan Co.							
Plymouth	7/16-7/22	550	30	13	1	8	0
Fond du Lac Co.							
Campbellsport	7/23-7/28	0	2	1	0		
Rosendale	7/13-7/27	43	14	3	2	1	0
Malone	7/23-7/29	12	25	1	0	0	
Marinette Co.							
Wausaukee	7/23-7/29	N/A	0	1	4	0	0

STLM--Spotted tentiform leaf miner; RBLR--Redbanded leaf roller;CM--Codling moth;OBLR--Oblique banded leaf roller; AM--Apple maggot



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Web Site of the Week

Bee-L, “For Informed Discussion of Beekeeping Issues and Bee Biology”

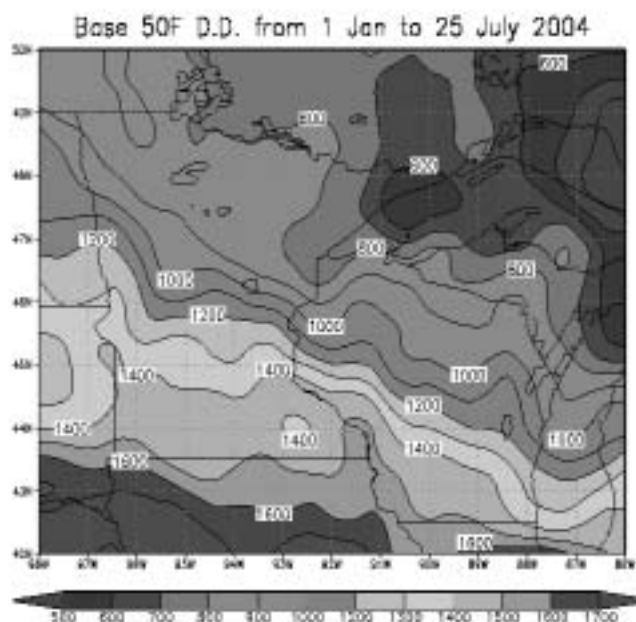
<http://www.honeybeeworld.com/bee-l/default.htm>

Not technically a Web site *per se*, but an email listserve with the option to read messages via the Web. Bee-L is certainly informed, with a wide variety of beekeeper types participating, representing a great collective wealth of experience. It is also lively, opinionated, and (because it’s beekeepers and because it’s moderated) more polite and more on-topic than almost any other listserv on the Internet.

Quote of the Week

A worm tells summer better than the clock,
The slug’s a living calendar of days;
What shall it tell me if a timeless insect
Says the world wears away?

Dylan Thomas (1914–1953), Welsh poet



<http://www.soils.wisc.edu/wimnext/tree/arbor.html>