

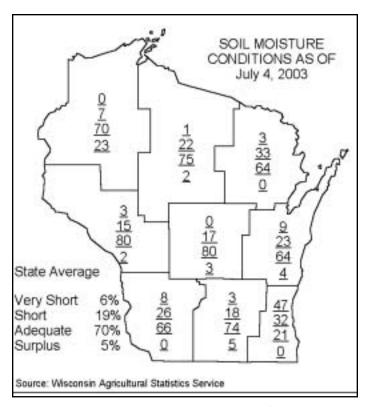
Wisconsin Pest Bulletin

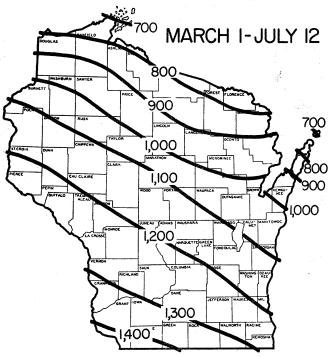
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Historical Average Growing Degree-Days Accumulated Since March 1. (Wisconsin Agricultural Statistics Service)

Weather and Pests

Eight consecutive days of scattered rains in the south has largely benefited crops, and across the state both corn and soybean fields have developed a healthy, deep green hue. The rain showers slowed activity for some insect species this week, but on the down side, the rain adversely affected haying. Most farmers could use a few dry days to finish up the process.

Growing degree days from March 1 through July 10 were

Site	2002		Normal	Base	Base			
	GDD*	GDD	GDD	48	40			
SOUTHWEST								
Dubuque, IA	1216	1328	1402	1237	2081			
Lone Rock	1204	1251	1290	1191	2054			
SOUTHCENTE	RAL							
Beloit	1191	1293	1327	1188	2067			
Madison	1154	1223	1283	1164	2015			
Sullivan	1116	1237	1234	1158	1966			
Juneau	1092	1204	1172	1100	1942			
SOUTHEAST								
Waukesha	1033	1202	1220	1038	1870			
Hartford	1029	1173	1163	1048	1865			
Racine	942	1162	1214	974	1759			
Milwaukee	943	1132	1192	963	1752			
EAST CENTRA								
Appleton	1021	1071	1054	1058	1827			
Green Bay	882	969	998	938	1651			
CENTRAL								
Big Flats	1129	1184	1173	1139	1945			
Hancock	1110	1169	1159	1137	1931			
Port Edwards	1047	1108	1158	1068	1840			
WEST CENTRAL								
LaCrosse	1206	1319	1254	1206	2051			
Eau Claire	1166	1187	1154	1183	2003			
NORTHWEST								
Cumberland	1034	1026	1081	1057	1798			
Bayfield	744	728	707	730	1362			
NORTH CENTRAL								
Wausau	955	998	1082	978	1711			
Medford	922	937	1038	953	1668			
NORTHEAST								
Crivitz	873	896	890	900	1614			
Crandon	861	865	912	876	1572			

^{*} GDD (Growing Degree Days) are synonymous with degree-days above modified base 50° F, with no low temperature below 50° F or above 86° F used in calculation.

Alerts

Potato growers and scouts need to be extremely vigilant for symptoms of **late blight** as they visit their fields during the week ahead. (see "Potato" section for more information.)

Cucurbit growers should begin to scout for **powdery mildew** on pumpkins this week. (See "Vegetable" section for more information.)

Looking Ahead

European corn borer – Pupation has begun in the southwest this week, and the first moths of the second flight can be expected by July 21 at southern sites. The most effective treatment window for first generation larvae has passed in the south central, southwest, and west central districts. In regions where 1100 DD (base 50°F) have not yet accumulated, particularly in north central, northeast and northern counties in the central district, there is still some time left; however, management decisions will need to be made in the next few days.

Corn rootworm – Adult emergence began this week. A few adults of the Northern variety were spotted in a western Dane Co. field. After the recent rains and high winds, lodging damage is likely to become apparent in fields with heavy larval infestations. Scout now to assess the degree of larval injury to corn plants and expect to see increasing numbers of adults as tassels emerge in the south

Soybean aphid – Aphids continue to spread across the state and levels within fields are increasing. Colonies were detected as far north as Barron Co. this week. Infestations affecting 55% or more of the plants are common in most fields, while the number of aphids per infested plant are extremely variable. Colonies are expected to build rapidly over the next few weeks and peak during the early reproductive stages of soybean growth. Watch levels closely now to assess the potential need for control in upcoming weeks.

Armyworm – Low counts were found throughout the southern counties this week; however, monitoring susceptible crops should continue, especially in the northern counties where there is high moisture and latermaturing crops.

Apple maggot – Catches of adults in bait traps began this week. The first capture of several flies was documented at an orchard in Pierce Co. In the week ahead, scouting and control efforts should be intensified in all growing areas where flies are beginning to emerge.

Corn earworm – The first pheromone trap catch of the season occurred last week near New Richmond, and eight more corn earworm moths showed up this week. Look for counts to rise in the next week.

Forages

Potato leafhopper – Recent rainfall has helped to alleviate symptoms that were beginning to appear at some dry southern and central sites where the combination of moderate populations of leafhoppers and low levels of soil moisture were beginning to take their toll on stands. The scarcity of nymphs in the fields surveyed indicates reproduction has not been particularly successful this week. Populations in second crop alfalfa in Brown, Winnebago and Fond du Lac Cos. ranged from 0.5 to 1.9 per sweep. In Dane and Sauk Cos., counts fell below 2.3 per sweep. In contrast, potato leafhopper counts were high in some second crop Chippewa Co. fields where 90% hopperburn was observed. This suggests that pressure may still be high in some northern counties.

Corn

Corn rootworm – Northern corn rootworm adults have begun emerging in the southwest. Adult activity increases about the same time corn is in the silk stage, usually sometime during late July to mid-August, and persists through fall. Although adults can cause extensive damage to corn silks, the injuries caused by the larvae are generally more severe. The larvae occur from June through August, and feed on the corn root system. Larval feeding often leads to lodging, a symptom that is just now beginning to appear in some fields.

European corn borer – Moth flight has nearly stopped in the south central, central, and southwest districts, but light moth catches are still occurring in some eastern and northern counties. In east central fields, females were still flying about fields and laying eggs. In Fond du Lac and Winnebago Cos., egg masses were found at the rate of 2/100 plants. No newly hatched larvae were observed in any of the Fond du Lac and Winnebago Co. fields surveyed. Larvae in the southern counties are predominantly in the 3rd instar, but some 4th instar larvae were noted in western Dane and Sauk Co. fields. Populations were mostly light to moderate in the east central and southern areas surveyed, with the heaviest infestations seldom involving more than 35% of the plants; however, a few southern fields had infestation exceeding 68%. With pupation getting underway, expect the first summer moths at 1400 DD (base 50°F), which could occur by July 21 in the southcentral area.

Stalk borer – Larval infestations were encountered in several east central and south central fields. Ordinarily populations are restricted to the margins of fields, but in the south central fields surveyed this week, more were found scattered throughout the fields. Populations are light in most cases, with fewer than 1 to 2 larvae/plant; however, some younger plants with two larvae were

stunted. Despite the stunting, these infestations are considered light and spot treatments are not warranted. Larvae were almost fully developed in most fields.

Corn earworm – The first pheromone trap catch of the season, four moths, occurred last week near Cameron, in Barron Co., and a few more showed up this week.

Late-planted sweet corn is vulnerable to corn earworm in late August and early September because the fresh silk attracts female moths for egg laying. Corn earworm damage to sweet corn is primarily aesthetic, but consumers often reject sweet corn when any amount of damage appears on the ear. Treatment is justified when more than 10% of the silk masses have corn earworm eggs. This applies only to plantings with fresh silks or with silks just beginning to dry.

Armyworm – Scattered reports of damage continue to come in from southern areas, so growers are encouraged to continue scouting for armyworm injury. Light to moderate amounts of foliar damage were observed in Dane and Sauk Co. fields where damage was evident on 5-15% of the plants. A few Fond du Lac and Winnebago Co. corn fields sustained light amounts of damage (<10%) in scattered locations within fields, but most injury was concentrated at the field margins.

Corn leaf aphid – Colonies have been found as far north as Marinette Co. No excessively high populations were noted in northeastern or east central fields. In general, less than 10% of the plants had colonies with fewer than 25 aphids per plant.

Picnic beetles - Beetles were noted in European corn borer tunnels in Dane Co. fields this week. A major picnic beetle emergence usually coincides with the emergence of corn rootworm beetles, an event that is just beginning in the south.

Anthracnose — Corn fields in Walworth Co. are showing symptoms of anthracnose, caused by *Colletotrichum graminicola*. Lesions caused by anthracnose can vary greatly, depending upon host genetic background, age of leaf and the environment. Small oval to enlongated lesions, becoming tan at the center, are the most common response. The disease may also cause a stalk rot, considered more damaging than the leaf blight. The fungus overwinters on corn residue; in a number of fields surveyed in Walworth Co., the disease was found only in corn-on-corn fields.

Soybeans

Soybean aphid – Once again, soybean aphid numbers were highly variable this week. Aphids were found in every south central and east central field surveyed, and the

number of plants with aphids has risen, but there appears to be no trend in the number of aphids per infested plant. Aphids were also found in as far north as Barron Co., where a 63% infestation was observed. In Shawano and Fond du Lac Cos. levels of infestation ranged from 12.5% to 90% with 1.3 to 3.9 aphids per infested plant. In some Rock Co. fields aphid pressure was very high, with an average of 175 aphids/plant.

Aphid numbers are building, and the most opportune time for control is approaching. Fields that are candidates for aphid control should be treated when there are several hundred aphids present on each plant, but before plants show noticeable sign of damage. Treating any earlier will not be as effective. Since the aphids generally reside on the undersides of leaves they are very difficult to control. Some percentage of the population will be missed by chemical sprays and the colonies that remain could rebound rapidly. For this reason it is critical to time sprays to when the soybean aphid population in a field has reached its peak level, usually around the R2-R4 growth stages. In the southern portion of the state this period is rapidly approaching. Continue to monitor soybean aphid levels over the next week to determine whether control will be warranted and the most effective treatment window.

Potato leafhopper – Fields surveyed in the south central and east central districts had nymphs of various maturities at the rate of 1 to 2 per plant. No soybean fields were encountered with populations exceeding the economic threshold for potato leafhopper.

Potatoes

Severity values, a reflection of conditions favorable for late blight development, increased at all reporting stations. However, increases were greatest for the southernmost reporting station at Grand Marsh and least for the northernmost station at Antigo. We are now over the spray threshold of 18 severity values for the Antigo and Grand Marsh sites and close to the late blight spray threshold at Hancock. Plover will likely be at or near threshold later this week. There are no reports of late blight anywhere in Wisconsin and I've seen no reports of late blight anywhere in the Midwest. If inoculum is present in the state, we would expect to see the first symptoms of late blight approximately 14 days after reaching 18 severity values. So with this in mind, growers and scouts need to be extremely vigilant for symptoms of late blight as they visit their fields during the week ahead.

Early blight is beginning to appear on the lower leaves where there is senescent tissue and a favorable moist environment. I expect that early blight will slowly increase in severity, but that with regular fungicide treatment, the disease can be held in check. We normally see more early blight in years where there is crop stress. So far this year,

we haven't seen the normal intense rainfall of 5 or more inches that can leach nitrogen and lead to increasing plant susceptibility to the early blight fungus. We also did not have the wet periods early during the hooking and early tuberization periods that favor plant infection by the *Verticillium* fungus. (UW Madison)

Current P-Day and Severity Value Accumulations for 2003 (http://www.plantpath.wisc.edu/wivegdis/index.htm)

Location	Calculation: Date	P-Day Total	Severity Value Total
Antigo emerging June 4	7/07	239	24
Antigo emerging June 14	7/07	168	6
Antigo emerging June 24	7/07	97	6
Grand Marsh emerging 5/19	7/07	339	20
Grand Marsh emerging 5/24	7/07	315	20
Grand Marsh emerging 5/28	7/07	293	20
Hancock emerging 5/13	7/07	386	17
Hancock emerging 5/17	7/07	362	17
Hancock emerging 5/25	7/07	316	15
Plover emerging 5/13	7/07	377	12
Plover emerging 5/24	7/07	317	12
Plover emerging 6/3	7/07	254	12

Vegetables

Snap Beans- Many snap bean fields in central WI are in full bloom or will be soon. The current daily highs above 80° F are generally not conducive to **white mold** development and fungicide sprays are generally not needed on the early season crop. As we soon move into cooler parts of the summer with dew each night and fog likely, we can expect to see white mold developing on these later crops.

Carrots- Symptoms of **Cercospora leaf blight** are beginning to appear on some of the more susceptible and early planted fields. Symptoms of **Alternaria leaf spot** are likely to begin appearing during the week ahead. There are substantial differences in the susceptibility of carrot cultivars to foliar diseases. For those plantings where the plants are over 6" tall and where the earliest symptoms of foliar blights are beginning to appear, spray programs should be initiated. Research in MI and WI indicates that beginning fungicide treatment when approximately 1% of the foliage is exhibiting the first foliar blight symptoms is a reasonable management guide.

Tomatoes-The first symptoms of **early blight** and **Septoria leaf blight** are beginning to appear on tomatoes in south central WI. With periodic rainfall over the past weekend, plants were wet almost continuously for three days. This was ideal for the development of both fungal diseases. Symptoms are generally appearing on the lower leaves. Early blight lesions are somewhat irregular in shape, especially when bordered by leaf veins. The lesions have alternating dark brown and light brown bands, even on the tiniest of lesions. Septoria lesions, however, are circular, tan in the center with tiny pepper-like structures in the very center of the lesions, and have a dark brown border.

Septoria spores are splashed upward with rain and irrigation.

Pumpkins and Other Curcurbits- Related to the somewhat dry conditions growers in central WI are experiencing, I would expect to see **powdery mildew** somewhat earlier than normal on cucurbit crops. Growers should be checking the older leaves at least weekly for the signs of powdery mildew. The first powdery mildew shows up as tiny powdery masses on the upper leaf surfaces. Several pumpkin cultivars have reasonable levels of resistance to powdery mildew. Many popular cultivars, however, are still susceptible making treatment with fungicide necessary. There's no need to begin treating at the moment, but if signs of the disease appear in mid to late July, you might consider the application of fungicide to at least delay disease spread and the premature defoliation of the vines. (UWEX)

Zebra caterpillar- This pest was noted on mint in Walworth Co. (UW-Madison Insect Diagnostic Lab)

Carrot weevil- Larvae were found in commercial carrots in Ozaukee Co. (UW-Madison Insect Diagnostic Lab)

Forest, Shade Trees, Ornamentals and Turf

Aphids — During inspections in the state we are finding populations of aphids on poplars, roses, sedum, spirea, viburnums, and verbena in light to moderate amounts in Marathon, Milwaukee, Washington and Waukesha Cos. Sometimes you see ants first and then the aphids. Ants farm aphids for honeydew which the aphids excrete and are a rich sugar source. Treatments can be as simple as spraying a hard stream of cold water on the aphids or the use of a chemical control. Natural predators, such as ladybeetles, lacewing larvae and syrphid fly larvae feed on the aphids, often times keeping the populations below damaging levels.

Jack Pine Budworm — A small jack pine stand in Marathon Co. is showing moderate to heavy defoliation from jack pine budworm. The adult moths are also flying. This is a small discreet infestation, other jack pine nearby do not show any evidence of feeding damage. (DNR)

Leafhoppers — Populations are continuing to build. We are seeing them on sugar and amur maple and roses in light amounts. The damage caused by this insect includes a curling of new leaves and sometimes a burning of leaf tissue when feeding starts to get heavy. Control of immigrant populations should begin in early June or when feeding is first seen. Always follow pesticide label directions.

Slugs — The bane of hosta growers in the state are slugs. Shady, wet sites provide ample habitat for slug development. Slugs usually feed at night, but will also feed in shady areas during the daylight hours. Slugs injure

foliage by eating ragged-edgedholes in leaves; cutworms leave a straight clean edge to the feeding area. Slugs were found on hosta at a nursery in Washington Co. causing moderate injury. Many controls are listed for control of slugs ranging from beer in tuna cans to diatomaceous earth and chemical controls. One trick for scouting is to place a board or something similar near the plants they are feeding on. Wait 24 hours, then check the underside of the board to look for slugs. This will give you an idea of the number of slugs in the area.

Spider Mites — This time of year we start to see spider mite populations increase because of the hot, dry weather. We have found damage in Milwaukee and Washington Cos. on monarda, phlox and verbena in light to heavy amounts. Spider mites generally have multiple generations in a season and can quickly go from egg to adult, making populations explode. The best method for scouting is to take a white piece of paper and tap a branch over it to dislodge the spider mites, then look for mites crawling on the paper. You can also fold the paper in half, crushing the mites against the paper, making small, colored stains on the paper. Treatments can be made to control spider mites by use of a labeled miticide/insecticide. Repeat application may be needed to control populations if the conditions favor population buildup.

Dothistroma Needle Blight — This common needle disorder was found on Austrian pine during grower inspections in Dane, Green Lake, and Waukesha Cos. in light to moderate levels. When looking for this disease examine needles for brown-colored bands. Often needles are half brown and half green. The fungal pathogen affects older needles in the tree first but can affect new needles by mid summer. Generally, disease is most noticeable in the fall when new infections start to show symptoms. With a hand lens you can see black-colored fruiting bodies erupting from the needles. This pathogen is generally spread by rain or water splash. Windbreaks of pine can harbor the disease and infect plants. To control needle blight, treat with a registered fungicide in mid-May and in mid-June. This disease can be confused with brown spot needle blight, which is more common on Scotch pine. Scotch pines have good resistance to dothistroma while Austrian pines are susceptible to dothistroma and generally don't get brown spot. Exact identification of the two diseases requires microscopic examination of the fungal spores.

Guignardia Leaf Blotch — This disease was found during nursery grower inspections in Waukesha Co. on buckeye and chestnut in light amounts. This fungal pathogen looks similar to leaf scorch and is best described as large, tan to brown areas on the leaves that sometimes have yellow areas around or near that dead patch. On the upper leaf surface, black colored spores form when the surface is wet. The spores are spread by water and rain splash.

Overwintering leaves harbor the fungus that can infect the foliage the following spring. Looking for the black fruiting bodies on the upper surface of the leaves should distinguish this from leaf scorch, common on horsechestnut and buckeye. Control of the pathogen starts with the clean up of fallen leaves. Chemical treatments can begin with a labeled fungicide in spring. This disease is generally worse when spring weather is wet.

Red spot/ Measles—This fungal pathogen, *Cladosporium paeoniae*, was found on peonies during grower inspections in Milwaukee and Washington Cos. in moderate to heavy amounts. Symptoms of red spot include small, circular spots that are red to red-brown that, as the season progresses, grow together to form blotches on all parts of the plant. Control can be made through removal of leaves and stems in the fall and treatment with a labeled fungicide in the spring.

Rhizosphaera Needlecast—This important and economically damaging pathogen of spruce was found during inspection of stock in Dane Co. in heavy amounts, and in Green Lake Co in light amounts. This pathogen is economically damaging to growers of spruce because the tree generally begins to die from the bottom up and the overall quality of the tree is reduced. Generally fields that are mowed and where the stock is spaced correctly have better air circulation and less of a problem with rhizosphaera needlecast. Look for branches near the bottom of the tree that are thin and have purplish needles still attached to the branch. Take some of those purple needles and look at the back of the needle and along the midrib. On each side you should see black-colored spores forming a line along the needle. The spores are spread by splashing and water movement. Spores overwinter on infected needles. To manage this pathogen, keep weeds and grass controlled around the trees to increase air movement and maintain good tree spacing to help with airflow. Treatments with a labeled fungicide can be made when the new needles are half elongated, with a second application when the needles are fully emerged. Treatments may have to be applied for a few seasons to get control of this pathogen when infections are serious.

State/Federal Programs

Gypsy moth trapping program - Trappers will complete setting all traps by July 11. As of July 8th, trappers have set 25, 914 traps or 94% of the expected total of 28,000 traps. Meetings are currently being held with each crew to discuss trap check procedures for this year. According to phenology data, adult gypsy moths should appear about July 18-19 in the south and 1-2 weeks later in the north. Lead workers and trappers are doing some spot checking of traps to help determine when moth flight actually occurs. When it does, trappers will start checking all traps and send in data on moth counts. Trap check will take approximately 3 weeks to complete. Takedown will begin

when it is determined that moth flight is over, sometime in mid to late August.

For more on the trapping program, please call our hotline at 1-800-642-MOTH.

Fruit

Apple maggot – Rainy conditions are often favorable to the emergence of apple maggot flies. Earlier this week several adults were captured on a yellow sticky board trap at a Pierce Co. orchard. The increase in soil moisture will likely help accelerate emergence throughout the state, as 20% soil moisture is most favorable for the emergence of apple maggot flies. Lesser amounts of moisture generally cause desiccation of pupae.

Spotted tentiform leafminer – At several of our cooperative orchards, counts of second flight moths have risen since last week. In southern counties growers should begin to see second generation sapfeeders on the undersides of leaves in the week ahead.

Odds -n- Ends

Grasshoppers—Reports are arriving from Rock and Monroe Cos. indicating considerable grasshopper activity in agriculture fields. One homeowner in Portage Co. reports an infestation and says, "It is quite like an Alfred Hitchcock movie." (UW Madison Insect Diagnostic Lab)

Rose Rosette Disease — Multiflora rose bushes in Grant and Green Cos. are showing symptoms of Rose Rosette Disease (RRD). This disease was first reported in 1941 and is believed to be viral in nature. The disease is vectored by an eriopyhid mite. RRD has been suggested as a possible biological control agent for the invasive multiflora rose, despite the fact that cultivated roses are also susceptible to the malady. Symptoms of RRD include anthocyanin accumulation and hypertrophy.

Observations in several multiflora rose-infested pastures in Grant Co. over a period of eight years indicate that under Wisconsin conditions, the disease is not effective in controlling multiflora rose. Dr. Abraham Epstein of Iowa State Univ. (retired), suggests that the mite is unable to overwinter north of a line running through Dubuque, IA—or almost perfectly matched with the southern border of our state.

Fungal Oak Disease identified in Japan — Since 1980, massive mortality of oak trees (more than 200,000 per year) has been observed in western coastal areas of Honshu, Japan. This disorder was formerly called 'fungal oak disease'. Many ambrosia beetles (*Platypus quercivorus*) were found on stems of dead trees, but infested trees were not always killed. A new fungal species called *Raffaelea quercivora* sp. nov. (an anamorphic Ascomycete) was isolated from discoloured sapwood,

necrotic inner bark, beetle body surfaces and galleries. Inoculation tests confirmed its pathogenicity to *Quercus serrata* and *Q. crispula*. It is suggested that the extensive mortality of oaks observed in Japan is caused by *R. quercivora* and its vector *P. quercivorus*. (Ito, S.; Murata, M.; Yamada, T. (2003), abstract of paper to be presented next month at APS meeting, Charlotte, NC.,).

Ralstonia solanacearum in Russia—More than 100 suspect cultures of Ralstonia solanacearum were isolated from diseased potato plants from different regions of Russia in 2001-2002, and studied to identify the races and biovars present. As a result, 37 strains were considered as R. solanacearum race 1 and 59 strains as race 3 (of which 51 were determined as race 3 biovar 2). This confirms the presence of R. solanacearum race 3 biovar 2 in Russia. It is noted that **brown rot** can cause severe losses in potato and tomato in some regions of Russia, but no details are given on its distribution within the country (Matveeva et al, 2003, abstract of APS paper).

Calendar of Events

WI Arborist Assoc. summer field day.

Wednesday, July 16th, in Janesville at the Rotary Gardens. 9 AM to 3:30 PM

Wisconsin Fresh Market

Vegetable Growers and Berry Growers Field Day

Country Bumpkin Farm in Wisconsin Dells July 18, 2003. 9:00 am - 3:00 pm Contact: Karen Delahaut 608-262-6429 or email kadelaha@facstaff.wisc.edu

Central WI Potato Field Day

July 22, 2003. Hancock Research Station 8:30-noon, lunch at noon (715) 249-5961

Northeast Wisconsin Potato Field Day

July 23, 2003. Langlade County Airport 1:00 pm

Contact: Ken Williams, UWEX (715) 627-6236

American Phytopathological Society Annual Meeting

Aug 9-13, 2003. Charlotte, NC www.apsnet.org/meetings/2003/

The WI Nursery Assoc. Summer Field Day

Wednesday, August 13th, at Silver Creek Nursery, in Manitowoc, WI. It is an all day event. Contact Brian Swingle at 414-529-4705 or email bswingle@toriiphillips.com

WI Christmas Tree

Producers Association Summer Convention

Aug. 15-16, 2003

Menominee Casino-Bingo-Hotel, Kesheena Tour Hanauer's Tree Farms, Shawano Contact: Cheryl Nicholson, Executive Secretary www.christmastrees-wi.org Phone (608)745-5802

West Madison Horticultural Field Day

featuring a Mexican Garden August 16, 2003.

Contact: Judy Reith-Rozelle at West Madison 608-262-

2257

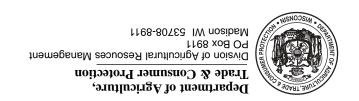
Apple Insect Trapping Results

County						AM	AM
City	Date	STLM	RBLR	CM	OBLR	red ball	sticky
Crawford Co.							
Gays Mills-W2	7/1-7/7	72	3	2	0	0	0
Gays Mills-E2	7/3-7/10	825	23	4	2	0	
Richland Co.							
Hill Point	7/3-7/10	180	4	0	3	0	0
	6/27-7/2	280	4	0	6		0
Richland Center -W	7/3-7/10	330	27	0	1	0	
Richland Center-E	7/3-7/10	525	35	2	0	0	
Sauk Co.							
Baraboo	7/3-7/10	260	7	4	1	0	
Dane Co.							
Deerfield	7/1-7/7	190	24	1	0	0	0
Green Co.							
Brodhead	7/3-7/10	7	48	5	18	0	0
Pierce Co.							
Spring Valley	7/4-7/11	106	7	0	1	0	0
1 0 7	6/27-7/4	227	6	2.5	4.5	0	1.5
Beldenville	7/2-7/9	100's	12	0	5	0	0
Jackson Co.							
Hixton	7/1-7/7	44	0	1	1	0	0
Fond du Lac Co.							
Malone	7/4-7/10	60	10	4	9	0	0
Marquette Co							
Montello	6/29-7/6	540	33	10	1	0	0
Door Co.	5. = 2 . 7 . 9	2.0			-	Č	O
Sturgeon Bay	7/2-7/8	250	0	14	24	0	0
Brown Co.	112 110	230	O	17	Δ-Τ	V	O
Oneida	6/30-7/6	7	0	1	1	0	0
	0/30-1/0	,	U	1	1	U	U
Marinette Co.	7/2 7/0	A A	0	0	2	Δ	
Wausaukee	7/3-7/9 6/26-7/3	44	0	0 3	3 0	0	0
	0/20-1/3	0	U	3	U	U	0
Ozaukee Co.		000		~~~			
Mequon	7/1-7/7	900	1	5.8	0.5		
Racine Co.							
Rochester	7/2-7/11	733	15	0	2	0	0
Sheboygan Co.							
Plymouth	7/3-7/11	550	1	13	1	0	0

Black Light Trapping Results

through July 2

Trap Site	European corn borer	Armyworm	Black Cutworm	Variegated Cutworm	Spotted Cutworm	Celery Looper	Corn Earworm	Forage Looper	Corn Earwom Pheromone
South Central						•		•	
Madison		14	11						
Mazomanie	4	26	5	2	11	1	0	0	
East Central									
Manitowoc					23				
Central									
Marshfield	10	16	0	1	65	10	1		
Northwest									
Chippewa Falls	11	1	1	1	4	1		1	
New Richmond									8
Cameron	17								



Web Site of the Week

The University of Wisconsin-Extension Urban Horticulture site

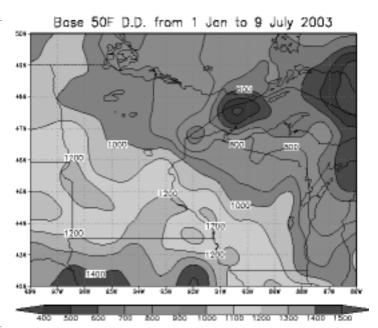
http://www.uwex.edu/ces/wihort/

This site claims to be "the most complete source of horticulture information for Wisconsin on the Internet". It would be very difficult to argue with that claim; if anything, it may be an understatement. Links to Extension X-files, a new phenology reporting page, and (this is a wonderful use of the Internet) an extensive collection of UW PowerPoint presentations on the production, pests and diseases of flowers, turf, vegetables and landscape plants. Bring a fast Internet connection and a recent version of your chosen browser, and prepare to stay for a treat.

Quote of the Week

Rough winds do shake the darling buds of May, And summer's lease hath all too short a date:

WM Shakespeare (1564-1616), Sonnet 18 (Shall I compare thee to a summer's day?)



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

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