Wisconsin Pest Bulletin

Volume 48, No. 20 August 22, 2003

Wisconsin Department of Agriculture, Trade & Consumer Protection PO Box 8911, Madison, WI 53708-8911 Phone: 1-800-462-2803 Fax: 608-224-4656

Website: www.datcp.state.wi.us



Source: Wisconsin Agricultural Statistics Service



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

E-mail: bulletin@datcp.state.wi.us Weather and Pests

Consecutive weeks without rainfall and sweltering heat prompted the Governor to issue an executive order declaring a statewide drought emergency earlier this week. Recent temperatures have been two to five degrees above normal for this time of year, and areas of southern and western Wisconsin are at least four to five inches below

Growing degree days from March 1 through August 21 were:

Site	CDD.	2002	Normal	Base	Base
	GDD*	GDD	GDD	48	4(
SOUTHWEST					
Dubuque, IA	2130	2238	2358	2124	3432
Lone Rock	2108	2125	2238	2050	3403
SOUTHCENTI	RAL				
Beloit	2068	2262	2253	2094	3375
Madison	2043	2115	2160	2062	3339
Sullivan	1967	2188	2117	1997	3249
Juneau	1963	2118	2009	2000	3243
SOUTHEAST					
Waukesha	1882	882 2154 2075		1927	3149
Hartford	1893	2095	1992	1951	3158
Racine	1796	2115	2108	1866	3041
Milwaukee	1793	2056	2062	1853	3031
EAST CENTRA	AL				
Appleton	1866	1959	1825	1954	3094
Green Bay	1671	1819	1770	1789	2860
CENTRAL					
Big Flats	2001	2028	2014	1991	3250
Hancock	1977	2018	1860	1982	3231
Port Edwards	1882	1916	1981	1934	3104
WEST CENTR	AL				
LaCrosse	2142	2225	2219	2059	3438
Eau Claire	2074	2064	1987	2023	3357
NORTHWEST					
Cumberland	1872	1835	1872	1863	3072
Bayfield	1437	1408	1365	1461	2460
NORTH CENT	RAL				
Wausau	1734	1786	1860	1807	291
Medford	1673	1683	1774	1762	2837
NORTHEAST					
Crivitz	1640	1714	1714	1738	2799
Crandon	1567	1620	1662	1648	2690

* GDD (Growing Degree Days) are synonymous with degreedays above modified base 50° F, with no low temperature below 50° F or above 86° F used in calculation. normal rainfall since the start of the season. Compounding the problem is that these drought conditions are coinciding with ear filling in corn and seed-filling of soybeans, both crucial stages of development. Insect activity showed no signs of slowing this week, and the second flight of **European corn moths** is peaking in many areas. Late-season pests, including the **corn earworm** and **western bean cutworm**, are beginning to show up in more substantial numbers.

Alerts

Powdery scab of potatoes has been found in Wisconsin commercial potato fields for the first time. See Potatoes for more information.

Looking Ahead

Western bean cutworm – Moths have been detected at black light trapping sites in the northwest district. Western bean cutworm is a late-season pest that is not particularly common in Wisconsin. Nonetheless, growers in northwest Wisconsin should start scouting for the western bean cutworm at the beginning of moth flight. See CORN section for more details.

European corn borer – Moth activity has intensified across the state this week, but some decline in moth catches should occur soon. The second moth flight is expected to taper off rapidly within the next two weeks. In areas where 2100 DD (base 50°F) have not yet accumulated (the northern districts and some parts of the east central and southeast districts) the second generation treatment window is still open. Scout fields before it's too late.

Corn rootworm – Adults are very active and counts are higher in younger fields. It's not too late to scout to estimate this season's population and to determine if a soil insecticide may be necessary next spring, but scouting has to begin by next week. Scout next week, then two more times before the second week of September. See the CORN section for scouting information and the economic threshold.

Forages

Forage pest complex – Populations of most forage insects are still going strong in the southeast. **Potato leafhopper** counts averaged 12 per sweep, **plant bugs** averaged eight per sweep, and **green cloverworms** averaged four per sweep. **Grasshoppers** are also quite common, with counts averaging five per sweep. Most of these insects should persist into fall, but as soon as average daily temperatures begin to decline, we can expect that forage insect populations will decline as well.

Corn

European corn borer – Monitoring at scattered black light trapping sites indicates that moth activity has intensified, although it is likely that most of the second flight of moths has emerged. Black light trap counts should decline rapidly over the next two weeks. With continued heavy adult activity, egg laying in the last week is presumed to have been intense. Fields in Dane, Rock and Walworth Cos. had egg masses on 12-48% of the plants. In Walworth Co. some second instar larvae were observed. Based on growing degree day accumulations and concentrated adult activity, small larvae should be numerous this week and in the next few weeks.

Corn rootworm - Adults were extremely active in southeastern corn fields. Counts of one to three beetles per plant were common, and occasional fields have five to eight beetles per plant. The emergence of adults should be complete very soon, and scouting should wrap up by the first or second week of September. For those who have not yet started scouting, it's not too late. Scout once this week, once next week, and once the following week. Count the number of beetles per plant on a total of 50 plants (five plants in ten separate areas) and calculate the average number of beetles per plant. If a count exceeding 0.75 beetle per plant (38 beetles per 50 plants) is noted during any one of the three scouting trips, consider treating the eggs with a soil insecticide prior to planting the field to corn next spring. For now, late-planted sweet corn or field corn that still has green silks will continue to provide attractive feeding places for corn rootworm beetles.

Fall armyworm – Second and third instar larvae were found in Rock and Walworth Co. corn, though no substantial infestations were detected.

Corn earworm – The significant flight of this species can be expected to occur very soon. Moths have been captured at several black light trapping sites and the New Richmond (St. Croix Co.) and Coon Valley (Vernon Co.) pheromone trapping sites. Counts in Coon Valley have increased from one to 24 in a week's time. These moths are probably the offspring of the scattered moths caught





earlier in the season at the same site. Expect counts to increase in the next week or two.

Western bean cutworm – The western bean cutworm is an occasional late-season pest of field corn in Wisconsin. Moths were detected earlier this week at a black light trapping site in the northwest, indicating that flight has begun in that district. This insect occurs at the same time as the corn earworm, but can be distinguished by the dark stripes just behind the head, and the lack of small dark spines or stripes on the side of the body. There is only generation per year and larvae drop to the ground to overwinter as pupae. Larvae are generally present in corn ears into September, while their damage is evident until harvest. Unlike the corn earworm. western bean cutworm larvae are not cannibalistic, so a single ear may contain up to ten larvae. Generally one larva per plant may not cause severe damage, but several per ear can significantly affect yield. Western bean cutworm larvae feed on the kernels in the ear tips and along the ear, leaving ears partially consumed or seriously scarred. In addition to the direct grain loss, this pattern of feeding leaves ears more susceptible to ear molds that reduce yield quality at harvest.



Scouting for western bean cutworms can begin as soon as the first moths of the season are caught. In corn, check 20 consecutive plants at five separate locations. If 8% of the plants have an egg mass or young larvae in the silk, consider applying an insecticide. Timing of the application is critical, as control is difficult once the larvae reach the ear tip. Since we are at a late stage in the game, and tassels have already emerged throughout a vast majority of the state, applications should be timed for when 70%-90% of the eggs have hatched. Thorough scouting is the only way to determine when this occurs.

Soybeans

Soybean aphid – The 2003 soybean aphid survey was completed earlier this week, but summary maps showing distribution and peak populations will not be available until November. It appears, on average, in the southern third of the state aphid pressure was higher than in any past years. Heavy populations were documented in the west central and northwest districts as well, while the central, east central and northeast were not hit as hard. Fields surveyed in Fond du Lac, Waushara, Waupaca, Outagamie and Winnebago Cos. this week had moderate levels, ranging from 201 to 819 aphids per plant, but these populations were not considered high compared to some we'd observed elsewhere since the start of the survey. On a positive note, populations have begun to decline, and it looks like the worst may be over for 2003.

Grasshoppers – Adults are still the most severe defoliators in the central and east central parts of the state. In Waupaca, Waushara, Winnebago and Fond du Lac Cos., field margins with 20%-40% defoliation were common. Although defoliation was heavy in these fields, it appeared grasshopper feeding wasn't affecting the pods, which is what we're concerned about at this time of year. In the late summer and fall, soybean pods should be examined. If 8% or more of the pods are damaged and pests causing damage are present, rescue treatment may be warranted.

Bean leaf beetle – Very little bean leaf beetle activity has been detected in the last several weeks. Defoliation levels did not exceed 15% in any of the R2-R4 soybean fields surveyed this season. We know that low levels of beetles are still out there, so some pod damage could occur in isolated fields, but the conspicuous absence of this pest in the last few months suggests we are likely to see minimal activity during the remainder of the season.

Potatoes

Late blight has not yet been identified anywhere in WI. With an average of three to four weeks of the growing season remaining and no late blight yet, prospects are good that we may not see late blight this year. If this holds true, 2003 will be the first year in the last decade with no late blight. Dry weather and recent hot temperatures would further retard spread if there any smoldering pockets that have been undetected. As we enter the last month of canopy maintenance, growers should continue protective fungicide programs that will also manage early blight. Weather conditions can change rapidly so stay alert to changing conditions. **Early blight** continues to progress. In some cases, we are observing more early blight than we've seen in the past several years. The crop has bulked at a remarkable pace, putting stress on the vines. In some cases, the vines have completed their job and will continue to senesce in the days ahead. Vines that are stressed are somewhat more susceptible to early blight infection than non-stressed vines. Fungicide sprays that include protectant sprays such as Quadris or Headline early in the season alternated with chlorothalonil, mancozeb or metiram followed by chlorothalonil, mancozeb, metiram alone or mixed with triphenyltin hydroxide continue to provide some of the best early blight control. (UWEX)

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

Location	Calculation Date	P-Day Severity Total Value Total		
Antigo emerging June 4	8/18	563	48	
Antigo emerging June 14	8/18	492	30	
Antigo emerging June 24	8/18	421	30	
Grand Marsh emerging 5/19	8/18	648	64	
Grand Marsh emerging 5/24	8/18	624	64	
Grand Marsh emerging 5/28	8/18	602	64	
Hancock emerging 5/13	8/18	698	42	
Hancock emerging 5/17	8/18	675	42	
Hancock emerging 5/25	8/18	628	40	
Plover emerging 5/13	8/18	713	28	
Plover emerging 5/24	8/18	653	28	
Plover emerging 6/3	8/18	591	28	

Powdery scab of potatoes — A potato field in

Wisconsin has been found to have powdery scab, caused by *Spongospora subterranea* f. sp. *subterranea*. This is the first confirmation of powdery scab on commercial potatoes grown in the state. (A previous find of the disease was in a home garden years ago, some distance from potato growing regions of Wisconsin, and several lots of infected tubers from out of state were detected this spring.)

The disease has been found in one production field in Waushara Co. The field was planted with seed potatoes from North Dakota. DATCP ordered the destruction of several infected seed lots from Colorado this spring, in an effort to keep the disease out of the state.

Powdery scab causes tuber symptoms similar to those caused by **common scab**. Infected eyes or lenticels may show purplish-brown lesions, followed by tan, pimplelike swelling. The periderm eventually ruptures, and the fungus produces "spore balls" (cystosori). Cystosori are the propagative and survival stage, which may survive six years or longer, and are easily disseminated in contaminated soil or infected tubers. The spores will survive passage through ruminants. Infection of roots and stolons may lead to the formation of milky white galls, ranging up to 1 cm in size.



Cultivars vary in resistance to the disease, though high levels of resistance are rare. Russet potatoes generally show fewer tuber symptoms, though root gall formation may occur on these varieties. Other hosts include tomatoes, peppers and several other *Solanaceous* species; rotation with these crops should be avoided.

In Western states where the disease is established, the disease is generally not considered to be serious, though infected potatoes may dessicate and shrivel in storage. Of greater significance is the ability of the powdery scab organism to vector **potato mop top virus**, a disease not known to occur in Wisconsin.

Management of the disease includes planting symptomless seed produced in disease-free areas to avoid introducing the organism; avoid using manure from animals that have been fed infected tubers; and cleaning machinery before moving from infested fields. For more information on management of the disease, contact Walt Stevenson at UW-Madison (608) 262-6291.

DATCP will conduct a survey to determine the extent of powdery scab in the state this season. Particular attention will be paid to seed producing areas, where no evidence of the presence of powdery scab has been detected. For more information on survey efforts, contact Adrian Barta at (608) 224-4592.

Vegetables

Snap Beans- Aphid transmitted viruses are beginning to take a toll on processing beans. The soybean aphid is present on soybeans in high numbers and winged aphids are moving into snap bean fields. In the past three years, we have observed the transmission of cucumber mosaic virus and alfalfa mosaic virus in snap beans. Typical symptoms of virus infection on snap beans include plant stunting, leaf mosaic, dark green leaf blisters, blossom abortion, malformation of pods and discoloration of pods, both internally and externally. Over the past two years, we've observed varietal differences in cultivar susceptibility. This year, UW-Madison has 50 plot entries in trials at Manitowoc and West Madison representing several seed companies. Differences in disease and aphid responses are present in these trials. Information on cultivar susceptibility is critical to the breeders as well as processors as they plan for future acreage since foliar treatment with insecticides seems to provide little relief from virus transmission. Tom German, UW Entomology, is involved in a statewide survey of viruses affecting snap bean acreage as well as the weeds surrounding snap bean fields. Information from this survey will be useful in understanding the sources of virus inoculum and areas of the state where the virus infection of commercial fields is greatest.

Cucumbers and other cucurbits- UW-Extension has been monitoring **Cucumber mosaic virus** (CMV) on cucumbers and other cucurbits. Researchers are particularly interested in CMV on cucumber plantings since most cucumber cultivars are listed as resistant to CMV. In fact the resistance found in current cultivars has been durable for the past 60 years. If growers observe CMV symptoms on commercial acreage (plant stunting, leaf mosaic, blossom abortion and fruit with dark green warts interspersed with light green areas), they should call Walt Stevenson at 608-262-6291. It would help if the grower has the name of the variety being grown and would be even better if they have a small amount of seed left over from the planting.

Pumpkins- Powdery mildew pressure is picking up in pumpkins. Once mildew activity is observed on the lower leaves, it becomes increasingly difficult to manage powdery mildew with fungicides. Dry hot conditions are favorable for powdery mildew development so the current conditions are ideal for sporulation and spread. Pumpkin vines are maturing rapidly and hopefully this maturity is accompanied with a good yield. Loss of the canopy can lead to exposure of the fruit to intense sun and loss in fruit quality. Thus it is helpful to maintain a good canopy through Labor Day. There are several pumpkin cultivars with useful levels of resistance to powdery mildew. UW has a small trial at the Hancock station this summer where we continue to evaluate cultivar susceptibility to powdery mildew. Plant resistance is a good alternative to weekly treatment with fungicide sprays and something that should be considered by those growers experiencing difficulty in control of powdery mildew.

Forest, Shade Trees, Ornamentals and Turf

Balsam gall midge- This small insect has been having a banner year in Wisconsin Christmas tree fields. Reports throughout the northern half of the state indicate moderate to heavy amounts of injury on balsam and Fraser fir.



The balsam gall midge adult, which looks like a small orange mosquito-like fly, deposits its eggs on the elongating buds of firs in early spring. When the larvae hatch, they migrate to immature needles and burrow in to feed. The tiny maggot exudes gall-inciting chemicals to form the characteristic galls on needles. The larva drop from the needles in late fall and overwinter in the duff at the base of the tree. Infected needles die and drop shortly after larvae emerge.

High midge populations often occur for two to three years, followed by a period of low midge incidence. During low populations, shearing may be all that is required. Burn heavily infested branches or trees during late summer before the insects drop from the needles. Balsam gall midge has many natural enemies. One of the most important is a predator midge. This look-alike midge invades the developing galls, eventually causing the death of the resident balsam gall midge.

If economic damage occurs, consider monitoring and treating. To estimate when the adult midges begin flying, place emergence traps beneath infected trees in early May. Traps can be made from cigar boxes, small wooden boxes, or opaque plastic flowerpots. Drill a small hole in one side and cover the hole with a clear glass or plastic vial. Place the trap open side down on the mineral soil beneath infected trees. Place one trap underneath 10 trees, at least 10 feet apart. Adults emerging from the soil and flying towards the light will be caught in the vial.

When you have detected flying adults, spray heavily infested trees with a systemic or contact insecticide

within seven days. Female midges lay their eggs between the needles of partially opened buds. This



pest should be treated right after egg hatch. It is essential to treat while the needles on the host tree are just beginning to elongate.

You can also use a systemic insecticide to kill the maggots inside the needles. This treatment is only effective through mid-June; after that, the developed galls protect the small maggots. Please refer to the Michigan State University Extension's, <u>Christmas Tree</u> <u>Pest Manual</u> for more information. To order this book, call 517-353-0240 and ask for E-2676.



Eastern spruce gall adelgid — This aphid-like insect was found on spruce in Brown, Ozaukee, St. Croix and Waushara Cos. in light to moderate amounts. This pest is commonly found on white spruce but can be found on many other spruces. The eastern spruce gall adelgid differs from the Cooley spruce gall adelgid by forming galls at the base of the shoot whereas the Cooley spruce gall adelgid forms galls at the end of the shoot. The gall that forms around the nymph protects them from parasites, predators and insecticides. When the galls turn brown and open up, the female adults emerge and seek out egg laying sites, usually the tips of needles. These eggs hatch and the nymphs attach themselves near or at the base of a dormant bud. After hatching, nymphs begin to feed, stimulating the plant to grow the gall tissue that surrounds the developing insect. The treatment window for eastern spruce gall adelgid is in spring when the overwintering females emerge. Use saucer magnolia in pink flower bud as an indicator. Another treatment window is targeted at nymphs in the fall. Hydrangea 'Pee Gee' is a good phenological indicator for fall treatment. Use the bronze stage of bloom to time treatments for the fall nymphs. Outside of these two treatment windows, nothing can be done to control the adelgids.

Introduced pine sawfly was reported feeding on white pine in eastern Green Co. in the town of Albany. Approximately 25% of a four acre plantation was affected and may experience moderate to heavy defoliation. (DNR) **Post oak locust** - Defoliation of oak by these grasshoppers occurred in Jackson and Monroe Cos. and likely other counties as well. (DNR)

Zimmerman pine moth — This damaging borer of Scotch and Austrian pine was found during grower inspections in Brown, Dane and Lincoln Cos. When scouting for this pest, look for white to yellow-colored pitch masses on the trunks of trees near a branch point. The larva of this insect feeds just under the bark. This feeding causes the pitch mass to form. Sometimes redcolored frass is also found near or in the pitch mass. The larva usually pupates in mid July. Adults emerge from the pitch mass in August and lay eggs. Eggs hatch in the fall and the larva forms a hibernaculum, a protective overwintering structure. The overwintering larva

become active in early spring. Control measures include insecticide treatments aimed at emerging larvae in the spring, and removal of infested trees.



Asteroma leaf spot — This fungal leaf spot (or blotch) of linden is commonly found this time of year during nursery grower inspections. We have found this pathogen during inspections in Brown Co. in light to moderate amounts on American linden. This leaf spot forms black fruiting bodies on the upper surface of the leaves and will sometimes have a yellow-colored halo around the spot. The backside of the leaf is usually tan colored. This fungal leaf problem can be confused with a phyllosticta leaf spot species found in linden, but those spots have a purple halo and are generally smaller in size. Generally this problem shows up so late in the growing season that control is not needed. If you have had problems with this pathogen in past years you could treat and clean up the leaves after they drop to reduce the overwintering spores in the area.

Quince rust — This rust was found in Brown Co. on thornless cockspur hawthorn in light amounts. Currently we are seeing fruiting bodies of the rust on hawthorn fruit. The spores produced will infect junipers this fall and overwinter on the junipers. In spring, galls on the junipers will produce orange telia horns. Teliaspores disseminate back to hawthorns to repeat the cycle. Control of this pest can be done with protective sprays



that should be applied in the spring when bud break occurs, and again ten days later. In some cases, removal of one of the two hosts from the cycle will help control this disease. Pruning out galls will also help reduce disease incidence. There are some varieties of hawthorns which are resistant to this disease.

Phomopsis tip blight — This disease was found on junipers during grower inspection in Brown Co. in light to moderate amounts. This fungal pathogen causes needle blight and tip dieback in many types of junipers. This pathogen attacks new growth at the branch tips when they are developing; the older needles are more resistant to the blight, so most of the damage occurs at the growth points near the tip. Needle tips start out reddish brown, turn gray and die. Small gray cankers may be apparent on branches, with the branch dead beyond that point. The best identification sign are the small, black fungal structures (pycnidia) that form in and around the lesions. The conditions that favor this disease are high humidity and rain or irrigation that spreads the spores. Spacing plants to increase air circulation is one step to reduce this disease. Also, water plants in mornings so foliage doesn't stay wet too long, provide fertilizers as needed to encourage growth, and prune in the summer rather that in the spring or fall. Chemical controls can be made with an approved fungicide. This

disease generally requires repeat applications.

Powdery mildew — This common garden fungus is being found in Brown, Dodge, Chippewa and Waukesha Cos. on roses, dogwood, phlox, lilac and rudbeckia in trace to light amounts. The fungus is characterized by white fluffy growth on the upper surface of the



leaves. The disease is favored by wet weather and poor air circulation. Control measures include resistant plants and a proper site. Cultural methods that provide good air circulation will also reduce disease incidence. There are many chemical controls for powdery mildew, but once the infection has occurred only control of secondary infections is possible. Also, fall clean-up of all leaf material from plants which were infected is recommended to remove the overwintering spores on dead leaves.

Tar spot — We are starting to find this fungal pathogen on maple in Brown, Chippewa and Manitowoc Cos. in trace to light amounts. This pathogen can become a serious problem without proper sanitation of infected leaves. If you have this disease, removal of fallen leaves is an effective way of controlling this pathogen. In rare cases, fungicide treatments may be required to control the disease. Treatments should be applied in the spring when bud break occurs and then every two weeks until July. Host plants include silver, amur and Norway maple.

State/Federal Programs

Gypsy moth trapping program - Trappers have started to take down traps south of Highway 10 while trappers in the north have finished checking traps. As of August 20, trappers have caught 184,397 male gypsy moths. Counties with the highest totals are: Marinette (44,268), Oconto (20,097), Portage (31,130), Sheboygan (15,656), and Waupaca (10,085). Takedown will begin south of Highway 64 on Monday, August 25. Areas north of Highway 64 will start takedown on September 2. Takedown lasts approximately 4-5 weeks and most traps will be down by the end of September.

Odds -n- Ends

West Nile Virus — A new treatment for West Nile virus in horses has been authorized for use in Wisconsin by acting State Veterinarian Dr. Robert Ehlenfeldt.

The treatment, called West Nile Virus Antibody, can be used in horses after they have already developed signs of the disease. Until now, there was no treatment available for horses other than relieving the symptoms. This product combats the virus itself.

Produced by Novartis Animal Vaccines Inc. of Larchwood, Iowa, the product must be administered by a licensed veterinarian.

"This does not replace the need for horse owners to vaccinate their animals," Ehlenfeldt said. "But for those who haven't vaccinated or who waited too long, this offers another chance to save their animals."

USDA amends nursery stock regulations—The U.S.

Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) announced that it is amending its regulations for importing nursery stock. APHIS is amending the regulations for importing nursery stock to require additional certifications for imported niger seed and lilac, to reflect changes in plant taxonomy and pest distributions, and to make various changes to the requirements for post-entry quarantine of imported plants. Also, APHIS is making several other changes to update and clarify the regulations and improve their effectiveness. This action is necessary to update the existing regulations and make them easier to understand and implement.

This final rule is scheduled for publication in the Aug. 20 Federal Register and becomes effective Sept. 19. APHIS documents published in the Federal Register and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at

http://www.aphis.usda.gov/ppd/rad/webrepor.html.

Calendar of Events

Aug 27, 2003

Fall Garden Twilight Tour

Ashland Ag Research Station, Ashland, WI. Begins at 6:30 p.m. For more information contact the Ashland Agricultural Research Station, 68760 State Farm Road, Ashland, WI 54806-9338 at (715) 682-7268 or fax (715) 682-7269.

Aug 28, 2003

Twilight Garden Tour

Spooner Ag Research Station, Spooner, WI. Begins at 6:30 p.m. For more information contact the Spooner Agricultural Research Station, W6646 Highway 70, Spooner, WI 54801 at (715) 635-3735 or Fax (715) 635-6741.

September 21-28, 2003 XII World Forestry Congress, A Focus on Forests Quebec City, Canada http://www.wfc2003.org

September 22-26, 2003 Invasive Alien Species and the International Plant Protection Convention Conference Braunschweig, Germany http://www.ippc.int/IPP/En/Archive/IAS2003/IAS-WORKSHOP-Home.htm Oct. 20-23, 2003 Horticulture Inspections Society (HIS) 33rd Annual Central Chapter Meeting Madison, WI

Contact Thad Kohlenberg 608-224-4572

Apple Insect Trapping Results

County						AM	AM
City	Date	STLM	RBLR	СМ	OBLR	red ball	sticky
Crawford Co.							
Gays Mills-W2	8/11-8/16	40	2	1	0	0	0
Gays Mills-E2	8/15-8/22	328	8	9	15	0	0
Richland Co.							
Richland Center -W	8/15-8/22	75	17	1	3	0	0
Richland Center-E	8/15-8/22	205	21	3	11	0	0
Sauk Co.							
Baraboo	8/15-8/22	155	2	11	4	0	0
Dane Co.							
Deerfield	8/11-8/18	425	38	3	0	2	0
Green Co.							
Brodhead	8/11-8/18	12	0	5	1	0	0
Pierce Co.							
Spring Valley	8/15-8/22	180	4	1	3	1.5	0
Fond du Lac Co.							
Rosendale	8/11-8/18	35	26	1	0	1	0
Marinette Co.							
Wausaukee	8/15-8/22	67	0	0	0	0	0
Waukesha Co.							
Waukesha	8/9-8/17			6			
Racine Co.							
Rochester	8/15-8/22	143	8	4	4	1.33	0

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

Black Light Trapping Results

through August 21

	European	Armyworm	Black	Variegated	Spotted	Celery	Corn	Dingy	Corn Earwom
Trap Site	corn borer		Cutworm	Cutworm	Cutworm	Looper	Earworm	Cutworm	Pheromone
South Central									
Arlington	309								
Madison	222								
Mazomanie	199								
Reedsburg	148	14	2	0	3	4	19	0	
West Central									
Coon Valley									24
Central									
Marshfield	17	3	0	7	11	5	6		
East Central									
Manitowoc	51	8						66	
Northwest									
Chippewa Falls	91								
New Richmond									
Cameron	52								



Department of Agriculture, Trade & Consumer Protection PO Box 8911 Madison WI 53708-8911

"Farmers are the only indispensable people on the face of the earth."

Ambassador Li Zhaoxing, Peoples Republic of China, Fall 2000

Web Site of the Week

Quote of the Week

National Sustainable Agriculture Information Service

http://attra.ncat.org/

Provided by Appropriate Technology Transfer for Rural Areas (ATTRA) and funded by USDA, this web site provides access to a wide range of publications and information on topics related to sustainable and organic agriculture. Beyond just offering a wealth of publications, ATTRA staff will discuss a particular problem or question with you, and assist in finding answers.

Base 50F D.D. from 1 Jan to 21 August 2003



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