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

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SOIL MOISTURE CONDITIONS AS OF APRIL 19, 2002 요 요 41 0 0 36 0 74 26 64 State Average 0 7 78 Very Short 1% 5% Short 6 85 64 Adequate Surplus 9

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Source: Wisconsin Agricultural Statistics Service

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

WEATHER AND PESTS

Plant growth and grower activity neared a frenzied pace last week with the short heat wave Wisconsin experienced. Temperatures reached the 80s and 90s in most areas. Then Mother Nature reversed herself abruptly and showered snow on the northern two-thirds of the state. Currently, farmers and growers are being slowed down by cool temperatures and wet fields.

Maple syrup harvest is wrapping up and has been reported as mixed. Asparagus harvest was reported in Door Co.

Growing degree	days from Ma			ere:			
Site		2001	Base	Base			
	GDD*	GDD	48	40			
SOUTHWEST							
Dubuque, IA	174	133	176	363			
Lone Rock	162	122	156	338			
SOUTHCENTRA	L						
Beloit	177	150	156	369			
Madison	156	119	151	324			
Sullivan	171	131	153	355			
Juneau	157	122	160	324			
SOUTHEAST							
Waukesha	161	112	133	325			
Hartford	152	108	146	305			
Racine	152	100	124	294			
Milwaukee	141	91	136	281			
EAST CENTRAL							
Appleton	122	85	126	258			
Green Bay	96	69	99	216			
CENTRAL							
Big Flats	142	97	136	288			
Hancock	138	95	133	281			
Port Edwards	123	78	118	254			
WEST CENTRAL	L						
LaCrosse	156	109	138	315			
Eau Claire	127	75	129	256			
NORTHWEST							
Cumberland	99	48	95	198			
Bayfield	53	21	45	115			
NORTH CENTRAL							
Wausau	99	57	100	210			
Medford	87	53	86	185			
NORTHEAST							
Crivitz	81	53	80	183			
Crandon	77	41	73	159			

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. See map for Historical Average Growing Degree Days.

ALERTS

Black cutworm - Moths have arrived. The first pheromone trap catches occurred between April 13-15 at sites near Bellmont, Benton, Platteville and Mineral Point. No "concentrated captures" (8-9 moths in 2 consecutive nights) have yet been documented at any of the 12 trap locations.

European corn borer – Mild winter temperatures and high survival of overwintering larvae, combined with early planting and warm spring temperatures, could lead to heavy infestations in early planted corn.

Armyworm – Twenty-six moths were captured in a black light trap on April 19th at a site near Janesville. Growers should pay particularly close attention to **armyworm** activity this summer, since a number of severe outbreaks were documented here in Wisconsin and throughout the Midwest last summer. Wheat and hay fields are most susceptible to infestation at this time of year.

Codling moth – Pheromone traps should be in place. According to degree day accumulations, adults could begin appearing in the southern regions of the state next week.

CORN

Black cutworm – Counts ranging from 1-4 moths were observed in pheromone traps between April 17th and April 23rd at sites in Iowa, Grant, Lafayette and Green Cos. As mentioned in last week's issue, we're looking for a "concentrated capture" of 8-9 moths in 2 consecutive nights. The date on which this occurs will be used as the starting point for accumulating degree days to predict when black cutworm larvae will reach the stage of development at which they begin cutting corn seedlings (300 DD [base 50°F]). Corn is most susceptible to black cutworm injury during the 10-14 days following emergence.

European corn borer – Dissections of Dane and Lafayette Co. corn stubble indicate high overwintering survival. Survival rates were 86% and 92% respectively. Pupation has begun in some of the fields surveyed in Lafayette Co.

Based on fall abundance survey results, it appears there is potential for moderate to heavy infestations in early-planted fields; however, this ultimately depends on temperatures and moisture conditions in upcoming weeks.

FORAGES

Pea aphid – Light infestations of adults and nymphs were detected in Grant and Lafayette Co alfalfa fields, indicating overwintering eggs are beginning to hatch. With plant growth resuming here in Wisconsin, these small, light green **aphids** are hatching from eggs that overwintered on leaves

and in stems of perennial legumes like alfalfa and red clover. After hatching, several generations of wingless females are passed on the primary host before winged individuals develop and migrate to pea fields, usually around late May or early June.

Although **pea aphids** colonize alfalfa, they are not considered an economically important pest of this forage crop. As their name implies, **pea aphids** are pests of peas. Historically **pea aphids** have been one of the most highly destructive pest insects to peas in the U.S. Plants injured by **pea aphids** become stunted and yield fewer and smaller pods, in comparison to uninfested plants. **Pea aphids** also feed directly on pods, causing pods to curl, shrink, or fill only partially with peas. Further, these **aphids** transmit viruses, including **pea mosaic, pea stunt** and **pea streak**.



www.gov.mb.ca/agriculture/crops/insects/fad14s00.html

Monitoring **pea aphid** activity in alfalfa fields is necessary for determining when populations begin migrating to pea fields where heavy populations can cause extensive damage.

Alfalfa weevil – Adults are active and egg hatch is underway throughout the south. Small numbers (1-4 per 50 sweeps) of adults were collected from 8-10 inch alfalfa in Dane Co. and 10 inch alfalfa in Lafayette and Grant Cos.

Common Leaf Spot – One alfalfa field in Rock Co. and one in Green Co. had levels of common leaf spot, caused by *Pseudopeziza medicaginis*. Leaf area infected (severity) was very low, 1% or less, with about 20% of the plants showing symptoms (incidence). *Pseudopeziza* overwinters on fallen leaves on the soil surface and discharges ascospores when the weather warms in the spring. The disease seems to be suppressed by dry, warm weather, meaning that it is generally seen in spring and fall.

SMALL GRAIN

Bird cherry-oat aphid – Light populations were observed in

winter wheat in Dane, Lafayette and Grant Cos. Sweep net counts ranged from 1-6 aphids per 50 sweeps. As the vector of barley yellow dwarf virus, **bird cherry-oat aphid** should be a concern to small grains producers.

Powdery Mildew and Septoria leaf blight—A survey of 18 winter wheat fields in Green, Dane, Dodge, Green Lake and Fond du Lac Cos. over the last week found powdery mildew in 8 fields and Septoria leaf spot in two fields. Powdery mildew was present at low levels (incidences of 2-10 percent, and concentrated in scattered disease foci) except in two fields in Fond du Lac Co., which had incidences of 80-100%. Infection as seedlings has been reported to contribute to significant yield loss, though powdery mildew is very sensitive to the environment. Conditions which favor disease development include heavy nitrogen availability, high humidity and cool weather. Cultivar susceptibility is also a factor—differences in susceptibility were apparent between varieties in several demonstration plots visited in Dodge Co. With the rapidly changing conditions this spring, the disease will require careful monitoring.

Both fields with **septoria** were in Fond du Lac Co., and the incidence in both cases was a trace-2%, with very low severities. In general, the wheat appears to have come through the winter in good shape.

VEGETABLES

Pumpkin, squash and cucumber fields needed for a survey of Phytophthora blight in Wisconsin

The DATCP Pest Survey is looking for fields of vine crops around the state to survey for the presence of **Phytophthora blight** during the 2002 growing season. **Phytophthora blight** (caused by *Phytophthora capsici*) is a growing problem for pumpkin and cucumber producers around the Midwest, with losses in some Illinois fields approaching 100% in the past several years. Symptoms of the blight include rapid wilting of individual plants; vascular browning; rapidly-enlarging watersoaked lesions on fruit, becoming covered by white fungal growth; and rapid fruit collapse. Other hosts of the pathogen include peppers, tomato, eggplant, melon and carrot.

We're hoping to find enough fields around the state to assess the distribution of the disease. Fields for inclusion in the survey need not be large, but should be more than a farmstead pumpkin patch. If you're willing to open your field for an occasional visit, please call 1-800-462-2803 or email adrian.barta@datcp.state.wi.us

APIARY

APIARY PROGRAM – Generic brands of **Oxytetracycline Hcl soluble powder** are legal for use on honey bee hives for American foulbrood control. Generic brands may not have

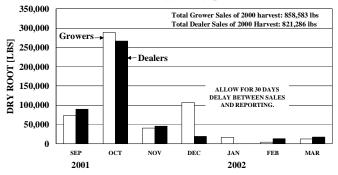
bees on the label. Generic brands should be packaged in 6.4 ounce packages with 10 grams of oxytetracycline water soluble powder. These packages are used just like Terramycin TM 25. Mix one 6.4 ounce package with 2 pounds of powdered sugar. Feed 3 rounded to heaped tablespoons per colony, 3 times with 4-5 day intervals in spring. Complete treatment 45 days before surplus honey flow.

Wisconsin, Michigan, Ohio, W. Virginia and Tennessee beekeepers are invited to the first ever **Heartland Apicultural Society Conference**, to be held July 11-13 at Goshen College, Goshen, Indiana. For more information, please contact Dr. Thomas C. Webster at phone (502) 597-6351, fax (502) 597-6381; website: www.kysu.edu/landgrant/CRS/twebster/twebster.htm

GINSENG

GINSENG PROGRAM – Grower dry root sales of ginseng harvested in 2001 added up to 545,439 lbs. as of April 25, 2002. For the same time period dealers sold 452,924 lbs. of 2001 root.

WISCONSIN CULTIVATED GINSENG EXPORTS 2001 HARVEST



TOTAL 2001 HARVEST SOLD BY GROWERS: 545,439 LBS TOTAL 2001 HARVEST SOLD BY DEALERS: 452,924 LBS

Marketing order assessments will be based on grower sales of 940,279 lbs. dry root and 132 lbs. seed during the calendar year 2001. These grower sales include ginseng harvested in 2001 and inventory from previous years.

FOREST, SHADE TREE, ORNAMENTALS AND TURF

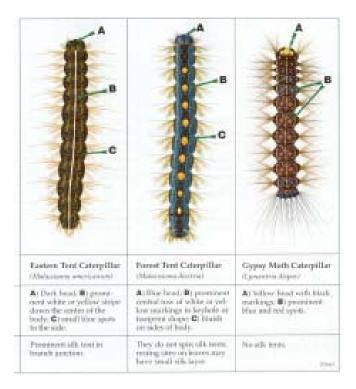
Non-hardy stock- Nursery inspectors will start nursery dealer inspections this week. One problem we will be looking for is non-hardy stock sold in the state. Last year we found rhododendrons and evergreen azaleas at nursery dealers that were Zone 6 and labeled as "Cold hardy". We also commonly find tropical plants mixed in with hardy nursery stock.

Fletcher scale - Overwintering scales were found on densiformis yews at a nursery dealer in Columbia Co.

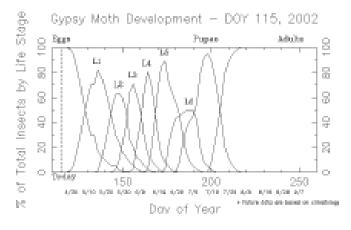
Pests to be on the watch for:

Pine needle scale - Crawlers will be present at 200 - 350 degree days base 50°F.

Eastern tent caterpillar - Eggs should be hatching in the southern part of the state. See the drawings below to distinguish the two **tent caterpillars** and the **gypsy moth.**



Gypsy moth - Egg hatching occurs between 200 to 350 degree days base 50°F. The chart below shows moth development for Dane Co. To see moth development for other counties go to http://bob.soils.wisc.edu/wimnext/tree/gypsymoth.html. The only thing you need to change on the phenology page is the county, everything else is set correctly.



HUMANS AND ANIMALS

Multicolored Asian lady beetles - Many calls came in during the recent heat wave as the beetles woke from their hibernation and were looking to get outside. Spring is not the time to treat for this nuisance pest. The beetles seen now are the ones that got in last fall. (DNR and UWEX in part)

Deer ticks - Some ticks were active in the northwest part of the state. **(DNR)**

STATE/FEDERALPROGRAMS

GYPSY MOTH PROGRAM - Ten leadworkers and fifty trappers have been hired to set the estimated 28,000 traps this year. Lead workers will have their training on May 7-8, southern trappers will train on May 20-21, and northern trappers will train on May 22-23. Trappers will be out setting traps right after Memorial day. We appreciate landowner permission to set traps on private property.

Training highlights include: map reading, trap construction and placement, trap location descriptions, GYPSY MOTH identification and biology, GPS use, downloading and reporting data, public information, and safety. Each trapper is given approximately 600 traps to set. Trappers are assigned either part of a county, one whole county, parts of several counties, or two or three whole counties. Trapping densities are 1 trap per 2 sq. miles and 1 trap per 4 sq. miles. Delimitation sites will be trapped at 1 trap per sq. mile or 4 traps per sq. mi. Green or orange triangular delta traps will be used in most areas while green milk carton traps are used in the regulated counties.

For more information on the GYPSY MOTH PROGRAM, please call our hotline at 1-800-642-MOTH or visit our website at http://datcp.state.wi.us and type in gypsy moth in the search box.

FRUIT

Redbanded leafroller - Degree day models predict peak adult emergence to occur around 200 DD (base 45°F), and peak egg laying around 350 DD, so growers in the southern half of the state can anticipate peak adult emergence in the upcoming week. Because **redbanded leafroller** has a broad host range, growers should not base control decisions solely on pheromone trap counts. Trap counts are only useful for determining the occurrence of generations and when to monitor for larvae, not for estimating the severity of an infestation. Instead, scout for larvae by closely examining the number per 100 expanding leaf terminals or fruit clusters, to determine whether control of 1st redbanded leafrollers is warranted. According to the Midwest Tree Fruit Management Handbook, management decisions should be based on an average of 4 larvae per 100 expanding terminals or fruit clusters. Spraying at delayed dormant stage controls

adults before females have had an opportunity to lay eggs, and treatments applied at petal fall are generally effective in controlling newly hatched larvae.

Reports from orchards throughout the state are highly variable this week. Counts range from 4 per trap in Fond du Lac Co. to 100 per trap in Adams Co.



Redbanded leafroller larva http://www.nysipm.cornell.edu/factsheets/treefruit/pests/stlm/stlm_fig1.html

Spotted tentiform leafminer – Moths are common in pheromone traps throughout the state. Peak flight is rapidly approaching in the central region and has passed in the southwest, south central and southeast, signaling egg laying is underway in these regions. The first larvae should appear around 209 DD (base 50°F) and the first leaf mines around 329 DD. Scout for sapfeeder leaf mines during petal fall. Control decisions for 1st generation **spotted tentiform leafminer**, based on the number of leaf mines, should be made at that time.



Codling moth - Place pheromone traps now to catch the earliest emerging moths. According to degree day accumulations, this insect could begin appearing in southern counties within the next week or two. The first trap catches typically occur around 248 DD (base 50°F).

In contrast to the **redbanded leafroller**, pheromone trap catches can be used to make management decisions for **codling moth**. Counts should be used to determine the "biofix", or starting date of the first sustained flight of male moths. Control treatments are most effective when applied 250 DD (base 50°F) accumulate after the cumulative capture of 5 moths per trap (*Midwest tree Fruit Management Handbook*).

Apple Scab — Last week's midsummer-like weather moved orchards around the state from green tip to tight cluster in an amazingly short time. (One cooperator reported having still having ice in his culverts, and Macs moving beyond green tip in the orchard.) The cold weather since the weekend has slowed growth to a crawl.

Several orchards have accumulated the critical 147 GDD (base32) from Mac green tip, the point where the apple scab model predicts 5% ascospore maturity. A 5% spore maturity means the potential for significant spore release exists, so protectants or monitoring of infection periods (in the case of post-infection materials) become critical.

Current degree day accumulations as reported by cooperating orchards, the 147 GDD date and the latest report are included in the *Apple Scab Monitoring* table on the next page.

Daily updates are available at http://www.soils.wisc.edu/cgi-bin/aws/scabsummary Since we no longer report infection periods at specific orchards as we have in the past, interpretive information is no longer provided. Click on the reported GDD figure in the chart to see a nearly real-time map of interpolated degree days provided by UW.

A recent issue of the NY State *Scaffolds Fruit Journal* featured a good article on "Managing Fungicide Resistance In Apple Orchards", available at http://www.nysaes.cornell.edu/ent/scaffolds/2002/4.8.html#d2

Apple Scab Monitoring								
<u>Orchard</u>	Green tip	<u>147 GDD</u>	current GDD	date of report	infection periods			
Prairie du Chien	4/15	4/18	403	4/25	none			
Racine Co.	4/15	4/19	294	4/25	none			
Sheboygan Co.	4/15	4/22	322	4/23	none			
Fond du Lac Co.	4/15	4/18	249	4/25	1 *overnight			

Apple Insect Trapping Results

County						
City	Date	STLM	RBLR			
Grant Co.						
Sinsinawa	4/8-4/15	6	15			
	4/15-4/23	17	48			
Crawford Co.						
Gays Mills-W2	4/12-4/22	20	45			
Richland Co.						
Hill Point	4/14-4/22					
Dane Co.						
Deerfield	4/12-4/16	140	28			
	4/16-4/23	500	72			
Green Co.						
	4/15-4/23	180	52			
Trempealeau C	0.					
Galesville	4/17-4/21	480	30			
Jackson Co.						
Hixton	4/16-4/22	6				
Fond du Lac Co.						
Rosendale	4/10-4/16	1	15			
	4/15-4/22	13	4			
Malone	4/1-4/15	0	5			
	4/15-4/22	0	17			
Adams Co.						
	4/7-4/14	0	0			
	4/15-4/22	110	100			
Marquette Co.						
Montello	4/7-4/14	0	32			
	4/15-4/22	227	88			
Racine Co.						
Rochester	4/9-4/18	725	55			
	4/18-4/25	429	51			

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Website of the Week:

http://www.nass.usda.gov/wi/index.htm Wisconsin Agricultural Statistics Service

How many acres of soybeans are planted in Rock Co? What's the value of the WI lamb crop? These people can answer those questions, and many more.

 $(In \, 2000, 104,\!800 \, acres \, and \, \$5,\!660,\!000, respectively.)$

