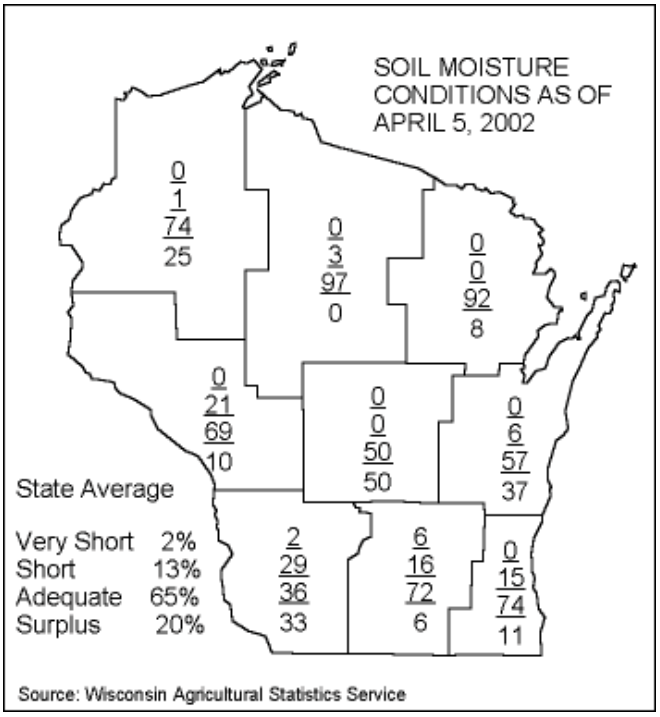
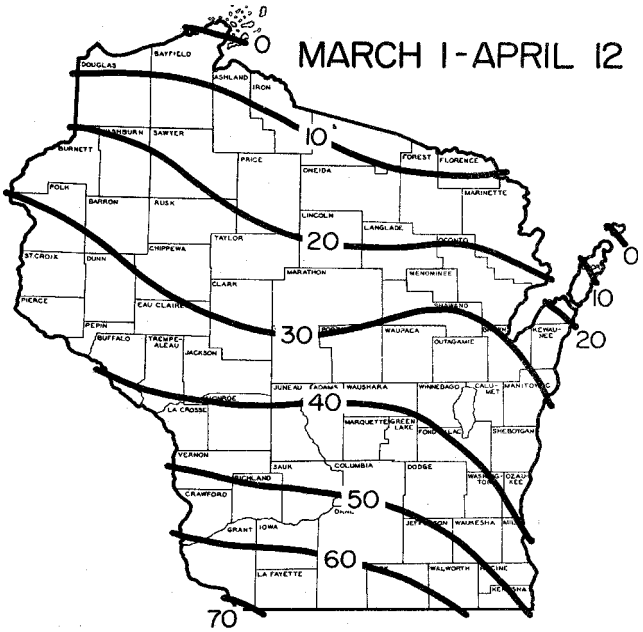
Cooperative Pest Survey Bulletin
Agricultural Resource Management
Bureau of Plant Industry
WI Department of Agriculture, Trade & Consumer Protection, PO Box 8911, Madison, WI 53708-8911 Phone: 1-800-462-2803 Fax: 608-224-4656 Web: Wisconsin.gov





Historical Average Growing Degree-Days Accumulated (Base 50°F) Since March 1. (Wisconsin Agricultural Statistics Service)

WEATHER AND PESTS

Spring is starting slowly this year with snow still covering the northern part of the state. Soil moisture appears to be adequate in most areas of the state.

Growing degree days from March 1 through April 10 were:

Site	GDD*	2001 GDD	Base 48	Base 40
SOUTHWEST				
Dubuque, I	29	72	22	121
Lone Rock	24	63	18	104
SOUTHCENTRAL				
Beloit	26	66	20	125
Madison	18	54	14	94
Sullivan	23	59	18	115
Juneau	15	53	12	91
SOUTHEAST				
Waukesha	15	53	12	90
Hartford	10	49	9	76
Racine	13	51	10	70
Milwaukee	9	44	7	64
EAST CENTRAL				
Appleton	7	38	5	53
Green Bay	3	30	3	39
CENTRAL				
Big Flats	16	47	12	69
Hancock	14	45	10	63
Port Edwar	12	41	8	51
WEST CENTRAL				
LaCrosse	22	67	19	85
Eau Claire	10	49	9	52
NORTHWEST				
Cumberland	0	31	0	26
Bayfield	0	18	0	12
NORTH CENTRAL				
Wausau	3	31	3	31
Medford	0	27	0	23
NORTHEAST				
Crivitz	1	26	1	27
Crandon	0	26	0	14

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

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

Black cutworm – Reports of concentrated trap catches in southern Illinois signal that these migratory moths will soon be arriving in Wisconsin. Grassy fields, late-planted fields and fields subject to spring flooding are most vulnerable to attack. Scout for injury to seedling corn once 300 DD (base 50°F) have accumulated following the capture of 8-9 moths in 2 consecutive nights.

Spotted tentiform leafminer – Pheromone traps should be in place. Egg laying is not yet underway, but will begin soon. The first peak flight is also fast approaching (150 DD base 50°F), and the first larvae can be expected once 209 DD have been reached. Begin scouting for leaf mines at 329 DD.

Alfalfa weevil – This early-season alfalfa pest will soon be emerging from their overwintering sites and resuming egg laying activities in alfalfa fields. Eggs are laid inside alfalfa stems, and in dead stems or residue on the ground. At an average daily temperature of 60°F, 18 days are required for eggs to hatch (UW-Extension). Peak egg laying typically occurs in early May. The foliage-feeding larvae are the primary cause of damage, whereas adults are only occasionally numerous enough to delay regrowth.

CORN

Black cutworm – A network of **black cutworm** pheromone traps has been placed in the southwest corner of the state, in anticipation of the arrival of these migratory moths. The earliest adults arrive on warm, southerly spring winds, signaling to us that the others aren't far behind.

Pheromone trap baited with black cutworm lure
Krista Lambrecht

Once the first adults appear in pheromone traps it's important to begin monitoring closely for a concentrated pheromone trap catch of 8-9 male moths in 2 consecutive nights. The first "concentrated capture" is used as the starting point, or biofix, for accumulating degree days to predict when **black cutworm** larvae will reach the stage of development at which they begin cutting corn seedlings. Larvae typically reach this stage, the 4th instar, once 300 DD (base 50°F) have accumulated after a "concentrated capture". Heavy **black cutworm** infestations are more likely to occur in late-planted fields, weedy fields, and fields subject to spring flooding. Corn is most susceptible to injury during the 10-14 days following emergence.

Black cutworm larva and cut corn seedling
http://info.ag.uidaho.edu

No moths have been collected in pheromone traps here in Wisconsin, but in southern Illinois the first concentrated capture of moths was documented on March 30-31. Significant damage to field corn is uncommon, but severe infestations can occur. Last season a number of heavy **black cutworm** infestations were observed in western Dane Co. Post-emergence insecticidal treatments were applied to control the outbreaks. Data on the first "concentrated capture" of **black cutworm** moths and scouting advisories will be provided in upcoming issues of the Bulletin.

FORAGES

Alfalfa weevil – Alfalfa weevils are one the first pest insects to resume activity in the springtime. In Wisconsin, **alfalfa weevils** overwinter as adults in protective grassy areas, migrate to alfalfa fields on warm spring days, and begin laying eggs in plant stems shortly after arrival. Adults are only occasionally numerous enough to slow plant growth, and in most cases it is the foliage-feeding larvae that are the primary cause of injury. Heavy larval populations can lead to complete defoliation of the upper leaves.

Scouting for **alfalfa weevil** should begin once 300 DD (48°F) have accumulated. Monitoring activity is most important in the first crop; the heaviest damage typically occurs when the first cutting is ready for harvest. Scouting efforts should target warm, sandy areas and south-facing slopes first. A growing degree day model for **alfalfa weevil** is provided below:

Life stage	**GDD required to complete life stage**	**Accumulated degree days**
Egg	300 (base 48(F)	300
1st instar	71 (base 48(F)	371
2nd instar	67 (base 48(F)	438
3rd instar	66 (base 48(F)	504
4th instar	91 (base 48(F)	595
pupa	219 (base 48(F)	814

University of Wisconsin-Extension

Alfalfa Weevil Adult

Alfalfa Weevil Larva

http://www.ianr.unl.edu/pubs/insects/graphics/alfwee_1.jpg

FOREST, SHADE TREE, ORNAMENTALS AND TURF

Eastern & Cooley spruce gall adelgid - The time to treat for these two pests is from 50 to 100 degree-days (base 50°F).

Other pests to treat for from 100 to 200 degree-days (base50°F) include:
Ash plant bug
Fall & spring cankerworm

Spring Cankerworm

European pine sawfly

Fletcher scale
Honeylocust pod gall midge
Leaf crumpler
Spruce spider mite
Eastern tent caterpillar
Zimmerman pine moth

STATE/FEDERAL PROGRAMS

GYPSY MOTH PROGRAM - We are getting ready for the trapping season. Trappers will be setting approximately 27,000 traps statewide. Regulated counties will be trapped at 1 trap per 4 sq. miles and non-regulated counties will be trapped at 1 trap per 2 sq. miles. There are 75 delimitation sites, located mainly in the central third of the state that will be trapped at 4 traps per sq. mile.

Lead worker training is scheduled for May 7-8 in Mosinee. Southern trappers will be trained on May 20-21 in Madison and northern trappers will be trained on May 22-23 in Tomahawk. Training consists of map reading, GPS use, trapping protocols, public contacts, trap placement, trap construction, recording and reporting data, and safety.

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

Editor's note: The following article is excerpted from a video script about scouting apples that is being developed by MSU with several growers and consultants.

TIME TO START UP YOUR APPLE SCOUTING PROGRAM - John Bakker, Doug Murray, Jim Laubach, John Wise, Mark Whalon, David Epstein, and Larry Gut - Michigan State University

As the growing season is rapidly approaching this season, apple growers might want to pause and take some time to review their scouting program for the year. The information derived from a good scouting program can ensure that you are making the right pest management decisions at the proper timings, and can ultimately save you money.

Green tip is when the scout makes a first scouting trip into the orchard for the season. The primary insects to visually scout for at this time are **European red mite** eggs, **San Jose scale, rosy apple aphid** eggs, and bud feeding that can be caused by **cutworm, budmoth** or **leafroller** larvae. It is also time to set traps with pheromone lures for **spotted tentiform leafminer** and **Oriental fruit moth**.

At any given stage of growth in the season there are many insect and disease pests that have the potential to cause significant damage, thus, a good scout is always looking for conditions that appear abnormal. Note these conditions immediately, collect a sample and get them identified.

Scouting at this stage focuses on visual inspections of spurs for **European red mite** (ERM) eggs and estimating population levels. Notes should be made on egg viability. Healthy eggs are spherical and dark red, whereas non-viable eggs look empty or lighter in color. Early season scouting can provide useful information noting the presence or absence of viable eggs, but actual counts of the number of eggs per spur provide a basis for future decision-making. To visually scout for ERM eggs you need a 10-X hand lens. Select a total of 100 spurs from inside and outside of 10 to 20 trees throughout the block. Record

the number of spurs per 100 that have mite eggs on them. While doing this inspection also make notes on the presence of rosey apple aphid eggs, over-wintering scale, and bud damage.

At this stage of growth, pheromone traps should be set for **spotted tentiform leafminer** and **Oriental fruit moth**. Remember not to cross contaminate the trap — carefully place the pheromone lure in the trap using a disposable stick. Be sure that the trap is securely hung in the tree and mark the tree and the row with flagging tape so that it can be easily found later in the season.

Spotted tentiform leafminer adults begin flight around tight cluster with peak flight occurring around pink. Place one trap in the southwest quadrant of each block, inside the tree canopy. Moth counts can be as high as one to two thousand per week. Using both moth counts and visual scouting for eggs and larvae will help make management decisions later in the season.

Trap for **Oriental fruit moth** (OFM) to identify when flight begins, also known as biofixing. This information is critical for running the OFM degree-day model, which will help determine when to apply appropriate controls. Place traps in the same general location as the **spotted tentiform leafminer** traps.

Several plant pathogens become active as green tissue develops on the tree. **Apple scab** spores are becoming mature and with rainfall, spores will discharge. Information on rainfall and temperature are needed to predict when symptoms will appear. Symptoms of **scab** are not visible during green tip, however, by the tight cluster period we will be actively scouting for **apple scab** lesions.

(reprinted from the Michigan Fruit Crop Advisory Team Alert, Vol. 17, #2, April 9, 2002)

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Trade & Consumer Protection

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Web Site of the Week

http://chla.mannlib.cornell.edu/ The Core Historical Literature of Agriculture, from Cornell University.
Full-text reproductions of agricultural texts published between the early nineteenth century and the middle to late twentieth century. Contains an astonishing 815 works (302,688 pages) and building. A treasure of historical information.