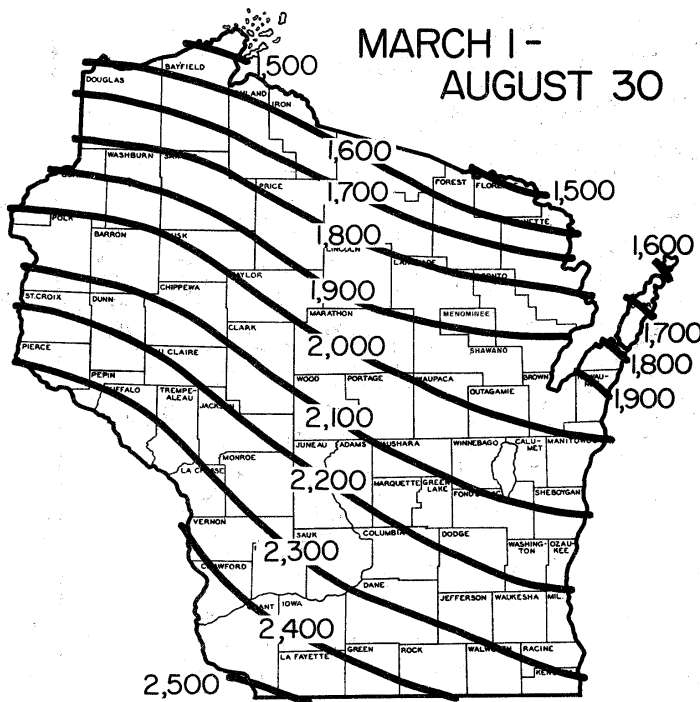


Weather and Pests

Light, scattered rains in the last week softened the drought that has plagued Wisconsin farmers for several weeks, but the sprinkling wasn't enough to ease the severe stress plants are now exhibiting. In the central and northern districts corn leaves have fired, ears are not filling out entirely, and a substantial amount of acreage is being harvested early as silage. In the southwest growers are reporting the worst looking crop in ten years. Soybeans are suffering as well, with fewer than normal pods and fewer beans per pod being reported across the state. In

Growing degree days from March 1 through August 28 were

Site	2002 GDD*	Normal GDD	Base 48	Base 40	
SOUTHWEST					
Dubuque, IA	2298	2397	2448	2254	3684
Lone Rock	2275	2273	2293	2190	3651
SOUTHCENTRAL					
Beloit	2232	2414	2327	2221	3621
Madison	2211	2259	2256	2201	3586
Sullivan	2126	2338	2193	2129	3489
Juneau	2124	2259	2084	2134	3483
SOUTHEAST					
Waukesha	2039	2298	2195	2057	3386
Hartford	2051	2234	2091	2082	3393
Racine	1957	2253	2204	1999	3279
Milwaukee	1948	2190	2163	1981	3262
EAST CENTRAL					
Appleton	2020	2093	1977	2092	3321
Green Bay	1817	1944	1888	1939	3078
CENTRAL					
Big Flats	2160	2166	2108	2136	3494
Hancock	2135	2154	2012	2126	3468
Port Edwards	2036	2048	2069	2073	3334
WEST CENTRAL					
LaCrosse	2310	2378	2279	2199	3686
Eau Claire	2239	2212	2096	2170	3600
NORTHWEST					
Cumberland	2018	1967	1951	2002	3294
Bayfield	1548	1504	1449	1584	2639
NORTH CENTRAL					
Wausau	1834	1913	1931	1941	3124
Medford	1806	1804	1886	1900	3042
NORTHEAST					
Crivitz	1773	1833	1799	1885	3001
Crandon	1685	1736	1732	1768	2876



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

contrast, conditions have been excellent for making hay, and third crop alfalfa is mostly faring well in terms of quality, but not so well in terms of quantity. The continued warm weather favored the activity of the **European corn borer**, which continues to be caught in high numbers at some sites.

Alerts

Emerald ash borer (EAB)- A report of confirmed EAB in nursery stock in Maryland was received from the National Plant Board. Stock includes ash trees shipped in to Maryland in April 2003 from a nursery in Tennessee, although the stock is believed to have originated in Michigan. The status of EAB in Maryland is not known at this time.

Powdery scab of potatoes -- Powdery scab of potatoes (caused by *Spongospora subterranea* f. sp. *subterranea*), detected in a Wisconsin production field for the first time this month, has been confirmed from two more Wisconsin counties. Individual fields in Adams and Portage Cos. have tested positive for the disease.

Looking Ahead

European corn borer – Egg laying is subsiding in the south, but activity remains high in some northern areas. Relatively high moth counts also continue to be registered at most black light trapping sites, but peak flight is well over in the south. Elsewhere, numbers should decline substantially very soon.

Corn earworm – The number of moths being caught in black light and pheromone traps is on the rise and larvae are increasing in tips of sweet corn ears. Trap counts indicate that the major moth flight is underway. Sweet corn producers should continue to be wary of late-season infestations as late-planted sweet corn in the silk stage is highly vulnerable to infestation.

Fall armyworm – Larvae were observed feeding on ears in a few central sweet corn fields. Infestations were mostly very light, but the potential does exist for some isolated heavy populations to occur.

Tree stress - Stock planted this spring should be watered this fall to keep the trees as stress-free as possible. By reducing drought stress now, you will help to lessen losses next spring. Factors that added to the loss of stock this year included lack of snow cover, a dry fall and early warm weather in the spring.

Forages

Potato leafhopper – Populations are generally low in most central and northern fields, varying from about one to eight per sweep. While populations are below

economic levels in most areas some pockets of heavy populations may still exist. Numbers should decline noticeably soon.

Plant bugs – A combination of **tarnished** and **alfalfa plant bugs** are still readily encountered in alfalfa fields across the state. Counts as high as nine per sweep were observed in a few central fields, but elsewhere averages fell below four per sweep.

Corn

European corn borer – Egg laying is subsiding in the southern areas, although in the few fields surveyed this week eggs were found on 10%-12% of the plants. Second generation larvae in the second and third instars were found in Marquette, Portage and Waushara Cos.

Corn earworm – “Significant flights” (five or more moths caught on three consecutive nights) have been registered at the Chippewa and New Richmond trapping sites, and nearly all trapping sites have yielded some moths this season. Counts indicate the major flight of moths is underway and egg laying is likely to pick up this weekend. Small larvae have already been encountered in Dane Co. sweet corn.

Fall armyworm – Infestations in sweet corn have been noted in Dane, Marquette and Portage Cos. Up to 25% of the plants were infested in one of the fields, while in the other fields infestations were light and did not exceed 10%. Most of the larvae observed during this week’s survey were approximately 1/3 grown. Under favorable conditions, fall armyworm can do a lot of damage to late sweet corn.

Corn rootworm – Moderate numbers of beetles were found in corn fields, but most of the egg laying has already occurred in the south. Where high winds accompanied the recent rainfall, look for lodging to occur. Some lodging has been reported from Walworth Co.

Leaf blights — Field inspections in the southcentral region of the state found widespread **common maize**



rust and **gray leaf spot**, with low levels of **northern corn leaf blight** and **eyespot** mixed in. Compared to years past, gray leaf spot incidence has increased and eyespot had declined. This year's unusually dry weather obviously has considerable impact on the distribution and makeup of the leaf blight population, but the increase in gray leaf spot is consistent with longstanding concerns about the emergence of this disease in the state.

Soybeans

Soybean aphid – Reproduction has slowed dramatically and in most fields counts are now averaging below 100 aphids per plant. The 2003 soybean aphid survey, completed last week, found the statewide average peak population to be 770 aphids per infested plant. The highest average infestation of 4550 aphids per infested plant was observed Dodge Co. while the lowest averages were observed in the northeast and northern districts. The survey included 289 sites distributed throughout the nine agricultural statistics districts. More detailed information and a summary map will be available in the November 28 issue of the Wisconsin Pest Bulletin.

Grasshoppers – Heavy populations continue to plague many soybean fields, but in the fields surveyed this week no economic levels of defoliation were observed. Expect grasshopper activity to slow in the near future, but to persist into fall.

Vegetables

Squash bug – At this time of year squash bugs feed on pumpkins, cucumbers, squash, watermelons and sometimes raspberries. They damage plants by removing sap, causing leaves to wilt and collapse. Young plants are most vulnerable to squash bug feeding.

One effective method of controlling this pest requires looking for yellow to brick-red egg clusters on the undersides of plant leaves. When a cluster is found, cut off and destroy that part of the leaf. Also, look for the gray nymphs under curled leaf edges or in dead or dying



leaves. If practical, adults can be hand-picked from plants and destroyed rather than using chemical control.

Garden fleahopper – An infestation of garden fleahoppers, primarily on cucumbers, but also affecting snap beans and parsley, was reported from northern Dane Co. this week. On the cucumbers the yellow stippling injury was very obvious, with counts of three to nine adults per leaf on the upper leaf surfaces and five to fifteen nymphs and adults on the underside of leaf surfaces.



Forest, Shade Trees, Ornamentals and Turf

Fall Webworm — This late summer insect was found during nursery grower inspections in Rock and Sheboygan Cos. in light to moderate amounts. The fall webworm was found on sumac, maple, ash, mountain ash, oak and birch. This pest generally only does aesthetic damage to the host; more injury usually occurs when people cut out the webs or burn the nests out of the trees. Neither of these measures are recommended for control of this pest., nor is chemical control. The larva is yellow in color and very hairy. There is another variant that is darker in color and has a black head instead of a red one. We generally find the red-headed race in our inspections. There can be 2 generation in the Southern states, but here we usually only see one.

Leafhoppers — Feeding injury was found during nursery grower inspection throughout the state. Levels of injury varied. The pest was found in Juneau, Rock and Sheboygan Cos. When feeding becomes heavy, leafhoppers feed near the tips of branches, causing leaf tissue to appear “burned”. Control of immigrant populations should begin in early June or when feeding is first seen.

Redheaded Flea Beetle, *Systema frontalis* — We are finding injury and adults of this pest on wegelia and a few other species during grower inspections. Beetles were found in Brown, Rock and Sheboygan Cos. The damage is generally light and the adults are hard to find because they jump off the plant when any disturbance occurs. The adults begin to feed in early August and

Redheaded flea beetle damage



Agriculture and Agri-Food Canada

then mate and lay eggs in the soil. Larvae develop in the soil and feed on the roots of weeds and

some cultivated plants, such as corn. The populations seem to have some connection to corn because in our inspections injury and populations are higher where corn is next to the nursery field.

Redheaded flea beetle adult



H. Goulet/AAC-CRECO

Agriculture and Agri-food Canada

White Pine Weevil — White pine weevil injury generally starts to be noticed in mid to late summer as the terminal leaders begin to die in infested host trees. Hosts include white pine, Scotch pine and both Colorado and Black Hills spruce. We are currently finding this pest in Columbia, Juneau and Lincoln Cos. in localized moderate to heavy amounts. Early in the season you will see small holes and pitch flowing from the hole on the terminal leader. Eggs hatch in summer and begin to feed in the terminal leader of the tree. The pupa will overwinter in the terminal leader in a wood shaving cocoon and in spring will hatch out and repeat the cycle. Treatment should be made in early May and should target the terminal leader, and then a second application should be made to the tops of the trees in mid August to mid September.

Zimmerman Pine Moth — This damaging borer in Scotch and Austrian Pine was found during grower inspection in Pierce and Shawano Cos. Look for white to yellow pitch masses on the trunks of trees, usually near where branches attach. The larva of this insect feeds just under the bark causing a pitch mass to form. The best time to control Zimmerman pine moth is when the overwintering larvae are becoming active in the

spring. Removing larvae from the pitch masses is another mechanical control method. If stands have heavy infestations, removing infested trees will help reduce moth populations.

Anthracnose — We are finding lots of plants that have been damaged by anthracnose this season. Ash, birch, maple, oak, daylilies, alpine current and hosta sustained light to moderate amounts of injury in Brown, Juneau, Rock and Sheboygan Cos. Symptoms may be mistaken



Purdue Department of Forestry and Woodlands
www.fnr.purdue.edu/inwood/spring.htm

for frost damage. On the plants listed above you may find black irregular dead areas on the leaf. “Anthracnose” is more a generic term than a specific disease, as the fungus responsible for the disease differs from host to host. The disease (on whatever host) is generally favored by persistent cool, wet

weather, especially if it occurs during bud break and early leaf expansion. Fungicides are rarely used to prevent infection and are not effective after an infection has occurred. In nurseries, increased air circulation around host plants, crop rotation, leaf clean-up and sanitation will help limit disease spread. Generally this disease does little lasting damage to the trees. Trees that have heavy amounts of anthracnose should be watered when drought occurs and fertilized if needed during the growing season.

Entomosporium Leaf Spot — This fungal leaf spot found on European mountain ash and serviceberry at nurseries in Rock and Sheboygan Cos. was at light to moderate levels. This leaf spot may affect apples, crabapples, chokeberry, cotoneaster, hawthorns, pears, quince and serviceberry. Generally, a dark leaf spot develops with a yellow halo. This leaf spot starts to develop in early summer and is spread by water splash. The spores overwinter on the leaves that drop off. Cleanup of fallen leaves is important. Chemical control can be used to reduce infection rates.

Rhizosphaera Needle Cast — Symptoms of this important and economically damaging disease of spruce were found during inspection of stock in Lincoln and Pierce Cos. in light amounts. The tree begins to die from the bottom up and the overall quality of the tree is reduced. Look for branches near the bottom of the tree that are thin and have purple-colored needles still attached to the branch. Rhizosphaera spores overwinter on needles that drop from the trees and are spread by splashing water. Space trees adequately and keep weeds

and grass controlled around the trees to increase air movement. If necessary, treat with a labeled fungicide when new needles are half elongated. Apply a second application when needles are fully emerged. Treatments may have to be applied for several seasons to get control of this pathogen when infections are serious.

Fruit

Apple maggot – Flies continued to emerge this week. In areas of the state that were fortunate enough to receive some rainfall, the potential exists for an increased emergence of flies in the next week or two. This trend could persist into September where moisture levels are adequate, so growers should monitor closely for apple maggot until harvest.

Flyspeck – This disease, characterized by clusters of black shiny specks on the fruit surface, commonly begins to show up in orchards at this time of year. The individual specks or blemishes are fruiting structures in which spores are formed. Although the blemishes associated with flyspeck are unattractive, they do not cause decay. In some cases flyspeck may cause a slight increase in water loss leading to a somewhat shortened storage life, but the primary concern with flyspeck is aesthetic. Flyspeck tends to be worse during wet growing seasons, which is clearly not a condition we're facing this year.

Calendar of Events

Bugs! IMAX® movie

September-December 18, 2003

Milwaukee Public Museum, Milwaukee, WI

Call (414) 319-4629

Also visit the bug exhibit called “**Bugs Alive! Insects and Their Relatives**,” featuring 13 species of live arthropods. Call (414) 278-2728, or visit:

<http://www.mpm.edu>

58th Annual Lake States Logging Congress

Sept 4-6, 2003

Escanaba, MI

Contact Timber Producers Association at 715/282-5828 or timberpa@newnorth.net

Taking the Pulse of Your Woods-Session 2

Sept 13, 2003

Seno Woodland Education Center, Burlington, WI

Contact Kendra Johncock at 262/743-1694 or kendra@elknet.net

Wisconsin Woodlands Owner Association 2003 Annual Meeting

Sept 18-21, 2003

Telemark Lodge in Cable, WI

Contact: 715/346-4798 or nbozek@uwsp.edu

XII World Forestry Congress: A Focus on Forests

September 21-28, 2003

Quebec City, Canada

<http://www.wfc2003.org>

Natural Areas Conference “Defining a Natural Areas Land Ethic”

September 24-27, 2003

Monona Terrace Convention Center, Madison, WI

Contact Thomas Meyer, DNR, Box 7921, Madison, WI 53707

(608) 266-0394, e-mail: thomas.meyer@dnr.state.wi.us

or visit: <http://www.naturalarea.org>

2003 Plants Out Of Place Conference

September 27, 2003

Madison, WI

Invasive Plants Association of Wisconsin (IPAW)

Kelly Kearns, DNR Endangered Resources Program,

(608) 267-5066k, kearns@dnr.state.wi.us

Invasive Plant Symposium 2003

September 27, 2003

Madison, WI

<http://www.se-eppc.org/sympann.pdf>

Invasive Alien Species and the International Plant Protection Convention Conference

22-26 September 2003

Braunschweig, Germany

<http://www.ippc.int/IPP/En/Archive/IAS2003/IAS-WORKSHOP-Home.htm>

2003 Wisconsin Fresh Fruit and Vegetable Conference

January 6-8, 2004

Olympia Resort & Conference Center, Oconomowoc WI
Program available at

<http://www.wiberries.org/program.htm>

Wisconsin Nursery Association Winter Workshop

January 8-9, 2004

Brookfield, WI

Contact: WNA/WLF office at 414-529-4705

Wisconsin Turfgrass & Greenscape Expo

January 8-9, 2004

Madison, WI

Contact: Audra Anderson at 608-845-6536

School for Beginning Market Gardeners

January 24-26, 2004

Contact: John Hendrickson at 608-265-3704

Wisconsin Arborist Association & DNR Urban Forestry Convention

January 27-29, 2004

Green Bay, WI

Contact: Bob Gansemer at 262-242-2040

Apple Insect Trapping Results

County City	Date	STLM	RBLR	CM	OBLR	AM red ball	AM sticky
Crawford Co.							
Gays Mills-W2	8/18-8/21	250	5	8	0	0	0
Dane Co.							
Deerfield	8/19-8/27	390	46	2	0	2	0
Pierce Co.							
Beldenville	8/21-8/27	100's	2	0	0	0	0
	8/14-8/20	100's	0	2	3	0	0
Fond du Lac Co.							
Rosendale	8/15-8/25	20	1	0	2	0	1
Marquette Co							
Montello	8/17-8/24	471	21	14	7	0	0
Waukesha Co.							
Waukesha	8/18-8/24			12			
Marinette Co.							
Wausaukee	8/22-8/29	3	0	5	0	0	0
Racine Co.							
Rochester	8/22-8/29	20	6	8	2	0.25	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 28

Trap Site	European corn borer	Armyworm	Black Cutworm	Variegated Cutworm	Spotted Cutworm	Celery Looper	Corn Earworm	Dingy Cutworm	Corn Earworm Pheromone
South Central									
Arlington	177								
Madison	38								
West Central									
Coon Valley									18
Central									
Marshfield	10	3	0	1	70	3	0		
East Central									
Manitowoc	37				6			11	
Northwest									
Chippewa Falls	40								36
New Richmond	36								420



Department of Agriculture,
Trade & Consumer Protection
Division of Agricultural Resources Management
PO Box 8911
Madison WI 53708-8911

Web Site of the Week

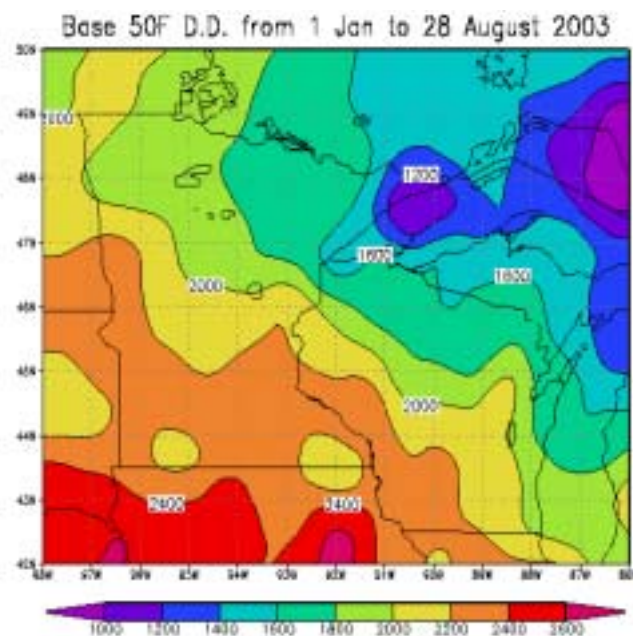
<http://www.applejournal.com/>

History of and information on apple varieties, recipes, orchard tours, news from the fruit growing world. A nice directory of orchards around the world, including many Wisconsin growers, in the "Orchard Trail" section.

Quote of the Week

"... though an old man, I am but a young gardener."

Thomas Jefferson (1742-1826), in a letter to Charles Willson Peale, 1811.



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