Central States
Forest Health Watch

Current forest health information for land managers in Illinois, Indiana, Iowa and Missouri

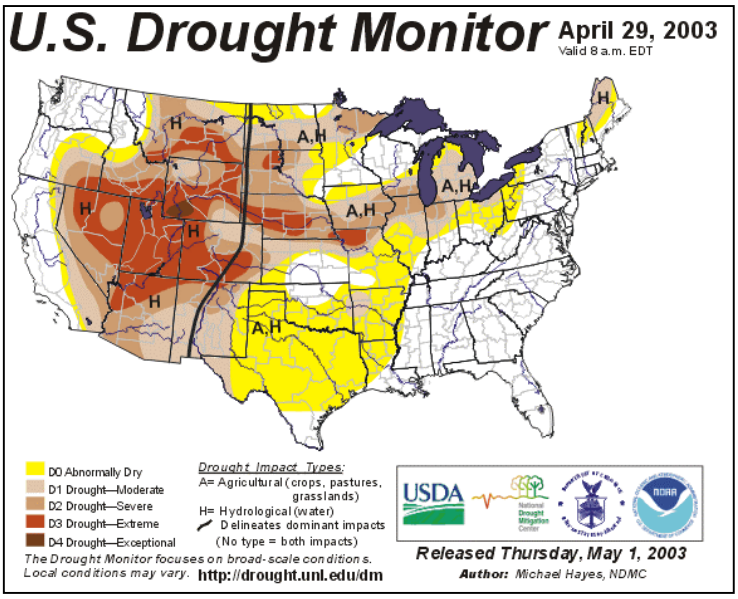
May 1, 2003

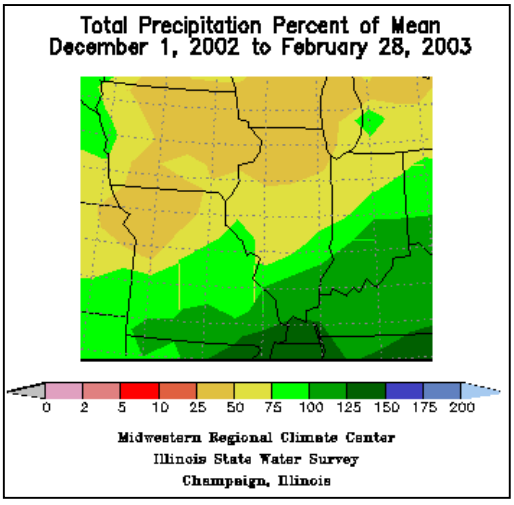
About This Newsletter…

This collaborative effort of the USDA Forest Service Northeastern Area, Missouri Department of Conservation, and Indiana, Iowa and Illinois Departments of Natural Resources will provide updates three times per year (Spring, Summer, Autumn) on forest health issues of regional interest.

Weather Overview

The drought monitor map shows that southern Iowa and northern Missouri, Illinois, and Indiana continue to experience moderate to severe drought conditions. Northwestern Missouri is in extreme drought. Southern Missouri, Illinois and Indiana received normal to above normal levels of winter precipitation. The northern parts of these states and Iowa, however, were below normal for winter precipitation.





Stress-related tree problems, such as wood borers, hickory bark beetles and armillaria root disease, are likely to increase in areas where extreme, repeated, or sustained stress events are occurring.

For current regional weather information, see the Midwest Regional Climate Center webpage: http://mrcc.sws.uiuc.edu/Watch/watch.htm The US Drought Monitor site also provides current information on drought conditions at: http://www.drought.unl.edu/dm/monitor.html

Regional Overview of Current Pest Conditions

Right now we cannot predict what will happen with **oak decline** on the Ozark Plateau this summer. Some of the areas that suffered the greatest amounts of decline in 2002 have received adequate precipitation during the winter and early spring, but that most likely will not be enough to halt the progression of decline. In Southern Missouri, the red oak borer is completing the second year of a two-year life cycle. A large

emergence of adults is expected from late June 2003 into July. If oaks continue to be under stress as the red oak borers emerge and seek new trees, the potential for large numbers of successful borer attacks is high.

Eastern tent caterpillar (ETC), *Malacosoma americanum,* is one of the most noticeable spring defoliators. ETC forms neat silk tents in the crotches of branches (see photo), and are particularly fond of cherry and apple trees. In southern Indiana, this is the fourth consecutive year of defoliation by ETC. Some individual trees have been completely stripped, but the occurrence is not as numerous as in previous years. Check these sites for more info on ETC:
http://www.entm.purdue.edu/entomology/ext/targets/HN/HN-24/HN-24.pdf
http://www.ipm.uiuc.edu/ipm/publications/infosheets/30-easterntent/easterntent.html

Anthracnose leaf and twig diseases can be very prevalent on several hardwood species in early spring, especially if we have wet weather. The most common symptom is dead areas or blotches on the leaves. On white oaks, the lower leaves often get large blotches. On ash, blotches are less visible but leaf drop is very common. On sycamore, irregular blotches form, blighted leaves fall off, and cankered twigs die. Conditions that favor development of sycamore anthracnose include average weekly rainfall one inch or greater and average weekly maximum temperature in the 50's. So far conditions haven't been conducive to development of anthracnose in southern Indiana this spring, but a change in the weather pattern could still result in noticeable anthracnose. For more info on anthracnose, check out the following fact sheets:
http://www.agcom.purdue.edu/AgCom/Pubs/BP/BP_9_W.pdf
http://www.ipm.uiuc.edu/ipm/publications/rpds/rpd621/rpd621.html
http://agebb.missouri.edu/pdc/diagnosticreports/anthracnose01.htm
http://www.na.fs.fed.us/spfo/pubs/fidls/anthracnose_east/fidl-ae.htm

European pine sawfly may begin to cause noticeable defoliation of hard pines (red, Scots, mugho, etc.) by mid to late May. The earliest feeding is on the needle surface and causes needles to turn brown and wilt. As the grayish green larvae grow, they remain together and feed from the tip of a needle to the base. The larvae feed on older foliage and move from branch to branch as they strip the needles. On heavily infested trees all the older needles are eaten and only the current year's needles are present. For more info, see:
http://www.extension.iastate.edu/newsrel/2003/mar03/mar0319.html
http://www.msue.msu.edu/aoe/xmas/e-2694.PDF
http://ohioline.osu.edu/hyg-fact/2000/2555.html

Feeding by **honeylocust plant bugs, treehoppers, and leafhoppers** on immature growth causes severe leaf distortion, dwarfed leaflets, chlorosis, and yellow to brown spots. If you're having problems with these critters, check the following factsheets on the web:
http://www.ipm.uiuc.edu/landturf/insects/honeylocust_plant_bug/
http://www1.uwex.edu/ces/pubs/pdf/A3636.PDF

Maple bladder gall and other insect galls may start to show up as the leaves develop. Although they seldom cause significant injury to the tree, we often get questions about them. You can find information on these at the following factsheets:
http://www.entm.purdue.edu/Entomology/ext/targets/e-series/EseriesPDF/E-56.pdf
http://www.utextension.utk.edu/spfiles/sp290f.pdf

The population of **linden looper and half-wing geometer** may be on the rise again in southern Indiana. This complex defoliated over 500,000 acres from 1979-1983. In 2002 Defoliation was detected in Clark State Forest, the same area where the epidemic started 20 years ago. Female moth counts from sticky traps placed last fall and this winter the traps indicate light defoliation will occur in south central Indiana on Jackson-Washington, Clark, and Harrison-Crawford State Forests, the Hoosier National Forest and private ownership adjacent to these forests.

High levels of **winter burn and browning pines** are being reported in northern Indiana. The effects of road salt are expected to be more noticeable this spring because of the longer period of snow cover and more snow events this past winter which resulted in the longer sustained use and presence of road salt. There are also reports of browning conifers throughout plantations and not just trees along the roads.

Drought stress, aging and competition are contributing to an increase in **death of pine in plantations** and windbreaks in Indiana. Ips beetles are the primary bark beetles involved, but others, such as turpentine beetles and root collar weevils could be involved. Mortality is greater on hard pines – red, Virginia and shortleaf – than white pine. Most of the hard pine plantations in southern Indiana are 50 to 70 years old and have never been thinned. These stands are beginning to fall apart from drought stress, competition, no management and bark beetles. High levels of **Scotch pine mortality** were previously reported across Iowa (see July 15, 2002, CSFHW newsletter).

Sirex noctillo, a potentially serious pest of pines, was intercepted from pallets at Otis Elevator in Bloomington, Indiana, in the summer of 2002. To the south of this area there are over 50,000 acres of pine stands planted 50-70 years ago, including stands on parts of the Hoosier National Forest, seven state forests and several state parks and recreation areas. To determine if *Sirex* may be established, a survey using trap trees and trap logs is being conducted this summer around Bloomington.

There have been several **recent personnel changes** related to forest health. Recent retirees include Pete Skuba from the Illinois DNR and Stan Smith from the Illinois Department of Agriculture. Robin Pruisner is Iowa's new State Entomologist with the Iowa Department of Agriculture and Land Stewardship (IDALS). Steve Pennington recently assumed responsibilities as Forester in charge of Tree Improvement and Forest Health with the Iowa DNR.

Gypsy Moth Activities – Spring 2003

States without established populations:		
	Treatment Activities	Trapping Activities
Iowa	None	A joint effort of USDA APHIS, IDALS and the IA DNR Bureau of Forestry will place approximately 5000 gypsy moth detection traps across the state.
Missouri	None	11,000 detection traps will be distributed over 90% of Missouri's counties. Delimit trapping will be done in the St. Louis area, where moths were caught in 2002.

States with established populations:		
	Planned Treatment Activities	Trapping Activities
Illinois	Aerial spray of Btk on approx 3800 acres and pheromone flakes on approx 26,000 acres. The intent of the treatment of these 39 sites in 8 counties is to slow the spread of gypsy moth by eliminating reproducing populations on the treatment sites.	USDA APHIS traditionally places detection traps in the portion of the state not covered by the STS program and delimit traps in areas where moths were caught the previous year. STS monitoring traps will be placed in the northern ¼ of the state.
Indiana	Aerial spray of Btk on approx 690 acres and pheromone flakes on approx 16,900 acres. The intent of the treatment of these 18 sites in 9 counties is to slow the spread of gypsy moth by eliminating reproducing populations on the treatment sites.	Over 16,000 traps will be placed on 2K and 3K grids over the entire state. Delimit surveys are planned for all positive sites outside and selected sites within the STS Zone.

Other Gypsy moth notes: The use of STS protocol since 1988 and especially since 2000 has slowed the movement of gypsy moth within Indiana. From 1999-2002, the rate of population growth has been around zero; the rate of population spread has been negative and the interboundary distance as been constant (approximately 11km). Iowa has established a subcommittee to revise their Gypsy Moth Position Paper, and a new draft should be available for review by fall 2003.

What's new elsewhere

Emerald ash borer adult. Photo by Dave Cappeart, MSU

The **emerald ash borer** is a newly reported beetle from Asia found attacking ash (genus *Fraxinus*) trees in southeastern Michigan, an adjacent area of Windsor, Canada, and one location in northwest Ohio (Lucas County). Be on the lookout for this pest in other locations, and if you spot anything suspicious, report it to your local forest health specialist or your state's Department of Agriculture. Emerald ash borer adults have a metallic green hue and are about 3/8 inch in length. Watch for them on the bark of ash trees in June, July and early August. The website http://www.na.fs.fed.us/spfo/eab/ provides the latest information on this new pest.

Feature Topic: What is Oak Tatters?

Symptoms of oak tatters on white oak. Note the absence of tissue between the veins. Photo courtesy of Dr. H. S. McNabb, Iowa State University.

Oak tatters is a condition of reduced interveinal tissues on emerging oak leaves, causing them to appear lacy or tattered. From a distance trees may appear to be light in color or to lack leaves. It affects primarily the white oak group, including white, bur, and swamp white. Red oaks, hackberry and other tree species may occasionally show similar symptoms. The damage is often evenly distributed throughout the entire crown, but sometimes may be greater in the lower crown. It may affect all sizes and ages of scattered individual trees and whole stands of trees in woodlands or urban landscapes. Adjacent woodlands and trees may be unaffected. Within 2 or 3 weeks, heavily affected trees will produce a new flush of leaves that may not have tatters. Producing a new flush of replacement leaves reduces important stored energy reserves in affected trees, which may make trees more susceptible to decline or other damage agents.

Oak tatters appears to be caused by damage to leaf tissue in the buds or as the buds begin to open for leaf expansion. Causes of the damage are unproven, but may include one or more of the following factors:

- Low temperature injury before leaf expansion or during expansion of young succulent leaf tissues
- Insects feeding or ovipositing in the buds or developing leaves.
- Herbicides affecting the physiology of the tree, resulting in abnormal development of leaves.

There is a pest alert with more pictures and information available on the web at: http://www.na.fs.fed.us/spfo/pubs/pest_al/oaktatters/oaktatters.htm . Information on the cause and distribution of oak tatters is limited, so if you observe extensive or repeated damage, we suggest you report it to your State's forest health specialist or the Forest Health Protection staff of the USDA Forest Service.

Upcoming Opportunities

Forest Health Training in Indiana: June 10, Bloomington, IN; June 12, Rochester, IN. Contact Phil Marshall at (812)358-9034 for more information.

Forest Health Workshops in Illinois: Two sessions (north and south) will be held June 17th and 18th. Contact Jim Appleby at (217)244-3431 for more information.

Iowa Forest Health Tour: July 9-10, Northeast Iowa. Anyone interested in viewing and discussing forest health issues in Iowa is welcome to join this field visit. Contact Steve Pennington at (515)233-1161 for more information

The 2003 North Central Forest Pest Workshop will be September 22-25 in Cloquet, Minnesota. For more information, see the NCFPW webpage at http://www.na.fs.fed.us/spfo/ncfpw/index.htm

Other Resources and Sources of Information

"Oak Wilt, People and Trees: a Community Approach to Oak Wilt Management" is a new training tool on CDROM prepared by the USDA Forest Service. The tool consists of a powerpoint presentation and supplementary information to provide community foresters and tree care people with the basic information they would need to implement a management program for oak wilt disease. The CD will be available in June, 2003, at minimal cost. Contact Linda Haugen at the US Forest Service (contact info in box below) if you would like to receive e-mail notification when the CD is available.

North Central Pest Management Center, includes a listing of all the websites for State pest management newsletters, by state, for the entire north central portion of the USA:
http://www.ncpmc.org/NewsAlerts/index.html

Plant Health Care Report from the Morton Arboretum (Chicago area, Illinois):
http://www.mortonarb.org/plantinfo/plantclinic/phc/index.html

Forest Health Highlights webpage (with yearly forest health report for each state):
www.na.fs.fed.us/spfo/fhm/fhh/fhmusamap.htm

This newsletter is also available on the WWW at:
www.na.fs.fed.us/spfo/pubs/newsletters/csfhw

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