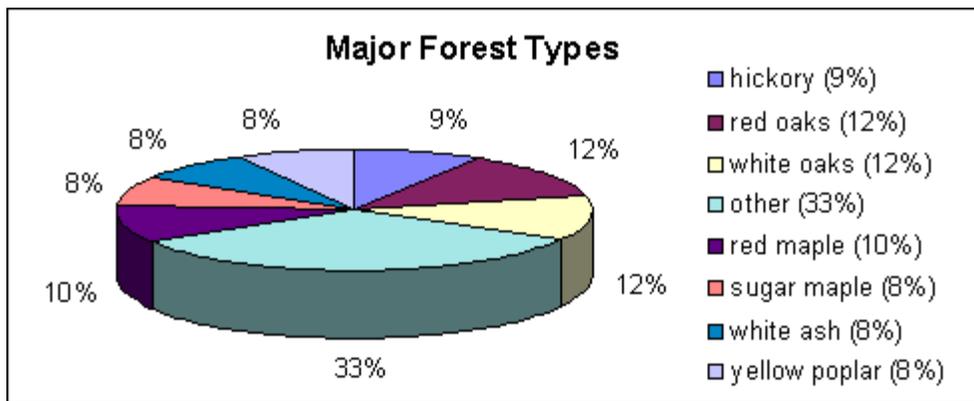


# 1994 Forest Health Highlights

## Ohio

### The Resource

According to 1994 U.S. Census Bureau figures, 11,102,000 people inhabit Ohio's 26,209,700 acres. Forestland comprises 30 percent of the total land area, while other agricultural lands comprise about 48 percent. Forested area has increased dramatically since 1940, including an increase from 7.1 to 7.9 million acres since the late 1970s. Ohio's forestland is 93 percent privately owned and 96 percent deciduous forest types. Ohio ranks fourth in the nation in maple syrup production.



Field windbreaks are an important component of many nonforested agricultural areas in northwestern Ohio. The planting of over 420 row miles of field windbreaks has been documented since 1979.

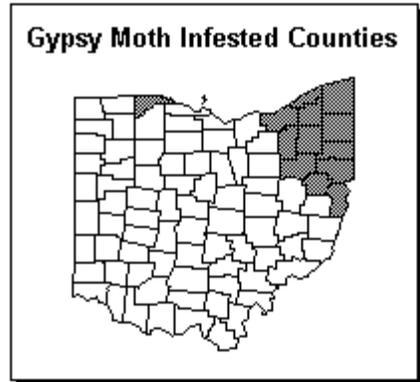
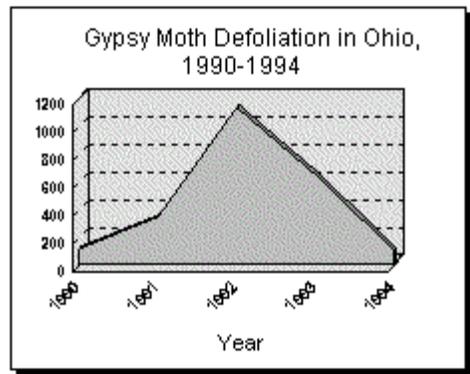
Ohio's 940 incorporated municipalities (cities and villages) occupy 11 percent of the State's land area and represent a substantial urban forest resource.

### Special Issues

Due to increasing **gypsy moth** populations in northeastern Ohio, the State and Federal Departments of Agriculture established a quarantine in 1987 to limit the spread of this destructive pest. Gypsy moth populations first reached defoliating levels in 1990.

Defoliation peaked in 1992 at 1,130 acres and decreased steadily to 100 acres in 1994. Severe cold temperatures during the winter of 1993-94 may have contributed to local gypsy moth population declines. Although total acres defoliated in Ohio has decreased since 1992, the defoliation has occurred over a wider range. Increased gypsy moth damage is expected as the insect spreads into the State's unglaciated oak-hickory forestlands.

Since 1990, the Ohio Department of Agriculture has been conducting gypsy moth suppression projects in the generally infested areas of the State, combined with pheromone trapping and eradication projects in areas not considered generally infested. The purpose of these projects is to maintain gypsy moth populations below damaging levels in infested areas of Ohio, while identifying and eliminating isolated gypsy moth populations in the State's



uninfested areas. The projects have included many different tactics including biological insecticides, biological controls, and mass trapping.

**Butternut canker** is causing decline and mortality throughout the butternut's Ohio range. In an attempt to protect the remaining resource and its potential genetic resistance to the disease, the Ohio Department of Natural Resources Division of Forestry developed and implemented a butternut management policy in 1994. The policy requires retention of healthy butternut trees on State forest lands. The policy also encourages education of private woodland owners regarding proper health assessment and management of this threatened species.

Austrian pine is commonly used in field windbreaks, roadside plantings and landscapes in Ohio. The tree's good growth rate, site adaptability and salt tolerance make it a popular choice for these uses. On poorer sites, however, stress invites the establishment of **Diplodia tip blight**, resulting in reduced aesthetic value and increased stress-related mortality.

**Decline and mortality** in arborvitae, eastern white pine, and yellow poplar is being attributed to moisture extremes during the late 1980s and early 1990s, followed by stress--dependent insects and diseases. Lack of proper thinning practices may also be a key factor contributing to eastern white pine mortality.

A mild spring drought, together with other conditions, spawned higher than normal numbers of **wildfires** during Ohio's spring 1995 fire season. Many of these numerous fires were larger than average in size. As of April 1995, preliminary reports indicate approximately 750-800 wildfires resulting in 4,000 acres damaged or destroyed in the State's fire protection and reporting zone. To put things in perspective, this is the amount of wildfire damage normally expected during an entire year. It is too early to predict the full effect of these fires on the health and productivity of the damaged areas.

In July of 1992, **pine shoot beetle** was discovered in northern Ohio on a Lorain County Christmas tree farm. Surveys conducted by the USDA revealed a total of 13 Ohio counties with resident populations of this exotic pest. Current surveys indicate that 131 counties in 8 states (including 18 Ohio counties) harbor populations of this pest.

Ohio nurseries and Christmas tree producers have seen the biggest impacts from the 18 county quarantine associated with this exotic pest. The potential impact of this beetle on white pine planted in the southeastern part of the State is not yet fully known.

## **Other Issues**

**Woodland damage caused by livestock** is a well-documented, yet persistent, forest health problem. Soil compaction, root disturbance and trunk/root collar damage caused by livestock reduce the vigor of trees. This paves the way for armillaria root rot, borers and other opportunistic organisms. Livestock also destroy the forest understory (reproduction), which hastens soil erosion and limits the future productivity of the site. The resulting forest decline reduces the quality, value and longevity of current and future trees on the site. Eliminating livestock from woodlands is the first step toward a healthier, more productive forest. Cost-shared fencing projects through the Stewardship Incentives Program (SIP) provide an opportunity for qualifying property owners to take this first step. During 1993 and 1994, 340 Ohio woodland owners seized the opportunity and protected 6,942 acres of forest land through the SIP fencing practice.

Ohio's **urban forest health** correlates directly to community commitment to managing the urban forest resource. As municipal officials comprehend the benefits derived from a healthy "green infrastructure," they begin to allocate the same organizational and financial support traditionally reserved for the "gray infrastructure." Measurable management activities indicate that Ohio communities are committed to managing the urban forest resource. Data from 1992-1994 shows that Ohio communities are annually planting more than 3 times as many trees as they remove, while maintaining more trees than they plant each year. In addition, 183 Ohio communities currently enjoy Tree City USA status. These trends show how sustained comprehensive urban forestry programs implemented by Ohio communities result in healthier, safer, and more functional urban forests.

## **Regional Surveys**

### **NORTH AMERICAN MAPLE PROJECT (NAMP)**

In 1992 NAMP plots were established in Geauga, Lake, and Trumbull Counties in northeast Ohio. NAMP is a Canadian/U.S. project investigating concerns about sugar maple health. Study plots are located in active sugarbushes. Overall, sugar maples have been healthy in the monitored plots. Trees in some plots, however, have been injured or defoliated by pear thrips. Injury associated with feeding by loopers has also been detected. Windthrow caused by severe storms in 1993 and 1994 reduced stocking in some stands, but average annual mortality remains (less than 1 percent).

## **For More Information**

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