

Ohio's Forest Resources, 2006

Research Note NRS-22

This publication provides an overview of forest resource attributes for Ohio based on an annual inventory conducted by the Forest Inventory and Analysis (FIA) program at the Northern Research Station of the U.S. Forest Service. These annual estimates, along with web-posted core tables, will be updated annually. For more information regarding past inventory reports for this state, inventory program information, and sampling/estimation procedures, please refer to the citations at the end of this report.

Table 1. – Annual estimates, uncertainty, and change

	Estimate 2006	Sampling Error (%)	Change Since 2005
Forest Land Estimates*			
Area (1,000 acres)	7,918.9	1.1	0.3
Number of live trees 1-inch diameter or larger (million trees)	4,057	2.1	2.0
Dry biomass of live trees 1-inch diameter or larger (1,000 tons)	495,059	1.8	1.0
Net volume in live trees (1,000,000 ft ³)	13,806	1.9	0.3
Net volume of growing-stock trees (1,000,000 ft ³)	12,778	2.0	0.5
Annual net growth of live trees (1,000 ft ³ /year)	350,974	NA	NA
Annual mortality of live trees (1,000 ft ³ /year)	140,498	NA	NA
Annual removals of live trees (1,000 ft ³ /year)	184,385	NA	NA
Timberland Estimates**			
Area (1,000 acres)	7,675.1	1.2	0.6
Number of live trees 1-inch diameter or larger (million trees)	3,961	2.2	2.3
Biomass of live trees 1-inch diameter or larger (1,000 tons)	482,318	1.8	1.6
Net volume in live trees (1,000,000 ft ³)	13,553	2.0	0.9
Net volume of growing-stock trees (1,000,000 ft ³)***	12,305	2.1	1.0
Annual net growth of growing-stock trees (1,000 ft ³ /year)	320,286	NA	NA
Annual mortality of growing-stock trees (1,000 ft ³ /year)	99,115	NA	NA
Annual removals of growing-stock trees (1,000 ft ³ /year)	160,151	NA	NA

***Forest land:** Land stocked by forest trees of any size, and at least one acre in size and at least 120 feet wide.

****Timberland:** Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation.

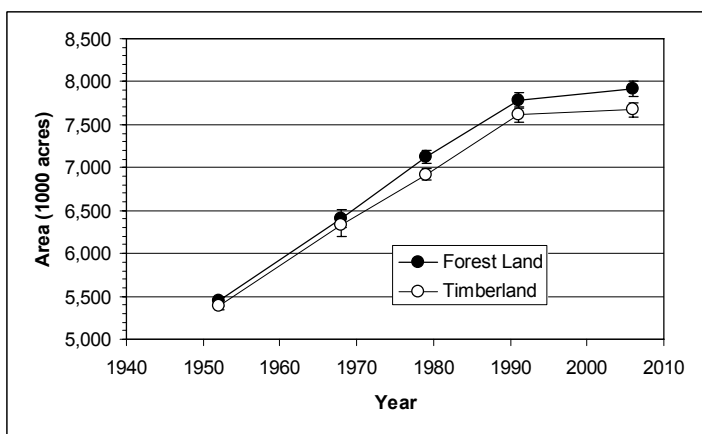


Figure 1. – Area of timberland and forest land by year.

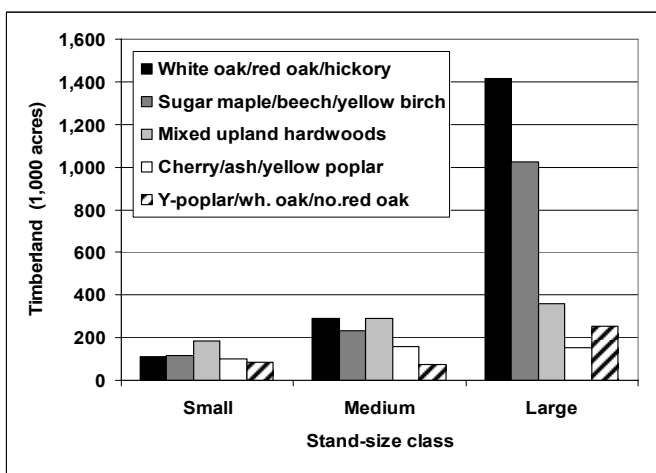


Figure 2. – Area of timberland for top six forest types by stand size class.

*****Growing-stock volume:** The volume in the boles of commercially important trees, on timberland, measured from a 1-foot stump to a minimum 4-inch top diameter.



Table 2. – Top 10 species by statewide volume estimates

Rank	Species	Volume of live trees on timberland (1,000,000 ft ³)	Sampling Error (%)	Change since 2005 (%)	Volume of sawtimber trees on timberland* (1,000,000 bdf)	Sampling Error (%)	Change since 2005 (%)
1	Red maple	1,356.3	5.6	2.8	3,239.0	7.8	2.4
2	Yellow-poplar	1,293.7	7.4	2.2	4,990.3	8.6	2.6
3	Sugar maple	1,121.8	5.8	-0.5	3,030.2	7.3	-1.6
4	Black cherry	897.1	6.0	0.2	2,237.6	8.5	5.2
5	White oak	861.4	7.3	-2.1	3,310.9	7.8	-1.4
6	White ash	815.9	6.5	-0.7	2,450.3	7.9	-3.1
7	Northern red oak	659.2	8.2	7.7	2,633.1	9.1	9.2
8	American beech	427.5	10.9	-12.2	1,566.0	12.7	-13.2
9	Black oak	426.4	10.2	3.8	1,613.2	12.4	4.6
10	Shagbark hickory	415.6	8.5	10.5	1,246.7	11.0	17.1
	Other softwood species	604.0	11.9	290.9	1,811.9	13.7	435.6
	Other hardwood species	4,541.0	3.1	18.8	12,841.5	4.2	24.9
	All species	13,419.9	2.0	0.9	40,970.7	2.7	1.6

*Sawtimber volume: Net volume of the saw-log portion of live trees, on timberland, measured in board feet, International 1/4-inch rule. Hardwood trees must be 11-inches diameter at breast height and are measured to a minimum 9.0 inches top diameter.

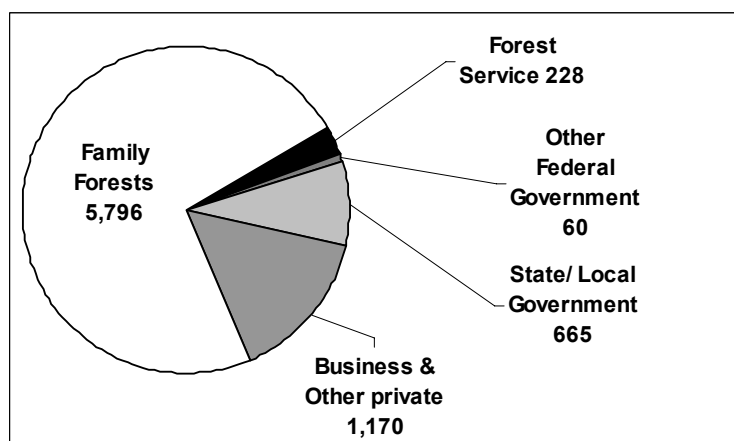


Figure 3. – Area of forest land (1,000 acres) by ownership group.

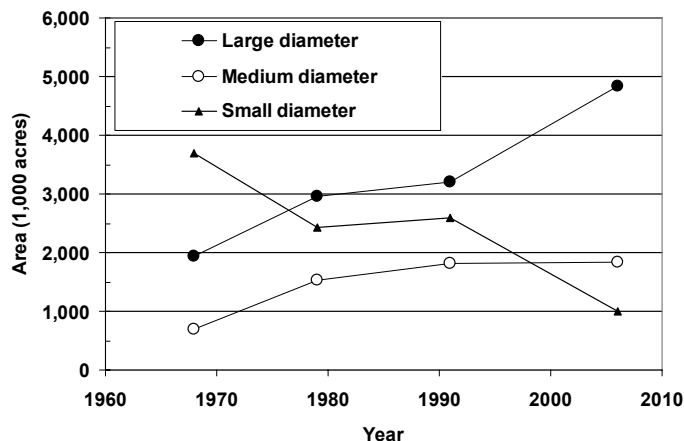


Figure 4. – Area of timberland by stand size class and year.



Ohio Issue Update – Forests at Risk to Emerald Ash Borer

There is tremendous concern about the effect of emerald ash borer (EAB) on the state's ash resource. EAB is a deadly threat to ash trees, killing host trees within 3 to 5 years of infestation. Since it was first discovered in Ohio's northwestern corner in 2003, EAB has been identified in 35 counties. Research has shown that the natural spread of the pest is less than one-half mile per year. However, EAB is easily spread artificially through the movement of infested ash tree material such as nursery stock, logs, wood chips, and firewood. The majority of Ohio's infestations are from transporting ash material.

The governor signed an executive order in September 2003, authorizing a quarantine to prevent the spread of EAB. It makes it illegal to move hardwood firewood and ash tree materials, which could harbor the pest, out of infested counties. The latest quarantine map, prepared by the Ohio Department of Agriculture, can be found on the web site: www.ohioagriculture.gov/eab/plnt-eab-maps.stm. A federal quarantine also makes it illegal to take hardwood firewood out of Ohio without federal certification. It is hoped that these measures will slow the spread of EAB until effective tools to manage EAB populations are found. Natural enemies of EAB have been recently found in China. These are being tested as possible biocontrol agents. A parasitic wasp that kills EAB eggs and larvae has been released at EAB-infested field sites.

EAB will likely cause significant financial costs to municipalities, property owners, and the forest products industries in the Ohio. FIA can provide information on the ash resource at risk. Ash species represents about 6 percent of the trees in the State by number of trees and by volume. There are 279 million ash trees in Ohio over 1-inch in diameter including, 83 million that are 5-inches and larger (Fig. 5). The boles of white ash trees, growing on Ohio timberland, contain 754 million cubic feet of wood, with the portion large enough to produce saw logs equivalent to 2.5 billion board feet. Ash trees are widely distributed throughout Ohio's forests. They are a major component of nearly every forest type (Fig. 6). Of the total basal area of live ash trees, 23 percent occurs in the sugar maple/beech/yellow birch forest type, and 21 percent in the white oak/red oak/hickory type. The remaining portion of ash basal area occurs in 37 other forest types. Ash averages 7.5 percent of stand basal area across the state; it infrequently represents over half the basal area.

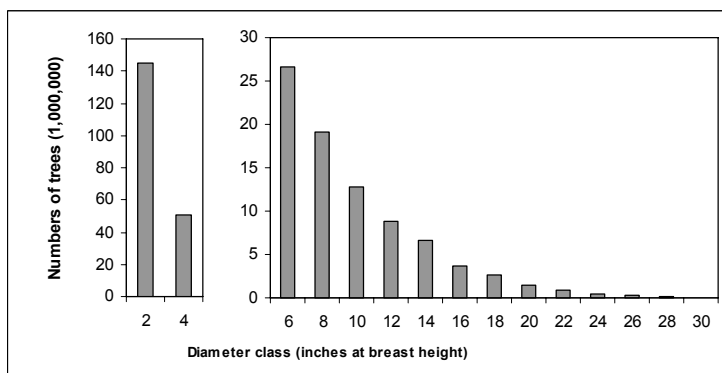


Figure 5. – Number of live ash trees on forest land by diameter class, Ohio, 2006.

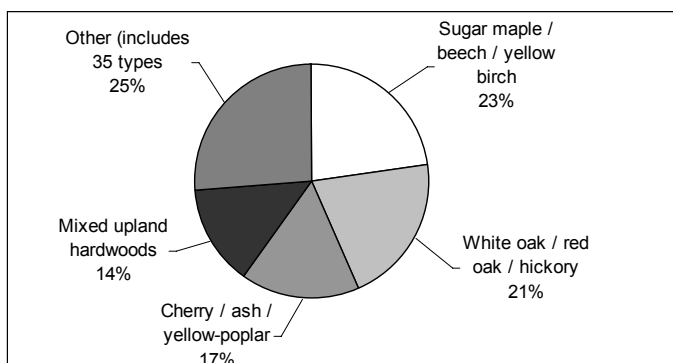


Figure 6. – Distribution of ash by forest type, Ohio 2006 (percent of total ash basal area by forest type).



Citation for this Publication

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FIA Program Information

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Additional Ohio Inventory Information

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