



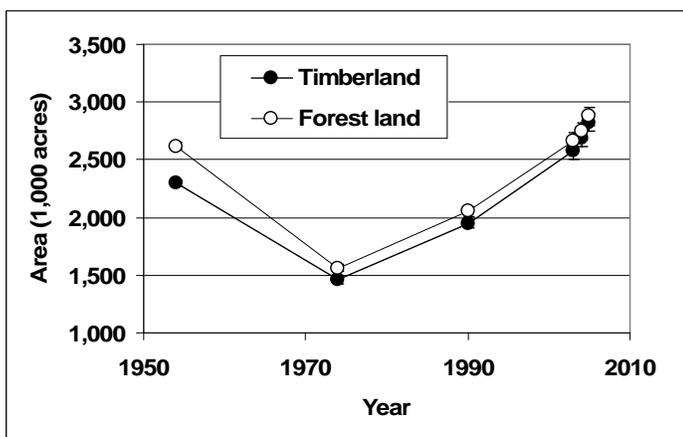
# Iowa's Forest Resources, 2006

Research Note NRS-12

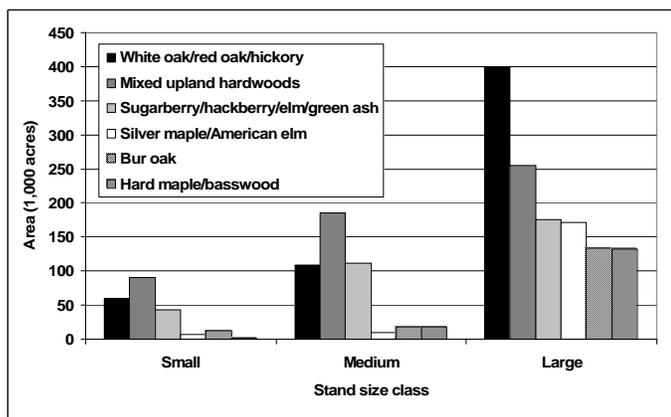
This publication provides an overview of forest resource attributes for Iowa based on an annual inventory conducted by the Forest Inventory and Analysis program at the Northern Research Station of the U.S. Forest Service. These estimates, along with web-posted core tables, will be updated annually. For more information regarding past inventory reports for Iowa, 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, Iowa, 2006**

	Estimate	Sampling Error (%)	Change Since 2005 (%)
<b>Forest Land Estimates</b>			
Area (1,000 acres)	3,008.4	2.2	4.5
Number of live trees 1-inch diameter or larger (million trees)	1,153.9	3.9	5.2
Dry biomass of live trees 1-inch diameter or larger (1,000 tons)	117,536.7	3.4	2.9
Net volume in live trees (1,000,000 ft <sup>3</sup> )	4,212.0	3.9	2.7
Net volume of growing-stock trees (1,000,000 ft <sup>3</sup> )	3,170.4	4.7	0.6
Annual net growth of live trees (1,000 ft <sup>3</sup> /year)	171,257.6	9.7	-5.1
Annual mortality of live trees (1,000 ft <sup>3</sup> /year)	53,523.0	10.3	11.4
Annual removals of live trees (1,000 ft <sup>3</sup> /year)	43,486.5	23.5	45.9
<b>Timberland Estimates</b>			
Area (1,000 acres)	2,939.6	2.3	4.1
Number of live trees 1-inch diameter or larger (million trees)	1,130.3	3.9	5.2
Biomass of live trees 1-inch diameter or larger (1,000 tons)	113,885.7	3.4	1.1
Net volume in live trees (1,000,000 ft <sup>3</sup> )	4,071.0	3.9	0.6
Net volume of growing-stock trees (1,000,000 ft <sup>3</sup> )	3,047.2	4.7	-2.2
Annual net growth of growing-stock trees (1,000 ft <sup>3</sup> /year)	121,588.4	9.7	-12.8
Annual mortality of growing-stock trees (1,000 ft <sup>3</sup> /year)	30,569.6	13.5	32.7
Annual removals of growing-stock trees (1,000 ft <sup>3</sup> /year)	60,874.2	37.0	141.0



**Figure 1 - Area of timberland and forest land by year, Iowa, 2006**



**Figure 2 - Area of timberland for the top six forest types by stand size class, Iowa, 2006**



Table 2 - Top 10 species by statewide volume estimates, Iowa, 2006

Rank	Species	Volume of live trees on timberland (1,000,000 ft <sup>3</sup> )	Sampling Error (%)	Change since 2005 (%)	Volume of sawtimber trees on timberland (1,000,000 bdf)	Sampling Error (%)	Change since 2005 (%)
1	Bur oak	452.9	11.3	-0.40	1,102.3	13.8	-8.80
2	Silver maple	409.8	15.9	-6.60	1,097.2	18.3	-9.20
3	Eastern cottonwood	364.8	26.6	7.60	1,548.0	27.7	4.40
4	White oak	344.3	13.3	-4.30	1,192.4	14.5	-3.20
5	Black walnut	256.8	12.5	4.20	891.0	14.9	3.00
6	Northern red oak	254.0	14.3	-4.90	980.9	15.9	-8.30
7	American elm	231.4	7.7	-3.10	334.6	15.0	-12.00
8	American basswood	190.2	15.0	10.30	658.1	17.6	8.80
9	Hackberry	184.7	12.7	-0.10	477.4	15.9	1.10
10	Shagbark hickory	158.5	11.5	1.10	438.7	14.9	5.70
	Other Softwoods	47.5	16.3	7.50	105.4	23.0	11.10
	Other Hardwoods	1,176.0	4.8	3.00	2,352.8	7.5	0.20
	<b>All Species</b>	<b>4,071.0</b>	<b>3.9</b>	<b>0.60</b>	<b>11,178.9</b>	<b>5.6</b>	<b>-1.80</b>

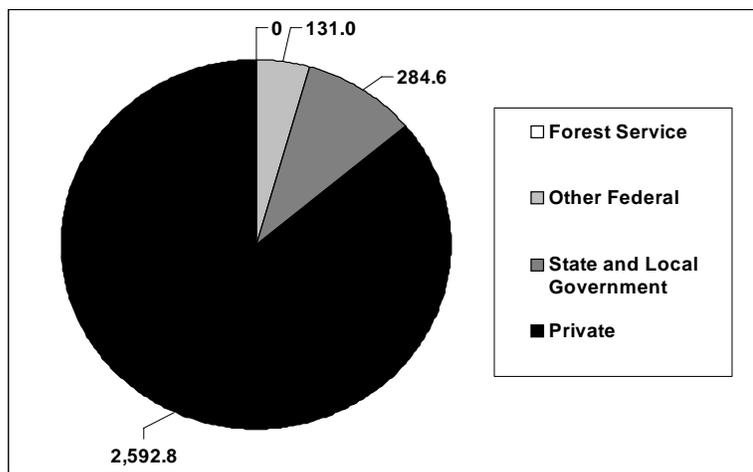


Figure 3 - Forest land area (1,000 acres) by ownership group, Iowa, 2006

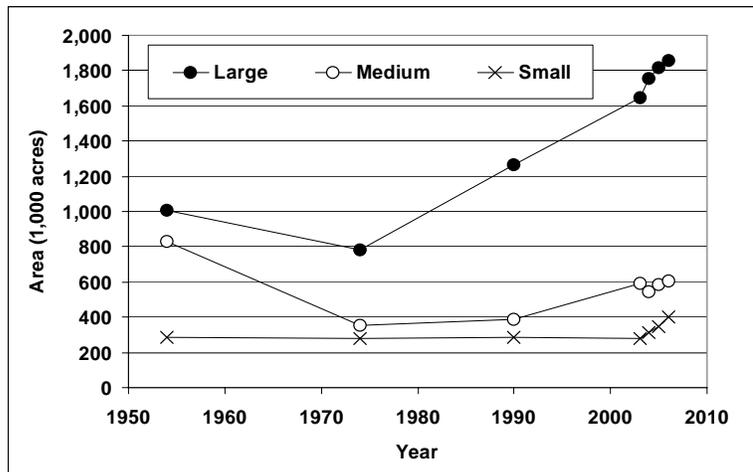


Figure 4 - Area of timberland by stand size class and year, Iowa, 2006



# Iowa Issue Update – Oak regeneration

Oaks represent a large component of Iowa’s forest landscape. Important providers of food and shelter for wildlife, oak species, such as Northern red and white oak, are also the top species in the wood products industry.

Oak/hickory is the largest forest-type group in the state, making up 56 percent of total timberland area. Among stands dominated by oak, sawtimber stands contain the majority (67 percent) of oak area; 21 percent of oak timberland is in poletimber stands and 12 percent is in sapling/seedling stands. The number of oak saplings per acre is low in comparison to other tree species (Fig. 5). Additionally, when compared to other species, there are far fewer oak seedlings per acre (Fig. 6). Because of poor oak regeneration in Iowa, future stands may not have the same degree of oak prominence that is seen today.

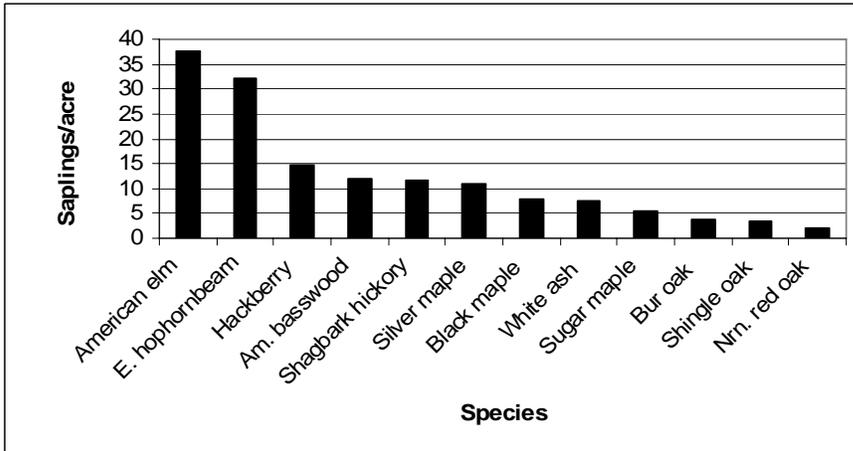


Figure 5 – Number of saplings per acre for selected species, Iowa, 2006

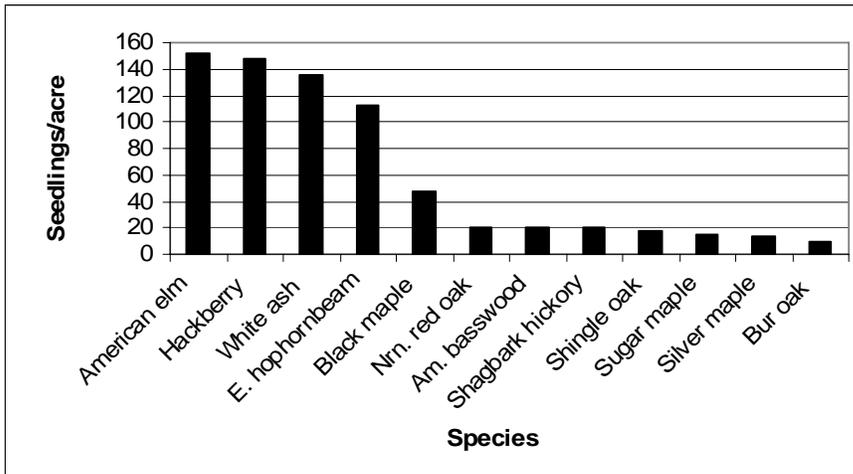


Figure 6 – Number of seedlings per acre for selected species, Iowa, 2006



### Citation for this Publication

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### FIA Program Information

Bechtold, W.A.; Patterson, P.L. 2005. The enhanced Forest Inventory and Analysis Program: national sampling design and estimation procedures. Gen. Tech. Rep. SRS-80. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 85 p.

Smith, W.B., 2002. Forest inventory and analysis: a national inventory and monitoring program. *Environmental Pollution*. 116: 233-242.

USDA Forest Service. 2004. Forest inventory and analysis national core field guide, Vol. 1, Field Data Collection Procedures for Phase 2 Plots, Ver. 2.0 [Online], available at [www.fia.fs.fed.us/library/field-guides-methods-proc](http://www.fia.fs.fed.us/library/field-guides-methods-proc) (verified 23 July 2007).

### Additional Iowa Inventory Information

Crocker, S.J.; Brand, G.J.; Flickinger, A. 2007. Iowa's forest resources, 2005. Resour. Bull. NRS-14. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 31 p.

Leatherberry, E.C.; Brand, G.J.; Pennington, S. 2005. Iowa's forest resources in 2003. Resour. Bull. NC-240. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 31 p.

Leatherberry, E.C.; Pennington, S.; Flickinger, A.; Perry, C.H.; Jepson, E.; Woodall, C.W. 2006. Iowa's forests, 1999-2003 Part A. Resour. Bull. NC-266A. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 84 p.

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