

South Dakota's Forest Resources, 2010

Research Note NRS-111

This publication provides an overview of forest resource attributes for South Dakota based on an annual inventory conducted by the Forest Inventory and Analysis program of the U.S. Forest Service, Northern Research Station. These estimates, along with web-posted core tables, will be updated annually. For more information regarding past inventory reports for South Dakota, inventory program information, and sampling/estimation procedures, please refer to the citations on page 4 of this report. For definitions of terms used in this report, see 'Glossary of Terms' at: <http://nrs.fs.fed.us/fia/data-tools/state-reports/SD/>.

Table 1. – Annual estimates, uncertainty, and change

	Estimate 2010	Sampling error (percent)	Change since 2005 (percent)
Forest Land Estimates			
Area (1,000 acres)	1,883.0	2.9	11.9
Number of live trees 1-inch diameter or larger (million trees)	538.1	6.0	5.2
Dry biomass of live trees 1-inch diameter or larger (1,000 tons)	45,346.3	4.2	6.5
Net volume in live trees (million ft ³)	2,286.0	4.2	5.9
Annual net growth of live trees (1,000 ft ³ /year)	40,160.7	19.2	NA
Annual mortality of live trees (1,000 ft ³ /year)	29,839.5	14.9	NA
Annual harvest removals of live trees (1,000 ft ³ /year)	26,486.4	21.0	NA
Annual other removals of live trees (1,000 ft ³ /year)	0.0	0.0	NA
Timberland Estimates			
Area (1,000 acres)	1,761.8	3.0	14.3
Number of live trees 1-inch diameter or larger (million trees)	507.5	6.1	7
Dry biomass of live trees 1-inch diameter or larger (1,000 tons)	42,789.8	4.4	8.6
Net volume in live trees (million ft ³)	2,179.7	4.4	8.2
Net volume of growing-stock trees (million ft ³)	1,891.1	4.6	-0.2
Annual net growth of growing-stock trees (1,000 ft ³ /year)	38,244.9	21.3	NA
Annual mortality of growing-stock trees (1,000 ft ³ /year)	22,779.4	17.5	NA
Annual harvest removals of growing-stock trees (1,000 ft ³ /year)	25,427.1	21.6	NA
Annual other removals of growing-stock trees (1,000 ft ³ /year)	23.3	100.2	NA

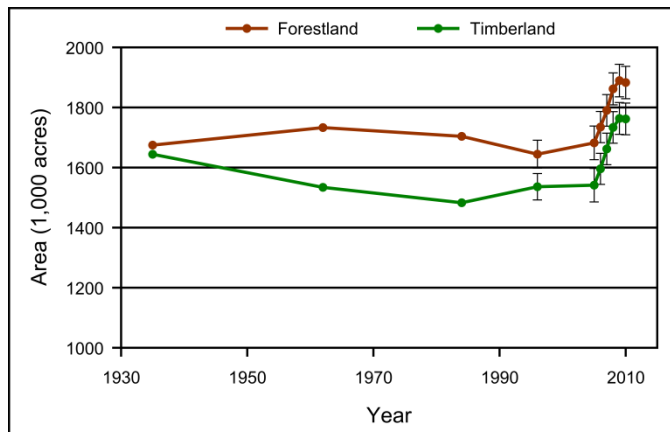


Figure 1. – Area of timberland and forest land by year, South Dakota.

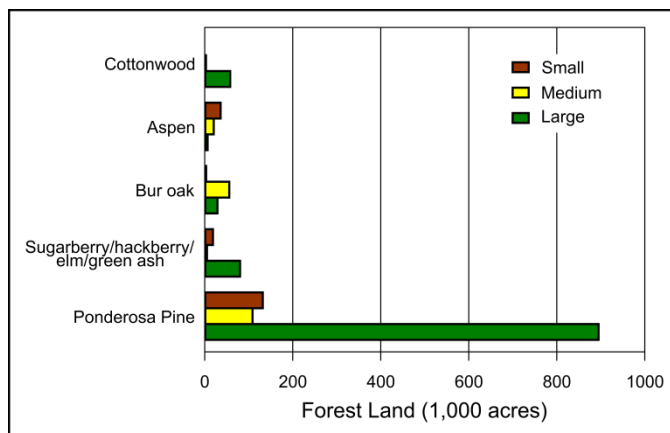


Figure 2. – Area of forest land area by top five forest types and stand size class, 2006-2010.

Note: Large diameter trees are at least 11.0 inches diameter for hardwoods and at least 9.0 inches diameter for softwoods. Medium diameter trees are at least 5.0 inches diameter but not as large as large diameter trees. Small diameter trees are less than 5.0 inches diameter.

Note: When available, sampling errors/bars provided in figures and tables represent 68 percent confidence intervals.

Table 2. – Top 10 tree species by statewide volume estimates, 2006-2010

Rank	Species	Volume of live trees on forest land (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	Ponderosa pine	1,739.0	4.8	1.9	6,034.6	6.3	6.3
2	Cottonwood	99.0	31.1	45.4	324.4	36.4	3.9
3	Bur oak	96.0	23.5	-1.0	57.8	34.1	-46.0
4	Green ash	83.0	19.2	15.0	96.3	30.4	-5.4
5	White spruce	81.3	24.0	-1.1	249.9	26.2	-11.7
6	American elm	53.9	24.3	49.7	68.9	41.9	255.2
7	Boxelder	29.6	35.1	14.3	4.4	100.2	-76.1
8	Rocky Mountain juniper	25.6	28.0	58.0	0.0	0.0	0.0
9	Quaking aspen	19.0	28.0	-25.8	4.3	73.4	-55.2
10	Eastern redcedar	15.3	32.7	96.2	30.8	58.6	23.2
	Other softwoods	5.5	80.1	0.0	1.5	80.3	0.0
	Other hardwoods	38.8	22.5	86.5	13.1	49.3	-37.6
	All Species	2,286.0	4.2	5.9	6,886.0	5.9	4.7

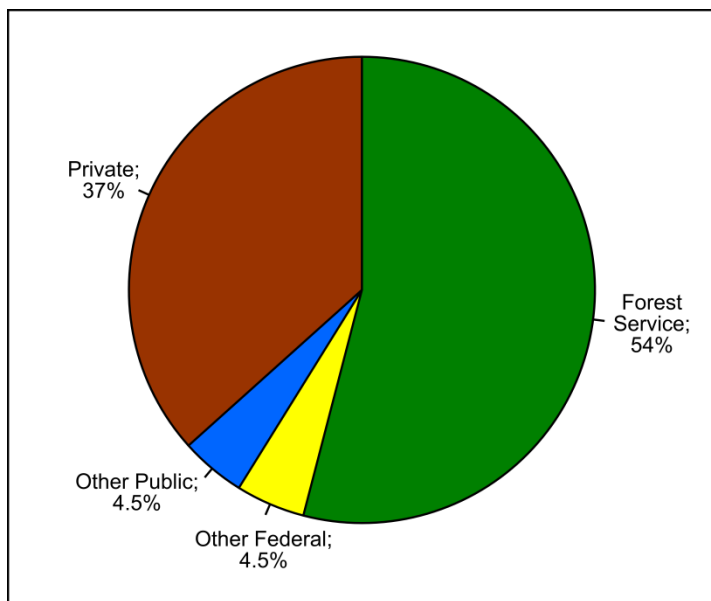


Figure 3. – Percent of forest land by ownership group.

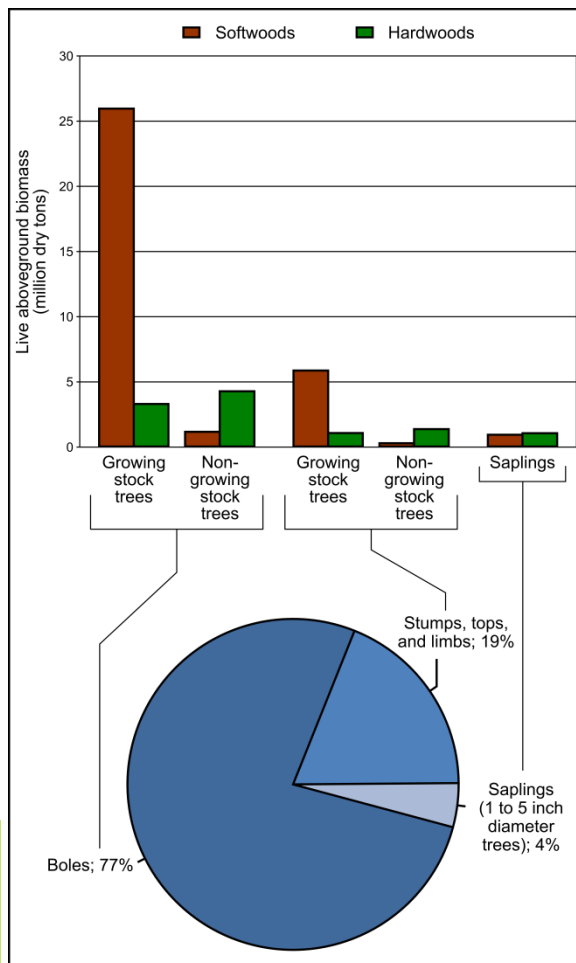


Figure 4. – Live aboveground tree biomass on forest land by tree biomass component and major species group.



South Dakota's Timber Product Output, 2009

Primary wood-using mills in South Dakota were surveyed to determine the size and composition of the State's primary wood-using industry, its use of roundwood, and the generation and disposition of wood residues. Below are some preliminary findings from that survey. A full report will soon follow as more detailed information is processed.

There was 25 million cubic feet of industrial roundwood harvested from South Dakota's forests in 2009. Eighty-six percent of industrial roundwood production was processed by South Dakota mills, while the remaining 14 percent was exported to Wyoming, Minnesota, Montana, and Nebraska (Figure 5). Saw logs made up an overwhelming majority of the products harvested, with the rest being comprised of posts and less than 1 percent of other products (Figure 6). Ninety-eight percent of the industrial roundwood harvested was ponderosa pine. Hardwoods accounted for less than 1 percent of the total harvest.

Receipts at South Dakota mills came mostly from retained industrial roundwood production, with the remainder being imported from Wyoming, Minnesota, Montana, and Nebraska (Figure 7). Wyoming was both the largest source of South Dakota roundwood imports and the largest recipient of South Dakota exports. In the process of converting industrial roundwood into products, South Dakota mills generated 280,000 green tons of residues (sawdust, slabs, edgings, etc.). Greater than 50 percent of these mill residues were used for fiber products (Figure 8). Less than 1 percent of the mill residues were not used to make another product.

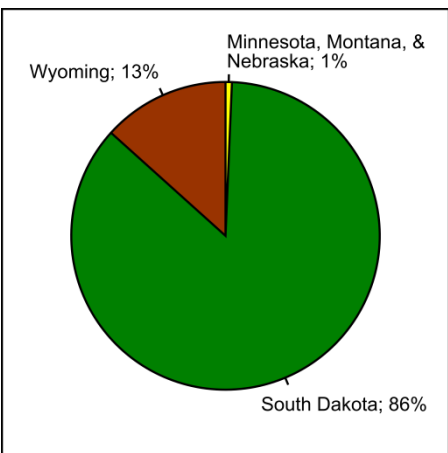


Figure 5. – Industrial roundwood production by state of destination.

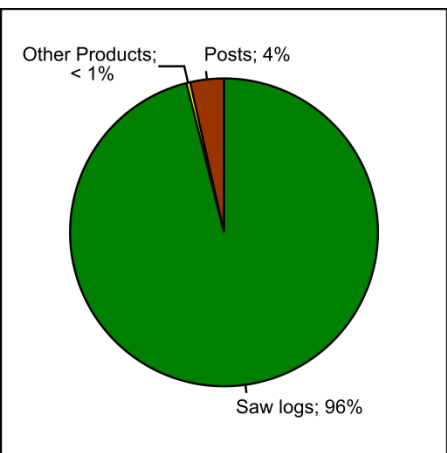


Figure 6. – Industrial roundwood production by product.

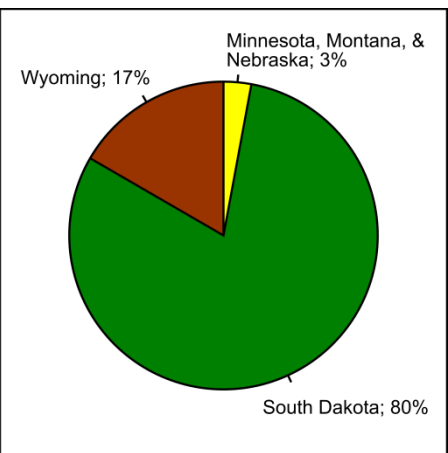


Figure 7. – Industrial roundwood receipts by state of origin.

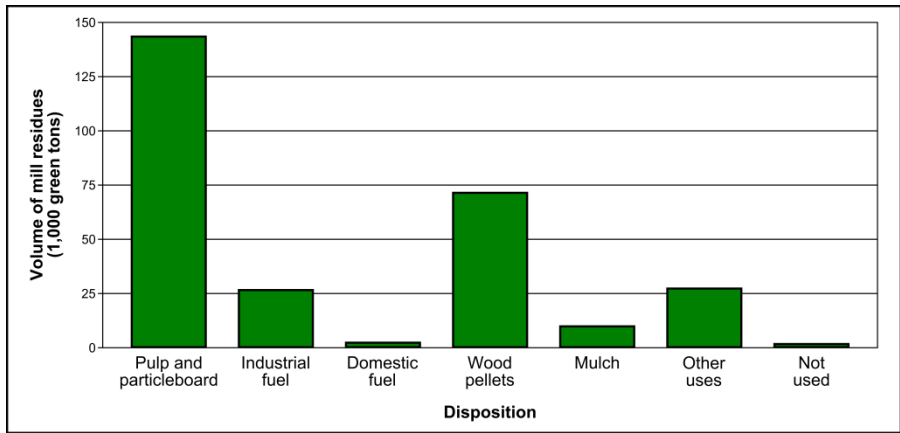


Figure 8. – Disposition of mill residues.

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FIA Program Information

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Estimates, tabular data, and maps from this report may be generated at <http://www.fia.fs.fed.us/tools-data>

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