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Kansas' Forest Resources, 2005

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The USDA Forest Service, Northern Research Station, Forest Inventory and Analysis (NRS-FIA) program is changing to a Web-based, dynamically linked reporting system. As part of the process, this year NRS-FIA is producing this abbreviated summary of 2005 data. This resource bulletin reports on area, volume, and biomass using data from 2001 through 2005. Estimates from this inventory showed a total of 2.1 million acres of forest land in the State, with almost all of it, 2.0 million acres, classified as timberland. The estimate of total net volume of live trees on forest land was 2.7 billion cubic feet. Kansas net growing-stock volume on timberland was 1.5 billion cubic feet. Aboveground live-tree biomass on timberland was estimated at 70.1 million dry tons.

KEY WORDS: Kansas, annual inventory, forest land, timberland, forest type, volume, biomass

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Kansas' Forest Resources, 2005

In 2001, the Forest Inventory and Analysis (NRS-FIA) program of the USDA Forest Service, Northern Research Station, began an annual inventory in Kansas, measuring field plots across the entire State. In 2005, NRS-FIA continued the annual inventory effort by completing the fifth annual panel of the fifth forest inventory of Kansas. Information presented in this report is based on average estimates that used the latest measurements of every field plot measured over the 5-year period from 2001 to 2005 (referred to as "2005" for simplicity) for estimates of current conditions such as area, number of trees, volume, and biomass. Next year, the Northern Research Station will change to a Web-based, dynamically linked reporting system. As part of that process, NRS-FIA is producing this abbreviated report for the FY 2001-2005 data. Summary resource tables can be generated through the Forest Inventory Mapmaker Web site at <http://ncrs2.fs.fed.us/4801/fiadb/index.htm>

RESULTS

Area

- Total forest land¹ area consisted of 2.1 million acres in 2005. Five percent of this area was owned by public agencies and 95 percent was owned by private landowners. Ninety-four percent of forest land area was in hardwood forest types.
- Timberland² area was 2.0 million acres in 2001-2005 and dominated by hardwood forest types (94 percent), particularly oak/hickory (1.1 million acres) (fig. 1).

¹ Forest land is land at least 10 percent stocked with trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. The minimum area for classification of forest land is 1 acre and 120 feet.

- Oak/hickory forests made up 54 percent of the total hardwood timberland area. The pinyon/juniper forest group (primarily eastern redcedar)³ constituted 90 percent of all timberland dominated by softwoods (fig. 2).

Volume

- The net volume of all live trees on forest land, which included growing stock and rough and rotten trees, was more than 2.7 billion cubic feet in 2005. Of this total, the estimated softwood volume was 0.08 billion cubic feet.
- Net volume of live trees and salvable dead trees on timberland was 2.7 billion cubic feet in 2005. Live trees made up 99 percent of this total. Forty-six percent of the live volume was in cull (rough or rotten) (fig. 3).
- Growing-stock volume steadily increased in Kansas from 1965 to 2005. The net volume of growing stock on timberland totaled 1.5 billion cubic feet in 2005 (fig. 4).
- Of the 1.5 billion cubic feet of growing-stock trees, 1.1 billion cubic feet or 77 percent was sawtimber-size trees. Sawtimber-size trees made up 54 percent of softwood growing-stock volume and 78 percent of hardwood growing-stock volume.

² Timberland is forest land not restricted from harvesting by statute, administrative regulation, or designation and capable of growing trees at a rate of 20 cubic feet per acre per year. It may not be equivalent to the area actually available for commercial timber harvesting or other access. The actual availability of land for various uses depends upon owner decisions that consider economic, physical, legal, and social factors.

³ In inventories prior to 1999, eastern redcedar was distinguished from pinyon/juniper.

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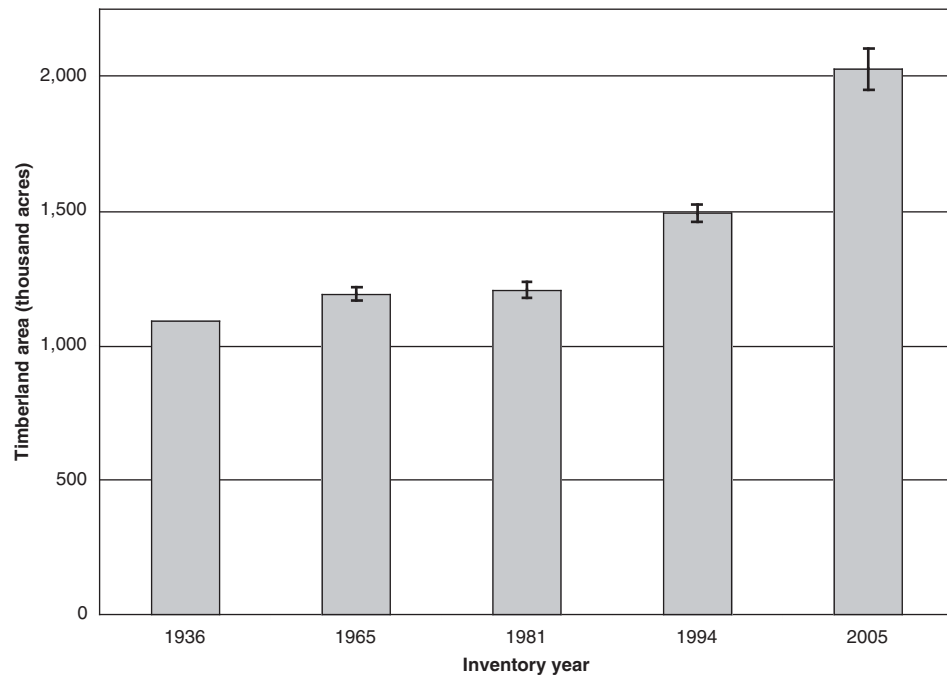


Figure 1.—Area of timberland, in thousands of acres by inventory year, Kansas, 1936–2005. (Note: The sampling error associated with each inventory estimate represents a 67-percent confidence interval and is depicted by the vertical line at the top of each bar.)

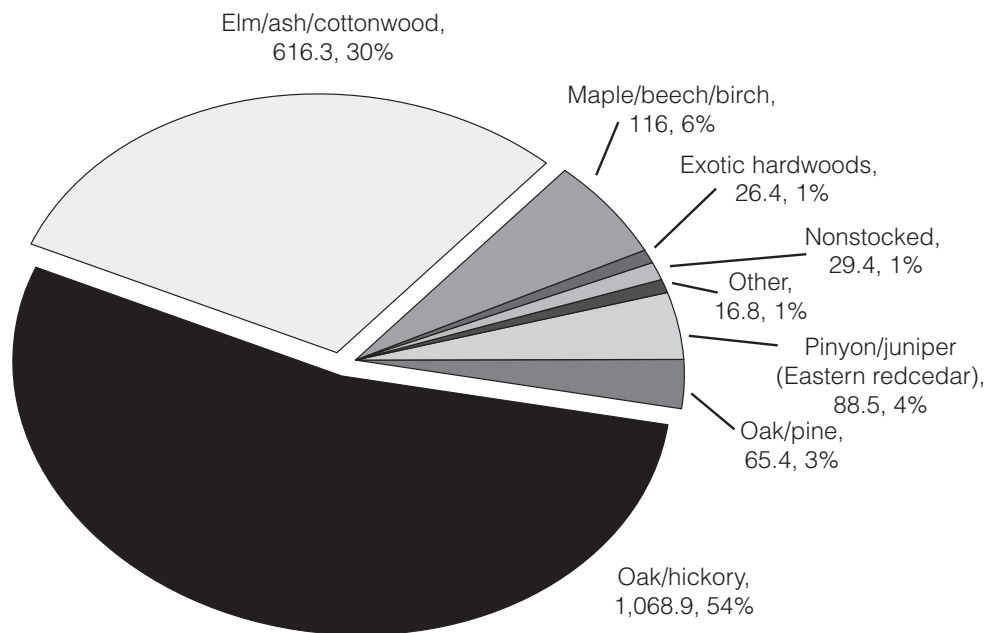


Figure 2.—Area of timberland by forest type group, in thousands of acres and percentage of total timberland area, Kansas, 2005.

- Hardwood species were dominant. Ninety-six percent of growing-stock volume, or 1.4 billion cubic feet, was in hardwood forest types and 4 percent, or 0.06 billion cubic feet, was in softwood forest types (fig. 5).
- The net volume of all oaks on timberland was 300.2 million cubic feet or 21 percent of the total hardwood volume. The net volume of select oaks (red and white) was 217.9 million cubic feet, or 73 percent of all oaks and 16 percent of all hardwoods.
- The net volume of sawtimber on timberland was 5.4 billion board feet. Hardwoods made up 97 percent of this total. Red and white oaks totaled 1.2 billion board feet or 23 percent of the hardwood sawtimber total. Hardwood trees 19 or more inches in diameter at breast height (d.b.h.) made up 53 percent of the total hardwood volume.

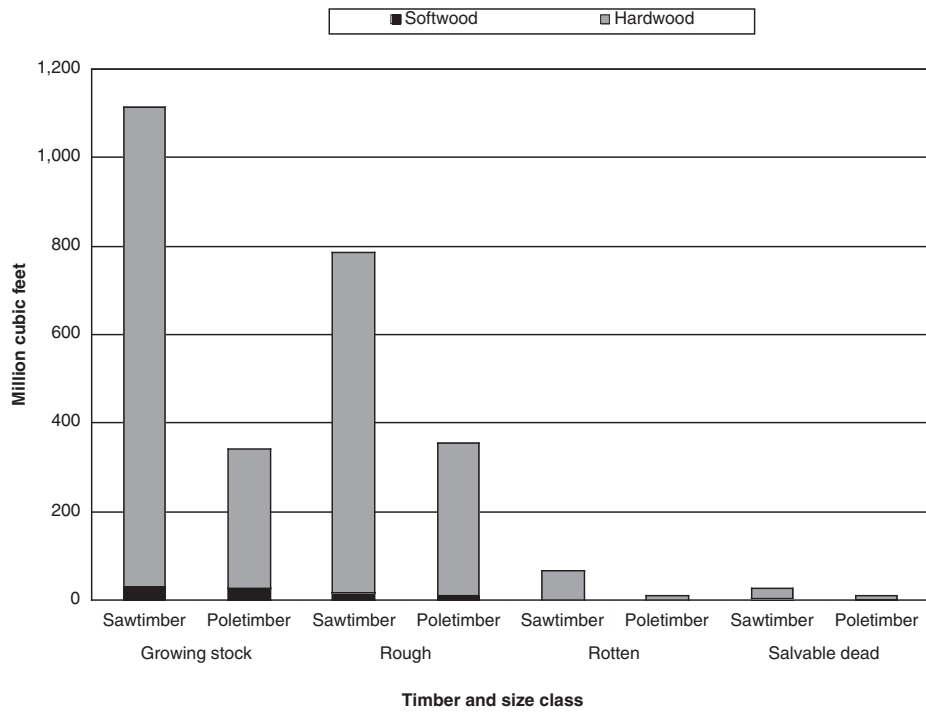


Figure 3.—Net volume, million cubic feet of live trees and salvable dead trees on timberland by timber and size class and softwood/hardwood category, Kansas, 2005.

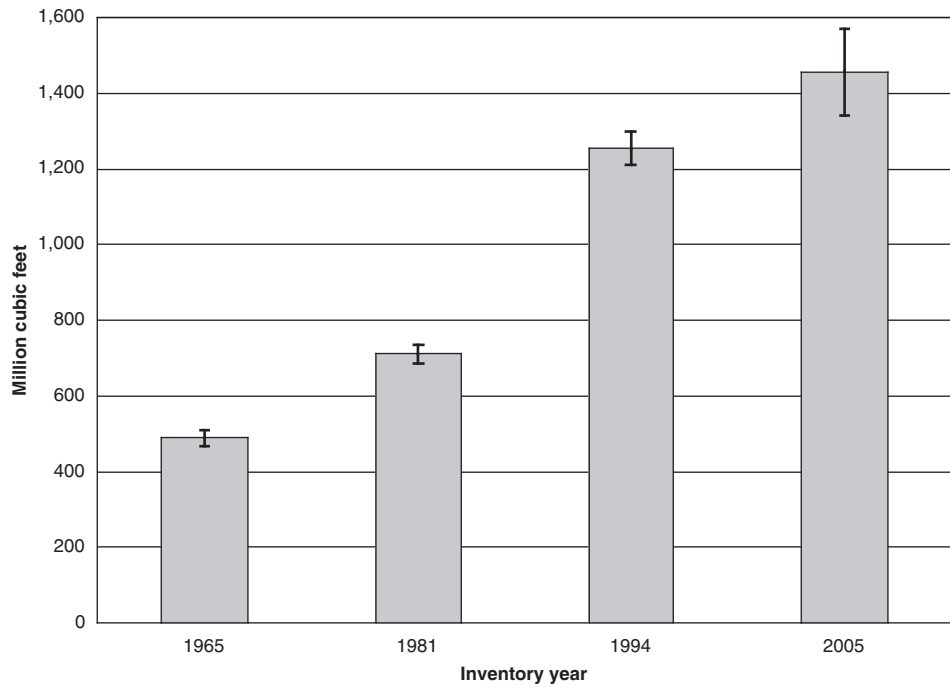


Figure 4.—Volume of growing stock on timberland (in millions of cubic feet) in Kansas by inventory year, 1965–2005. (Note: The sampling error associated with each inventory estimate represents a 67-percent confidence interval and is depicted by the vertical line at the top of each bar.)

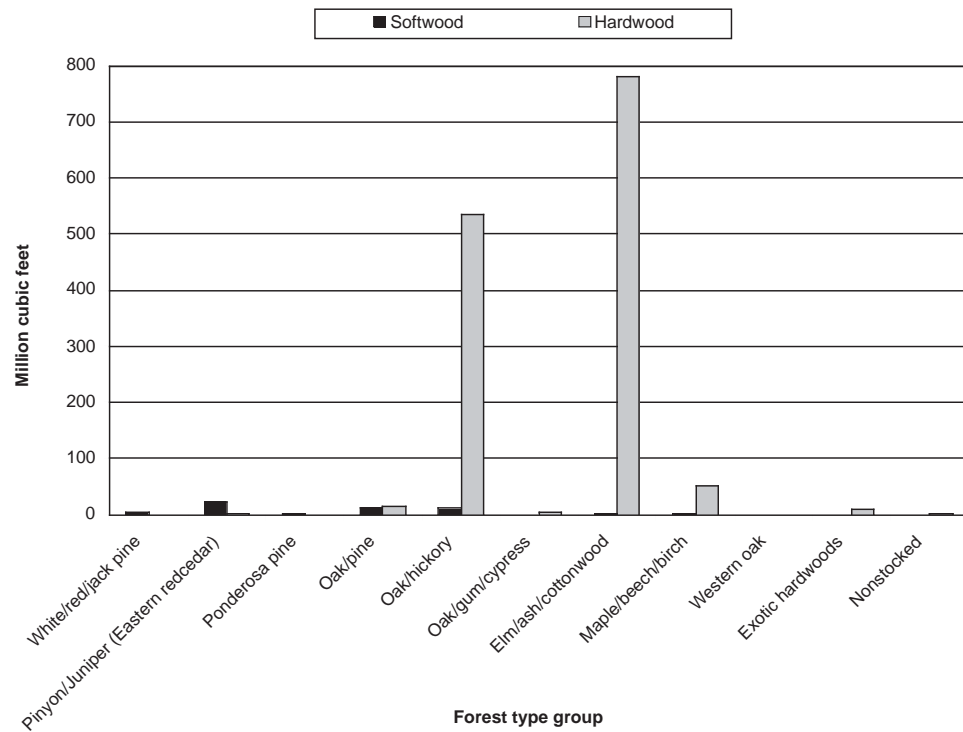


Figure 5.—Volume of growing-stock trees, in million cubic feet, by species group and forest type group, Kansas, 2005.

Biomass

- Live-tree aboveground biomass on timberland totaled 70.1 million dry tons in 2005. Five percent was in trees 1- to 5-inches in d.b.h., 50 percent was in growing-stock trees (at least 5.0 inches d.b.h.), and 45 percent was in non-growing-stock trees (at least 5.0 inches d.b.h.).

TABLE TITLES

Table 1.—*Area of forest land by forest type group, forest type, and owner category, Kansas, 2001–2005*

Table 2.—*Area of timberland by major forest type group, stand origin, and owner category, Kansas, 2001–2005*

Table 3.—*Area of timberland by forest type group, forest type, and stand-size class, Kansas, 2001–2005*

Table 4.—*Net volume of all live trees on forest land by species group, species, and owner category, Kansas, 2001–2005*

Table 5.—*Net volume of all live trees and salvageable dead trees on timberland by class of timber and softwood/hardwood categories, Kansas, 2001–2005*

Table 6.—*Net volume of growing stock on timberland by forest type group, forest type, and softwood/hardwood species categories, Kansas, 2001–2005*

Table 7.—*Net volume of growing stock on timberland by species group, species, and diameter class, Kansas, 2001–2005*

Table 8.—*Net volume of sawtimber on timberland by species group, species, and diameter class, Kansas, 2001–2005*

Table 9.—*All live aboveground tree biomass on timberland by owner category, softwood/hardwood species category, and tree biomass component, Kansas, 2001–2005*

TABLES

Table 1. -- Area of forest land by forest type group, forest type, and owner category, Kansas, 2001-2005

(In thousand acres)

Forest type group/ forest type	Owner category			
	All owners	Public	Private	Unidentified owner
Softwood type groups				
White / red / jack pine group				
Red pine	3.1	3.1	--	--
All forest types	3.1	3.1	--	--
Pinyon / juniper group				
Eastern redcedar	93.6	1.3	92.3	--
All forest types	93.6	1.3	92.3	--
Ponderosa pine group				
Ponderosa pine	7.1	7.1	--	--
All forest types	7.1	7.1	--	--
All softwood groups	103.9	11.5	92.3	--
Hardwood type groups				
Oak / pine group				
Eastern redcedar / hardwood	69.6	--	69.6	--
All forest types	69.6	--	69.6	--
Oak / hickory group				
Post oak / blackjack oak	135.0	4.2	130.8	--
White oak / red oak / hickory	263.3	16.8	246.5	--
Northern red oak	11.0	--	11.0	--
Sassafras / persimmon	6.4	--	6.4	--
Bur oak	40.0	--	40.0	--
Black walnut	29.8	--	29.8	--
Mixed upland hardwoods	638.5	25.4	613.2	--
All forest types	1,124.2	46.4	1,077.8	--
Oak / gum / cypress group				
Swamp chestnut oak / cherrybark oak	5.2	--	5.2	--
All forest types	5.2	--	5.2	--

(Table 1 continued on next page)

(Table 1 continued)

Forest type group/ forest type	Owner category			Unidentified owner
	All owners	Public	Private	
Hardwood type groups				
Elm / ash / cottonwood group				
Elm / ash / cottonwood group	1.5	--	1.5	--
Black ash / American elm / red maple	0.7	--	0.7	--
River birch / sycamore	30.2	--	30.2	--
Cottonwood	96.5	26.4	70.0	--
Willow	13.1	3.2	9.9	--
Sycamore / pecan / American elm	35.9	--	35.9	--
Sugarberry / hackberry / elm / green ash	409.1	15.9	393.2	--
Silver maple / American elm	11.5	--	11.5	--
Cottonwood / willow	23.7	--	23.7	--
All forest types	622.2	45.5	576.8	--
Maple / beech / birch group				
Maple / beech / birch group				
Sugar maple / beech / yellow birch	41.4	--	41.4	--
Elm / ash / locust	80.3	4.8	75.6	--
All forest types	121.8	4.8	117.0	--
Western oak group				
Deciduous oak woodland	1.4	--	1.4	--
All forest types	1.4	--	1.4	--
Exotic hardwoods group				
Other exotic hardwoods	27.9	1.5	26.4	--
All forest types	27.9	1.5	26.4	--
All hardwood groups	1,972.3	98.1	1,874.1	--
Nonstocked	29.4	1.9	27.5	--
All forest groups	2,105.5	111.5	1,994.0	--

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table 2. -- Area of timberland by major forest type group, stand origin, and owner category, Kansas, 2001-2005

(In thousand acres)

Major forest type group and stand origin	Owner category			
	All owners	Public	Private	Unidentified owner
Softwood type groups				
Natural	82.0	--	82.0	--
Planted	16.8	10.2	6.5	--
All softwood types	98.7	10.2	88.5	--
Hardwood type groups				
Natural	1,876.9	96.6	1,780.3	--
Planted	22.7	--	22.7	--
All hardwood types	1,899.6	96.6	1,802.9	--
Nonstocked	29.4	1.9	27.5	--
All groups	2,027.7	108.7	1,919.0	--

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table 3. -- Area of timberland by forest type group, forest type, and stand-size class, Kansas, 2001-2005

(In thousand acres)

Forest type group/ forest type	Stand-size class				
	All stands	Sawtimber	Poletimber	Sapling-seedling	Non-stocked
Softwood type groups					
White / red / jack pine group					
Red pine	3.1	3.1	--	--	--
All forest types	3.1	3.1	--	--	--
Pinyon / juniper group					
Eastern redcedar	88.5	10.5	37.2	40.8	--
All forest types	88.5	10.5	37.2	40.8	--
Ponderosa pine group					
Ponderosa pine	7.1	--	7.1	--	--
All forest types	7.1	--	7.1	--	--
All softwood groups	98.7	13.6	44.3	40.8	--
Hardwood type groups					
Oak / pine group					
Eastern redcedar / hardwood	65.4	22.7	18.0	24.7	--
All forest types	65.4	22.7	18.0	24.7	--
Oak / hickory group					
Post oak / blackjack oak	98.3	28.3	53.4	16.5	--
White oak / red oak / hickory	260.5	129.5	88.0	43.0	--
Northern red oak	11.0	11.0	--	--	--
Sassafras / persimmon	6.4	6.4	--	--	--
Bur oak	40.0	39.7	0.3	--	--
Black walnut	29.8	19.0	8.7	2.0	--
Mixed upland hardwoods	622.9	155.4	346.0	121.5	--
All forest types	1,068.9	389.5	496.4	183.0	--
Oak / gum / cypress group					
Swamp chestnut oak / cherrybark oak	5.2	--	5.2	--	--
All forest types	5.2	--	5.2	--	--

(Table 3 continued on next page)

(Table 3 continued)

Forest type group/ forest type	Stand-size class				Non- stocked
	All stands	Sawtimber	Poletimber	Sapling- seedling	
Hardwood type groups					
Elm / ash / cottonwood group					
Elm / ash / cottonwood group	1.5	--	1.5	--	--
Black ash / American elm / red maple	0.7	--	0.7	--	--
River birch / sycamore	30.2	24.5	4.4	1.3	--
Cottonwood	94.9	94.9	--	--	--
Willow	13.1	--	--	13.1	--
Sycamore / pecan / American elm	35.9	20.0	14.6	1.3	--
Sugarberry / hackberry / elm / green ash	404.7	295.6	71.7	37.4	--
Silver maple / American elm	11.5	6.2	--	5.3	--
Cottonwood / willow	23.7	19.5	4.2	--	--
All forest types	616.3	460.7	97.2	58.4	--
Maple / beech / birch group					
Sugar maple / beech / yellow birch	41.4	24.6	16.8	--	--
Elm / ash / locust	74.5	41.4	27.4	5.8	--
All forest types	116.0	66.0	44.2	5.8	--
Western oak group					
Deciduous oak woodland	1.4	--	1.4	--	--
All forest types	1.4	--	1.4	--	--
Exotic hardwoods group					
Other exotic hardwoods	26.4	7.6	12.4	6.4	--
All forest types	26.4	7.6	12.4	6.4	--
All hardwood groups	1,899.6	946.4	674.8	278.3	--
Nonstocked	29.4	--	--	--	29.4
All forest groups	2,027.7	960.0	719.1	319.1	29.4

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table 4. -- Net volume of all live trees on forest land by species group, species, and owner category, Kansas, 2001-2005

(In thousand cubic feet)

Species group/ species	Owner category			Unidentified owner
	All owners	Public	Private	
Softwoods				
Loblolly and shortleaf pines				
Shortleaf pine	1,719	1,719	--	--
All species	1,719	1,719	--	--
Eastern white and red pines				
Red pine	2,897	2,897	--	--
Eastern white pine	1,624	1,624	--	--
All species	4,520	4,520	--	--
Other eastern softwoods				
Eastern redcedar	72,791	2,973	69,818	--
Ponderosa pine	6,226	3,750	2,476	--
Austrian pine	55	--	55	--
All species	79,073	6,724	72,349	--
Total softwoods	85,312	12,963	72,349	--
Hardwoods				
Select white oaks				
White oak	6,924	--	6,924	--
Bur oak	154,333	3,034	151,299	--
Chinkapin oak	95,371	6,927	88,443	--
All species	256,627	9,961	246,666	--
Select red oaks				
Northern red oak	98,190	4,947	93,243	--
Shumard oak	5,674	--	5,674	--
All species	103,864	4,947	98,917	--
Other white oaks				
Overcup oak	122	--	122	--
Post oak	76,590	4,974	71,617	--
All species	76,712	4,974	71,738	--
Other red oaks				
Shingle oak	3,770	3,770	--	--
Blackjack oak	16,369	23	16,345	--
Pin oak	28,422	369	28,053	--
Black oak	26,886	49	26,837	--
All species	75,447	4,212	71,235	--

(Table 4 continued on next page)

(Table 4 continued)

Species group/ species	Owner category			
	All owners	Public	Private	Unidentified owner
Hardwoods				
Hickory				
Bitternut hickory	31,814	297	31,517	--
Pecan	26,488	68	26,421	--
Shellbark hickory	2,346	--	2,346	--
Shagbark hickory	26,369	2,288	24,081	--
Black hickory	2,731	--	2,731	--
Mockernut hickory	1,680	--	1,680	--
All species	91,428	2,653	88,775	--
Hard maple				
Sugar maple	11,910	1,130	10,780	--
All species	11,910	1,130	10,780	--
Soft maple				
Red maple	43	--	43	--
Silver maple	42,820	10,376	32,444	--
All species	42,862	10,376	32,487	--
Ash				
White ash	17,208	--	17,208	--
Green ash	212,244	11,945	200,299	--
Blue ash	170	--	170	--
All species	229,622	11,945	217,677	--
Cottonwood and aspen				
Eastern cottonwood	239,795	55,336	184,458	--
Plains cottonwood	113,561	--	113,561	--
All species	353,355	55,336	298,019	--
Basswood				
American basswood	5,448	--	5,448	--
All species	5,448	--	5,448	--
Black walnut				
Black walnut	164,664	3,060	161,604	--
All species	164,664	3,060	161,604	--

(Table 4 continued on next page)

(Table 4 continued)

Species group/ species	Owner category			
	All owners	Public	Private	Unidentified owner
Hardwoods				
Other eastern soft hardwoods				
Boxelder	38,100	2,655	35,444	--
Ohio buckeye	289	--	289	--
Texas buckeye	882	--	882	--
Northern catalpa	19,631	--	19,631	--
Sugarberry	2,402	--	2,402	--
Hackberry	352,058	6,531	345,527	--
American sycamore	90,321	2,727	87,594	--
Black cherry	8,751	--	8,751	--
Black willow	35,837	1,729	34,108	--
White willow	111	--	111	--
American elm	214,907	6,862	208,045	--
Siberian elm	35,973	974	34,998	--
Slippery elm	13,085	35	13,051	--
All species	812,345	21,513	790,832	--
Other eastern hard hardwoods				
Common persimmon	1,583	--	1,583	--
Honeylocust	92,820	3,547	89,273	--
Kentucky coffeetree	16,428	606	15,821	--
Mulberry spp.	4,072	3,672	400	--
White mulberry	1,041	--	1,041	--
Red mulberry	118,494	4,891	113,604	--
Black locust	7,844	--	7,844	--
Rock elm	152	--	152	--
All species	242,433	12,716	229,717	--

(Table 4 continued on next page)

(Table 4 continued)

Species group/ species	Owner category			Unidentified owner
	All owners	Public	Private	
Hardwoods				
Eastern noncommercial hardwoods				
Ailanthus	280	--	280	--
Chittamwood, gum bumelia	403	--	403	--
American hornbeam, musclewood	201	--	201	--
Southern catalpa	1,309	--	1,309	--
Eastern redbud	6,385	244	6,141	--
Osage-orange	171,638	5,706	165,932	--
Eastern hophornbeam	650	--	650	--
Cherry and plum spp.	118	--	118	--
American plum	290	--	290	--
Western soapberry	1,165	--	1,165	--
Peachleaf willow	6,962	--	6,962	--
Russian-olive	172	--	172	--
All species	189,575	5,950	183,625	--
Total hardwoods	2,656,292	148,772	2,507,520	--
All species groups	2,741,604	161,736	2,579,869	--

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 thousand cubic feet. Columns and rows may not add to their totals due to rounding.

Table 5. -- Net volume of all live trees and salvable dead trees on timberland by class of timber and softwood/hardwood species category, Kansas, 2001-2005

(In thousand cubic feet)

Class of timber	All species	Softwood species	Hardwood species
Live trees			
Growing-stock trees			
Sawtimber			
Saw log portion	996,521	26,781	969,740
Upper stem portion	119,295	3,779	115,515
Total	1,115,816	30,560	1,085,256
Poletimber	340,782	26,095	314,687
All growing-stock trees	1,456,598	56,656	1,399,943
Cull trees			
Rough trees ¹			
Sawtimber size	787,861	17,083	770,778
Poletimber size	355,594	9,830	345,764
Total	1,143,455	26,913	1,116,541
Rotten trees ¹			
Sawtimber size	65,282	--	65,282
Poletimber size	11,612	--	11,612
Total	76,894	--	76,894
All live cull trees	1,220,348	26,913	1,193,435
All live trees	2,676,947	83,569	2,593,378
Salvable dead trees			
Sawtimber size	25,244	3,124	22,120
Poletimber size	9,495	558	8,936
All salvable dead trees	34,739	3,682	31,056
All classes	2,711,685	87,251	2,624,434

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 thousand cubic feet. Columns and rows may not add to their totals due to rounding.

¹ Includes noncommercial species.

Table 6. -- Net volume of growing stock on timberland by forest type group, forest type, and softwood/hardwood species category, Kansas, 2001-2005

(In thousand cubic feet)

Forest type group/ forest type	All species	Softwood species	Hardwood species
Softwood type groups			
White / red / jack pine group			
Red pine	3,996	3,996	--
All forest types	3,996	3,996	--
Pinyon / juniper group			
Eastern redb cedar	24,153	22,314	1,839
All forest types	24,153	22,314	1,839
Ponderosa pine group			
Ponderosa pine	2,843	2,710	133
All forest types	2,843	2,710	133
All softwood groups	30,992	29,020	1,972
Hardwood type groups			
Oak / pine group			
Eastern redb cedar / hardwood	28,644	12,689	15,956
All forest types	28,644	12,689	15,956
Oak / hickory group			
Post oak / blackjack oak	52,079	504	51,574
White oak / red oak / hickory	231,778	1,399	230,380
Northern red oak	25,947	--	25,947
Sassafras / persimmon	5,160	--	5,160
Bur oak	28,806	1,251	27,555
Black walnut	17,005	104	16,901
Mixed upland hardwoods	183,638	7,157	176,481
All forest types	544,412	10,414	533,998
Oak / gum / cypress group			
Swamp chestnut oak / cherrybark oak	5,193	69	5,125
All forest types	5,193	69	5,125

(Table 6 continued on next page)

(Table 6 continued)

Forest type group/ forest type	All species	Softwood species	Hardwood species
Hardwood type groups			
Elm / ash / cottonwood group	156	--	156
Elm / ash / cottonwood group	156	--	156
Black ash / American elm / red maple	567	90	477
River birch / sycamore	46,701	--	46,701
Cottonwood	260,967	876	260,090
Willow	2,089	--	2,089
Sycamore / pecan / American elm	57,627	--	57,627
Sugarberry / hackberry / elm / green ash	370,754	1,250	369,504
Silver maple / American elm	17,474	--	17,474
Cottonwood / willow	26,207	--	26,207
All forest types	782,540	2,216	780,325
Maple / beech / birch group			
Sugar maple / beech / yellow birch	28,196	681	27,515
Elm / ash / locust	26,084	1,376	24,708
All forest types	54,280	2,057	52,223
Western oak group			
Deciduous oak woodland	251	--	251
All forest types	251	--	251
Exotic hardwoods group			
Other exotic hardwoods	8,859	53	8,806
All forest types	8,859	53	8,806
All hardwood groups	1,424,180	27,498	1,396,682
Nonstocked	1,426	138	1,288
All forest groups	1,456,598	56,656	1,399,943

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 thousand cubic feet. Columns and rows may not add to their totals due to rounding.

Table 7. -- Net volume of growing stock on timberland by species group, species, and diameter class, Kansas, 2001-2005

(in thousand cubic feet)

Species group/ species	All										29.0+	
	classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9		
Softwoods												
Loblolly and shortleaf pines												
Shortleaf pine	1,505	149	651	705	--	--	--	--	--	--	--	--
All species	1,505	149	651	705	--	--	--	--	--	--	--	--
Eastern white and red pines												
Red pine	1,988	--	--	--	--	721	1,262	--	--	--	--	--
Eastern white pine	508	--	--	--	508	--	--	--	--	--	--	--
All species	2,491	--	--	--	508	721	1,262	--	--	--	--	--
Other eastern softwoods												
Eastern redcedar	48,953	11,541	12,601	8,686	8,544	4,774	2,806	--	--	--	--	--
Ponderosa pine	3,651	--	1,098	--	510	967	1,077	--	--	--	--	--
Austrian pine	55	55	--	--	--	--	--	--	--	--	--	--
All species	52,659	11,596	13,699	8,686	9,054	5,741	3,883	--	--	--	--	--
Total softwoods	56,656	11,745	14,350	9,391	9,562	6,462	5,145	--	--	--	--	--
Hardwoods												
Select white oaks												
White oak	1,404	--	--	--	--	--	--	1,404	--	--	--	--
Bur oak	79,327	1,129	1,730	3,740	6,485	1,958	5,952	4,073	9,016	29,251	15,998	--
Chinkapin oak	48,703	1,463	3,248	4,718	4,469	4,058	3,284	6,009	2,217	19,237	--	--
All species	129,434	2,593	4,979	8,458	10,954	6,016	9,235	11,486	11,233	48,487	15,998	--
Select red oaks												
Northern red oak	82,856	2,697	2,619	2,856	4,205	6,990	8,807	8,729	9,203	31,613	5,137	--
Shumard oak	5,587	--	298	250	512	2,284	905	1,338	--	--	--	--
All species	88,443	2,697	2,917	3,106	4,717	9,274	9,712	10,067	9,203	31,613	5,137	--
Other white oaks												
Overcup oak	122	--	122	--	--	--	--	--	--	--	--	--
Post oak	33,458	5,561	7,782	9,992	4,082	3,757	986	--	1,349	--	--	--
All species	33,580	5,561	7,904	9,992	4,082	3,757	986	--	1,349	--	--	--
Other red oaks												
Shingle oak	1,245	--	--	--	--	--	--	1,245	--	--	--	--
Blackjack oak	2,302	165	710	297	1,131	--	--	--	--	--	--	--
Pin oak	24,264	1,067	3,039	2,858	2,253	802	--	--	1,494	3,654	9,097	--
Black oak	20,923	436	1,133	1,237	4,719	5,552	4,480	3,366	--	--	--	--
All species	48,733	1,668	4,882	4,391	8,102	6,353	4,480	4,611	1,494	3,654	9,097	--

(Table 7 continued on next page)

(Table 7 continued)

Species group/ species	Diameter class (inches at breast height)										
	All classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0+
Hardwoods											
Hickory											
Bitternut hickory	25,762	3,124	3,263	4,523	2,426	5,942	3,167	3,317	--	--	--
Pecan	13,531	613	1,131	1,433	4,061	--	1,736	--	--	4,557	--
Shellbark hickory	2,346	299	747	--	--	1,300	--	--	--	--	--
Shagbark hickory	23,482	3,751	5,551	3,094	4,635	5,183	1,268	--	--	--	--
Black hickory	712	--	--	--	712	--	--	--	--	--	--
Mockernut hickory	1,062	53	--	--	--	--	1,009	--	--	--	--
All species	66,895	7,841	10,693	9,049	11,834	12,425	7,179	3,317	--	4,557	--
Hard maple											
Sugar maple	7,944	301	1,801	1,567	1,997	2,279	--	--	--	--	--
All species	7,944	301	1,801	1,567	1,997	2,279	--	--	--	--	--
Soft maple											
Silver maple	31,736	693	836	1,430	--	2,776	3,358	4,006	7,857	2,411	8,371
All species	31,736	693	836	1,430	--	2,776	3,358	4,006	7,857	2,411	8,371
Ash											
White ash	13,904	2,419	1,175	1,460	2,581	818	--	2,274	--	3,177	--
Green ash	123,580	6,601	11,336	17,277	15,106	24,179	11,304	14,315	10,359	13,103	--
Blue ash	170	--	170	--	--	--	--	--	--	--	--
All species	137,654	9,020	12,681	18,737	17,688	24,997	11,304	16,589	10,359	16,280	--
Cottonwood and aspen											
Eastern cottonwood	168,546	765	1,797	3,845	5,079	8,188	6,788	11,693	10,738	37,740	76,915
Plains cottonwood	87,671	--	198	436	2,953	1,804	8,788	3,280	6,293	14,070	49,850
All species	251,217	765	1,995	4,281	8,032	9,992	15,575	14,973	17,030	51,811	126,764
Basswood											
American basswood	1,521	190	343	353	635	--	--	--	--	--	--
All species	1,521	190	343	353	635	--	--	--	--	--	--
Black walnut											
Black walnut	109,782	5,480	8,241	13,474	9,238	23,874	18,478	12,134	18,864	--	--
All species	109,782	5,480	8,241	13,474	9,238	23,874	18,478	12,134	18,864	--	--

(Table 7 continued on next page)

(Table 7 continued)

Species group/ species	Diameter class (inches at breast height)											29.0+
	All classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0+	
Hardwoods												
Other eastern soft hardwoods												
Boxelder	12,994	201	499	2,020	1,247	686	--	4,025	--	--	--	4,316
Ohio buckeye	185	185	--	--	--	--	--	--	--	--	--	--
Northern catalpa	10,663	--	138	1,011	3,596	619	1,068	4,232	--	--	--	--
Hackberry	220,109	15,421	23,314	23,406	26,813	30,501	37,981	15,732	16,922	--	30,019	--
American sycamore	81,166	421	334	1,051	--	2,077	6,584	--	--	--	34,456	36,248
Black cherry	3,524	346	209	244	417	--	--	--	--	--	2,309	--
Black willow	19,439	443	759	1,016	2,677	3,745	1,237	3,103	1,950	4,509	--	--
American elm	69,061	11,297	13,315	11,824	4,310	6,873	6,948	4,604	2,089	3,412	4,390	--
Siberian elm	7,374	1,113	1,914	1,905	856	--	--	1,586	--	--	--	--
Slippery elm	5,588	1,748	1,198	878	537	--	--	1,227	--	--	--	--
All species	430,103	31,174	41,680	43,354	40,454	44,500	53,817	34,509	20,961	74,705	--	44,949
Other eastern hard hardwoods												
Common persimmon	979	590	389	--	--	--	--	--	--	--	--	--
Honeylocust	25,157	4,712	4,207	3,957	3,670	642	1,867	1,221	2,887	1,996	--	--
Kentucky coffeetree	12,468	432	1,293	1,750	1,048	1,545	3,744	--	2,656	--	--	--
Mulberry spp.	1,251	330	168	--	753	--	--	--	--	--	--	--
Red mulberry	19,619	913	3,214	4,183	500	1,811	3,309	1,398	1,997	2,293	--	--
Black locust	3,272	626	1,489	1,157	--	--	--	--	--	--	--	--
Rock elm	152	--	152	--	--	--	--	--	--	--	--	--
All species	62,899	7,604	10,911	11,047	5,971	3,998	8,920	2,619	7,540	4,289	--	--
Total hardwoods	1,399,943	75,586	103,861	129,239	123,703	150,240	142,995	114,310	105,888	237,807	210,312	210,312
All species groups	1,456,598	87,332	124,212	138,631	133,265	156,702	148,140	114,310	105,888	237,807	210,312	210,312

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 thousand cubic feet. Columns and rows may not add to their totals due to rounding.

Table 8. -- Net volume of sawtimber on timberland by species group, species, and diameter class, Kansas, 2001-2005
(in thousand board feet)¹

Species group/ species	Diameter class (inches at breast height)									
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0+	
Softwoods										
Loblolly and shortleaf pines										
Shortleaf pine	3,146	3,146	--	--	--	--	--	--	--	--
All species	3,146	3,146	--	--	--	--	--	--	--	--
Eastern white and red pines										
Red pine	8,988	--	--	3,189	5,800	--	--	--	--	--
Eastern white pine	2,196	--	2,196	--	--	--	--	--	--	--
All species	11,184	--	2,196	3,189	5,800	--	--	--	--	--
Other eastern softwoods										
Eastern redcedar	127,231	47,000	43,692	23,388	13,150	--	--	--	--	--
Ponderosa pine	12,287	--	2,432	4,447	5,408	--	--	--	--	--
All species	139,518	47,000	46,124	27,835	18,559	--	--	--	--	--
Total softwoods	153,849	50,147	48,320	31,024	24,358	--	--	--	--	--
Hardwoods										
Select white oaks										
White oak	6,926	--	--	--	--	6,926	--	--	--	--
Bur oak	368,586	--	30,854	9,396	29,093	20,197	44,645	149,079	85,322	--
Chinkapin oak	196,007	--	21,389	19,640	16,016	29,791	10,910	98,260	--	--
All species	571,518	--	52,243	29,037	45,109	56,914	55,555	247,339	85,322	--
Select red oaks										
Northern red oak	380,270	--	19,717	33,876	43,604	43,883	47,095	165,037	27,057	--
Shumard oak	24,521	--	2,408	10,918	4,446	6,749	--	--	--	--
All species	404,791	--	22,126	44,794	48,050	50,632	47,095	165,037	27,057	--
Other white oaks										
Post oak	47,631	--	18,686	17,791	4,659	--	6,496	--	--	--
All species	47,631	--	18,686	17,791	4,659	--	6,496	--	--	--
Other red oaks										
Shingle oak	6,002	--	--	--	--	6,002	--	--	--	--
Blackjack oak	5,196	--	5,196	--	--	--	--	--	--	--
Pin oak	87,980	--	10,213	3,808	--	--	7,396	18,983	47,580	--
Black oak	85,900	--	21,659	26,193	21,337	16,510	--	--	--	--
All species	185,080	--	37,070	30,000	21,337	22,512	7,396	18,983	47,580	--

(Table 8 continued on next page)

(Table 8 continued)

Species group/ Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0+
Hardwoods									
Hickory									
Bitternut hickory	73,905	--	11,640	29,286	15,910	17,119	--	--	--
Pecan	51,728	--	18,985	--	8,521	--	--	24,267	--
Shellbark hickory	6,260	--	--	6,260	--	--	--	--	--
Shagbark hickory	52,708	--	21,711	24,842	6,149	--	--	--	--
Black hickory	3,368	--	3,368	--	--	--	--	--	--
Mockernut hickory	4,877	--	--	--	4,877	--	--	--	--
All species	192,836	--	55,655	60,337	35,458	17,119	--	24,267	--
Hard maple									
Sugar maple	20,719	--	9,553	11,167	--	--	--	--	--
All species	20,719	--	9,553	11,167	--	--	--	--	--
Soft maple									
Silver maple	135,486	--	--	11,945	14,938	18,334	36,556	11,431	42,283
All species	135,486	--	--	11,945	14,938	18,334	36,556	11,431	42,283
Ash									
White ash	40,628	--	10,648	3,531	--	10,538	--	15,911	--
Green ash	403,653	--	63,295	105,604	51,628	67,250	50,402	65,474	--
All species	444,282	--	73,942	109,135	51,628	77,789	50,402	81,386	--
Cottonwood and aspen									
Eastern cottonwood	757,196	--	22,767	37,423	32,394	58,747	54,116	204,026	347,728
Plains cottonwood	412,216	--	12,671	8,130	40,373	15,210	30,553	70,407	234,871
All species	1,169,412	--	35,437	45,553	72,767	73,957	84,669	274,433	582,599
Basswood									
American basswood	3,261	--	3,261	--	--	--	--	--	--
All species	3,261	--	3,261	--	--	--	--	--	--
Black walnut									
Black walnut	388,045	--	40,820	109,771	87,290	58,586	91,579	--	--
All species	388,045	--	40,820	109,771	87,290	58,586	91,579	--	--

(Table 8 continued on next page)

(Table 8 continued)

Species group/ species	Diameter class (inches at breast height)										29.0+
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	28.9		
Hardwoods											
Other eastern soft hardwoods											
Boxelder	46,322	--	5,067	2,658	--	17,823	--	--	--	20,574	
Northern catalpa	41,413	--	15,112	2,629	4,700	18,973	--	--	--	--	
Hackberry	736,042	--	121,363	140,360	176,726	72,437	80,413	144,744	--	--	
American sycamore	410,896	--	--	9,300	30,942	--	--	177,574	193,080	--	
Black cherry	12,076	--	1,671	--	--	--	--	10,404	--	--	
Black willow	75,313	--	10,482	15,223	5,508	13,579	8,587	21,933	--	--	
American elm	151,876	--	19,566	31,059	32,189	20,954	9,975	17,071	21,062	--	
Siberian elm	10,902	--	3,711	--	--	7,191	--	--	--	--	
Slippery elm	8,333	--	2,480	--	--	5,913	--	--	--	--	
All species	1,483,234	--	179,452	201,429	250,066	156,871	98,975	371,726	284,716	--	
Other eastern hard hardwoods											
Honeylocust	53,649	--	15,154	2,692	8,149	5,379	13,039	9,236	--	--	
Kentucky coffeetree	39,007	--	4,296	6,493	16,221	--	11,997	--	--	--	
Mulberry spp.	3,047	--	3,047	--	--	--	--	--	--	--	
Red mulberry	50,153	--	2,088	7,750	14,622	6,176	9,119	10,398	--	--	
All species	145,856	--	24,585	16,935	38,992	11,555	34,154	19,634	--	--	
Total hardwoods	5,202,151	--	552,929	687,894	670,494	544,268	512,878	1,214,236	1,019,553	--	
All species groups	5,356,000	50,147	601,149	718,918	694,852	544,268	512,878	1,214,236	1,019,553	--	

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 thousand board feet. Columns and rows may not add to their totals due to rounding.

¹ International 1/4-inch rule.

Table 9. -- All live aboveground tree biomass on timberland by owner category, softwood/hardwood species category, and tree biomass component, Kansas, 2001-2005
(In thousand dry tons)

Owner category and softwood/hardwood category	Tree biomass component											
	All components			All live 1-5 inch trees			Growing-stock trees			Non-growing-stock trees		
				Total	Boles	Stumps, tops, and limbs	Total	Boles	Stumps, tops, and limbs	Total	Boles	Stumps, tops, and limbs
Public												
Softwoods	228	5	148	119	28	75	63	13				
Hardwoods	3,552	170	2,324	1,734	590	1,057	750	308				
Total	3,780	175	2,472	1,854	618	1,183	812	320				
Private												
Softwoods	1,808	288	1,033	730	303	487	347	139				
Hardwoods	64,494	3,341	31,441	23,086	8,355	29,711	21,582	8,130				
Total	66,301	3,630	32,474	23,816	8,658	30,198	21,929	8,269				
All ownerships												
Softwoods	2,036	293	1,180	849	331	562	410	152				
Hardwoods	68,045	3,512	33,765	24,820	8,945	30,768	22,331	8,437				
Total	70,081	3,805	34,946	25,670	9,276	31,331	22,741	8,589				

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the aboveground tree biomass rounds to less than 1 thousand dry tons. Columns and rows may not add to their totals due to rounding.



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