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FOREST AREA AND TIMBER RESOURCE STATISTICS FOR SANTA FE COUNTY, NEW MEXICO, 1975

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and
MICHAEL K. BARRETT

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USDA Forest Service Resource Bulletin INT-16
INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE

USDA Forest Service
Resource Bulletin INT-16
April 1980

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RESEARCH SUMMARY

Presents land area, commercial timberland area, timber inventory, and growth and mortality data based on Resources Evaluation standards.

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**Santa Fe
County**

INTRODUCTION

A comprehensive timber resource study was conducted on State and private lands in Santa Fe County, New Mexico (fig. 1) from 1974 to 1975 by the New Mexico Department of State Forestry in cooperation with the Division of State and Private Forestry, Forest Service, Region 3, and the Intermountain Forest and Range Experiment Station.

The total land area is 1,215,076 acres (491,726 hectares). The Forest Service administers 250,474 acres (101,364 hectares); the Bureau of Land Management administers 73,250 acres (29,643 hectares), and 79,327 acres (32,103 hectares) are Indian lands. The remaining lands are State owned, 90,500 acres (36,624 hectares), public owned, 9,000 acres (3,642 hectares), and privately owned, 712,525 acres (288,350 hectares). The data presented here are for State, private, and other lands (miscellaneous Federal, and County and municipal lands).

NEW MEXICO

Figure 1.--Santa Fe County, New Mexico.

HIGHLIGHTS

Area

- The forest land area is 298,747 acres (120,900 hectares), or 37 percent of the total State and private land area and 25 percent of the total land area in the County.
- Of the forest land, 13,195 acres (5,340 hectares), or 4.4 percent is classified as commercial timberland.
- Private ownership accounts for 12,599 acres (5,099 hectares), or 95.5 percent, of the commercial timberland.
- The predominant forest types are pinyon-juniper¹ and ponderosa pine which occupy 93.4 percent of the commercial timberland. The remaining area contains Douglas-fir, white fir, and mixed hardwoods forest types.
- Sixty percent of the commercial timberland supports sawtimber stands. Poletimber stands make up 17 percent; the remainder is in sapling and seedling stands or nonstocked.
- More than 88 percent of the commercial timberland is in the 20 to 49 cubic-foot site class, 95 percent of which is privately owned.

Inventory

- Growing stock volume amounts to 5,742 thousand cubic feet (163 thousand cubic meters). The major portion, 85 percent, is in softwood sawtimber trees.
- Rough, rotten, and salvable dead trees comprise 392 thousand cubic feet (11 thousand cubic meters), or 6 percent, of the total sound wood volume.
- About 94 percent of the 25,270 thousand board feet² of sawtimber volume is in sawtimber trees less than 23 inches d.b.h.
- Softwood species, ponderosa pine (73 percent), and pinyon and juniper (almost 12 percent), make up about 85 percent of the growing stock volume and 88 percent of the sawtimber volume. Species sharing the remaining percentage are Douglas-fir, white fir, limber pine, and mixed hardwoods.
- Private owners control 96 percent of the softwood growing stock volume and 96 percent of the softwood sawtimber volume.

¹The area occupied by pinyon-juniper forest type classified as commercial is so classified because the site index for other associated species on these stands (usually ponderosa pine or Douglas-fir) is high enough to indicate a potential productivity level exceeding 20 cubic feet per acre per year average annual growth, and nonstockable indicators are not present in sufficient quantities to lower yield capability below 20 cubic feet per acre per year. Although pinyon/juniper usually occurs on unproductive forest land, when it occurs in mixtures with other species on productive sites, it is reported in the commercial timberland statistics.

²International 1/4-inch rule.

Growth and Mortality

- Net annual growth of growing stock totaled 97,232 cubic feet (2,753 cubic meters) with 99.6 percent occurring in softwood species, mainly ponderosa pine. Growth and mortality were not measured for pinyon and juniper trees.

- About 96 percent of the total net growth is on private lands.

- The annual mortality of 11,256 cubic feet (319 cubic meters) offset 10 percent of the gross annual growth. Causes of mortality are mostly unknown.

DATA RELIABILITY

Individual cells within tables should be used with caution. Some are based on very small sample sizes, and so result in high sampling errors. The standard error percents shown in tables 1 and 2 were calculated at the 67 percent confidence level.

Table 1.--Area of forest land and percent standard error for Santa Fe County, 1975

Item	Softwood types		Hardwood types		All types	
	: Percent:		: Percent:		: Percent	
	Acres	:standard:	Acres	:standard:	Acres	:standard
	: error :		: error :		: error	
Commercial timberland	13,092	14.7	103	¹ 100.0	13,195	14.7
Productive reserved	136	73.3	5	¹ 100.0	141	73.3
Other forest land	282,186	1.6	3,225	18.1	285,411	1.6

Table 2.--Net volume and net annual growth and annual mortality of growing stock and sawtimber on commercial timberland, with percent standard error for Santa Fe County, 1975

Item	Softwoods		Hardwoods		All species	
	: Percent:		: Percent:		: Percent	
	Volume	:standard:	Volume	:standard:	Volume	:standard
	: error :		: error :		: error	
Net volume:						
Growing stock (M cubic feet)	5,729,535	17.2	12,229	¹ 100.0	5,741,764	17.2
Sawtimber (M board feet ²)	25,201,942	18.0	68,291	¹ 100.0	25,270,233	18.0
Net annual growth:						
Growing stock (cubic feet)	96,843	17.7	389	¹ 100.0	97,232	17.7
Sawtimber (board feet ²)	456,232	20.2	2,418	¹ 100.0	458,650	20.2
Annual mortality:						
Growing stock (cubic feet)	11,256	84.0	--	0	11,256	84.0
Sawtimber (board feet ²)	65,532	86.5	--	0	65,532	86.5

¹Computed standard error exceeds 100 percent.

²International 1/4-inch rule.

TERMINOLOGY AND DATA TABLES

The following terminology section contains definitions that are relevant to the timber resource data presented in this resource bulletin. Forest area and timber resource data for Santa Fe County, New Mexico, are displayed in tables 3 through 23.

TERMINOLOGY

Land

Bureau of the Census.--The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than 1/8 of a statute mile in width; and lakes, reservoirs, and ponds less than 40 acres in area.

Water

Census water.--As defined by the Bureau of the Census: streams, sloughs, estuaries, and canals more than 1/8 of a statute mile in width; and lakes, reservoirs, and ponds more than 40 acres in area.

Noncensus water.--The same as defined by the Bureau of the Census, except minimum width of streams, etc., is 120 feet and minimum size of lakes, etc., is 1 acre.

Land Use Classes

Forest land.--Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use.

Commercial timberland.--Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization. (Note: Areas qualifying have the capability of producing in excess of 20 cubic feet per acre per year of industrial wood under management. Currently inaccessible and inoperable areas are included, except when the areas involved are small and unlikely to become suitable for production of industrial wood in the foreseeable future.)

Productive-reserved forest land.--Forest land sufficiently productive to qualify as commercial timberland, but withdrawn from timber utilization through statute, administrative designation, or exclusive use for Christmas tree production.

Other forest land.--(1) Forest land incapable of producing 20 cubic feet per acre of industrial wood under management, because of adverse site conditions; (2) unproductive-reserved forest land.

Nonforest land.--Land that has never supported forests and lands formerly forested where use for timber management is precluded by development for other uses.

Public Ownership Classes

National Forest land.--Federal lands legally designated as National Forest or purchase units, and other lands under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

Bureau of Land Management lands.--Federal lands administered by the Bureau of Land Management.

Indian lands.--Tribal lands held in fee by the Federal Government, but administered for Indian tribal groups and Indian trust allotments.

State lands.--Lands owned by States, or lands leased to these governmental units for 50 years or more.

Private Ownership Classes

Miscellaneous Federal lands.--Federal lands other than the following (1) National Forest lands; (2) lands administered by the Bureau of Land Management; and (3) Indian lands.

County and municipal lands.--Lands owned by counties and local public agencies or municipalities, or lands leased to these governmental units for 50 years or more.

Forest industry lands.--Lands owned by companies or individuals operating wood-using plants.

Farmer-owned lands.--Lands owned by farm operators. (Note: These exclude lands leased by farm operators from nonfarm owners, such as railroad companies and States.)

Miscellaneous private lands.--Privately owned lands other than forest industry and farmer-owned lands.

Forest Type and Tree Species

Forest types.--A classification of forest land based upon the species forming a plurality of live-tree stocking.

Forest trees.--Woody plants having a well-developed stem and usually more than 12 feet in height at maturity.

Commercial species.--Tree species presently or prospectively suitable for industrial wood products.

Softwoods.--Coniferous trees, usually evergreen, having needles or scalelike leaves.

Hardwoods.--Dicotyledonous trees, usually broad-leaved and deciduous.

Area Condition Classes

Stocking.--Stocking is an effort to express the extent to which growing space is effectively utilized by present or potential growing stock trees of commercial species. "Percent of stocking" is synonymous with "percentage of growing space occupied" and means the ratio of actual stocking to full stocking for comparable sites and stands. Basal area is used as a basis for measuring stocking.

"Stocking percentages" express current area occupancy in relation to specified standards for full stocking based on number, size, and spacing of trees considered necessary to fully utilize the forest land.

Full utilization of the site is assumed to occur over a range of basal area. As an interim guide, 60 percent of the normal yield table values has been used to establish the lower limit of this range, which represents full-site occupancy. This is called 100-percent stocking. The upper limit of full stocking has been set at 132 percent. Sites with less than 100-percent stocking represent understocking. Overstocking is characterized by sites with over 133 percent stocking.

Class 10.--Area fully stocked (100-132 percent) with desirable trees and not overstocked (133 percent or more).

Class 20.--Area fully stocked with desirable trees, but overstocked with all live trees.

Class 30.--Areas medium to fully stocked (60-99 percent) with desirable trees and with less than 30 percent of the area controlled by other trees and (or) inhibiting vegetation or surface conditions that will prevent occupancy by desirable trees.

Class 40.--Areas medium to fully stocked with desirable trees and with 30 percent or more of the area controlled by other trees and (or) conditions that ordinarily prevent occupancy by desirable trees.

Class 50.--Areas poorly stocked (16.7-59 percent) with desirable trees, but fully stocked with growing stock trees.

Class 60.--Areas poorly stocked with desirable trees, but with medium to full stocking of growing stock trees.

Class 70.--Areas nonstocked (less than 16.7 percent) or poorly stocked with desirable trees, and poorly stocked with growing stock trees.

Class 80.--Low-risk old-growth stands.

Class 90.--High-risk old-growth stands.

Nonstocked.--Areas less than 16.7 percent stocked with growing stock trees.

Class of Timber

Growing stock trees.--Live trees of commercial species qualifying as desirable or acceptable trees. (Note: Excludes rough, rotten, and dead trees.)

Desirable trees.--Growing stock trees of commercial species (a) having no serious defect in quality, limiting present or prospective use for timber products; (b) of relatively high vigor; and (c) containing no pathogens that may result in death or serious deterioration before rotation age.

Acceptable trees.--Growing stock trees of commercial species that meet specified standards of size and quality, but not qualifying as desirable trees.

Rough trees.--(1) Live trees of commercial species that do not contain at least one 12-foot saw log or two noncontiguous saw logs, each 8 feet long or longer, now or prospectively, and (or) do not meet Rocky Mountain Regional specifications for freedom from defect primarily because of roughness or poor form; (2) all live trees of non-commercial species.

Rotten trees.--Live trees of commercial species that do not contain at least one 12-foot saw log or two noncontiguous saw logs, each 8 feet long or longer, now or prospectively, and (or) do not meet Rocky Mountain Regional specifications for freedom from defect primarily because of rot; that is, when more than 50 percent of the cull volume (cubic-foot basis) in a tree is rotten.

Cull.--Portions of a tree that are unusable for industrial wood products because of rot, form, or other defect.

Salvable dead trees.--Standing or down dead trees that are considered merchantable by Rocky Mountain Regional standards.

Mortality trees.--Trees formerly growing stock dying from natural causes during a specified period, usually 1 year.

Saw-log portion.--That part of the bole of sawtimber trees between the stump and the saw-log top. A 1-foot stump is used.

Upper-stem portion.--That part of the bole of sawtimber trees above the saw-log top to a minimum top diameter of 4.0-inches outside bark or to the point where the central stem breaks into limbs, whichever occurs first.

Tree Size Classes

Seedlings.--Live trees less than 1.0 inch in diameter at breast height.

Saplings.--Trees 1.0-4.9 inches in diameter at breast height.

Poletimber trees.--Trees at least 5.0 inches in d.b.h., but smaller than sawtimber size.

Sawtimber trees.--Trees exceeding poletimber size. In the Intermountain States, the minimum d.b.h. for softwood sawtimber is 9.0 inches, and 11.0 inches for hardwoods.

Volume

Net volume.--Gross volume less deductions for rot, sweep, or other defect affecting use for timber products.

Growing stock volume.--Net volume in cubic feet of live sawtimber trees and live poletimber trees from stump to a minimum 4.0-inch top (of central stem) outside bark. Net volume equals gross volume less deduction for rot and missing bole sections.

Sawtimber volume.--Net volume in board feet of sawtimber trees of commercial species. Net volume equals gross volume less deduction for rot, sweep, crook, and other defects that affect use for lumber.

Growth and Mortality

Net annual growth.--The increase in net growing stock volume of a specified size class for a specific year. (Note: Components of net annual growth include the increment in net volume of trees at the beginning of the specific year surviving to its end, plus net volume of trees reaching the size class during the year, minus the net volume of trees that died during the year, minus the net volume of trees that became rough or rotten trees during the year.)

Mortality.--Number or sound-wood volume of growing stock trees dying from natural causes during a specified period.

Site

Site class.--A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

Site classifications are based upon the mean net annual growth of growing stock (not including thinnings or mortality loss) attainable at culmination of mean net annual growth over age. Height-age relationships are usually used as indicators of the specified volume-site class.

Stand-Size Classes

Sawtimber stands.--Stands at least 16.7 percent stocked with growing stock trees, with half or more of total stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands.--Stands at least 16.7 percent stocked with growing stock trees in which half or more of this stocking is in poletimber and (or) sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Sapling-seedling stands.--Stands at least 16.7 percent stocked with growing stock trees in which more than half of the stocking is saplings and (or) seedlings.

Nonstocked land.--Commercial timberland less than 16.7 percent stocked with growing stock trees.

FOREST SURVEY TABLES

Table 3.--*Total area in Santa Fe County by ownership class, 1975*

Ownership class	Acres	Hectares
National Forest	250,474	101,364
Bureau of Land Management	73,250	29,643
Indian	79,327	32,103
State	90,500	36,624
Private and other	721,525	291,992
Total land area	1,215,076	491,726
Census water	6,684	2,705
Gross area ¹	1,221,760	494,431

¹U.S. Bureau of the Census, land and water area of the United States, 1970.

Table 4.--*Land area in Santa Fe County by major land class and ownership class, 1975*

Land class	Ownership class			
	State		Private	
	Acres	Hectares	Acres	Hectares
Commercial timberland	596	241	12,599	5,099
Productive reserved	141	57	--	--
Other forest land:				
Unproductive reserved	51	21	--	--
Unproductive nonreserved	16,706	6,761	268,654	108,721
Total forest land	17,494	7,080	281,253	113,820
Nonforest land	73,006	29,544	440,272	178,172
Total land area	90,500	36,624	721,525	291,992

Table 5.--Area of commercial timberland in Santa Fe County by forest type, stand-size class, and site class, State owned, 1975

Forest type and stand-size class	Site class					Total acres
	165+	120-164	85-119	50-84	20-49	
- - - - - Acres - - - - -						
Douglas-fir:						
Sawtimber	--	--	--	--	38	38
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	--	--
Nonstocked	--	--	--	--	--	--
Total	--	--	--	--	38	38
Ponderosa pine:						
Sawtimber	--	--	--	26	112	138
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	48	48
Nonstocked	--	--	--	--	--	--
Total	--	--	--	26	160	186
Pinyon-juniper:						
Sawtimber	--	--	--	--	154	154
Poletimber	--	--	--	--	78	78
Sapling and seedling	--	--	--	--	76	76
Nonstocked	--	--	--	--	64	64
Total	--	--	--	--	372	372
All types:						
Sawtimber	--	--	--	26	304	330
Poletimber	--	--	--	--	78	78
Sapling and seedling	--	--	--	--	124	124
Nonstocked	--	--	--	--	64	64
Total	--	--	--	26	570	596

Table 6.--Area of commercial timberland in Santa Fe County by forest type, stand-size class, and site class, private owned, 1975

Forest type and stand-size class	Site class					Total acres
	165+	120-164	85-119	50-84	20-49	
- - - - - Acres - - - - -						
Douglas-fir:						
Sawtimber	--	--	--	243	172	415
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	206	206
Nonstocked	--	--	--	--	--	--
Total	--	--	--	243	378	621
Ponderosa pine:						
Sawtimber	--	--	--	1,131	3,100	4,231
Poletimber	--	--	--	--	102	102
Sapling and seedling	--	--	--	--	223	223
Nonstocked	--	--	--	--	--	--
Total	--	--	--	1,131	3,425	4,556
White fir:						
Sawtimber	--	--	--	--	103	103
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	--	--
Nonstocked	--	--	--	--	--	--
Total	--	--	--	--	103	103
Pinyon-juniper:						
Sawtimber	--	--	--	123	2,671	2,794
Poletimber	--	--	--	--	2,081	2,081
Sapling and seedling	--	--	--	--	1,346	1,346
Nonstocked	--	--	--	--	995	995
Total	--	--	--	123	7,093	7,216
Mixed hardwoods:						
Sawtimber	--	--	--	--	103	103
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	--	--
Nonstocked	--	--	--	--	--	--
Total	--	--	--	--	103	103
All types:						
Sawtimber	--	--	--	1,497	6,149	7,646
Poletimber	--	--	--	--	2,183	2,183
Sapling and seedling	--	--	--	--	1,775	1,775
Nonstocked	--	--	--	--	995	995
Total	--	--	--	1,497	11,102	12,599

Table 7.--Area of commercial timberland in Santa Fe County by forest type, stand-size class, and site class, summary--State and private, 1975

Forest type and stand-size class	Site class					Total acres
	165+	120-164	85-119	50-84	20-49	
- - - - - Acres - - - - -						
Douglas-fir:						
Sawtimber	--	--	--	243	210	453
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	206	206
Nonstocked	--	--	--	--	--	--
Total	--	--	--	243	416	659
Ponderosa pine:						
Sawtimber	--	--	--	1,157	3,212	4,369
Poletimber	--	--	--	--	102	102
Sapling and seedling	--	--	--	--	271	271
Nonstocked	--	--	--	--	--	--
Total	--	--	--	1,157	3,585	4,742
White fir:						
Sawtimber	--	--	--	--	103	103
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	--	--
Nonstocked	--	--	--	--	--	--
Total	--	--	--	--	103	103
Pinyon-juniper:						
Sawtimber	--	--	--	123	2,825	2,948
Poletimber	--	--	--	--	2,159	2,159
Sapling and seedling	--	--	--	--	1,422	1,422
Nonstocked	--	--	--	--	1,059	1,059
Total	--	--	--	123	7,465	7,588
Mixed hardwoods:						
Sawtimber	--	--	--	--	103	103
Poletimber	--	--	--	--	--	--
Sapling and seedling	--	--	--	--	--	--
Nonstocked	--	--	--	--	--	--
Total	--	--	--	--	103	103
All types:						
Sawtimber	--	--	--	1,523	6,453	7,976
Poletimber	--	--	--	--	2,261	2,261
Sapling and seedling	--	--	--	--	1,899	1,899
Nonstocked	--	--	--	--	1,059	1,059
Total	--	--	--	1,523	11,672	13,195

Table 8.--Area of commercial timberland in Santa Fe County
by stand volume and ownership class, 1975

Stand volume per acre ¹	Ownership class		
	State	Private	State and private
	- - - - - Acres - - - - -		
Less than 1,500 board feet	332	6,598	6,930
1,500 to 4,999 board feet	226	5,155	5,381
5,000 to 9,999 board feet	38	846	884
10,000 board feet or more	--	--	--
All classes	596	12,599	13,195

¹International 1/4-inch rule.

Table 9.--Area of commercial timberland in Santa Fe County by forest type
and area condition class; State and private, 1975

Forest type	Area condition class											Nonstocked	All classes
	10	20	30	40	50	60	70	80	90				
	- - - - - Acres - - - - -											- - - - -	Hectares -
Douglas-fir	--	--	102	--	122	122	313	--	--	--	--	659	266
Ponderosa pine	--	--	108	--	--	1,869	1,570	--	1,195	--	--	4,742	1,919
White fir	--	--	--	--	--	--	103	--	--	--	--	103	42
Pinyon-juniper	--	--	--	--	--	3,442	2,004	--	1,083	1,059	7,588	3,071	
Total softwoods	--	--	210	--	122	5,433	3,990	--	2,278	1,059	13,092	5,298	
Mixed hardwoods	--	--	--	--	--	--	103	--	--	--	103	42	
All types	--	--	210	--	122	5,433	4,093	--	2,278	1,059	13,195	5,340	

Table 10.--Area of productive reserved and other forest land in Santa Fe County by land class, ownership class, and forest type; State and private, 1975

Land class	Forest type									
	Douglas-fir	Ponderosa pine	Spruce-fir	Pinyon-juniper	Mixed softwoods	Mixed hardwoods	All types			
	-	-	-	-	-	-	-	-	-	- Hectares
Productive reserved area:										
State	13	85	5	33	--	5	141	57	--	
Private	--	--	--	--	--	--	--	--	--	
Other forest land area:										
Unproductive nonreserved:										
State	--	--	--	16,593	--	113	16,706	6,761		
Private	--	--	--	263,235	2,307	3,112	268,654	108,721		
Unproductive reserved:										
State	--	--	--	51	--	--	51	21		
Private	--	--	--	--	--	--	--	--		
Total all areas:										
State	13	85	5	16,677	--	118	16,898	6,839		
Private	--	--	--	263,235	2,307	3,112	268,654	108,721		
Total acres	13	85	5	279,912	2,307	3,230	285,552	115,560		
Total hectares	5	35	2	113,277	934	1,307	--	115,560		

Table 11.--Number of growing stock trees on commercial timberland in Santa Fe County by species and diameter class; State and private, 1975

Species	Diameter class (inches at breast height)																All classes
	1.0- 2.9	3.0- 4.9	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- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0- 30.0+		
	Trees																
Douglas-fir	81,930	36,861	37,569	19,547	15,432	6,891	3,955	3,756	1,304	192	357	--	112	--	--	207,906	
Ponderosa pine	184,865	172,138	107,629	83,461	74,334	55,636	27,532	37,360	14,423	9,606	3,391	705	1,006	285	528	772,899	
Lumber pine	3,077	7,290	--	1,236	1,302	--	--	--	227	--	--	--	--	--	--	13,132	
White fir	97,031	46,556	1,895	7,930	4,989	1,781	3,539	2,503	1,579	--	301	--	143	199	--	168,446	
Pinon-juniper	416,561	287,020	163,045	64,367	29,076	15,603	8,799	2,979	305	--	--	--	--	--	--	987,755	
Total softwoods	783,464	549,865	310,138	176,541	125,133	79,911	43,825	46,598	17,838	9,798	4,049	705	1,261	484	528	2,150,138	
Mixed hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	521	
Total hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	521	
All species	783,464	549,865	310,138	176,541	125,133	79,911	44,346	46,598	17,838	9,798	4,049	705	1,261	484	528	2,150,659	

Table 12.--Number of cull and salvageable dead trees on commercial timberland in Santa Fe County by ownership class, and softwoods and hardwoods, 1975

Ownership class and species group	Cull trees			Salvageable trees		
	Sound	Rotten	Total	Sound	Rotten	Total
<i>Trees</i>						
State:						
Softwoods	83,048	2,941	85,989			
Hardwoods	--	--	--			
Total	83,048	2,941	85,989			
Private:						
Softwoods	1,500,184	42,842	1,543,026			
Hardwoods	26,196	6,881	33,077			
Total	1,526,380	49,723	1,576,103			
State and private:						
Softwoods	1,583,232	45,783	1,629,015			
Hardwoods	26,196	6,881	33,077			
Total	1,609,428	52,664	1,662,092			

Table 13.--Net volume of growing stock on commercial timberland in Santa Fe County
by ownership class, forest type, and stand-size class, 1975

Ownership class	Forest type	Stand-size class				All classes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Sawtimber	Poletimber	Sapling/seedling	Nonstocked																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Table 14.--*Net volume of sawtimber on commercial timberland in Santa Fe County by ownership class, forest type, and stand-size class, 1975*

Ownership class	Forest type	Stand-size class			All classes
		Sawtimber	Poletimber	Sapling/seedling: Nonstocked	
----- Board feet ¹ -----					
State:					
	Douglas-fir	77,404	--	--	77,404
	Ponderosa pine	546,938	--	79,602	626,540
	Pinyon-juniper	215,818	22,799	34,351	286,935
	All types	840,160	22,799	113,953	990,879
Private:					
	Douglas-fir	1,540,071	--	43,537	1,583,608
	Ponderosa pine	16,171,255	148,538	374,653	16,694,446
	White fir	231,571	--	--	231,571
	Pinyon-juniper	3,924,016	686,596	812,552	5,704,025
	Mixed hardwoods	65,704	--	--	65,704
	All types	21,932,617	835,134	1,230,742	24,279,354
State and private:					
	Douglas-fir	1,617,475	--	43,537	1,661,012
	Ponderosa pine	16,718,193	148,538	454,255	17,320,986
	White fir	231,571	--	--	231,571
	Pinyon-juniper	4,139,834	709,395	846,903	5,990,960
	Mixed hardwoods	65,704	--	--	65,704
	All types	22,772,777	857,933	1,344,695	25,270,233

¹International 1/4-inch rule.

Table 15.--Net volume of growing stock on commercial timberland in Santa Fe County by species and diameter class; State and private, 1975

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- : 22.9	23.0- : 24.9	25.0- : 26.9	27.0- : 28.9	29.0+ :														
	Cubic feet																										
Douglas-fir	58,364	75,357	105,383	70,612	66,802	87,483	41,330	9,903	11,634	--	5,958	--	--	532,826													
Ponderosa pine	123,324	277,632	532,347	596,763	469,612	899,927	495,313	373,576	179,545	45,128	93,230	28,831	73,258	4,188,486													
Limber pine	--	4,171	8,401	--	--	--	7,865	--	--	--	--	--	--	20,437													
White fir	3,671	30,737	39,698	19,462	62,718	61,189	54,437	--	15,912	--	10,801	14,832	--	313,457													
Pinyon-juniper	153,547	136,925	123,342	112,658	94,535	47,914	5,408	--	--	--	--	--	--	674,329													
Total softwoods	338,906	524,822	809,171	799,495	693,667	1,096,513	604,353	383,479	207,091	45,128	109,989	43,663	73,258	5,729,535													
Mixed hardwoods	--	--	--	--	12,229	--	--	--	--	--	--	--	--	12,229													
Total hardwoods	--	--	--	--	12,229	--	--	--	--	--	--	--	--	12,229													
All species	338,906	524,822	809,171	799,495	705,896	1,096,513	604,353	383,479	207,091	45,128	109,989	43,663	73,258	5,741,764													

Table 16.--Net volume of sawtimber on commercial timberland in Santa Fe County by species and diameter class; State and private, 1975

Species	Diameter class (inches at breast height)														
	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	25.0-	27.0-	28.9	29.0+	All classes		
	10.9	12.9	14.9	16.9	18.9	20.9	22.9	24.9	26.9	28.9					
	Board feet, International 1/4-inch rule														
Douglas-fir	326,575	288,902	326,939	455,701	223,709	55,062	66,163	--	34,437	--	--	--	1,777,488		
Ponderosa pine	1,982,759	2,742,964	2,433,306	4,983,868	2,841,668	2,190,760	1,070,143	274,249	563,632	175,788	452,636	19,711,773			
Limber pine	31,075	--	--	--	39,965	--	--	--	--	--	--	--	71,040		
White fir	156,000	85,085	287,188	278,057	239,509	--	63,838	--	42,234	58,145	--	1,210,056			
Pinyon-juniper	649,654	807,573	639,869	301,134	33,355	--	--	--	--	--	--	2,431,585			
Total softwoods	3,146,063	3,924,524	3,687,302	6,018,760	3,378,206	2,245,822	1,200,144	274,249	640,303	233,933	452,636	25,201,942			
Mixed hardwoods	--	--	68,291	--	--	--	--	--	--	--	--	68,291			
Total hardwoods	--	--	68,291	--	--	--	--	--	--	--	--	68,291			
All species	3,146,063	3,924,524	3,755,593	6,018,760	3,378,206	2,245,822	1,200,144	274,249	640,303	233,933	452,636	25,270,233			

Table 17.--Net volume of growing stock and sawtimber on commercial timberland
in Santa Fe County by ownership class and species, 1975

Ownership class	Species					All species		
	Douglas-fir	Ponderosa pine	Limber pine	White fir	Pinyon/juniper	Mixed hardwoods		
	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
				GROWING STOCK				
				Cubic feet				
State	26,456	173,313	--	1,893	30,082	2,143		233,887
Private	506,370	4,015,173	20,437	311,564	644,247	10,086		5,507,877
Total	532,826	4,188,486	20,437	313,457	674,329	12,229		5,741,764
	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
				GROWING STOCK				
				Cubic meters				
State	749	4,908	--	54	852	60		6,623
Private	14,339	113,697	579	8,822	18,243	286		155,966
Total	15,088	118,605	579	8,876	19,095	346		162,589
	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
				SAWTIMBER				
				Board feet, International 1/4-inch rule				
State	65,903	802,842	--	7,401	102,766	11,967		990,879
Private	1,711,585	18,908,931	71,040	1,202,655	2,328,819	56,524		24,279,354
Total	1,777,488	19,711,773	71,040	1,210,056	2,431,585	68,291		25,270,233

Table 18.--Net volume of timber on commercial timberland in Santa Fe County by class of timber, and softwoods and hardwoods; State and private, 1975

Class of timber	Softwoods	Hardwoods	All classes
Sawtimber trees:			
Saw-log portion			
Upper-stem portion	4,645,861 219,946	11,727 502	4,657,588 220,448
Total	4,865,807	12,229	4,878,036
Poletimber trees	863,728	--	863,728
All growing stock trees	5,729,535	12,229	5,741,764
Sound cull trees			
Rotten cull trees	277,277	12,815	290,092
Salvable dead trees	34,481 64,858	2,677 --	37,158 64,858
All timber	6,106,151	27,721	6,133,872

Table 19.--Net volume of growing stock on commercial timberland in Santa Fe County by forest type and species; State and private, 1975

Forest type	Species					All species	
	Douglas-fir:	Ponderosa:	Limber:	White fir:	Pinyon/	Total	Total
	pine	pine	pine	pine	juniper	softwoods	hardwoods:
	Cubic feet					Cubic meters	
Douglas-fir	148,917	177,256	12,573	94,672	--	433,418	--
Ponderosa pine	318,619	3,183,737	7,864	190,197	146,962	3,847,379	12,229
White fir	10,648	22,660	--	28,588	--	61,896	--
Pinyon-juniper	54,642	788,626	--	--	525,396	1,368,664	--
Total softwoods	532,826	4,172,279	20,437	313,457	672,358	5,711,357	12,229
Mixed hardwoods	--	16,207	--	--	1,971	18,178	--
Total hardwoods	--	16,207	--	--	1,971	18,178	--
All types	532,826	4,188,486	20,437	313,457	674,329	5,729,535	12,229
All types	15,088	118,605	579	8,876	19,095	162,243	346

Table 20.--Net volume of sawtimber on commercial timberland in Santa Fe County
by forest type and species; State and private, 1975

Forest type	Species									
	Douglas-fir:	Ponderosa:	Limber:	White fir:	Pinyon/	Total	Mixed	Total	All	
		pine	pine		juniper	softwoods	hardwoods	hardwoods	species	
	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
	<i>Board feet, International 1/4-inch rule</i>									
Douglas-fir	416,505	803,201	57,084	384,222	--	1,661,012	--	--	1,661,012	
Ponderosa pine	1,108,247	14,956,777	13,956	697,940	475,775	17,252,695	68,291	68,291	17,320,986	
White fir	12,025	91,652	--	127,894	--	231,571	--	--	231,571	
Pinyon-juniper	240,711	3,794,439	--	--	1,955,810	5,990,960	--	--	5,990,960	
Total softwoods	1,777,488	19,646,069	71,040	1,210,056	2,431,585	25,136,238	68,291	68,291	25,204,529	
Mixed hardwoods	--	65,704	--	--	--	65,704	--	--	65,704	
Total hardwoods	--	65,704	--	--	--	65,704	--	--	65,704	
All types	1,777,488	19,711,773	71,040	1,210,056	2,431,585	25,201,942	68,291	68,291	25,270,233	

Table 21.--Net annual growth of growing stock and sawtimber on commercial timberland in Santa Fe County by ownership class and species, 1975

Ownership class	Species					
	Douglas-fir	Ponderosa pine	Limber pine	White fir	Mixed hardwoods	All species
GROWING STOCK						
- - - - - Cubic feet - - - - -						
State	770	3,085	--	27	68	3,950
Private	12,507	73,453	342	6,659	321	93,282
Total	13,277	76,538	342	6,686	389	97,232
GROWING STOCK						
- - - - - Cubic meters - - - - -						
State	22	87	--	1	2	112
Private	354	2,080	10	188	9	2,641
Total	376	2,167	10	189	11	2,753
SAWTIMBER						
- - - - - Board feet, International 1/4-inch rule - - - - -						
State	2,241	17,513	--	106	424	20,284
Private	59,102	332,436	1,327	43,507	1,994	438,366
Total	61,343	349,949	1,327	43,613	2,418	458,650

Table 22.--Annual mortality of growing stock and sawtimber on commercial timberland in Santa Fe County by ownership class, and softwoods and hardwoods, 1975

Species group and ownership class	:	Growing stock	:	Sawtimber
		- Cubic feet-	- Cubic meters -	- Board feet ¹ -
Softwoods:				
State		477	14	2,264
Private		10,779	305	63,268
Total		11,256	319	65,532
Hardwoods:				
State		--	--	--
Private		--	--	--
Total		--	--	--

¹International 1/4-inch rule.

Table 23.--Annual mortality of growing stock and sawtimber on commercial timberland in Santa Fe County by cause of death and species; State and private, 1975

Cause of death	Species	All species
	Ponderosa pine	
GROWING STOCK		
- - - - - Cubic feet - - - - -		
Insects	--	--
Disease	--	--
Fire	--	--
Animal	--	--
Weather	1,673	1,673
Suppression	--	--
Unknown	9,583	9,583
Logging	--	--
Total	11,256	11,256
GROWING STOCK		
- - - - - Cubic meters - - - - -		
Insects	--	--
Disease	--	--
Fire	--	--
Animal	--	--
Weather	47	47
Suppression	--	--
Unknown	272	272
Logging	--	--
Total	319	319
SAWTIMBER		
- - - Board feet, International 1/4-inch rule - - -		
Insects	--	--
Disease	--	--
Fire	--	--
Animal	--	--
Weather	9,717	9,717
Suppression	--	--
Unknown	55,815	55,815
Logging	--	--
Total	65,532	65,532

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1980. Forest area and timber resource statistics for Santa Fe County, New Mexico, 1975. USDA For. Serv. Resour. Bull. INT-16, 24 p. Intermt. For. and Range Exp. Stn., Ogden, Utah 84401.

Presents land area, commercial timberland area, timber inventory, and growth and mortality data based on Resources Evaluation standards.

KEYWORDS: forest surveys (regional), forest area classification, stand volume.

Shupe, Dorothy G., and Michael K. Barrett.

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Presents land area, commercial timberland area, timber inventory, and growth and mortality data based on Resources Evaluation standards.

KEYWORDS: forest surveys (regional), forest area classification, stand volume.

The Intermountain Station, headquartered in Ogden, Utah, is one of eight regional experiment stations charged with providing scientific knowledge to help resource managers meet human needs and protect forest and range ecosystems.

The Intermountain Station includes the States of Montana, Idaho, Utah, Nevada, and western Wyoming. About 231 million acres, or 85 percent, of the land area in the Station territory are classified as forest and rangeland. These lands include grasslands, deserts, shrublands, alpine areas, and well-stocked forests. They supply fiber for forest industries; minerals for energy and industrial development; and water for domestic and industrial consumption. They also provide recreation opportunities for millions of visitors each year.

Field programs and research work units of the Station are maintained in:

Boise, Idaho

Bozeman, Montana (in cooperation with Montana State University)

Logan, Utah (in cooperation with Utah State University)

Missoula, Montana (in cooperation with the University of Montana)

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Provo, Utah (in cooperation with Brigham Young University)

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