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NEW MEXICO'S FOREST AREA AND TIMBER VOLUME

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ABSTRACT

One-third of New Mexico's 18 million acres of forest land is classed as commercial. Sixty-nine percent of the commercial forest area is publicly administered; 55 percent is in National Forests. Ponderosa pine, the principal species, occupies 69 percent of the commercial timber-growing area and accounts for more than half of the growing stock and sawtimber volume in the State.

Twenty-three percent (18.2 million acres) of New Mexico's land area is forested; however, only 6.3 million acres, or slightly more than one-third of the forested area is commercially important for timber production. The remaining 66 percent is in two broad classes of noncommercial forest land. About 561,000 acres is productive but excluded from the commercial classification because it is reserved from timber harvesting in National Forest wild, wilderness, and primitive areas, and in National Monuments. The major portion of the noncommercial area (11.4 million acres) is unproductive land incapable of producing trees of commercial size and quality. The pinyon-juniper forest type occupies 94 percent of this unproductive category.

Public agencies manage 4.3 million acres, or 69 percent of the commercial forest. Of this, 80 percent is National Forest land and 14 percent is tribal lands within Indian Reservations. The remaining public lands are largely in State ownership.

Private holdings amount to 2 million acres, or 31 percent of the commercial area. Four-fifths of this is in farms and ranches.

Ponderosa pine, the most extensive commercial forest type in New Mexico, covers 4.3 million acres, or 69 percent of the commercial area. The other important softwood types are Douglas-fir and fir-spruce, which make up about 16 and 8 percent, respectively, of the commercial forest. Aspen, the only hardwood type in the commercial forest, occupies 6 percent of the area.

Sawtimber stands support 98 percent of the total board-foot volume, occupy 87 percent of the commercial forest land, and average 5,072 board feet per acre. The total cubic volume in sound live trees 5 inches in diameter and larger is 6.6 billion feet. Fifty-eight percent of it is ponderosa pine, which leads all species in sawtimber volume, with 16 billion of the State's total of 28 billion board feet.

* * * * *

Statistics shown in the following tables were compiled from several sources. The principal sources were inventories by National Forests, the Bureau of Indian Affairs, and the Forest Survey staff of the Intermountain Forest and Range Experiment Station. A combination of photo interpretation and field examination of sample areas was used to obtain data for most areas. Fieldwork was completed in 1962, compilations in 1964.

More comprehensive timber estimates will be included in an analytical report for the State of New Mexico that will be published later this year.

Table 1.--New Mexico area by land classes

Land class	Thousand acres
Commercial forest land ¹	6,269
Unproductive forest land ²	11,357
Productive-reserved forest land ³	561
Total forest land	18,187
Nonforest land	59,579
All land	⁴ 77,766

¹ Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization.

² Forest land incapable of growing crops of industrial wood because of adverse site conditions.

³ Productive forest land withdrawn from timber utilization through statute or administrative regulation.

⁴ From U.S. Bureau of the Census, Land and Water Area of the United States, 1960.

Table 2.--Area of commercial forest land in New Mexico by ownership classes

Ownership class	Thousand acres
National Forest	3,458
Other Federal:	
Bureau of Land Management	77
Indian ¹	617
Miscellaneous Federal	9
Total other Federal	703
State	172
Farmer-owned	1,557
Other private	379
All ownerships	6,269

¹ Indian tribal lands and trust allotments; i.e., lands held in fee by the Federal Government but administered and managed for Indian tribal groups or allotted in trust to individual Indians.

Table 3.--Area of commercial forest land in New Mexico by stand-size and ownership classes

Stand-size class	All ownerships	National Forest	Other public	Private
----- Thousand acres -----				
Sawtimber stands ¹	5,454	2,950	833	1,671
Poletimber stands ²	426	275	19	132
Sapling and seedling stands ³	169	16	20	133
Nonstocked stands ⁴	220	217	3	--
All classes	6,269	3,458	875	1,936

¹ Stands at least 10-percent stocked with growing stock trees with a minimum net volume per acre of 1,500 board feet in sawtimber trees.

² Stands failing to meet sawtimber stand specifications, but at least 10-percent stocked with poletimber and larger (5.0 inches d.b.h. and larger) trees and with at least half the minimum stocking in poletimber trees.

³ A stand not qualifying as either a sawtimber or poletimber stand, but having at least 10-percent stocking of trees of commercial species and with at least half the stocking in sapling and seedling trees (less than 5.0 inches d.b.h.).

⁴ A stand not qualifying as a sawtimber, poletimber, or a sapling-seedling stand; i.e., normally a stand less than 10-percent stocked.

Table 4.--Area of commercial forest land in New Mexico by forest types and ownership classes

Forest type	All ownerships	Public	Private
----- Thousand acres -----			
Douglas-fir	1,000	582	418
Ponderosa pine	4,334	3,262	1,072
Limber pine	43	10	33
Fir-spruce	525	290	235
Aspen	367	189	178
All types	6,269	4,333	1,936

Table 5.--Area of noncommercial forest land in New Mexico by forest types

Forest type	All areas	Productive reserved areas	Unproductive areas
----- Thousand acres -----			
Douglas-fir	122	120	2
Ponderosa pine	347	307	40
Fir-spruce	129	122	7
Aspen	33	12	21
Chaparral	652	--	652
Pinyon-juniper	10,635	--	10,635
All types	11,918	561	11,357

Table 6.--Volume of growing stock and sawtimber on commercial forest land in
New Mexico by species

Species	Growing stock ¹	Sawtimber
	Thousand cubic feet	Thousand board feet ²
Douglas-fir	941,567	5,025,065
Ponderosa pine	3,837,291	16,188,163
Limber pine	157,656	639,953
True firs ³	594,262	1,975,857
Engelmann spruce	706,389	3,280,615
Aspen	379,074	1,233,056
All species	6,616,239	28,342,709

¹ Net volume in cubic feet of live merchantable sawtimber and poletimber trees from a 1-foot stump to a minimum 4.0-inch top inside bark.

² International $\frac{1}{4}$ -inch log rule.

³ Corkbark, subalpine, and white fir.

Table 7.--Volume of growing stock and sawtimber on commercial forest land
in New Mexico by ownership classes

Ownership class	Growing stock	Sawtimber
	Thousand cubic feet	Thousand board feet ¹
National Forest	3,386,868	14,859,252
Other public	1,368,926	6,243,006
Private	1,860,445	7,240,451
All classes	6,616,239	28,342,709

¹ International $\frac{1}{4}$ -inch log rule.

Table 8.--Volume of growing stock and sawtimber on commercial
forest land in New Mexico by stand-size classes

Stand-size class	Growing stock	Sawtimber
	Thousand cubic feet	Thousand board feet ¹
Sawtimber stands	6,320,179	27,662,064
Poletimber stands	230,691	492,421
Sapling and seedling stands	38,062	63,398
Nonstocked stands	27,307	124,826
All classes	6,616,239	28,342,709

¹ International $\frac{1}{4}$ -inch log rule.