

Tree Planting in the United States---1997

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This annual report summarizes tree planting, timber stand improvement, and nursery production activities across all ownerships of forest land in the United States. It includes state-by-state and ownership breakdowns, regional totals, as well as analysis of the trends in the data. It does not include tree planting in urban and community environments. As far as we know, it is the most complete compilation of such data in the country. However, because some of the data are estimated, caution must be used in drawing inferences. Tree Planters' Notes 49 (1): 5-15; 1998.

Tree Planting

Overview

Tree planting (including seeding) on all ownerships in the United States in fiscal year 1997 (FY 1997 = October 1, 1996 to September 30, 1997) totaled 2,636,102 acres. This is an increase of 10% over last year (FY 1996), and the largest acreage planted to trees in any year since FY 1990.

As shown in the accompanying table and graph (page 6), tree planting in the United States has been on a rather steady upward track over the long term, rising from about 140,000 acres in 1930 to the current annual level of 2.6 million acres. Three major peak periods of tree planting activity have occurred over the years, all of which were associated with major federal programs.

The Civilian Conservation Corps (CCC) planted 2.3 million acres of public and private lands to trees from the mid-1930's to the mid-1940's; the Soil Bank Program planted 2.2 million acres of private croplands to trees from 1956 through 1961; and the Conservation Reserve Program (CRP) has planted trees on 2.6 million acres of highly erodible croplands, mostly during the late 1980's.

Actually, none of these major programs was created to plant trees nor to provide other natural resource benefits per se, but rather to address greater societal needs. The CCC was a Great Depression program that provided employment to thousands of unemployed young men. Both the Soil Bank and CRP were prompted by economic crises in agriculture and the need to take surplus crop land out of production to enhance farmers'

1997 SUMMARY

- * Trees were planted on 2,636,102 acres.
- * Timber stand improvement was completed on 1,417,056 acres.
- * Nursery production totaled 1,623,978,000 trees.

incomes and to reduce federal agricultural program costs.

Currently, ever-increasing concerns about global climate change could prompt yet another major reforestation program. Because trees and forests play a vital role in regulating the Earth's carbon cycle, "Accelerated Tree Planting on Non-industrial Private Lands" was one of the mitigation strategies included in the President's 1993 Climate Change Action Plan, and electric utility companies and others have already launched significant new climate change forestry initiatives, including tree planting projects domestically and overseas.

Several observations can be made regarding 1997 tree planting accomplishments:

* Since achieving an all-time record high of 3.4 million acres at the peak of the CRP program in 1988, annual planting has been relatively constant at about 2.5 million acres from 1991 through 1996. This year's increase to 2.6 million acres (+10%) may be an indication that annual planting will again resume an upward trend.

* Private landowners are leading the way by doing 89% of all tree planting and by increasing their rate of planting.

* Tree planting on the national forests (6% of the U.S. total) is at its lowest level since 1960.

* Federal financial assistance for tree planting on non-industrial private forest lands has declined sharply in recent years---only one-third as many acres were planted on private lands with federal programs in FY 1997 as in FY 1995.

Summary of tree planting 1930-1997

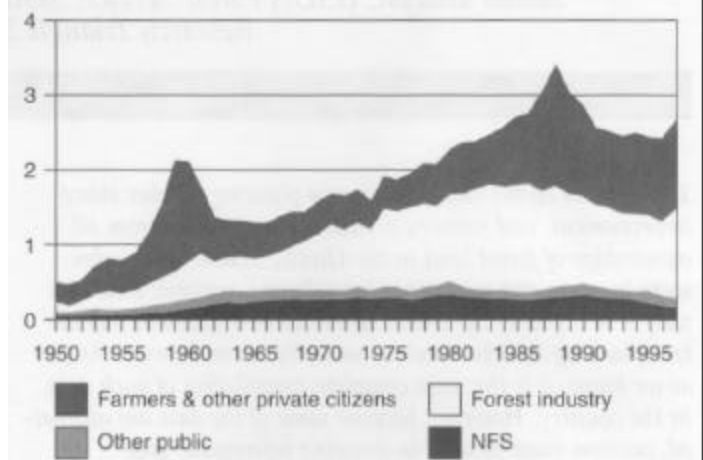
Fiscal year	Acres
1930	138,970
1935	292,033
1940	519,051
1945	138,944
1950	497,507
1955	812,588
1960	2,137,460
1965	1,325,063
1970	1,599,819
1975	1,930,468
1976	1,892,309
1977	1,978,170
1978	2,088,568
1979	2,061,373
1980	2,266,956
1981	2,351,389
1982	2,374,794
1983	2,453,386
1984	2,553,029
1985	2,695,423
1986	2,753,176
1987	3,033,159
1988	3,394,478
1989	3,021,948
1990	2,862,207
1991	2,558,025
1992	2,544,862
1993	2,419,691
1994	2,477,479
1995	2,421,861
1996	2,406,700
1997	2,636,102

Tree Planting by Ownership Group

Private landowners planted 2,344,944 acres of trees in FY 1997, 89% of all tree planting in the United States for the year, and an increase of 12% over planting on private ownerships in FY 1996. Moreover, increases in planting occurred for all reported private ownerships categories (page 7).

Forest industry. Companies in the forest products industry reported the planting of 1,188,362 acres of trees in FY 1997 (45% of the U.S. total), the most of any ownership group, and an increase of 182,560 acres (18%) over their 1996 accomplishments. This large increase is largely due to accelerated tree planting by forest indus-

Tree planting trends 1950-1997:



try companies in Alabama, as described in more detail in the "State and Regional Highlights" of this report.

In addition, American Forest and Paper Association (AF&PA) member companies provided free seedlings to more than 12,500 non-industrial private landowners for reforestation on 140,000 acres in FY 1997. AF&PA landowner assistance programs have contributed to planting of more than 1 million acres of land in NIPF ownerships since 1990.

Non-industrial private forest (NIPF) landowners.

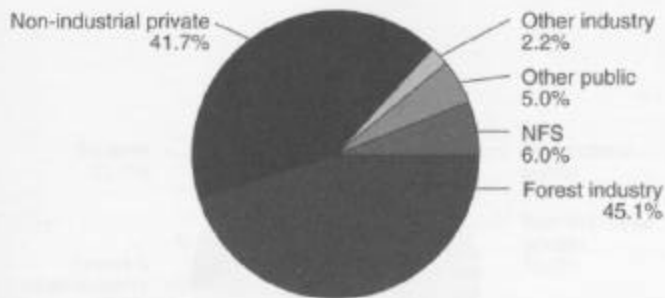
Private landowners, with the exception of companies in the forest products industry, planted 1,156,582 acres (44% of U.S. total), the highest acreage planted to trees by these owners since 1990. As the term is used in this paragraph, NIPF owners include "other industries (insurance companies, investment funds, mining companies, etc.)". These NIPF landowners planted 56,971 acres in FY 1997, an increase of about 2,500 acres (5%) over their reported planting levels in FY 1996.

Federal incentive programs of the U.S. Department of Agriculture and the USDA Forest Service, operated with the cooperation of the state foresters, contributed to planting of 144,000 acres of trees in FY 1997. The Forestry Incentives Program (FIP) planted 106,000 acres and the Stewardship Incentive Program (SIP) planted 38,000 acres. Federal assistance for tree planting on private ownerships has declined sharply in recent years. In FY 1995, for example, federal programs planted 419,000 acres on NIPF ownerships. Of this total, 199,000 acres were planted under the Agricultural Conservation Program (ACP), 79,000 acres were planted under SIP, and 141,000 acres under FIR ACP was eliminated by the 1996 Farm Bill, and funding for FIP and SIP has been greatly reduced in recent years.

National forests. Tree planting on National Forest System (NFS) lands administered by the USDA Forest

Total planting and seeding by ownership category in FY 1997:

	Acres	Percent of all planting
Federal Government		
National Forest System*	158,918	6.0
Department of the Interior	13,956	0.5
Other federal agencies	15,571	0.6
Total	188,445	7.1
Non-federal public		
State forests	37,430	1.4
Other state lands	15,732	0.6
Local government	49,551	1.9
Total	102,713	3.9
Private		
Forest industry	1,188,362	45.1
Other industry	56,971	2.2
Non-industrial private	1,099,611	41.7
Total	2,344,944	89.0
Grand total	2,636,102	100.0



Service totaled 158,918 acres in FY 1997. This was 15,441 fewer acres (-9%) than were planted on NFS lands in FY 1996; half of the acreage planted on NFS lands in the record-high years of FY 1990 and 1991; and the lowest acreage planted on these lands in any year since FY 1960.

This decrease in tree planting on NFS lands in recent years is primarily a reflection of reduced timber harvesting---especially of harvests of old-growth timber in the Pacific Northwest---on NFS ownerships, which

decreased from a record high of 12.71 billion board feet in FY 1987 to 3.72 billion board feet in FY 1996. The Forest Service has also made a significant shift to the use of natural regeneration, instead of planting, on the stands now being harvested.

Other public lands. Department of Interior agencies reported planting 13,956 acres of trees in FY 1997, as compared with 20,844 acres in 1996. All other federal agencies (excluding USDA and USDI), planted 15,571 acres in FY 1997, an increase of 4,535 acres over reported FY 1996 accomplishments.

State and local governments reported the planting of 102,713 acres of trees in FY 1997, 9,937 fewer acres than were planted in FY 1996.

State and Regional Highlights

The top states. Eleven states each planted more than 100,000 acres in FY 1997. Collectively, these states---9 in the South and 2 in the Pacific Northwest---planted 2.2 million acres, 85% of the U.S. total (below).

States that planted more than 100,000 acres of trees in FY 1997

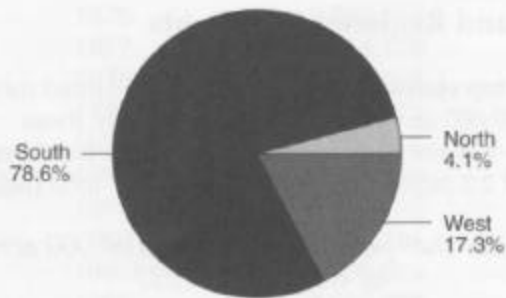
Alabama	438,000
Georgia	397,000
Mississippi	282,000
Florida	193,000
South Carolina	166,000
Washington	158,000
Louisiana	144,000
Oregon	134,000
North Carolina	114,000
Arkansas	110,000
Texas	108,000

Alabama moved to the top of the list this year, replacing Georgia, which has been the long-standing leader in tree planting. This was due to a serious effort by forest industry in Alabama to replant company lands damaged by Hurricane Opal in October 1995. Forest industry in Alabama planted over 294,000 acres in FY 1997, as compared with 122,000 acres in FY 1996.

Regional notes. The 13 states in the South (see definitions, page 15) planted and seeded 2,070,849 acres of trees in FY 1997 (page 8), 79% of the U.S. total and 13% more acreage than was reported last year. The West ranked next, with 457,023 acres (17% of the U.S. total) and 8% more than were planted in FY 1996. Finally, the states in the North reported the planting of 108,230 acres (4% of the U.S. total) and 35,406 fewer acres than were planted last year (page 8).

Total planting and seeding by region in FY 1997:

	Acres	Percent of all planting
North	108,230	4.1
South	2,070,849	78.6
West	457,023	17.3
Total	<u>2,636,102</u>	<u>100.0</u>



Direct Seeding

The use of seeds to establish trees in the field (planting by direct seeding) was reported on 21,044 acres (less than 1% of all planting) in FY 1996. This is 2,583 fewer acres than were reported for direct seeding last year and is primarily attributable to less direct seeding being reported on forest industry ownerships. Seeding acreages are included in all planting values in this report.

Appendix Tables

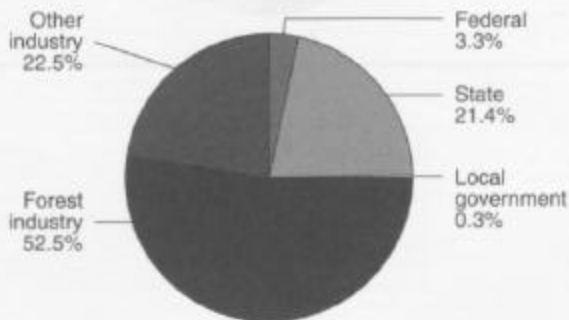
Tree planting acreages for all states by ownership categories are listed in tables 1 through 5 in the appendix of this report. Direct seeding acreages are listed in table 4.

Nursery Production

A total of 1,623,978,000 trees were produced (shipped) by forest tree nurseries in the United States in FY 1997. This is an increase of 94 million trees (6%) over the 1,529,534,000 nursery trees reported for FY 1996.

Nursery production of tree planting stock by public, industrial, and other private nurseries in FY 1997:

Nurseries	Million seedlings	Percent of total
Federal	53	3.3
State	348	21.4
Local government	5	0.3
Forest industry	852	52.5
Other industry	366	22.5
Total	1,624	100.0



By Sector

Forest industry. Nurseries owned by forest product companies produced 852 million trees in FY 1997, 53% of all production, and 26 million more than in FY 1996.

Other industry. Private nurseries not owned by forest industry produced 366 million trees in 1997, an increase of 161 million trees (79%) over last year. Increased production, as compared with last year, was reported for a number of states, including Arizona (up almost 50 million), Georgia (up 90 million), Louisiana (up 24 million) and Oregon (up by almost 16 million).

State nurseries. State nurseries produced 348 million trees (21% of U.S. total) in FY 1997, as compared with 396 million in FY 1996.

Other public nurseries. Federal nurseries produced 53 million trees in FY 1997, 3% of the U.S. total, and 11 million fewer trees than they grew in 1996.

Only 5 million trees were reported as being produced by nurseries operated by local governments in FY 1997, as contrasted with 38 million trees last year. This difference is due to no production being reported in this ownership category for Louisiana, Mississippi, North Dakota, and Wisconsin for FY 1997.

State and Regional Highlights

The top states. Ten states each produced 50 million or more trees in their nurseries in FY 1997 (see page 11). Georgia topped the list with 251 million trees, followed closely by Alabama with 237 million. Florida, Texas, Arkansas, and North Carolina each produced over 100 million trees.

States with nursery production of 50 million or more trees in FY 1997

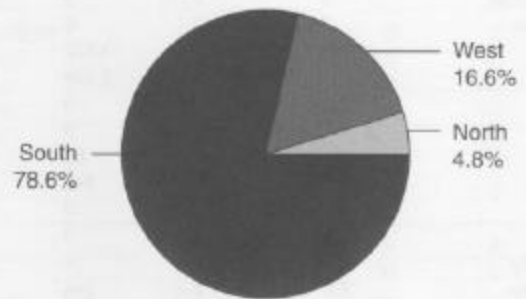
Georgia	251 million
Alabama	237 million
Florida	160 million
Texas	126 million
Arkansas	120 million
North Carolina	104 million
South Carolina	99 million
Oregon	87 million
Washington	85 million
Louisiana	67 million

Together, these 10 states produced 82% of the nursery trees in the United States.

Regional notes. The South produced almost 1.3 billion forest trees (79% of the U.S. total) and 71 million more than last year. Nursery output was also up in the West by 72 million, as compared with last year, and totaled 270 million (17% of U.S. total). However, tree production at nurseries in the North was reported at only 77 million (5% of U.S. total) as compared with 125 million in FY 1996.

Nursery production by region in FY 1997:

	Million seedlings	Percent of total
North	77	4.8
South	1,277	78.6
West	270	16.6
Total	1,624	100.0



Appendix Table

Table 7 in the appendix gives nursery production figures for all states by owner.

This report, Tree Planting in the United States, is published annually by the USDA Forest Service, State and Private Forestry, Cooperative Forestry Staff, Washington, DC. Additional copies can be obtained by contacting the author.

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Acknowledgments

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cies, individual private landowners, and the assistance of USDA Forest Service field offices and the Reforestation, Nursery, and Genetic Resources National Team in verifying the accuracy of submissions. Frank Burch, USDA Forest Service Forest Management Staff, Washington, DC, provided data for all National Forest System lands. Department of Interior data were furnished by Dwight Fielder, Bureau of Land Management, and Bill Downes, Bureau of Indian Affairs. Scott English, U.S. Army Environmental Center, and Denise Y. White, U.S. Army Corps of Engineers, provided Department of Army entries. Jack A. Muncy reported for the Tennessee Valley Authority.

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Timber Stand Improvement

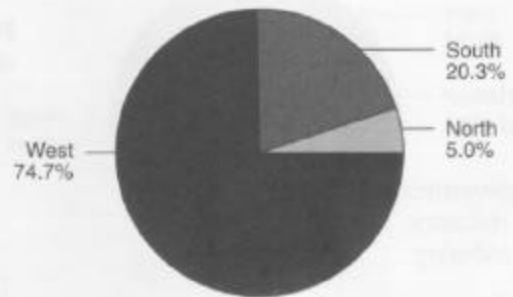
Timber stand improvement was reported for 1,417,057 acres in FY 1997, as contrasted with 2,633,075 acres in FY 1996. The decrease of 1,216,018 acres (- 46%) appears to be a function of the nonreporting or underreporting of FY 1997 accomplishments, rather than an actual change in the amount of timber stand improvement that took place.

Table 6 in the appendix lists the reported timber stand accomplishments by ownership and State for this year.

CAUTION: *These data may not be accurate for several states due to non-reporting or underreporting for some ownerships.*

Timber stand improvement by region in FY 1997:

	Acres	Percent of total
North	71,204	5.0
South	287,885	20.3
West	<u>1,057,967</u>	<u>74.7</u>
Total	1,417,056	100.0



Timber stand improvement by ownership category in FY 1997:

	Acres	Percent of total
National Forest System	260,639	18.4
Other federal	65,579	4.6
Non-federal public	91,326	6.5
Non-industrial private	235,779	16.6
Forest & other industry	<u>763,733</u>	<u>53.9</u>
Total	1,417,056	100.0

