

United States
Department of
Agriculture

Forest Service

State and
Private Forestry

Cooperative
Forestry



Tree Planting in the United States—1996



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Tree Planting in the United States 1996

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1996 SUMMARY

- ◆ Trees were planted on 2,406,700 acres.
- ◆ Timber stand improvement was completed on 2,633,075 acres.
- ◆ Nursery production totalled 1,529,534,000 trees.

Purpose of Report

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. Because some of the data are estimated, caution must be used in drawing inferences.

Acknowledgments

This report reflects the input of many people, and we gratefully acknowledge their individual contributions. We appreciate the efforts of personnel in the state forestry agencies in obtaining data from companies in the forest products and other industries, all State and local agencies, individual private landowners, and the assistance of USDA Forest Service field offices in verifying the accuracy of submissions. Frank Burch, USDA Forest Service Timber Management Staff, Washington, DC, provided data for all National Forest System lands; Dwight Fielder, Bureau of Land Management, coordinated the submission of reports from all Department of Interior agencies; Leslie Weldon and Charles Hess reported for the Department of the Army Corps of Engineers; and Dennis Curtin reported for the Tennessee Valley Authority.

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TREE PLANTING

Overview

Tree planting on all ownerships in the United States totaled 2,406,700 acres in fiscal year 1996. This was 15,161 (-0.6 percent) fewer acres than were planted by all owners in fiscal year 1995, and the lowest number planted in the Nation in any year since 1982.

Federal land management agencies led the overall decline by planting 77,784 (-27 percent) fewer acres in fiscal year 1996, as compared with fiscal year 1995. Department of Interior agencies reported their planting for the period to be down by 47,901 acres (-70 percent), and USDA Forest Service reported 32,864 fewer acres (-16 percent) were planted on the national forests. In fact, tree planting on the national forests is currently at its lowest point since 1961.

In contrast with Federal lands, tree planting increased on lands owned by State and local governments during fiscal year 1996 by 23,775 acres (27 percent). The only exceptions were State-owned lands other than the State Forests, such as State Parks, wildlife management areas, and State-owned university forests, where tree planting in fiscal year 1996 fell by 21,999 acres (-60 percent).

Tree planting accomplishments were mixed for private forest landowners in fiscal year 1996, as compared with fiscal year 1995. Companies in the forest products industries reported their planting was down by 31,554 acres (-3 percent), while all other private owners, in aggregate, planted 70,402 (7 percent) more acres than in fiscal year 1995. In all, private landowners planted 2,087,811 acres of trees in fiscal year 1996 (87 percent of the U.S. total) and 38,848 more acres (2 percent) than in fiscal year 1995.

Fiscal year 1996 marked the last year for the Agricultural Conservation Program (ACP). From 1936 through 1996, ACP assisted in the planting of 7,099,956 acres of trees on nonindustrial private forest lands--as many acres of tree planting as were done by the combined efforts of the Civilian Conservation Corps (CCC; 2.3 million acres planted in mid-1930's to mid-1940's), the Soil Bank (2.2 million acres planted from 1956-1961), and the Conservation Reserve Program (CRP; 2.6 million acres, 1986 to present).

Tree planting on nonindustrial private lands was boosted by tree planting under the CRP in fiscal year 1996, but overall financial assistance to private landowners under USDA programs declined significantly, and a further reduction is anticipated for fiscal year 1997.

Fiscal year 1996 also recorded a sizable decrease in tree planting in the West, but an increase in the North, and in particular, in the South, where two additional States made the list of States planting in excess of 100,000 acres per year.

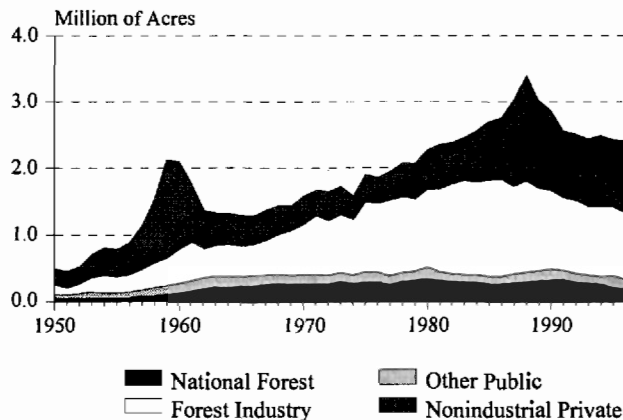
Summary of Tree Planting 1930-1996:

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

* Previously shown as 1,926,544 acres. Corrects 1981 reporting error for forest industry tree planting.

Tree Planting by Ownership Group

Private landowners planted 2,087,811 acres of trees in fiscal year 1996. This was 87 percent of the U.S. total for the year, an increase of 38,848 acres (2 percent) over tree planting by private landowners in fiscal year 1995.



Nonindustrial Private Landowners—Private owners with the exception of companies in the forest products industry planted 1,082,009 acres of trees in fiscal year 1996, an increase of 7 percent over their planting for 1995, and the most of any ownership group. Included in this total are 54,480 acres of planting by other industrial owners (industries other than forest products companies), which is very comparable to their planting of 54,654 acres in 1995.

USDA forestry assistance programs (see box) contributed to the planting of 324,586 acres (30 percent of all planting on nonindustrial private forest (NIPF) ownerships) in fiscal year 1996, a major drop from 419,448 acres (41 percent of NIPF total) in fiscal 1995. Tree planting under the Forestry Incentives Program (FIP) declined from 141,194 acres in 1995 to 105,641 acres in 1996, while tree planting under the Agricultural Conservation Program (ACP) fell from 199,425 acres in 1995 to 75,698 acres in 1996. Tree planting under the Stewardship Incentive Program (SIP) also declined from 78,829 acres in 1995 to 63,010 acres in 1996. Fiscal 1996, thus, became the first year in which tree planting under SIP did not show an increase since the first trees were planted under this program in 1992.

USDA Assistance Programs for Forestry

Tree planting accomplishments under Federal assistance programs in 1996 were:

Forestry Incentives Program.	105,641 acres
Agricultural Conservation Program	75,698 acres
Environmental Quality Incentives Program	0 acres
Stewardship Incentive Program	63,010 acres
Conservation Reserve Program	<u>80,237 acres</u>
TOTAL	324,586 acres

The Forestry Incentives Program (FIP) and the Environmental Quality Incentives Program (EQIP), which replaces the Agricultural Conservation Program (ACP), are programs of the U.S. Department of Agriculture (USDA) that provide cost-share payments to private landowners for conservation practices. FIP and EQIP are administered by the Natural Resources Conservation Service (NRCS). The principal objective of FIP is timber production. EQIP funds are used to promote soil and water conservation. Technical assistance to landowners to correctly install forestry practices is provided by State Forestry organizations through the USDA Forest Service/State Forester delivery system.

The Stewardship Incentive Program (SIP) is a USDA Forest Service (USDA FS) program authorized by the Forestry Title of the 1990 Farm Bill to enhance the management of all resources on private forest lands.

SIP offers technical assistance and cost-share assistance, not only for tree planting and forest improvement, but also for recreation, wildlife, aesthetics, soil, and water. Assistance is provided to landowners through the Forest Service/State Forester delivery system while Farm Service Agency (FSA) assists with making payments to owners.

The Conservation Reserve Program (CRP) was authorized in the Conservation Title of the 1985, 1990, and 1996 Farm Bills. The CRP offers long-term rental payments and cost-share assistance to establish permanent vegetative covers on cropland that is highly erodible or contributing to a serious water quality problem. The CRP is a USDA program administered by FSA with forestry assistance provided through the USDA Forest Service/State Forester delivery system.

Reduced accomplishments for both FIP and ACP are due to reduced appropriations for these programs beginning with fiscal year 1995. Carryover money (unobligated funds from prior years) allowed 1995 tree planting to temporarily continue at former levels, but 1996 accomplishments show the effects of fewer new dollars. A further reduction in tree planting under USDA forestry assistance programs is likely for fiscal 1997 due to a severe reduction in funding for SIP (\$4.5 million in 1996 and 1997, as compared with \$18 million annually for 1993-1995) and the elimination of the ACP program by the 1996 Farm Bill; what was ACP has been combined with three other USDA resource conservation programs in the new Environmental Quality Incentives Program (EQIP) with less total funding and with a reduced emphasis on forestry practices.

Finally, 80,237 acres of trees were planted on private lands by the Conservation Reserve Program (CRP) in fiscal year 1996. This brings the total number of trees planted by the CRP to 2.6 million acres.

Forest Industry--During fiscal year 1996, forest industry reported the planting of 1,005,802 acres of trees on their own lands, a decrease of 31,554 acres (-3 percent) from fiscal year 1995.

In most years since about 1965, companies in the forest products industry have set the pace by planting the most trees of any ownership group. Annual tree planting by forest industry peaked in the mid-1980's at about 1.5 million acres, as lands acquired by the industry, largely in the South during the 1960's and 1970's, were brought under intensive forest management. Since the mid-1980's planting by forest industry has declined to its current level of about 1 million acres per year, which is close to the same amount, and in some recent years including 1996, fewer acres than have been planted by NIPF owners.

Forest industry, however, remains the undisputed acre-for-acre tree planting champion: forest industry owns only 14 percent of U.S. timberlands but did 42 percent of all 1996 tree planting; NIPF owners hold 59 percent of U.S. timberlands and did 43 percent of all tree planting. It is worthy of notice, also, that a recent survey by the American Forest and Paper Association (AF&PA)

showed that forest industry contributed to the planting of 139,166 acres of trees on NIPF ownerships in the South through their landowner assistance programs (LAP) during fiscal year 1996.

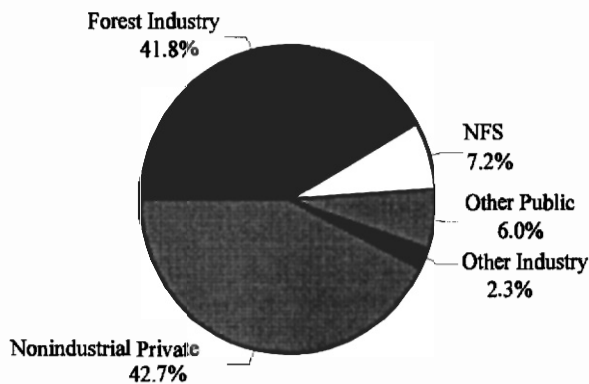
National Forests--Tree planting on National Forest System lands administered by the USDA Forest Service totaled 174,359 acres (7 percent of U.S. total) in fiscal 1996. This was 32,864 fewer acres (-16 percent) than were planted in fiscal year 1995, and reflects the continuing ratcheting down of national forest planting in response to reduced timber harvesting and the increased reliance on natural regeneration on these lands.

Other Public Lands--Department of Interior agencies reported the planting of 20,844 acres of trees in fiscal year 1996, 47,901 acres less than were reported for fiscal year 1995.

State and local governments reported planting 112,650 acres (5 percent of U.S. total) in fiscal year 1996, an increase of 23,775 acres (27 percent) over fiscal year 1995 accomplishments.

Total planting and seeding by ownership category in FY 1996:

	Acres	Percent of All Planting
Federal Government		
National Forests*	174,359	7.2
Department of the Interior	20,844	0.9
Other Federal Agencies	<u>11,036</u>	<u>0.5</u>
Total	206,239	8.6
Non-Federal Public		
State Forests	49,389	2.0
Other State Land	14,452	0.6
Local Government	<u>48,809</u>	<u>2.0</u>
Total	112,650	4.6
Private		
Forest Industry	1,005,802	41.8
Other Industry	54,480	2.3
Nonindustrial Private	<u>1,027,529</u>	<u>42.7</u>
Total	2,087,811	86.8
Grand Total	2,406,700	100.0



*The Report of the Forest Service, 1996, states that reforestation on National Forest System lands totalled 362,915 acres. This is the sum of tree planting on 174,359 acres and 188,556 acres of natural regeneration not involving tree planting.

State and Regional Highlights

The Top States—Eleven States each planted more than 100,000 acres of trees in fiscal year 1996 (see table), and collectively, these States planted 1,990,936 acres, 83 percent of the U.S. total. New to the list, as compared with 1995 when only 9 States broke the 100,000 acre mark, are Arkansas and Texas.

States that planted more than 100,000 acres in FY 1996:

State	(thousand acres)
Georgia	367
Mississippi	275
Alabama	245
Florida	192
South Carolina	150
Washington	147
North Carolina	131
Louisiana	129
Oregon	127
Arkansas	119
Texas	108

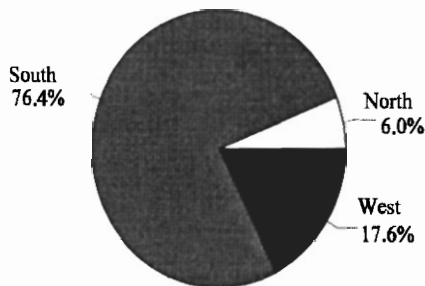
Georgia, again, topped the list of tree planting States, and in an impressive way, by moving up to 367,000 acres from 287,000 acres in fiscal 1995. In contrast, Oregon dropped from 220,000 acres in 1995 to 127,000 acres in 1996. Changes in the other listed States are relatively minor between 1995 and 1996.

Regional Notes—While total tree planting in the U.S. declined only very modestly from 2,421,861 acres in fiscal year 1995 to 2,406,700 acres (-15,161 acres; 0.6 percent) in fiscal year 1996, much larger, but offsetting, changes occurred in the regions. Tree planting declined by 178,429 acres (-30 percent) in the West, but increased by 149,726 acres (9 percent) in the South and by 13,542 acres (10 percent) in the North.

In terms of the regional distribution, the South accounted for 76 percent of all tree planting in 1996, up from 70 percent in 1995; the West planted 18 percent in 1996, versus 25 percent in 1995; and the North advanced to 6 percent as compared to 5 percent in 1995.

Total planting and seeding by region in FY 1996:

Region	Acres	Percent of All Planting
North	143,636	6.0
South	1,839,707	76.4
West	<u>423,357</u>	<u>17.6</u>
Total	2,406,700	100.0



Direct Seeding

The use of seeds in the field to establish trees (planting by direct seeding) was reported on 23,627 acres in fiscal year 1996. This is below the range of 34,500 to 69,500 acres reported previously for 1990-1995. Forest industry reported on 2,485 acres of direct seeding in 1996, as compared with 30,608 in 1995 and only 4,099 acres of direct seeding were reported for NIPF lands in 1996, as compared with 15,598 in 1995.

Appendix Tables

Tree planting acreages for all States by ownership categories are given in Tables 1 through 5 in the appendix of this report.

TIMBER STAND IMPROVEMENT

Timber Stand Improvement by Ownership Group

Timber stand improvement (TSI) practices on all ownerships were completed on 2,633,075 acres in fiscal year 1996, a decline of 529,500 acres (-17 percent) from fiscal year 1995. As in previous years, most of this work was done in the West by private sector owners.

Industry--Companies in the forest products industry and other industries completed 1,700,790 acres of TSI in fiscal year 1996. This was 65 percent of all TSI completed in the U.S., but a decrease of 515,283 acres (-23 percent) from this group's fiscal year 1995 accomplishments.

Nonindustrial Private Lands--Nonindustrial private owners completed 544,024 acres of TSI in fiscal year 1996 (21 percent of the U.S. total), a decrease of 21,594 acres (-4 percent) from fiscal year 1995.

USDA forestry assistance programs contributed to the completion of 140,338 acres of TSI in fiscal year 1996 (26 percent of the NIPF total), as compared with 115,577 acres in fiscal year 1995. During this period, TSI accomplishments through the Forestry Incentives Program (FIP) dropped from 22,540 acres to 18,953 acres, and TSI done through the Agricultural Conservation Program (ACP) decreased from 33,047 acres to 23,701 acres. However, TSI acres under the Stewardship Incentive Program (SIP) jumped from 59,577 to 97,684.

Timber stand improvement done with USDA cost-share programs in FY 1996:

Forestry Incentives Program	18,953 acres
Agricultural Conservation Program	23,701 acres
Stewardship Incentive Program	<u>97,684 acres</u>
Total	140,338 acres

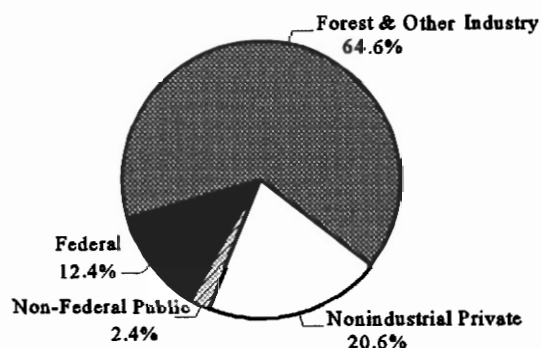
TSI work is expected to drop significantly on NIPF ownerships in fiscal year 1997 because of the termination of ACP and less emphasis on forestry practices in the new Environmental Quality Incentives Program (EQIP) and because of severely lower funding for SIP in 1997. (See the Tree Planting Section of this report for

additional information on program changes and funding.)

Public Lands--In the public sector, 259,653 acres of TSI were completed on the national forests, a decrease of 13,842 acres (-5 percent) from 1995. However, other Federal agencies reported an increase of 57,972 acres in 1996.

Timber stand improvement by ownership category in FY 1996:

	Acres	Percent of Total
National Forest	259,653	9.9
Other Federal	65,579	2.5
Non-Federal Public	63,029	2.4
Nonindustrial Private	544,024	20.6
Forest & Other Industry	<u>1,700,790</u>	<u>64.6</u>
Total	2,633,075	100.0



State and Regional Highlights

The Top States--Eight States each completed 50,000 or more acres of TSI in fiscal year 1996, and collectively, these States did 2,302,807 acres of TSI, 87 percent of the national total. Missing from this year's list, as compared to last year when 9 States were listed, is Louisiana.

Oregon with 1,420,000 acres is by a very wide margin the leading State in TSI activities. Also noteworthy are Washington and South Carolina, both of which completed more than 250,000 acres of TSI.

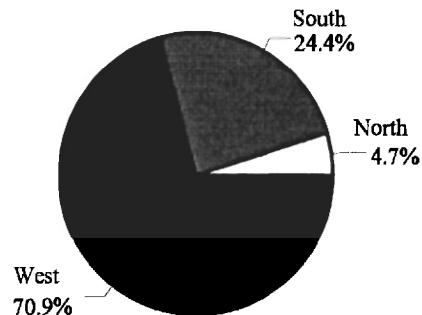
States with timber stand improvement exceeding 50,000 acres in FY 1996:

State	(thousand acres)
Oregon	1,420
Washington	272
South Carolina	261
Virginia	91
Arkansas	88
California	64
Alabama	55
Mississippi	51

Regional Notes--The West completed 1,867,020 acres of timber stand improvement in fiscal year 1996 (71 percent of the U.S. total), but 327,472 fewer acres (-15 percent) than in fiscal year 1995. Fiscal year 1996 accomplishments were also down in the South by 23 percent and in the North by 8 percent, as compared with fiscal year 1995.

Timber stand improvement by region in FY 1996:

Region	Acres	Percent of Total
North	124,568	4.7
South	641,487	24.4
West	<u>1,867,020</u>	<u>70.9</u>
Total	2,633,075	100.0



Appendix Table

Timber stand improvement accomplishments for all States and owners are shown in Appendix Table 6.

NURSERY PRODUCTION

In fiscal year 1996, 1,529,534,000 trees were produced (shipped) by forest tree nurseries throughout the country. This was 122 million (-7 percent) fewer trees than were reported for fiscal year 1995. Although in varying degree, producers in both the public and private sectors shipped fewer trees in fiscal year 1996, but regional production was mixed: in the North production was up, while decreases occurred in the South, and especially, in the West.

By Sector

Forest Industry--Nurseries owned by forest products companies produced 826 million trees in 1996 (54 percent of U.S. total), a decrease of 29 million (-3 percent) from 1995. This change is consistent with the 3 percent reduction on planting on forest industry lands.

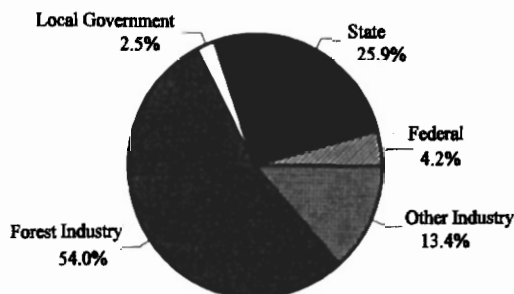
Other Industry--Private nurseries not owned by forest industry produced 205 million trees in 1996, down by 55 million trees (-21 percent) from 1995.

State Nurseries--State nurseries produced 9,000 fewer trees in 1996, but this rounds to 396 million trees in both 1995 and 1996, one-fourth of the U.S. total.

Other Public Nurseries--Federal agencies operate nurseries to produce planting stock for Federal lands. In fiscal year 1996, they turned out 64 million trees, a decrease of 28 percent from 1995, which closely parallels the decrease in tree planting on Federal lands during this period. Finally, nurseries owned by local government entities produced 38 million trees, a decrease of 26 percent from their 1995 output.

Nursery production of tree planting stock by public, industrial, and other private nurseries in FY 1996:

Nurseries	Million Seedlings	Percent of Total
Federal	64	4.2
State	396	25.9
Local Government	38	2.5
Forest Industry	826	54.0
Other Industry	205	13.4
Total	1,529	100.0



State and Regional Highlights

The Top States--Twelve States each produced 50 million or more trees in fiscal year 1996, and together they produced 1.3 billion trees, 85 percent of the U.S. total. Topping this year's list, as is customary, is Alabama with 231 million trees, followed by Georgia, Arkansas, Texas, and Florida, each with over 100 million trees.

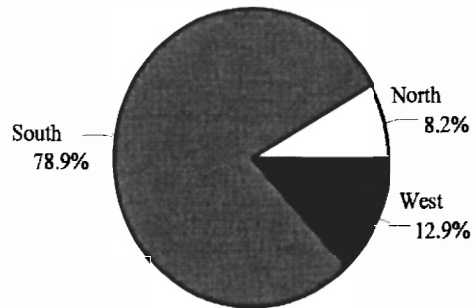
In FY 1996 the total nursery production exceeded 50 million seedlings in the following States:

State	(Million Seedlings)
Alabama	231
Georgia	180
Arkansas	130
Texas	126
Florida	115
South Carolina	98
Mississippi	85
Washington	84
North Carolina	82
Louisiana	63
Michigan	56
Oregon	53

Regional Notes--The South produced 1.2 billion trees (79 percent of U.S. total) but 2 percent fewer trees than in 1995. The West ranked second with 198 million trees (13 percent of U.S. total), which is 38 percent fewer trees than were reported last year. In contrast, the North increased production by 26 percent for a 1996 total of 125 million trees (8 percent of U.S. total).

Nursery production by region in FY 1996:

Region	Million Seedlings	Percent of Total
North	125	8.2
South	1,206	78.9
West	<u>198</u>	<u>12.9</u>
Total	1,529	100.0



Appendix Table

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

**Table 1--Acreage of tree planting, including seeding, on Federal land
(October 1, 1995--September 30, 1996)**

	National Forest System	Department of the Interior	Other Federal	Total
Alabama	2,357	0	126	2,483
Alaska	823	0	0	823
Arizona	886	421	0	1,307
Arkansas	1,658	0	455	2,113
California	29,597	506	3	30,106
Colorado	1,160	162	5	1,327
Connecticut	0	0	0	0
Delaware	0	0	0	0
Florida	4,076	0	3,226	7,302
Georgia	1,526	0	65	1,591
Hawaii	0	0	0	0
Idaho	26,194	921	2	27,117
Illinois	50	0	310	360
Indiana	0	0	20	20
Iowa	0	0	133	133
Kansas	0	0	33	33
Kentucky	728	0	9	737
Louisiana	1,342	0	200	1,542
Maine	0	0	0	0
Maryland	0	0	295	295
Massachusetts	0	0	1	1
Michigan	3,309	0	0	3,309
Minnesota	1,677	350	470	2,497
Mississippi	6,608	69	1,214	7,891
Missouri	565	0	89	654
Montana	14,211	5,376	1	19,588
Nebraska	0	0	4	4
Nevada	25	150	0	175
New Hampshire	0	0	0	0
New Jersey	0	0	12	12
New Mexico	779	1,644	0	2,423
New York	0	0	0	0
North Carolina	1,288	0	414	1,702
North Dakota	0	0	51	51
Ohio	99	0	16	115
Oklahoma	0	524	1	525
Oregon	52,736	6,805	0	59,541
Pennsylvania	143	0	4	147
Rhode Island	0	0	10	10
South Carolina	1,618	0	20	1,638
South Dakota	805	0	42	847
Tennessee	624	0	239	863
Texas	358	0	440	798
Utah	1,953	0	2,122	4,075
Vermont	84	0	0	84
Virginia	270	0	515	785
Washington	14,574	2,564	346	17,484
West Virginia	52	0	6	58
Wisconsin	897	1,178	137	2,212
Wyoming	1,287	174	0	1,461
American Samoa	0	0	0	0
CNMI	0	0	0	0
FSM	0	0	0	0
Guam	0	0	0	0
Marshall Islands	0	0	0	0
Palau	0	0	0	0
Puerto Rico	0	0	0	0
Grand Total	174,359	20,844	11,036	206,239

**Table 2--Acreage of tree planting, including seeding, on non-Federal land
(October 1, 1995--September 30, 1996)**

	State Forest Land	Other State Land	Local Government	Total
Alabama	598	--	--	598
Alaska	2,884	1,190	0	4,074
Arizona	--	--	--	--
Arkansas	0	740	80	820
California	--	--	--	--
Colorado	19	30	215	264
Connecticut	0	1	0	1
Delaware	10	--	--	10
Florida	1,827	3,248	870	5,945
Georgia	1,021	--	--	1,021
Hawaii	28	--	--	28
Idaho	4,316	--	125	4,441
Illinois	--	--	--	--
Indiana	--	400	--	400
Iowa	271	190	0	461
Kansas	0	10	0	10
Kentucky	--	--	--	--
Louisiana	0	1,456	0	1,456
Maine	--	--	--	--
Maryland	58	116	156	330
Massachusetts	--	--	--	--
Michigan	9,200	100	500	9,800
Minnesota	8,780	100	2,220	11,100
Mississippi	--	5,625	38,977	44,602
Missouri	1,000	--	--	1,000
Montana	1,533	--	--	1,533
Nebraska	2	246	--	248
Nevada	--	10	--	10
New Hampshire	--	--	--	--
New Jersey	30	9	60	99
New Mexico	--	--	--	--
New York	20	--	--	20
North Carolina	221	285	--	506
North Dakota	16	--	--	16
Ohio	--	--	--	--
Oklahoma	0	100	10	110
Oregon	898	0	293	1,191
Pennsylvania	578	--	--	578
Rhode Island	--	--	10	10
South Carolina	1,154	250	143	1,547
South Dakota	--	105	--	105
Tennessee	--	--	--	--
Texas	--	--	--	--
Utah	0	0	0	0
Vermont	--	--	--	--
Virginia	601	7	0	608
Washington	13,334	--	1,066	14,400
West Virginia	--	--	--	--
Wisconsin	935	204	4,075	5,214
Wyoming	--	--	--	--
American Samoa	--	12	--	12
CNMI	8	5	--	13
FSM	3	0	3	6
Guam	--	35	--	35
Marshall Islands	4	--	6	10
Palau	--	10	--	10
Puerto Rico	8	--	--	8
Grand Total	49,357	14,484	48,809	112,650

--implies unknown or data not available

**Table 3--Acreage of tree planting, including seeding, on private land
(October 1, 1995--September 30, 1996)**

	Nonindustrial Private	Forest Industry	Other Industry	Total
Alabama	120,721	121,600	--	242,321
Alaska	580	0	0	580
Arizona	198	--	--	198
Arkansas	53,333	62,774	0	116,107
California	--	--	--	--
Colorado	5,919	--	31	5,950
Connecticut	118	0	50	168
Delaware	480	792	--	1,272
Florida	60,900	117,346	643	178,889
Georgia	194,759	169,655	--	364,414
Hawaii	187	--	--	187
Idaho	1,557	12,608	--	14,165
Illinois	7,810	0	0	7,810
Indiana	3,750	100	1,042	4,892
Iowa	5,500	--	--	5,500
Kansas	2,019	2	0	2,021
Kentucky	3,170	3,042	5,300	11,512
Louisiana	23,095	98,250	5,100	126,445
Maine	1,102	--	--	1,102
Maryland	5,114	1,575	0	6,689
Massachusetts	350	50	--	400
Michigan	8,657	5,000	500	14,157
Minnesota	9,694	2,550	0	12,244
Mississippi	143,539	79,462	--	223,001
Missouri	209	--	--	209
Montana	85	8,641	--	8,726
Nebraska	4,022	--	--	4,022
Nevada	36	--	--	36
New Hampshire	142	--	--	142
New Jersey	425	0	215	640
New Mexico	390	--	--	390
New York	719	--	--	719
North Carolina	91,608	36,079	878	128,565
North Dakota	9,460	--	--	9,460
Ohio	1,226	0	2,857	4,083
Oklahoma	4,110	10,900	0	15,010
Oregon	16,635	49,902	0	66,537
Pennsylvania	12,829	--	--	12,829
Rhode Island	15	--	--	15
South Carolina	42,013	66,997	37,685	146,695
South Dakota	3,499	--	--	3,499
Tennessee	--	--	--	--
Texas	43,161	64,006	--	107,167
Utah	16	0	0	16
Vermont	--	--	--	--
Virginia	69,988	22,165	--	92,153
Washington	52,536	62,088	--	114,624
West Virginia	3,171	1,778	159	5,108
Wisconsin	18,287	8,440	--	26,727
Wyoming	10	--	--	10
American Samoa	24	--	--	24
CNMI	5	--	--	5
FSM	105	0	0	105
Guam	9	--	20	29
Marshall Islands	5	--	--	5
Palau	--	--	--	--
Puerto Rico	237	--	--	237
Grand Total	1,027,529	1,005,802	54,480	2,087,811

--implies unknown or data not available

**Table 4--Direct seeding by ownership category; included in tables 1, 2, & 3
(October 1, 1995--September 30, 1996)**

	Federal	Non-Federal Public	Nonindustrial Private	Forest & Other Industry	Total
Alabama	0	--	0	--	0
Alaska	0	0	100	0	100
Arizona	0	--	--	--	0
Arkansas	407	40	0	1,160	1,607
California	10	--	--	--	10
Colorado	152	--	2	--	154
Connecticut	0	0	0	0	0
Delaware	0	--	--	--	0
Florida	3,685	1	--	--	3,686
Georgia	41	--	194	--	235
Hawaii	0	--	--	--	0
Idaho	0	10	15	5	30
Illinois	0	--	100	--	100
Indiana	0	--	100	--	100
Iowa	0	20	163	--	183
Kansas	0	0	110	0	110
Kentucky	0	--	--	--	0
Louisiana	60	200	0	350	610
Maine	0	--	0	--	0
Maryland	60	0	0	0	60
Massachusetts	0	--	--	--	0
Michigan	447	2,700	0	--	3,147
Minnesota	556	5,065	0	250	5,871
Mississippi	241	--	2,605	--	2,846
Missouri	0	--	0	--	0
Montana	20	--	--	720	740
Nebraska	0	--	--	--	0
Nevada	0	--	--	--	0
New Hampshire	0	--	--	--	0
New Jersey	0	0	0	0	0
New Mexico	0	--	--	--	0
New York	0	--	4	--	4
North Carolina	0	--	520	--	520
North Dakota	0	--	--	--	0
Ohio	0	--	--	--	0
Oklahoma	0	0	0	0	0
Oregon	0	--	--	--	0
Pennsylvania	0	--	25	--	25
Rhode Island	10	--	--	--	10
South Carolina	0	--	--	--	0
South Dakota	0	--	--	--	0
Tennessee	0	--	--	--	0
Texas	0	--	--	--	0
Utah	2,122	0	0	0	2,122
Vermont	14	--	--	--	14
Virginia	0	--	--	--	0
Washington	50	--	--	--	50
West Virginia	0	--	--	--	0
Wisconsin	64	870	155	--	1,089
Wyoming	197	--	1	--	198
American Samoa	0	--	3	--	3
CNMI	0	--	--	--	0
FSM	0	1	2	0	3
Guam	0	--	--	--	0
Marshall Islands	0	0	0	0	0
Palau	0	--	--	--	0
Puerto Rico	0	--	--	--	0
Grand Total	8,136	8,907	4,099	2,485	23,627

--implies unknown or data not available

**Table 5--Total acreage of tree planting, including seeding, by ownership category
(October 1, 1995--September 30, 1996)**

	Table 1 Federal	Table 2 Non-Federal Public	Table 3 Private	Total Acres Planted
Alabama	2,483	598	242,321	245,402
Alaska	823	4,074	580	5,477
Arizona	1,307	--	198	1,505
Arkansas	2,113	820	116,107	119,040
California	30,106	--	--	30,106
Colorado	1,327	264	5,950	7,541
Connecticut	0	1	168	169
Delaware	0	10	1,272	1,282
Florida	7,302	5,945	178,889	192,136
Georgia	1,591	1,021	364,414	367,026
Hawaii	0	28	187	215
Idaho	27,117	4,441	14,165	45,723
Illinois	360	--	7,810	8,170
Indiana	20	400	4,892	5,312
Iowa	133	461	5,500	6,094
Kansas	33	10	2,021	2,064
Kentucky	737	--	11,512	12,249
Louisiana	1,542	1,456	126,445	129,443
Maine	0	--	1,102	1,102
Maryland	295	330	6,689	7,314
Massachusetts	1	--	400	401
Michigan	3,309	9,800	14,157	27,266
Minnesota	2,497	11,100	12,244	25,841
Mississippi	7,891	44,602	223,001	275,494
Missouri	654	1,000	209	1,863
Montana	19,588	1,533	8,726	29,847
Nebraska	4	248	4,022	4,274
Nevada	175	10	36	221
New Hampshire	0	--	142	142
New Jersey	12	99	640	751
New Mexico	2,423	--	390	2,813
New York	0	20	719	739
North Carolina	1,702	506	128,565	130,773
North Dakota	51	16	9,460	9,527
Ohio	115	--	4,083	4,198
Oklahoma	525	110	15,010	15,645
Oregon	59,541	1,191	66,537	127,269
Pennsylvania	147	578	12,829	13,554
Rhode Island	10	10	15	35
South Carolina	1,638	1,547	146,695	149,880
South Dakota	847	105	3,499	4,451
Tennessee	863	--	--	863
Texas	798	--	107,167	107,965
Utah	4,075	0	16	4,091
Vermont	84	--	--	84
Virginia	785	608	92,153	93,546
Washington	17,484	14,400	114,624	146,508
West Virginia	58	--	5,108	5,166
Wisconsin	2,212	5,214	26,727	34,153
Wyoming	1,461	--	10	1,471
American Samoa	0	12	24	36
CNMI	0	13	5	18
FSM	0	6	105	111
Guam	0	35	29	64
Marshall Islands	0	10	5	15
Palau	0	10	--	10
Puerto Rico	0	8	237	245
Grand Total	206,239	112,650	2,087,811	2,406,700

--implies unknown or data not available

**Table 6--Acreage of timber stand improvement by ownership category
(October 1, 1995--September 30, 1996)**

	Nonindustrial Private	Forest & Other Industry	Non-Federal Public	National Forest System	Other Federal	Total
Alabama	50,786	--	--	4,546	15	55,347
Alaska	2,156	0	0	4,156	393	6,705
Arizona	267	--	270	4,085	3,184	7,806
Arkansas	1,972	78,817	560	7,003	0	88,352
California	--	--	--	64,017	468	64,485
Colorado	425	15	537	3,726	296	4,999
Connecticut	113	0	323	0	0	436
Delaware	507	620	71	0	0	1,198
Florida	7,278	--	142	728	0	8,148
Georgia	20,734	--	--	3,585	0	24,319
Hawaii	49	--	25	0	0	74
Idaho	2,215	13,313	2,055	17,787	454	35,824
Illinois	4,061	--	--	300	0	4,361
Indiana	7,382	--	--	0	0	7,382
Iowa	3,538	--	85	0	0	3,623
Kansas	530	--	--	0	0	530
Kentucky	2,952	--	--	854	0	3,806
Louisiana	1,000	100	50	2,795	0	3,945
Maine	5,388	--	--	0	157	5,545
Maryland	6,105	2,540	492	0	0	9,137
Massachusetts	690	--	100	0	0	790
Michigan	27,455	--	3,000	1,875	148	32,478
Minnesota	3,087	500	5,512	2,572	643	12,314
Mississippi	48,914	--	--	1,775	407	51,096
Missouri	1,177	--	--	7,038	0	8,215
Montana	292	11,475	73	10,439	2,634	24,913
Nebraska	54	--	20	0	0	74
Nevada	81	--	45	0	376	502
New Hampshire	1,060	--	--	0	0	1,060
New Jersey	2,613	--	--	0	0	2,613
New Mexico	1,500	--	--	1,616	6,694	9,810
New York	4,307	--	--	2	18	4,327
North Carolina	5,717	8,555	355	3,781	0	18,408
North Dakota	311	--	109	0	0	420
Ohio	6,001	--	--	48	0	6,049
Oklahoma	1,200	28,000	0	42	388	29,630
Oregon	152,574	1,155,437	18,342	72,436	21,126	1,419,915
Pennsylvania	760	--	0	261	0	1,021
Rhode Island	23	--	--	0	0	23
South Carolina	69,240	182,624	1,531	7,299	0	260,694
South Dakota	112	--	335	8,057	0	8,504
Tennessee	--	--	--	1,102	44	1,146
Texas	4,234	--	--	1,685	0	5,919
Utah	12	0	0	4,908	0	4,920
Vermont	1,828	--	--	154	0	1,982
Virginia	66,058	22,570	--	2,037	0	90,665
Washington	15,432	196,224	28,694	13,244	18,659	272,253
West Virginia	4,981	--	--	1,076	0	6,057
Wisconsin	5,638	--	--	1,090	9,229	15,957
Wyoming	1,168	--	2	3,534	246	4,950
American Samoa	17	--	--	0	0	17
CNMI	--	--	--	0	0	0
FSM	30	0	276	0	0	306
Guam	--	--	8	0	0	8
Marshall Islands	0	0	0	0	0	0
Palau	--	--	5	0	0	5
Puerto Rico	--	--	12	0	0	12
Grand Total	544,024	1,700,790	63,029	259,653	65,579	2,633,075

--implies unknown or data not available

**Table 7--Nursery production, in thousands of trees, by ownership category
(October 1, 1995--September 30, 1996)**

	Federal	State	Local Government	Forest Industry	Other Industry	Total
Alabama	0	26,147	--	175,000	30,000	231,147
Alaska	0	5	0	0	0	5
Arizona	0	0	--	--	--	0
Arkansas	0	10,029	0	120,000	0	130,029
California	8,350	1,479	--	--	--	9,829
Colorado	0	1,702	--	--	--	1,702
Connecticut	0	658	0	0	0	658
Delaware	0	--	--	--	--	0
Florida	0	21,857	--	52,945	39,761	114,563
Georgia	0	46,491	--	87,400	45,807	179,698
Hawaii	0	346	--	--	--	346
Idaho	17,790	437	--	3,000	13,500	34,727
Illinois	0	--	--	--	--	0
Indiana	0	5,100	--	--	1,000	6,100
Iowa	0	3,000	0	0	100	3,100
Kansas	0	214	0	0	0	214
Kentucky	0	6,484	--	--	--	6,484
Louisiana	0	36,700	21,000	5,000	100	62,800
Maine	0	--	--	--	--	0
Maryland	0	2,659	0	0	0	2,659
Massachusetts	0	--	--	--	--	0
Michigan	3,930	4,467	3,000	5,000	40,000	56,397
Minnesota	0	9,620	0	0	0	9,620
Mississippi	5,533	40,000	4,000	31,000	5,000	85,533
Missouri	0	3,750	0	0	3,000	6,750
Montana	0	1,017	500	1,800	--	3,317
Nebraska	3,444	--	--	--	--	3,444
Nevada	0	224	--	--	--	224
New Hampshire	0	352	--	--	--	352
New Jersey	0	370	--	--	600	970
New Mexico	0	35	--	--	--	35
New York	0	1,303	--	--	--	1,303
North Carolina	0	19,975	--	62,000	--	81,975
North Dakota	0	1,356	3,398	--	--	4,754
Ohio	0	5,945	--	--	--	5,945
Oklahoma	0	4,860	0	40,000	0	44,860
Oregon	24,767	28,658	--	--	--	53,425
Pennsylvania	0	1,213	--	--	--	1,213
Rhode Island	0	0	0	0	0	0
South Carolina	0	17,572	--	78,752	2,000	98,324
South Dakota	0	1,392	0	0	0	1,392
Tennessee	0	6,581	0	0	0	6,581
Texas	0	13,600	--	112,300	--	125,900
Utah	0	745	0	0	0	745
Vermont	0	--	--	--	--	0
Virginia	0	38,262	--	--	--	38,262
Washington	0	11,850	775	48,400	22,600	83,625
West Virginia	0	--	--	--	--	0
Wisconsin	0	19,199	5,500	3,500	2,000	30,199
Wyoming	0	0	0	0	0	0
American Samoa	0	8	0	0	0	8
CNMI	0	9	--	--	--	9
FSM	0	57	0	0	1	58
Guam	0	34	--	--	--	34
Marshall Islands	0	4	2	--	3	9
Palau	0	49	--	--	--	49
Puerto Rico	0	161	0	0	0	161
Grand Total	63,814	395,976	38,175	826,097	205,472	1,529,534

--implies unknown or data not available

Definitions

The following terms and/or assumptions used in the text are defined in this section:

South	Includes: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, and Virginia.
North	Includes: Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.
West	Includes: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, and the territories of American Samoa, Commonwealth of the Northern Mariana Islands (CNMI), Federated States of Micronesia (FSM), Guam, Marshall Islands, and the Republic of Palau.
Other Federal	Lands administered by the Department of Energy, the Tennessee Valley Authority, the Department of Defense, and the U.S. Army Corps of Engineers (Table 1).
Other State	State-owned lands other than those designated as State Forests. Examples include State wildlife management areas, recreation areas, State school lands, and lands owned in connection with State correctional facilities or other institutions (Table 2).
Local Government	Lands (Table 2) or nurseries (Table 7) owned by counties, municipalities, and other units of local government.
Nonindustrial Private	Land owned by private owners, farmers, and Indian Nations, but excluding industrial owners (Tables 3, 4, and 6).
Forest Industry	Private lands owned by companies or individuals operating wood-using plants (Tables 3, 4, and 6).
Other Industry	Private lands owned by companies other than those in the forest industry. Major examples are lands owned by mining, railroad, and utility companies; insurance companies; pension funds; and investment companies (Tables 3, 4, and 6). Private growers outside of the forest industry (Table 7).
Non-Federal Public	Lands owned by State and local governments (Table 4).
Direct seeding	Sowing tree seeds (instead of planting seedlings) to establish stands of trees in the field.
Timber Stand Improvement (TSI)	Practices to enhance timber production in existing stands of trees, such as control of unwanted, competing vegetation; thinning to control spacing; and pruning.
Fiscal Year (FY)	A 12-month period established for accounting and reporting purposes, which for the USDA Forest Service runs from October 1 through September 30 of the following year.