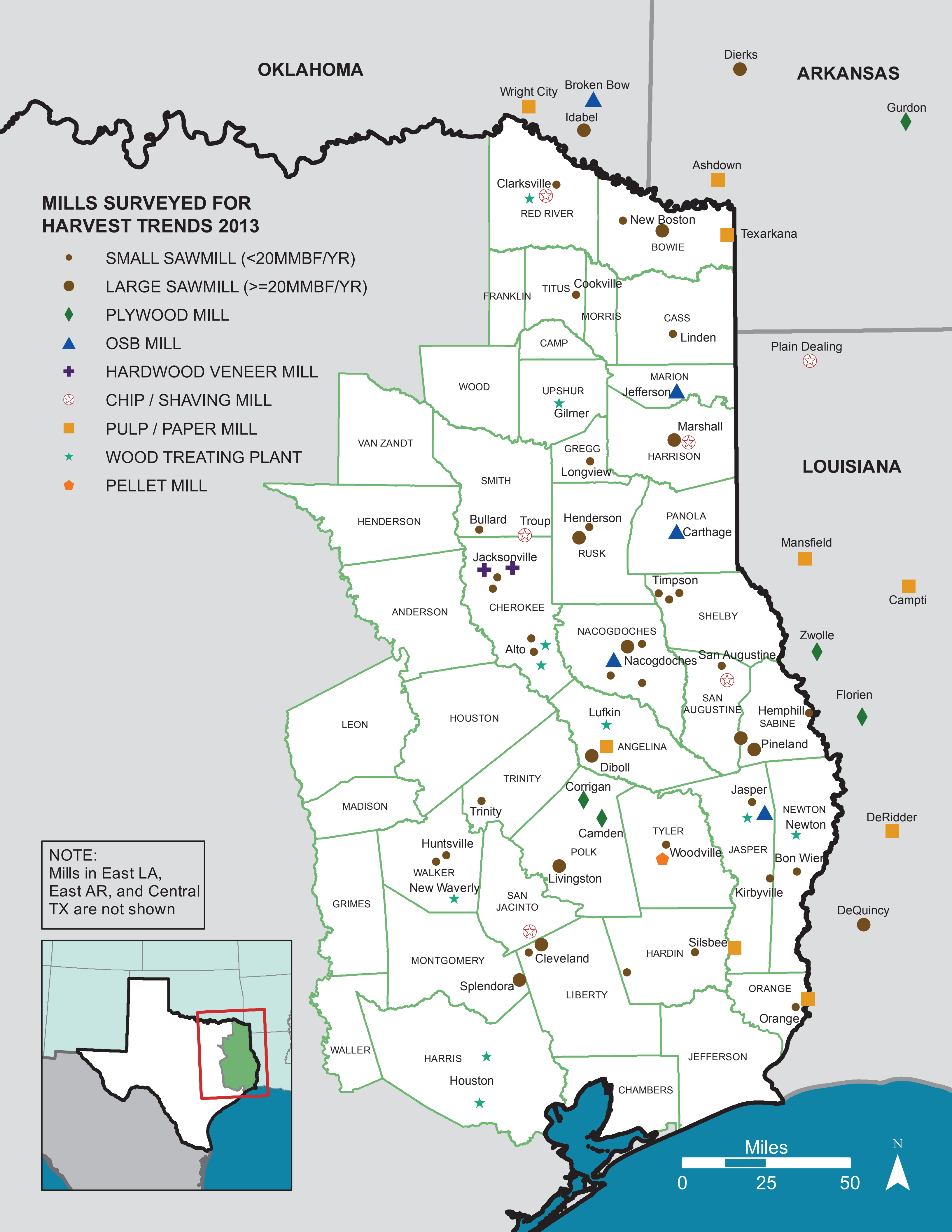
Harvest Trends 2013

September 2014

Texas A&M Forest Service


MILLS SURVEYED FOR
HARVEST TRENDS 2013
SMALL SAWMILL (<20MMBF/YR)
LARGE SAWMILL (>=20MMBF/YR)
PLYWOOD MILL
OSB MILL
HARDWOOD VENEER MILL
CHIP / SHAVING MILL
PULP / PAPER MILL
WOOD TREATING PLANT
PELLET MILL
NOTE:
Mills in East LA,
East AR, and Central
TX are not shown
OKLAHOMA
ARKANSAS
LOUISIANA
Wright City
Broken Bow
Idabel
Dierks
Gurdon
Ashdown
Clarksville
RED RIVER
New Boston
BOWIE
Texarkana
FRANKLIN
TITUS
Cookville
MORRIS
CASS
Linden
CAMP
Plain Dealing
WOOD
UPSHUR
Gilmer
MARION
Jefferson
VAN ZANDT
GREGG
Longview
Marshall
HARRISON
SMITH
HENDERSON
Bullard
Troup
Henderson
RUSK
PANOLA
Carthage
Mansfield
Jacksonville
CHEROKEE
ANDERSON
Timpson
SHELBY
Campti
NACOGDOCHES
Alto
Nacogdoches
San Augustine
Zwolle
SAN
AUGUSTINE
Florien
LEON
HOUSTON
Lufkin
Hemphill
SABINE
ANGELINA
Pineland
Diboll
TRINITY
Trinity
MADISON
Corrigan
Camden
Jasper
NEWTON
Newton
DeRidder
TYLER
Woodville
JASPER
POLK
Huntsville
WALKER
New Waverly
Livingston
Bon Wier
Kirbyville
GRIMES
SAN
JACINTO
DeQuincy
MONTGOMERY
Cleveland
HARDIN
Silsbee
Splendora
LIBERTY
ORANGE
Orange
WALLER
HARRIS
Houston
JEFFERSON
CHAMBERS
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0
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Harvest Trends 2013

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TEXAS A&M FOREST SERVICE

September 2014

HIGHLIGHTS

Harvest Trends 2013

TIMBER REMOVAL

♦ Total growing stock timber removal was 504.4 million cubic feet, an increase of 1.1 percent from last year.

- Pine removal was 402.0 million cubic feet, up 2.4 percent from last year.
- Hardwood removal was down 3.5 percent to 102.4 million cubic feet.

♦ Harvest of timber for industrial use in the production of wood products was 521.5 million cubic feet.

- 419.6 million cubic feet of pine were harvested for industrial consumption.
- 102.0 million cubic feet of hardwood were harvested for industrial consumption.

♦ Stumpage value increased 1.3 percent to $232.6 million, and delivered value was up 3.2 percent to $574.6 million.

♦ Harvest of sawlogs was up 5.3 percent from last year to 1.1 billion board feet.

♦ Harvest of wood for veneer and structural panel production increased 1.9 percent from last year to 112.8 million cubic feet.

♦ Pulpwood and pellet roundwood harvest was 2.8 million cords.

♦ Total timber volume imported from other states was 97.1 million cubic feet while the total volume exported was 58.8 million cubic feet. The net import was 38.3 million cubic feet.

PRIMARY FOREST PRODUCTS

♦ Production of primary wood products included:

- 1.5 billion board feet of lumber, an increase of 8.2 percent from last year.
- 2.0 billion square feet (3/8-inch basis) of structural panel products, a decrease of 1.5 percent.
- 2.0 million tons of pulp and paperboard, down 1.8 percent from last year.

MILL AND LOGGING RESIDUES

♦ Total production of mill residue was 5.9 million green tons.

♦ Total production of logging residue was 2.7 million green tons.

Harvest Trends 2013

INTRODUCTION

Forests are vital economic and environmental assets in East Texas. The wood-based industry employed more than 59,400 people in 2012[1]. The wood-based sector ranked seventh among manufacturing sector employers in the state in 2012[2]. In 33 of 43 East Texas counties, the wood-based sector was among the top five manufacturing employers[1]. The value of harvested timber ranked tenth in 2012 among Texas' top agricultural commodities, behind cattle and calves, cotton lint, milk, broilers, greenhouse and nursery, corn, sorghum grain, wheat, and eggs[3].

To gather the most current information on the status of this valuable resource, Texas A&M Forest Service conducts an annual survey of the state's primary forest products industry. This 48th annual report provides information on the volume and value of timber harvested in East Texas during 2013, and reports the production of primary wood products, logging residue, and mill residue. Data on forest management activities are also presented. Information for this report comes from a survey of 76 mills in Texas and 20 mills in surrounding states. Texas A&M Forest Service appreciates the cooperation of these companies, without which this report would not be possible.

2013 ECONOMIC CONDITIONS

The United States economy showed slow but steady signs of recovery in 2013. The real Gross Domestic Product (GDP) increased 1.9 percent, which was less than the 2012 annual increase of 2.8 percent[4]. GDP growth was primarily attributed to expenditures in individual investments, personal consumptions, and exports. U.S. corporate profits from current production were up by $92.6 billion in 2013, which was less than the increase of $131.8 billion observed in 2012. The economy was on a path of recovery with continued increases in corporate profits and a moderate drop in the rate of unemployment to 7.4 percent in 2013[5].

In December, the Federal Reserve announced that it will buy $35 billion per month of mortgage-backed securities and $40 billion each month of longer-terms securities, placing downward pressure on longer-term interest rates and support for the mortgage market. Meanwhile, the target range of federal funds rate has remained constant at 0 to 1/4 percent since 2008[6].

The Consumer Prices Index (CPI), the most closely watched indicator for U.S. inflation, increased 1.5 percent in 2013. Gasoline index declined 1.0 percent in 2013, after rising 1.7 percent in 2012[7].

The U.S. housing market showed signs of recovery in 2013. Nationwide, housing starts rose 18.5 percent to 924,900 units[8]. Single-family housing starts increased 15.4 percent to 617,600 units. The share of single-family starts was 67 percent, slightly lower than the 69 percent the previous year. Multi-family housing starts rose 25.3 percent. The national residential housing permits, the best indicator of future housing starts activity, rose 19.4 percent to 990,800 units in 2013. A large share of this gain (63.4 percent) was contributed by single-family permits. Multi-family building permits also increased by 19.0 percent to 370,100 units in 2013[8].

Housing affordability fell to 176 in 2013 from a record high in 2012, meaning that a family earning the median family income has 176% of the income necessary to qualify for a conventional loan covering 80% of a median priced, existing single-family house. The median sale price of existing homes averaged $197,100 in 2013, up 11.5 percent from 2012[9].

Average annual 30-year fixed mortgage rate increased to 3.98 percent, which was slightly higher than the 2012 annual average of 3.66 percent. The national monthly average 30-year fixed mortgage rate started at 3.41 percent in January, crossed 4.0 percent mark in June, and remained fairly high at 4.46 percent in December[10].

Existing home sales had a strong run as the total number of sales in 2013 rose to its highest level in seven years. Total home sales in 2013 were 5.09 million, up 9.2 percent over 2012[9]. More employment opportunities, coupled with affordable mortgage rates, helped increase housing sales in 2013[9].

The Texas economy continued to outperform the economy of the rest of the U.S. Real Gross Domestic Product by State (GDP-State) grew 3.7 percent in 2013[11]. Texas gained 315,200 jobs in 2013[12] with additions in most sectors, including trade, transportation and utilities, construction, education and health services, manufacturing, mining and logging, information, professional and business services, leisure and hospitality[12]. The unemployment rate in Texas dropped to 6.3 percent in 2013[5].

The total number of residential building permits in Texas increased 8.5 percent in 2013 to 150,122 units. Single-

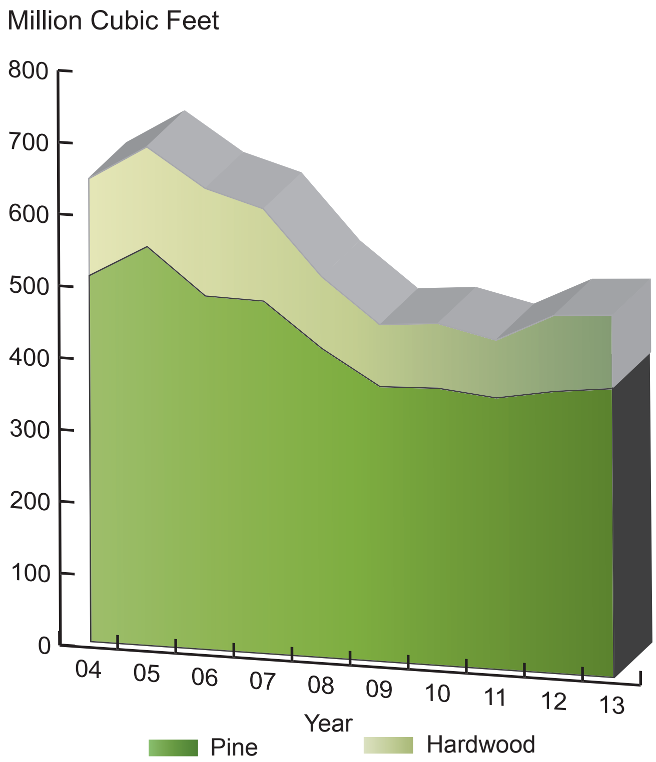


Figure 1. Total Timber Removal, 2004-2013

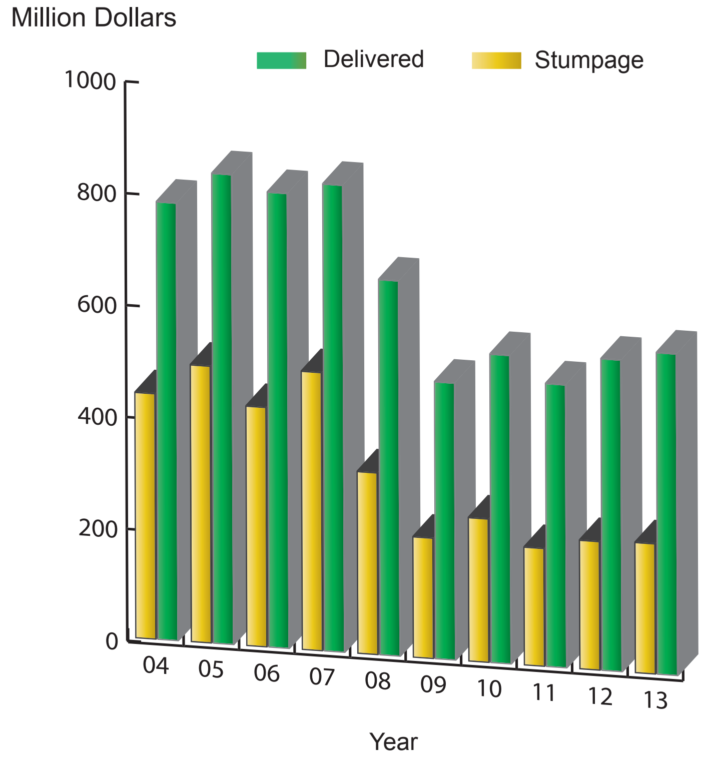


Figure 2. Value of Timber Harvest, 2004-2013

family housing building permits increased 14.1 percent to 93,478. After a substantial increase in 2012, multi-family building permits decreased 1.0 percent to 53,615 units in 2013[13].

U.S. softwood lumber production posted a fourth consecutive annual gain in 2013, up 6.0 percent to 29.95 billion board feet (bbf), but still 25.7% percent below the recent high of 40.3 bbf in 2005. Lumber production in the U.S. South accounted for 50.3 percent, or 15.1 bbf, of the U.S. total, a 5 percent increase from 2012[14].

Structural panel production in the U.S. rebounded 8.0 percent from 2012 to 21.8 billion square feet (bsf) (3/8-inch basis)[14], including 9.3 bsf of plywood and 12.5 bsf of oriented strand board (OSB). Southern OSB production increased 15.1 percent to 10.0 billion square feet in 2013. Southern plywood production dropped 0.2 percent to 5.5 billion square feet[14].

U.S. lumber markets continued to rebound in 2013, after a down period the past seven years. Gains in lumber prices were largely attributed to strong U.S. housing starts and building permits in 2013. Structural panel composite prices in March 2013 hit the record high since 2004 but fell sharply by the end of June. U.S. softwood lumber exports increased 22.0 percent from 2012 and exports to China increased by 71.0 percent. Booming housing in Japan helped to increase U.S. exports. Political unrest in Syria impacted the Middle East timber product market.

The average annual Random Lengths Framing Lumber Composite Price increased 19.3 percent, from $322 per thousand board feet (mbf) in 2012 to $384 per mbf in 2013[14]. The average annual Random Lengths Structural Panel Composite Price increased 10.9 percent to $426 per thousand square feet (msf) in 2013[14].

U.S. paper and paperboard production posted a decline in 2013, dropping 0.5 percent to 80.7 million short tons. It was 2.7 percent higher than a recent low in 2009. A lower level of paper production was considered the primary reason behind this decline[15].

STUMPAGE PRICES

According to the *Texas Timber Price Trends* bimonthly timber market report, the average annual pine saw-timber price decreased 4.3 percent to $177.84 per mbf, Doyle scale, in 2013, from last year's average annual price of $185.87 per mbf. The average annual mixed hardwood saw-timber price increased 12.0 percent from a year earlier to $266.43 per mbf. Pine pulpwood price increased 8.2 percent to $18.88 per cord. Mixed hardwood pulpwood price increased 2.4 percent to $23.88 per cord. Table 6 provides historic data on stumpage prices.

TIMBER REMOVALS

Growing Stock Removals

Total removals of growing stock in East Texas, including pine and hardwood, increased 1.1 percent from the previous year (Figure 1). The total volume of growing stock removed was 504.4 million cubic feet, compared to 498.7 million cubic feet a year earlier. Included in the total growing stock removals are timber harvested for industrial use and an estimate of logging residue. Growing stock removals are based on the latest East Texas Harvest and Utilization Study by the USDA Forest Service.

By species group, growing stock removals were comprised of 402.0 million cubic feet of pine and 102.4 million cubic feet of hardwood. Pine removals were up 2.4 percent and hardwood removals were down 3.5 percent from a year earlier. Figure 3 and Table 14 illustrate the harvest volume by species group by year.

Industrial Roundwood Harvest

Industrial roundwood harvest in Texas, the portion of the total removals that was subsequently utilized in the manufacture of wood products, totaled 419.6 and 102.0 million cubic feet for pine and hardwood, respectively. Pine industrial roundwood harvest was up 2.6 percent, and hardwood roundwood harvest was down 3.9 percent from a year earlier. The combined harvest increased 1.3 percent to 521.5 million cubic feet. Ninety-three percent of the industrial roundwood was from growing stock and 7 percent of the industrial roundwood was from non-growing stock (Table 13).

Table 1 lists the harvest of pine and hardwood by county. The top five timber producing counties were Polk, Nacogdoches, Hardin, Newton, and Liberty.

Figure 4 on the next page illustrates the intensity of timber harvest expressed in cubic feet of harvest per acre of timberland. Liberty, Camp, Polk, Shelby, and Cass counties had the five highest relative timber harvesting intensities.

Value of Timber Harvest

Stumpage value of East Texas timber harvest increased 1.3 percent to $232.6 million (Figure 2). Stumpage values remain below levels observed in the years prior to the recent recession. The delivered value was up 3.2 percent to $574.6 million. Pine timber accounted for 78 percent of the total stumpage value. Figure 3 depicts the value of harvest by product. Table 7 lists stumpage and delivered value by product category.

Sawlogs

Harvest of sawlogs for lumber production increased 5.3 percent to 1.1 billion board feet, which accounted for 34.6 percent of the total timber harvest. The pine sawlog cut totaled 976 million board feet, up 4.9 percent. Hardwood sawlog harvest was up 8.2 percent to 132 million board feet. Polk, Cherokee, Nacogdoches, Hardin, and Liberty counties were the top five producers of sawlogs. Table 2 lists sawlog harvest by county.

Veneer and Panel Roundwood

Harvest of timber for the production of structural panels, including plywood, OSB and hardwood veneer, was 112.3 million cubic feet, a small increase from a year earlier. The timber harvest for structural panels was 21.6 percent of the total timber harvest. Almost all of the veneer and panel roundwood was pine. Nacogdoches, Polk, Houston, Cherokee, and Newton counties were the top five producers of veneer and panel roundwood. Table 3 lists the harvest of veneer and panel roundwood by county.

Pulpwood and Pellet Roundwood

Harvest of timber for pulp and paper products and pellets was 2.8 million cords. Pulpwood and pellet roundwood harvest accounted for 43.2 percent of the total timber harvest. Pine made up 64.6 percent of the total production. Cass, Hardin, Liberty, Polk, and Newton counties were the top five producers. Table 4 lists the pulpwood and pellet roundwood harvest by county.

Other Roundwood

Other roundwood harvest included posts, poles and pilings that totaled 2.9 million cubic feet. Table 5 lists harvest of these products by county.

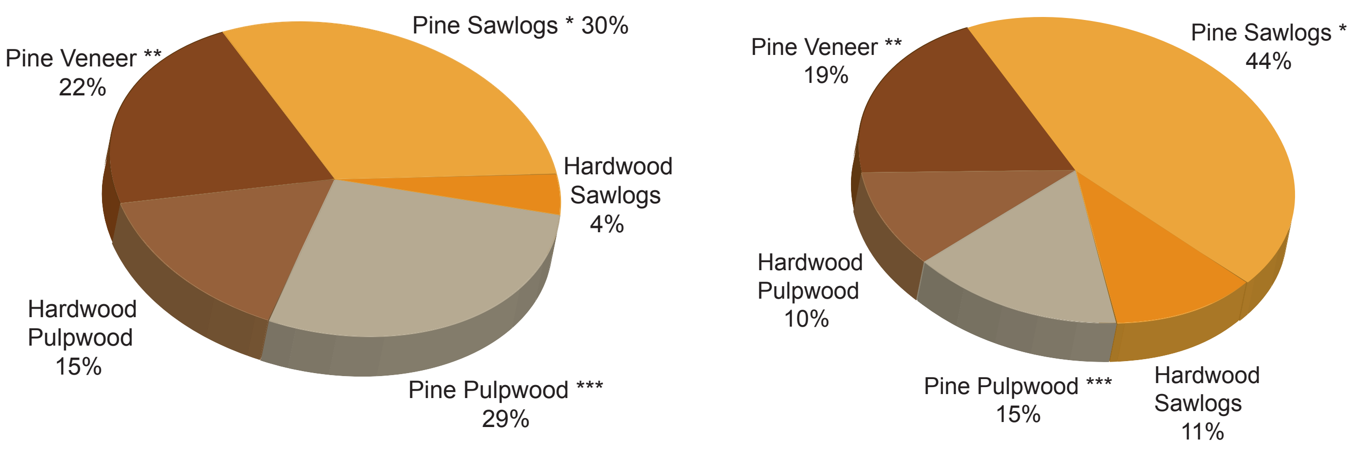
Import-Export Trends

Texas imported more timber from surrounding states than exported to surrounding states. Exports of roundwood from Texas were 58.8 million cubic feet, while imports totaled 97.1 million cubic feet. The net import of roundwood was 38.3 million cubic feet. Table 8 details the interstate movement of roundwood.

Texas mills utilized 88.7 percent of the timber harvested in the state. The remainder was processed mainly by mills in Arkansas, Louisiana, and Oklahoma. Details are listed in Table 8.

Harvest Volume
(521.5 Million Cubic Feet)

Stumpage Value ****
($232.6 Million)



*   Includes chip-n-saw
**   Includes panel roundwood (pulpwood sized material chipped for panel production)
*** Includes pellet roundwood, posts, poles and pilings
**** Products with stumpage value less than 1% of total are not included

Figure 3. Volume and Value of Timber Harvest, 2013

Cubic Feet Harvested Per Acre of Timberland

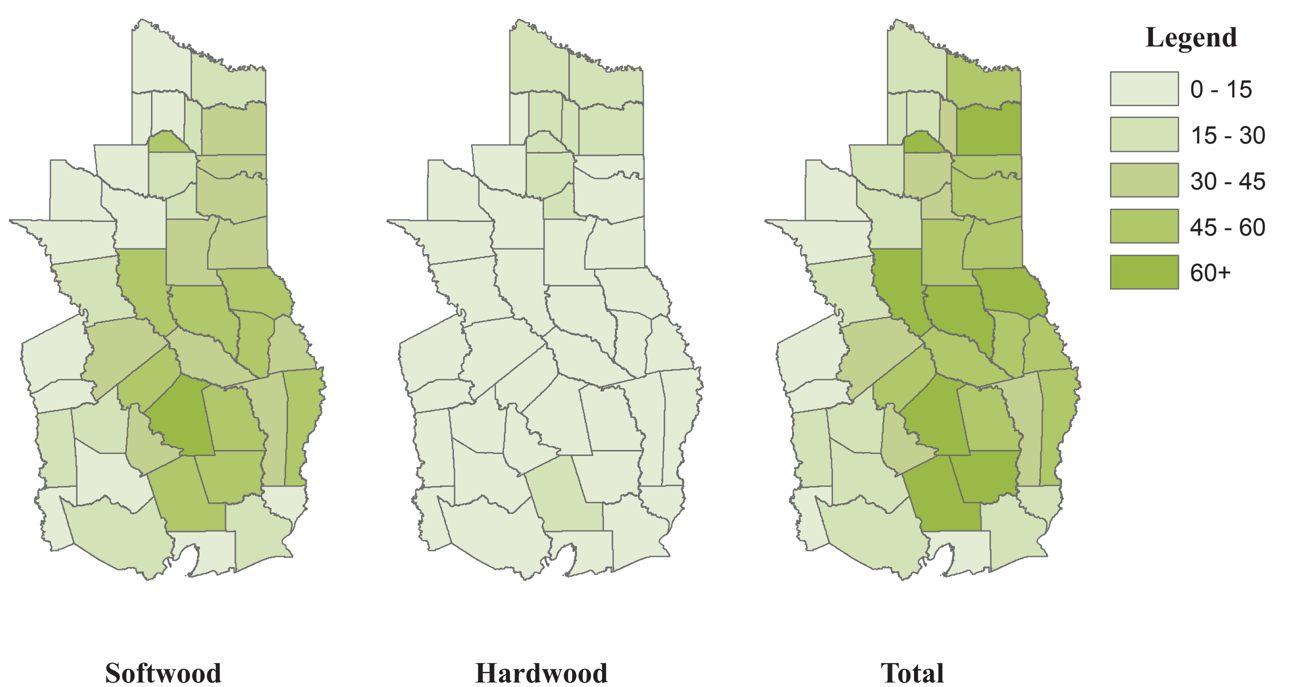


Figure 4. Intensity of Timber Harvest by County, 2013

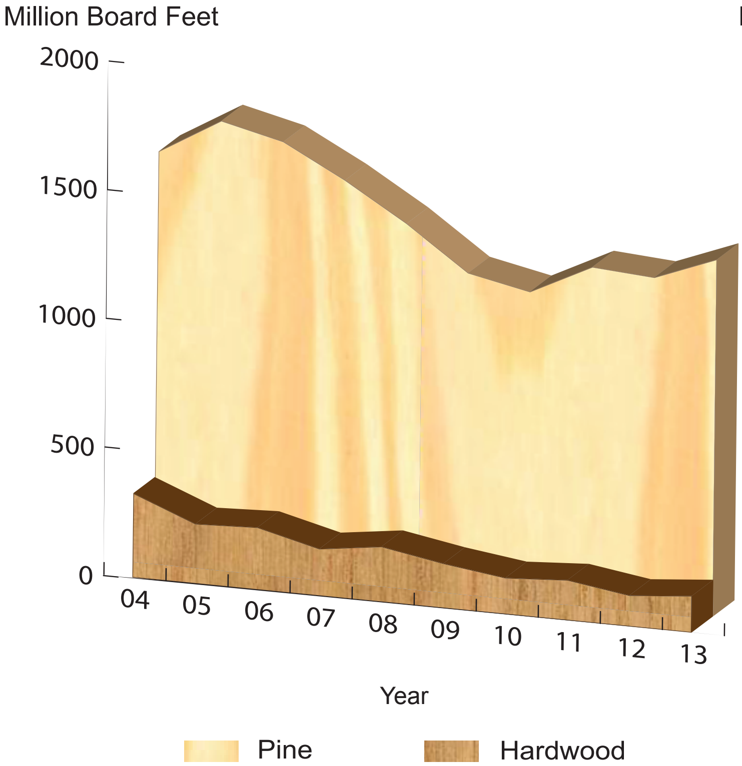


Figure 5. Texas Lumber Production, 2004-2013

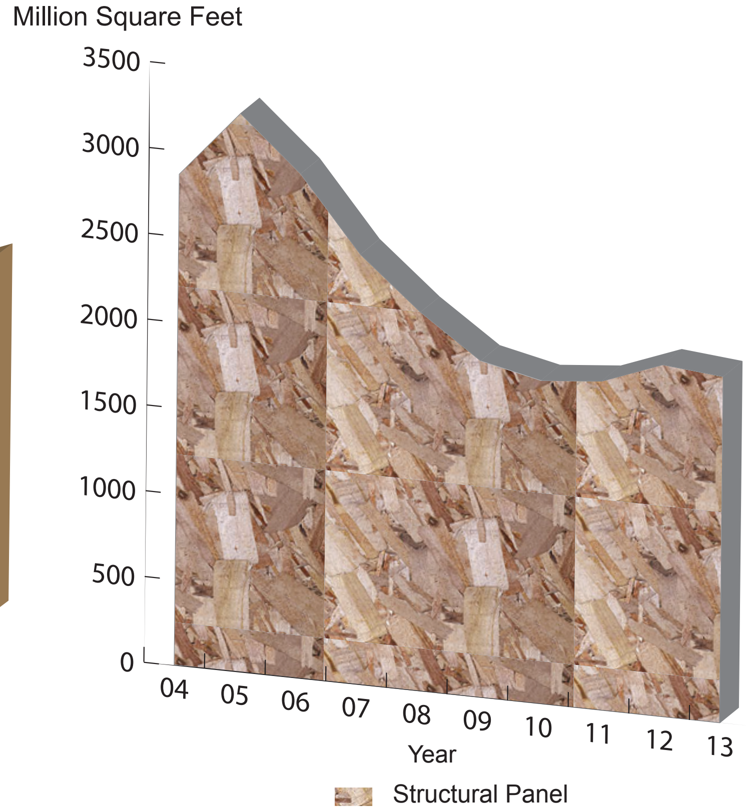


Figure 6. Texas Structural Panel Production, 2004-2013

PRODUCTION OF FOREST PRODUCTS

Lumber

Texas sawmills produced 1.5 billion board feet of lumber, an increase of 8.2 percent from a year earlier. Production of pine lumber increased 7.2 percent to 1.4 billion board feet and hardwood lumber production increased 18.2 percent to 140.4 million board feet. Table 9 and Figure 5 present a 10-year trend in lumber production.

Structural Panel Products

Production of structural panels, including plywood and OSB, was down 1.5 percent to 2.0 billion square feet (3/8-inch basis). Table 9 and Figure 6 show the recent trend in structural panel output.

Paper Products

Production of paperboard, fiberboard, and market pulp totaled 2.0 million tons, down 1.8 percent from a year earlier. There has not been any major paper production in Texas since 2003. Table 10 and Figure 7 summarize recent trends in paper product output.

Treated Wood Products

The total volume of wood treated by Texas wood treaters was 40.0 million cubic feet, an increase of 11.3 percent from a year earlier. Among major treated products, lumber accounted for 67.4 percent of the total volume, ties 16.4 percent, and poles and pilings 10.4 percent. Table 11 contains treated volume by product for the past two years.

Primary Mill Residue

Total mill residue, including chips, sawdust, shavings, and bark in primary mills such as sawmills, panel mills and chip mills was 5.9 million tons, based on updated residue product ratios (Table 12). Eighty-three percent of the mill residue was from pine species and 17 percent was from hardwood species. Chips accounted for 48.9 percent of mill residue, followed by bark (32.5 percent), sawdust (12.8 percent), and shavings (5.8 percent) (Figure 8).

Logging Residue

Types of logging residue include stumps, tops, limbs and unutilized cull trees. Total logging residue produced was 2.7 million green tons. Logging residue comes from both growing stock and non-growing stock. For this year, 24.6 percent of the logging residue was from growing stock, and 75.4 percent was from non-growing stock. Sixty-six percent of the residue was from pine and 34 percent was from hardwood (Table 13, Figure 9).

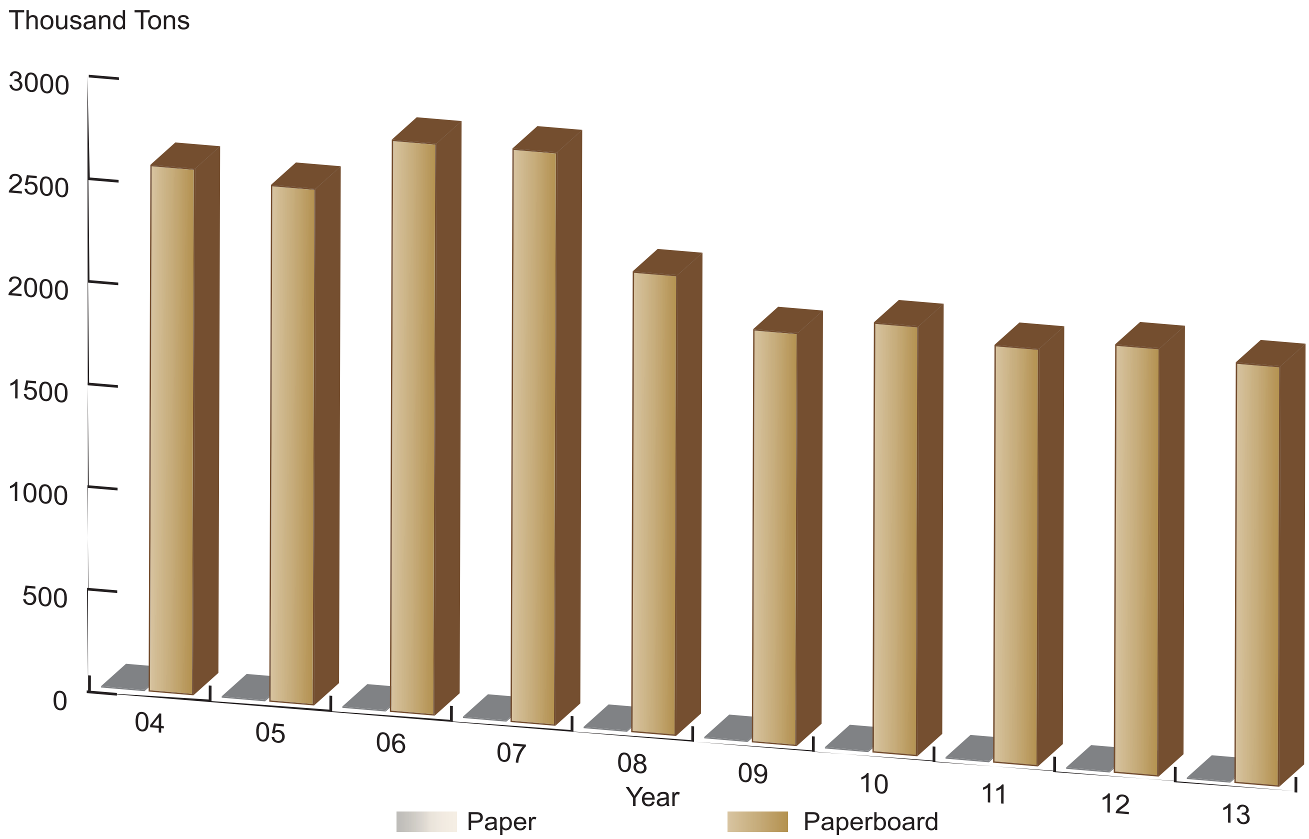


Figure 7. Texas Paper and Paperboard Production, 2004-2013

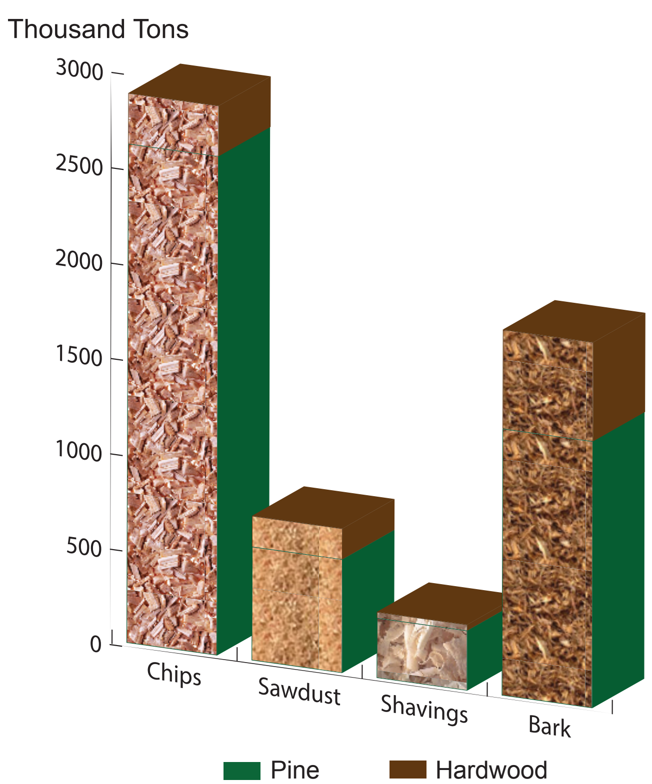


Figure 8. Texas Primary Mill Residue, 2013

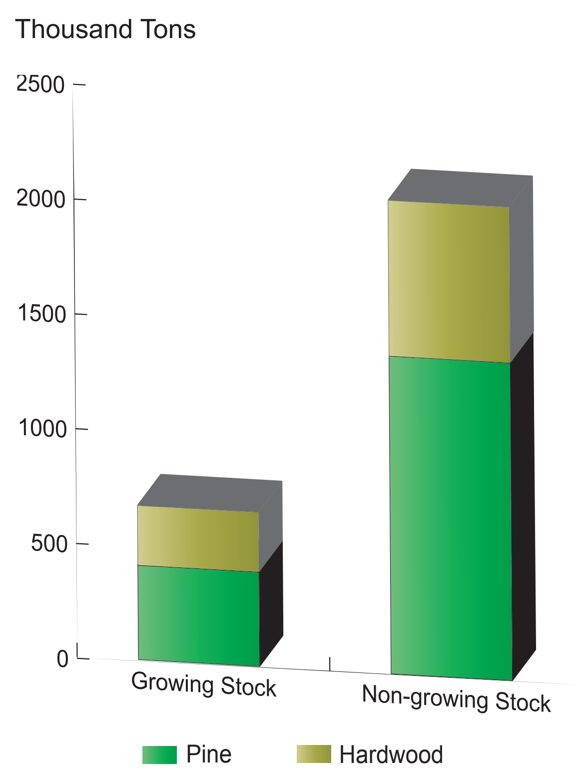


Figure 9. Texas Logging Residue, 2013

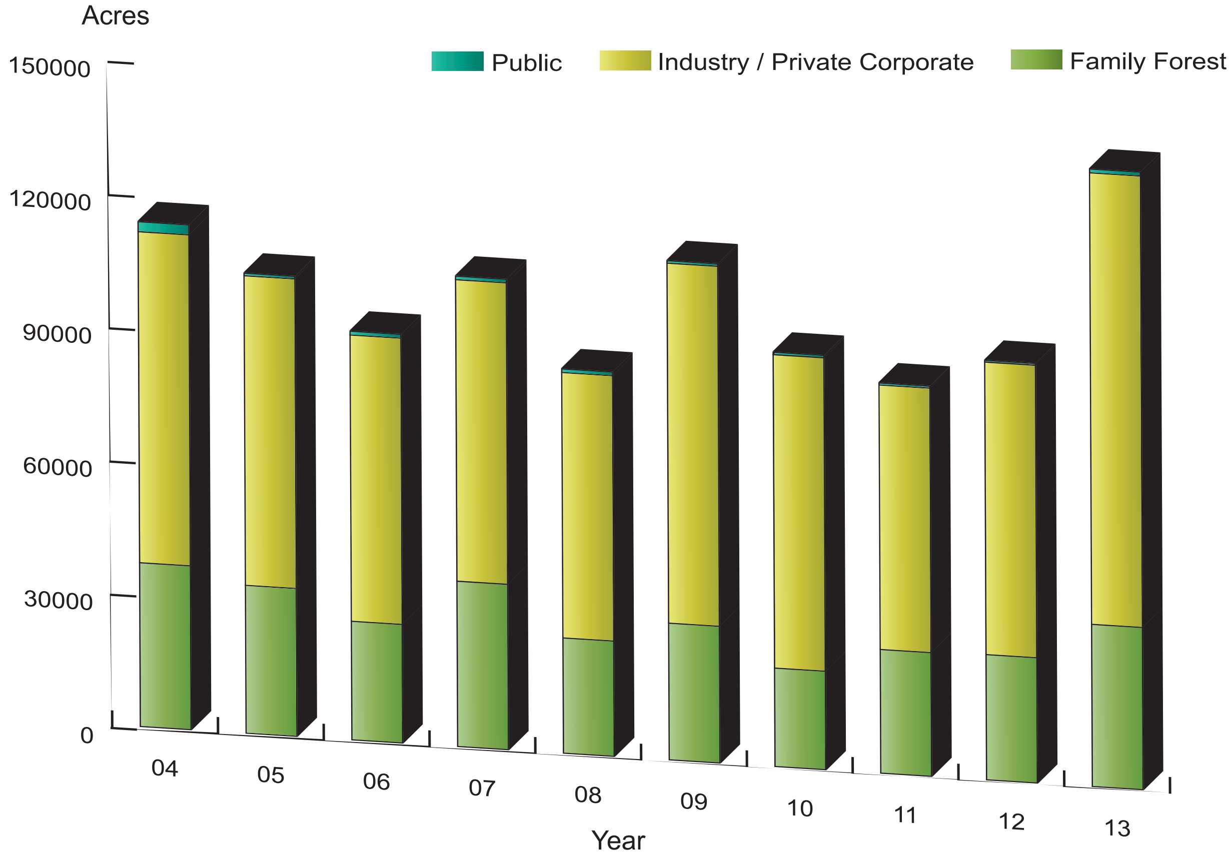


Figure 10. Reforestation Acreage by Ownership in Texas, 2004-2013

REFORESTATION

Accomplishments in reforestation by funding source and ownership are presented in Table 15. A total of 139,070 acres was planted during the winter 2012/spring 2013 planting season, the highest level in the past ten years. Industrial landowners planted 101,671 acres, 54.4 percent more than the previous year. Family forest owners planted 36,527 acres. Public landowners planted 872 acres. Family forest owners received $3.1 million in cost share assistance for reforestation through federal cost share programs.

REFERENCES

[1]Texas A&M Forest Service. 2012. Texas Forest Sector Economic Impact. Texas Forest Information Portal. http://www.texasforestinfo.com.

[2]MIG, Inc. 2000. IMPLAN professional version 3.0. Minnesota IMPLAN group, Stillwater, MN.

[3]USDA Economic Research Service. U.S. and State Farm Income and Wealth Statistics. Annual cash receipts by commodity groups and selected commodities, by state.

[4]http://www.bea.gov/national/index.htm

[5]http://www.bls.gov/lau/lastrk13.htm#

[6]http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm

[7]http://www.bls.gov/news.release/archives/cpi_01162014.pdf

[8]http://www.census.gov/

[9]http://www.realtor.org/research/research/housinginx

[10]http://www.freddiemac.com/pmms/pmms30.htm

[11]U.S. Bureau of Economic Analysis. 2013. Real GDP by state (chained dollars).

[12]http://www.bls.gov/sae/

[13]http://recenter.tamu.edu/data

[14]Random Lengths, Year Book, 2013.

[15]http://www.statmill.org/

Table 1. Total Industrial Timber Harvest Volume and Value by County in Texas, 2013

County	Volume Harvested			Value of Harvest	
	Pine	Hardwood	Total	Stumpage Value	Delivered Value
	––––––––––– cubic feet –––––––––––			––––– thousand dollars –––––	
Anderson	8,751,486	1,218,787	9,970,273	4,990	11,380
Angelina	14,140,109	3,362,494	17,502,603	8,302	19,715
Bowie	7,977,449	6,612,207	14,589,656	6,181	16,175
Camp	1,794,555	859,162	2,653,717	947	2,751
Cass	18,477,965	9,310,599	27,788,564	10,845	29,629
Chambers	36,326	66,334	102,660	63	135
Cherokee	19,307,159	5,150,208	24,457,367	14,196	30,017
Franklin	326,276	1,144,085	1,470,361	539	1,616
Gregg	2,158,840	1,627,135	3,785,975	2,169	4,732
Grimes	2,787,569	474,679	3,262,248	1,619	3,705
Hardin	22,294,046	5,968,506	28,262,552	11,433	30,233
Harris	3,597,181	1,069,987	4,667,168	2,381	5,405
Harrison	13,080,493	5,153,378	18,233,871	7,054	19,293
Henderson	1,129,841	278,144	1,407,985	560	1,493
Houston	14,358,390	532,841	14,891,231	7,131	16,536
Jasper	20,008,985	685,338	20,694,323	8,904	22,118
Jefferson	1,378,830	351,378	1,730,208	627	1,790
Leon	345,296	1,651,711	1,997,007	713	2,176
Liberty	21,516,744	6,564,605	28,081,349	12,470	31,061
Madison	39,319	0	39,319	25	48
Marion	8,148,483	2,929,057	11,077,540	5,367	12,613
Montgomery	5,747,937	1,401,356	7,149,293	3,865	8,456
Morris	1,896,567	1,160,139	3,056,706	1,078	3,182
Nacogdoches	24,573,311	4,155,181	28,728,492	13,741	32,235
Newton	27,461,763	719,264	28,181,027	9,840	28,145
Orange	1,618,536	254,871	1,873,407	678	1,913
Panola	16,941,549	3,200,517	20,142,066	8,836	21,932
Polk	33,695,099	3,353,278	37,048,377	16,986	40,854
Red River	4,509,199	5,140,016	9,649,215	3,546	10,366
Rusk	11,690,229	2,583,322	14,273,551	7,511	16,712
Sabine	10,916,919	1,541,337	12,458,256	5,348	13,424
San Augustine	11,590,245	3,460,142	15,050,387	5,984	15,998
San Jacinto	9,669,494	939,964	10,609,458	5,169	11,925
Shelby	18,510,678	3,002,603	21,513,281	10,243	24,044
Smith	3,607,389	1,978,646	5,586,035	2,799	6,542
Titus	1,001,683	1,566,883	2,568,566	1,077	2,891
Trinity	17,873,811	539,174	18,412,985	8,377	20,102
Tyler	23,157,665	1,731,528	24,889,193	10,403	26,571
Upshur	3,286,485	3,452,618	6,739,103	2,672	7,374
Van Zandt	174,247	443,024	617,271	296	736
Walker	7,683,771	876,124	8,559,895	4,631	10,016
Waller	220,449	155,262	375,711	113	374
Wood	1,270,271	3,043,971	4,314,242	1,568	4,681
Other Counties	815,985	2,253,519	3,069,504	1,329	3,552
Total Production	419,568,624	101,963,374	521,531,998	232,604	574,648

Table 2. Sawlog Harvest by County in Texas, 2013			
County	Pine	Hardwood	Total
	––––——––––thousand board feet[1]––––——––––		
Anderson	25,204	2,774	27,978
Angelina	35,364	4,500	39,864
Bowie	22,546	3,507	26,053
Camp	2,609	421	3,030
Cass	38,317	4,015	42,332
Chambers	115	168	283
Cherokee	52,899	24,014	76,913
Franklin	139	759	898
Gregg	4,608	5,539	10,147
Grimes	10,088	5	10,093
Hardin	52,761	7,961	60,722
Harris	12,362	1,141	13,503
Harrison	25,327	3,015	28,342
Henderson	1,751	0	1,751
Houston	29,235	1,148	30,383
Jasper	46,199	2,376	48,575
Jefferson	747	1,010	1,757
Leon	612	4	616
Liberty	42,385	10,602	52,987
Madison	10	0	10
Marion	29,831	1,415	31,246
Montgomery	20,114	2,181	22,295
Morris	1,859	953	2,812
Nacogdoches	64,798	4,290	69,088
Newton	40,794	1,442	42,236
Orange	2,827	217	3,044
Panola	38,081	3,298	41,379
Polk	75,166	6,534	81,700
Red River	1,510	5,747	7,257
Rusk	33,851	7,859	41,710
Sabine	26,217	1,015	27,232
San Augustine	22,278	2,148	24,426
San Jacinto	29,038	951	29,989
Shelby	51,838	712	52,550
Smith	9,065	4,063	13,128
Titus	2,309	1,299	3,608
Trinity	46,286	1,586	47,872
Tyler	45,828	6,660	52,488
Upshur	5,806	2,750	8,556
Van Zandt	633	0	633
Walker	21,644	390	22,034
Waller	11	8	19
Wood	2,438	1,139	3,577
Other Counties	192	2,344	2,536
Total Production	975,692	131,960	1,107,652

[1]International ¼-inch rule.

Table 3. Veneer and Panel Roundwood Harvest by County in Texas, 2013

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – – cubic feet	– – – – – – – – – – – – – – – –	
Anderson	3,576,070	*	3,576,070
Angelina	5,839,917	0	5,839,917
Bowie	412,551	0	412,551
Camp	66,759	0	66,759
Cass	1,680,483	0	1,680,483
Chambers	7,964	0	7,964
Cherokee	7,535,399	*	7,535,399
Franklin	0	0	0
Gregg	564,479	0	564,479
Grimes	240,096	0	240,096
Hardin	827,707	0	827,707
Harris	126,985	0	126,985
Harrison	6,243,556	0	6,243,556
Henderson	542,888	*	542,888
Houston	7,590,617	0	7,590,617
Jasper	3,946,747	0	3,946,747
Jefferson	12,558	0	12,558
Leon	243,255	0	243,255
Liberty	2,831,018	0	2,831,018
Madison	29,273	0	29,273
Marion	1,100,233	0	1,100,233
Montgomery	691,312	0	691,312
Morris	264,182	0	264,182
Nacogdoches	9,405,667	*	9,405,667
Newton	6,849,463	0	6,849,463
Orange	8,405	0	8,405
Panola	6,471,399	0	6,471,399
Polk	8,831,388	0	8,831,388
Red River	1,608,197	0	1,608,197
Rusk	5,491,630	0	5,491,630
Sabine	3,092,649	0	3,092,649
San Augustine	2,696,532	0	2,696,532
San Jacinto	1,252,868	0	1,252,868
Shelby	6,301,254	0	6,301,254
Smith	1,167,590	*	1,167,590
Titus	135,979	0	135,979
Trinity	5,725,161	0	5,725,161
Tyler	5,499,318	0	5,499,318
Upshur	816,250	0	816,250
Van Zandt	44,179	*	44,179
Walker	2,279,991	0	2,279,991
Waller	27,754	0	27,754
Wood	170,063	0	170,063
Other Counties	36,058	*	36,058
Total Production	112,285,844	*	112,285,844

*Data suppressed to avoid disclosure of individual company information.

Table 4. Pulpwood and Pellet Roundwood Harvest by County in Texas, 2013

County	Pine	Hardwood	Total
	–––––––––––––––	cords	–––––––––––––––
Anderson	13,155	8,385	21,540
Angelina	30,614	32,598	63,212
Bowie	48,275	75,301	123,576
Camp	16,110	9,857	25,967
Cass	130,698	107,966	238,664
Chambers	120	477	597
Cherokee	36,020	13,522	49,542
Franklin	3,750	12,710	16,460
Gregg	10,462	8,728	19,190
Grimes	11,262	5,923	17,185
Hardin	159,433	57,918	217,351
Harris	18,103	10,983	29,086
Harrison	33,722	58,097	91,819
Henderson	2,463	2,442	4,905
Houston	24,867	4,254	29,121
Jasper	104,427	3,586	108,013
Jefferson	15,373	2,275	17,648
Leon	35	20,638	20,673
Liberty	145,869	59,833	205,702
Madison	104	0	104
Marion	27,317	33,647	60,964
Montgomery	22,175	12,945	35,120
Morris	16,433	12,504	28,937
Nacogdoches	53,470	41,912	95,382
Newton	168,657	5,968	174,625
Orange	14,221	2,731	16,952
Panola	50,335	33,093	83,428
Polk	156,513	28,219	184,732
Red River	32,687	52,203	84,890
Rusk	8,782	15,817	24,599
Sabine	42,532	17,139	59,671
San Augustine	61,892	38,749	100,641
San Jacinto	45,798	9,756	55,554
Shelby	43,993	36,040	80,033
Smith	11,980	15,700	27,680
Titus	6,067	16,863	22,930
Trinity	57,322	3,415	60,737
Tyler	124,728	7,683	132,411
Upshur	18,878	37,393	56,271
Van Zandt	339	4,503	4,842
Walker	23,399	10,134	33,533
Waller	2,357	1,924	4,281
Wood	8,704	35,662	44,366
Other Counties	2,168	21,830	23,998
Total Production	1,805,609	991,323	2,796,932

Table 5. Other Roundwood Harvest by County in Texas, 2013[1]

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – –	cubic feet	– – – – – – – – – – – – – – – –
Anderson	24,300	0	24,300
Angelina	87,988	0	87,988
Bowie	0	0	0
Camp	0	0	0
Cass	0	0	0
Chambers	0	0	0
Cherokee	279,245	0	279,245
Franklin	0	0	0
Gregg	0	0	0
Grimes	0	0	0
Hardin	0	0	0
Harris	0	0	0
Harrison	0	0	0
Henderson	103,615	0	103,615
Houston	14,580	0	14,580
Jasper	114,974	0	114,974
Jefferson	0	0	0
Leon	0	0	0
Liberty	0	0	0
Madison	0	0	0
Marion	0	0	0
Montgomery	0	0	0
Morris	0	0	0
Nacogdoches	332,875	0	332,875
Newton	338,698	0	338,698
Orange	0	0	0
Panola	220,158	0	220,158
Polk	2,017	0	2,017
Red River	8,651	0	8,651
Rusk	0	0	0
Sabine	129,470	0	129,470
San Augustine	269,308	0	269,308
San Jacinto	0	0	0
Shelby	243,100	0	243,100
Smith	0	0	0
Titus	0	0	0
Trinity	2,689	0	2,689
Tyler	126,884	0	126,884
Upshur	0	0	0
Van Zandt	0	0	0
Walker	0	0	0
Waller	0	0	0
Wood	0	0	0
Other Counties	573,199	0	573,199
Total Production	2,871,751	0	2,871,751

[1]Including posts, poles and pilings.

Table 6. Timber Stumpage Price in East Texas by Product, 2004-2013

Year	Sawtimber/Veneer		Pulpwood		Pine Chip-N-Saw	Pine Poles
	Pine	Mixed Hardwood	Pine	Mixed Hardwood		
	– – – $/MBF-Doyle – – –		– – – $/cord – – –		$/cord	$/ton
2004	286.42	189.73	19.52	16.90	43.74	77.00
2005	305.58	164.16	17.44	19.69	47.99	77.38
2006	294.82	144.98	17.22	13.22	43.72	76.50
2007	321.40	162.69	32.79	30.09	46.78	59.16
2008	241.71	217.87	25.90	22.31	41.80	54.28
2009	180.62	177.34	17.27	18.42	32.66	57.75
2010	200.60	270.49	21.99	31.75	38.66	55.06
2011	186.44	234.94	15.70	16.93	25.55	52.00
2012	185.87	237.93	17.45	23.32	30.00	52.50
2013	177.84	266.43	18.88	23.88	29.01	52.13

SOURCE: *Texas Timber Price Trends* bi-monthly market report, with pine pole price from *Timber Mart-South.*

Table 7. Value of East Texas Timber Harvest, 2013

Product	Unit	Stumpage		Delivered	
		Price[1] ($/unit)	Value (million $)	Price[2] ($/unit)	Value (million $)
PINE					
Sawlogs/Chip-n-Saw	MBF[3]	–	102.3	–	197.9
Sawlogs	MBF[3]	118.54	89.4	213.70	161.2
Chip-n-Saw	MBF[3]	58.02	12.8	165.98	36.7
Veneer/Panel Roundwood	MCF	–	44.6	–	116.1
Veneer Logs	MCF	731.31	27.1	1,318.32	48.8
Panel Roundwood	MCF	233.09	17.5	893.98	67.3
Pulpwood	cords	18.88	34.1	72.41	130.7
Others	MCF	–	1.5	–	3.4
All pine products			182.5		448.1
HARDWOOD					
Sawlogs	MBF[3]	195.92	25.9	315.23	41.6
Veneer	MCF	1,168.25	0.6	1,879.68	1.0
Pulpwood	cords	23.88	23.7	84.65	83.9
All hardwood products			50.1		126.5
ALL PRODUCTS			232.6		574.6

[1]Average annual statewide prices as published in *Texas Timber Price Trends*, Texas A&M Forest Service.

[2]Average annual statewide prices, obtained by adding the difference between the standing timber prices and the delivered prices published in *Timber Mart-South* to the stumpage prices published in *Texas Timber Price Trends*, Texas A&M Forest Service.

[3]International ¼-inch rule.

Table 8. Interstate Movement of Roundwood by Species Group and Product in Texas, 2013

Product	Units	Imports	Produced & Utilized in State	Exports	Texas Mill Receipts	Texas Roundwood Production
PINE						
Sawlogs	MBF[1]	136,323	950,290	25,402	1,086,613	975,692
Veneer/Panel Roundwood	MCF	2,164	104,220	8,066	106,385	112,286
Pulpwood	cords	563,438	1,364,039	441,570	1,927,477	1,805,609
Others	MCF	3,937	2,872	0	6,809	2,872
All Pine Products	MCF	73,837	371,619	47,950	445,456	419,569
HARDWOOD						
Sawlogs	MBF[1]	2,831	131,960	0	134,791	131,960
Veneer	MCF	342	528	0	870	528
Pulpwood	cords	280,423	855,388	135,935	1,135,811	991,323
All Hardwood Products	MCF	23,251	91,089	10,875	114,339	101,963
TOTAL						
Sawlogs	MBF[1]	139,154	1,082,250	25,402	1,221,404	1,107,652
Veneer/Panel Roundwood	MCF	2,506	104,748	8,066	107,254	112,814
Pulpwood	cords	843,861	2,219,427	577,505	3,063,288	2,796,932
Posts, Poles, Pilings	MCF	3,937	2,872	0	6,809	2,872
ALL PRODUCTS	MCF	97,088	462,708	58,824	559,795	521,532

[1]International ¼-inch rule.

Table 9. Texas Industrial Roundwood Products, 2004-2013				
Year	Lumber			Structural Panel
	Pine	Hardwood	Total	
	– – – – – m. bd. ft[1] – – – – –			m. sq. ft.
2004	1,591,109	324,663	1,915,772	2,859,012
2005	1,733,314	230,090	1,963,403	3,249,558
2006	1,676,461	240,214	1,916,676	2,935,637
2007	1,550,716	180,713	1,731,429	2,503,941
2008	1,406,103	213,191	1,619,293	2,204,544
2009	1,237,801	171,514	1,409,315	1,958,794
2010	1,188,294	139,389	1,327,683	1,881,763
2011	1,308,427	154,593	1,463,020	1,915,605
2012	1,291,578	118,823	1,410,401	2,049,084
2013	1,385,043	140,427	1,525,470	2,017,406

[1]International ¼-inch rule.

Table 10. Texas Pulp and Paperboard Production, 2004-2013	
Year	Pulp and Paperboard Products[1]
	tons
2004	2,560,480
2005	2,512,262
2006	2,781,865
2007	2,788,308
2008	2,239,347
2009	2,050,681
2010	2,089,521
2011	2,071,405
2012	2,081,521
2013	2,168,403

[1]Includes fiberboard, paperboard, market pulp, and miscellaneous products.

Table 11. Products Treated by Texas Wood Preserving Plants, 2012-2013

Product	Unit of Measure	Volume by Specific Unit		Volume by Cubic Feet	
		2012	2013	2012	2013
Poles and pilings[1]	CF	3,672,948	4,171,839	3,672,948	4,171,839
Fence posts	number	1,994,146	2,190,840	1,755,550	1,928,710
Ties[2]	CF	6,736,930	6,566,887	6,736,930	6,566,887
Lumber	MBF	270,720	323,878	22,560,010	26,989,803
Plywood/OSB	MSF	10,563	13,228	330,089	413,364
Other	CF	951,754	0	951,754	0
Total	CF	–	–	36,007,282	40,070,603

[1]Includes utility poles, construction poles, and pilings.

[2]Includes cross ties, switch ties, and cross arms.

Table 12. Texas Primary Mill Residue, 2013[1]

Residue Type	Pine	Hardwood	Total
	– —— – – – – tons – —— – – – –		
Chips[2]	2,614,809	264,883	2,879,692
Sawdust	593,691	161,452	755,143
Shavings	312,255	31,080	343,336
Bark[3]	1,396,430	519,632	1,916,062
Total	4,917,186	977,048	5,894,233

[1]Primary mills include sawmills, structural panel mills, and chip mills.

[2]Does not include chips produced in chip mills.

[3]Includes bark from sawmills, panel mills, and chip mills.

Table 13. Industrial Roundwood Removal and Logging Residue by Product in East Texas, 2013

Product	Industrial Roundwood			Logging Residue			Total Volume		
	Pine	Hardwood	Total	Pine	Hardwood	Total	Pine	Hardwood	Total
	– – – – – – thousand tons – – – – – –			– – – – – – thousand tons – – – – – –			– – – – – – thousand tons – – – – – –		
Growing Stock									
Sawtimber	6,318.5	878.1	7,196.6	376.1	126.8	502.9	6,694.6	1,004.9	7,699.5
Poletimber	6,093.4	2,389.3	8,482.7	34.6	134.1	168.7	6,128.0	2,523.4	8,651.4
Sub-total	12,412.0	3,267.3	15,679.3	410.7	260.9	671.7	12,822.7	3,528.3	16,350.9
Non-growing Stock									
Sawtimber	120.4	16.1	136.4	744.9	208.2	953.1	865.2	224.3	1,089.5
Poletimber	815.4	213.0	1,028.3	638.6	471.0	1,109.6	1,454.0	684.0	2,138.0
Sub-total	935.7	229.1	1,164.8	1,383.5	679.2	2,062.7	2,319.2	908.3	3,227.5
All									
Sawtimber	6,438.9	894.2	7,333.0	1,121.0	335.0	1,456.0	7,559.9	1,229.2	8,789.0
Poletimber	6,908.8	2,602.2	9,511.0	673.2	605.1	1,278.4	7,582.1	3,207.4	10,789.4
Total	13,347.7	3,496.4	16,844.1	1,794.2	940.2	2,734.4	15,141.9	4,436.5	19,578.5

Note: Sawtimber includes sawlogs, chip-n-saw, veneer logs, and poles; poletimber includes pulpwood, panel roundwood, post, and piling. See documents from the Forest Inventory and Analysis (FIA) Program for definition of growing stock. The separation of industrial roundwood harvest by source was based upon wood utilization rates from the *East Texas Harvest and Utilization Study, 2008*.

Table 14. Removals of Industrial Roundwood and Growing Stock in East Texas, 1994-2013

Year	Pine		Hardwood		All	
	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock
	– — – – – – – – — – – – – MMCF – — – – – – – – — – – – –					
1994	522.3	514.1	139.6	141.3	661.9	655.4
1995	523.5	515.2	143.1	144.8	666.6	660.1
1996	543.5	534.9	116.5	117.9	660.0	652.8
1997	557.5	548.7	118.4	119.8	675.9	668.5
1998	542.4	533.9	127.9	129.5	670.3	663.3
1999	541.4	532.9	157.9	159.8	699.3	692.7
2000	508.9	500.9	116.7	118.1	625.6	619.0
2001	488.5	480.8	111.6	113.0	600.1	593.8
2002	537.0	528.5	130.6	132.2	667.6	660.7
2003	542.1	533.6	126.1	127.6	668.2	661.2
2004	517.7	509.5	133.5	135.1	651.2	644.7
2005	564.3	555.4	137.2	138.9	701.5	694.3
2006	500.0	492.1	148.3	150.1	648.3	642.2
2007	501.2	490.7	127.6	128.6	628.8	619.3
2008	440.3	430.2	97.7	100.1	538.0	530.2
2009	396.4	382.6	83.4	86.3	479.8	468.8
2010	401.2	385.9	89.4	90.3	490.6	476.1
2011	392.7	378.0	78.6	80.5	471.3	458.5
2012	408.9	392.6	106.1	106.1	515.0	498.7
2013	419.6	402.0	102.0	102.4	521.5	504.4

Note: Total industrial roundwood harvest includes harvest from both growing stock and non-growing stock. The growing stock removal was calculated using wood utilization rates from the *East Texas Harvest and Utilization Study, 2008*.

Table 15. Tree Planting by Ownership and Funding Source in Texas, 2004-2013

Year[1]	Family Forest								Industry[4]	Public	Total
	Federal Cost Share Programs[2]		Texas Reforestation Foundation (TRe)		All Cost Share Programs		Non-Cost Share[3]	Total Acres	Acres	Acres	Acres
	Acres	Cost Share $	Acres	Cost Share $	Acres	Cost Share $	Acres				
2004	10,040	945,528	2,091	123,282	12,131	1,068,810	24,765	36,896	74,542	2,248	113,686
2005	11,713	1,267,815	1,061	117,997	12,774	1,385,811	20,522	33,296	69,712	593	103,601
2006	10,034	1,317,024	398	41,896	10,432	1,358,920	16,278	26,710	64,457	863	92,030
2007	12,497	2,073,855	2,912	187,917	15,409	2,261,772	21,820	37,229	67,910	797	105,936
2008	15,585	1,004,163	1,040	78,174	16,625	1,082,337	9,335	25,960	59,764	822	86,546
2009	17,152	746,763	0	0	17,152	746,763	13,639	30,791	81,067	564	112,422
2010	16,255	1,569,178	0	0	16,255	1,569,178	5,919	22,174	70,577	555	93,306
2011	22,338	2,060,568	0	0	22,338	2,060,568	5,522	27,860	59,554	473	87,887
2012	19,738	2,172,624	0	0	19,738	2,172,624	4,913	24,651	65,867	402	90,920
2013	29,818	3,130,118	0	0	29,818	3,130,118	6,709	36,527	101,671	872	139,070

[1]Federal fiscal year. For example, fiscal year 2004 begins on October 1, 2003 and ends on September 30, 2004.

[2]Includes Forestry Incentives Program (FIP), Stewardship Incentives Program (SIP), Environmental Quality Incentives Program (EQIP), Conservation Reserve Program (CRP), Forest Land Enhancement Program (FLEP), Emergency Forestry Conservation Reserve Program (EFCRP), Wetlands Reserve Program (WRP), Landowner Incentive Program (LIP), United States Fish and Wildlife Service (USFWS) Partners Program, and Wildlife Habitat Incentive Program (WHIP) accomplishments. Federal funding also includes the Ice Storm Recovery Program in 2002–2004.

[3]Non-cost share acres include only family forest acres planted with TFS assistance.

[4]Acres for industry tree planting includes acres planted by Timber Investment Management Organizations (TIMOs) and timberland Real Estate Investment Trusts (REITs).

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