Harvest Trends 2006

October 2007

TEXAS
FOREST SERVICE
The Texas A&M University System

Texas Forest Resource

Harvest Trends 2006

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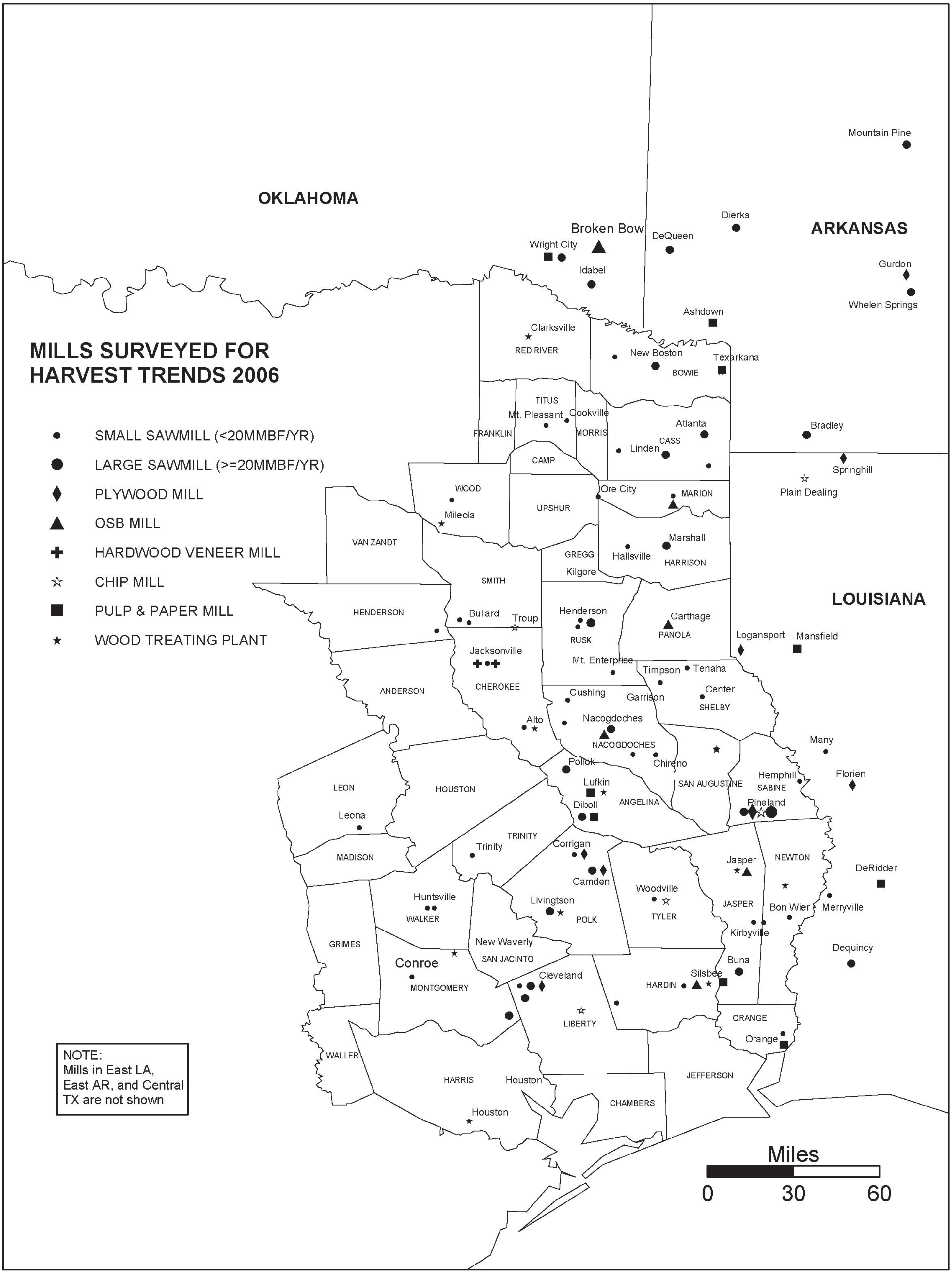

MILLS SURVEYED FOR
HARVEST TRENDS 2006
SMALL SAWMILL (<20MMBF/YR)
LARGE SAWMILL (>=20MMBF/YR)
PLYWOOD MILL
OSB MILL
HARDWOOD VENEER MILL
CHIP MILL
PULP & PAPER MILL
WOOD TREATING PLANT
NOTE:
Mills in East LA,
East AR, and Central
TX are not shown
OKLAHOMA
ARKANSAS
LOUISIANA
Miles
0
30
60
Mountain Pine
Broken Bow
Wright City
Idabel
DeQueen
Dierks
Gurdon
Whelen Springs
Ashdown
Clarksville
RED RIVER
New Boston
BOWIE
Texarkana
TITUS
Mt. Pleasant
Cookville
FRANKLIN
MORRIS
Atlanta
CASS
Linden
CAMP
Bradley
Springhill
Plain Dealing
WOOD
Mileola
UPSHUR
Ore City
MARION
VAN ZANDT
GREGG
Kilgore
Marshall
Hallsville
HARRISON
SMITH
HENDERSON
Bullard
Troup
Henderson
RUSK
Carthage
PANOLA
Logansport
Mansfield
Jacksonville
CHEROKEE
Mt. Enterprise
Timpson
Tenaha
Center
SHELBY
Garrison
ANDERSON
Cushing
Nacogdoches
NACOGDOCHES
Alto
Chireno
SAN AUGUSTINE
Many
Pollok
LEON
HOUSTON
Lufkin
ANGELINA
Hemphill
SABINE
Florien
Leona
Diboll
Pineland
TRINITY
Trinity
Corrigan
MADISON
Jasper
NEWTON
DeRidder
Camden
Woodville
TYLER
Huntsville
WALKER
Livingston
POLK
JASPER
Bon Wier
Merryville
Kirbyville
GRIMES
New Waverly
SAN JACINTO
Conroe
MONTGOMERY
Cleveland
LIBERTY
HARDIN
Silsbee
Buna
Dequincy
ORANGE
Orange
WALLER
HARRIS
Houston
CHAMBERS
JEFFERSON
Houston

HIGHLIGHTS

Texas Forest Resource Harvest Trends 2006

2006 TIMBER REMOVAL

- Total growing stock timber removal was 641.3 million cubic feet in 2006, a decrease of 7.6 percent from last year.
  - Pine removal was down 11.5 percent to 491.4 million cubic feet.
  - Hardwood removal was up 7.7 percent to 148.3 million cubic feet.
- Harvest of timber for industrial use in the production of wood products was 648.4 million cubic feet.
  - 500 million cubic feet of pine was harvested for industrial consumption.
  - 148.3 million cubic feet of hardwood was harvested for industrial consumption.
- Stumpage value was down 13.6 percent to $427.4 million, while delivered value was down 3.2 percent to $812.2 million.
- Harvest of sawlogs decreased 6.0 percent from 2005 to 1.49 billion board feet.
- Harvest of wood for veneer and structural panel production decreased 7.1 percent to 181.4 million cubic feet from a year ago.
- Pulpwood harvest decreased 1.3 percent to 2.5 million cords.
- Timber imported from surrounding states to Texas was almost equal to timber exported to surrounding state from Texas in 2006. The total timber import from other states was 70.1 million cubic feet while the total export was 69.9 million cubic feet. The net export was 178,000 cubic feet in 2006.

PRIMARY FOREST PRODUCTS

- Production of primary wood products in 2006 included:
  - 1.92 billion board feet of lumber, a decrease of 2.4 percent from last year.
  - 2.94 billion square feet of structural panel products, a decrease of 9.7 percent from 2005.
  - 2.78 million tons of paper and paperboard, up 10.7 percent from 2005.

MILL AND LOGGING RESIDUES

- Total production of mill residue in 2006 was 6.46 million tons.
- Total production of logging residue in 2006 was 3.67 million tons.

Harvest Trends 2006

INTRODUCTION

Forests are vital economic and environmental assets in East Texas. The wood-based industry employed about 76,000 people in 2004 and was one of the top 10 manufacturing sectors in the state. In 23 of 43 East Texas counties, the forest sector was one of the top two largest manufacturing employers. The value of timber ranked sixth in 2005 among Texas' top agricultural commodities, behind beef, cotton, broilers, greenhouse and nursery, milk, and corn[1].

To gather the most current information on the status of this valuable resource, Texas Forest Service conducts an annual survey of the state's primary forest products industry. This 42nd annual report provides information on the volume and value of timber harvested in East Texas during 2006, and reports the production of primary wood products, logging residue, and mill residue. Data on forest management activities is also presented.

Information for this report was provided by 116 mills in Texas and 29 mills in surrounding states. Texas Forest Service appreciates the cooperation of these companies, without which this report would not be possible.

2006 ECONOMIC CONDITIONS

The U.S. economy continue to grow in 2006 albeit slowing down slightly from its fast paced growth in 2005. The real Gross Domestic Product (GDP) growth was 3.2 percent on a year-over-year basis comparing GDP in 2006 as a whole and GDP in 2005 as a whole[2]. Quarterly GDP growth rates (seasonally adjusted) slowed down from the first half of the year to the second half of the year: its growth rate was 3.3 percent for first quarter, 3.2 percent for second quarter, 2.4 percent for third quarter, and 2.6 percent for fourth quarter. The economy's growth in 2006 reflected a combination of healthy corporate and personal spending and the decline of the home building industry. The Federal Reserve continued to raise interest rates in the first half of 2006 to slow down the economy and to reduce inflation pressure. The short term discount rate was raised a quarter percentage point 4 times in the first six months of the year from 4 1/4 percent in the beginning of the year to 5 1/4 percent by the middle of the year,[3] and it was kept there in the second half of the year as the economy was slowing down. Inflation in 2006 was moderate. Mortgage rates climbed steadily through the first half of the year but gave back most of the gains by the end of the year. The nation wide average monthly mortgage rate for 30 fixed rate mortgage was 6.28 percent in January. It rose to 6.16 percent in July and dropped to 6.23 percent by December[4].

The housing market in the U.S. experienced a spectacular decline after years of strong growth. The total number of residential housing units authorized by building permits dropped 14.2 percent to 1.843 million units in 2006 from 2.148 million units in 2005. Single-family building permits declined a whopping 17.6 percent, from 1.382 million units in 2005 to 1.617 million units in 2006. Multi-family starts slipped 2.3 percent in 2006. The total number of multi-family starts decreased from 471,800 units in 2005 to 460,700 units in 2006[5].

Growth in the Texas economy was stronger than the national average in 2006. Real Gross State Product (GSP) was up 4.3 percent to $867.9 billion (based on chained 2000 dollar) in 2006 from the previous year[6]. The housing market in Texas also fared better than the national average. The total number of residential housing building permits in Texas increased 3.0 percent in 2006 to 216,900 units. Single-family housing declined 1.9 percent to 163,000 units while multi-family housing increased 22.2 percent to 53,900 units in 2006[5].

The slumping housing market had significant negative impact on the demand for solid wood products. Total softwood lumber production in the U.S. in 2006 was 38.7 billion board feet, a decrease of 3.8 percent from 40.3 billion board feet in 2005. Of the total softwood lumber production, 46.4 percent was from the U.S. West, 48.3 percent was from the U.S. South, and 5.3 percent was from the rest of the country. The annual softwood lumber production in the U.S. West and other regions decreased 7.3 percent and 13.6 percent respectively, while it increased 1.1 percent in the U.S. South[7]. The changes reflected the relative strength of the regional housing market.

The weak demand of softwood lumber in 2006 resulted in falling prices. The annual average Random Lengths Framing Lumber Composite price decreased 15.5 percent, from $387 per thousand board feet (mbf) in 2005 to $327 per mbf in 2006[7].

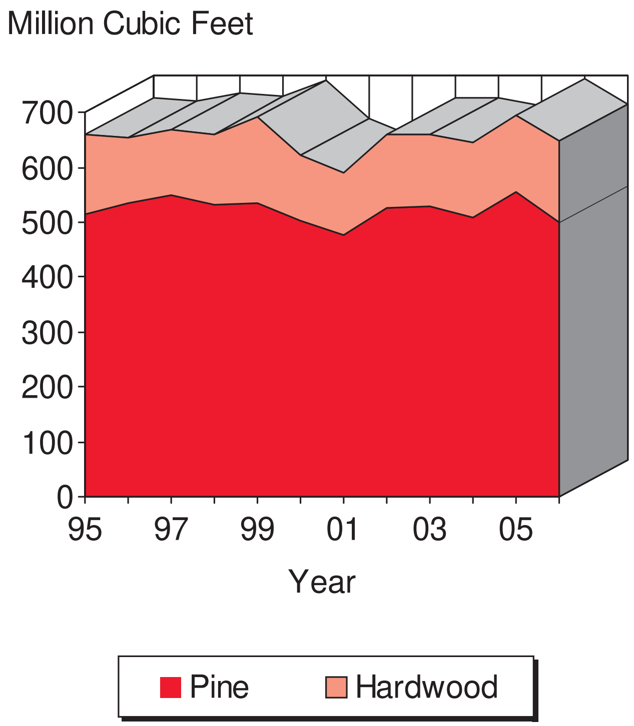


Figure 1. Total Timber Removals, 1995-2006

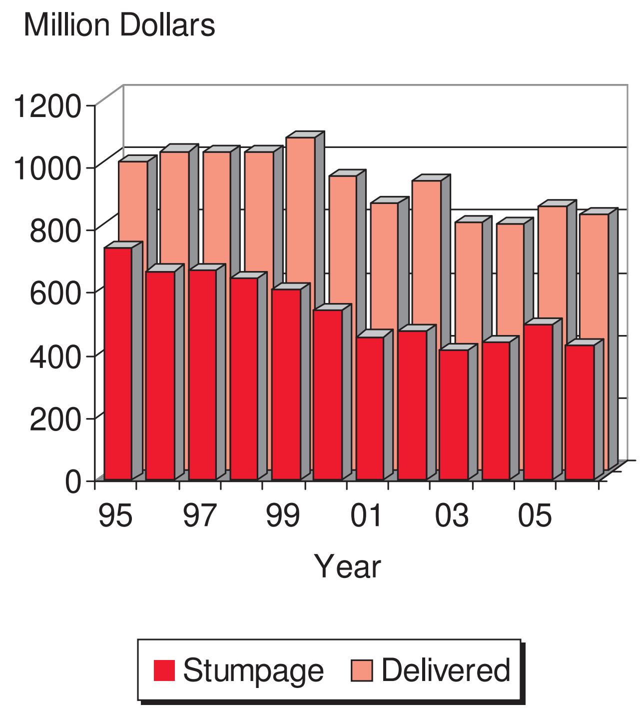


Figure 2. Value of the Timber Harvest, 1995-2006

The 2006 production of structural panel in the U.S., including plywood and oriented strand board (OSB), slipped 3.2 percent from a year ago, as a result of the weak housing market. The U.S. produced 28.4 billion square feet (3/8-inch basis) of structural panels in 2006, compared to 29.3 billion square feet in 2005. Plywood production was down 6.3 percent to 13.4 billion square feet, while OSB production was off by 0.2 percent to 15.0 billion board feet. OSB continued to gain market share over plywood because of its lower wood cost and higher manufacturing efficiency. The share of OSB in total panel production in the U.S. increased to 52.7 percent in 2006, up from 51.1 percent in 2005[7].

The average price of structural panel continued to fall precipitously after it reached its peak in 2004. The average annual Random Lengths Structural Panel Composite price was $315 per thousand square feet (msf) in 2006, which was 22.8 percent lower than that of 2005, after a 11.7 percent drop in 2005[7].

The total production for paper and paperboard in the U.S. was up slightly in 2006 compared to the previous year. The total production of paper and paperboard went up 0.7 percent from 91.1 million short tons in 2005 to 91.8 million short tons in 2006. Paper production totaled 41.4 million tons in 2006, a decrease of 0.1 percent from 2005. Paperboard production rose 1.4 percent to 50.4 million tons. Market pulp shipment to North America in 2006 was 8.5 million short tons, up 2.7 percent from a year ago[8].

STUMPAGE PRICES

According to the *Texas Timber Price Trends* bimonthly timber market report, the average annual pine sawtimber price dropped 3.5 percent to $294.82 per mbf, Doyle scale, in 2006, from the 2005 average annual price of $305.58 per mbf. The average annual mixed hardwood sawtimber prices decreased 11.7 percent from its 2005 level to $144.98 per mbf in 2006. Pine pulpwood price dropped to $17.22 per cord from its 2005 price, down 1.3 percent. Mixed hardwood pulpwood prices declined 32.9 percent to $13.22 per cord in 2006. Table 6 provides historic data on stumpage prices. The primary contributing factor for the downward trend of stumpage prices in 2006 compared to 2005 was Hurricane Rita. Hurricane Rita suppressed timber prices in three ways. It caused temporary excess timber supply after October 2005 and reduced timber quality in the hurricane damage area. The hurricane also caused some mills to shutdown temporarily due to damaged facilities or power supply, reducing timber demand during the period. Timber prices were the lowest in the last quarter of 2005 and the first quarter of 2006. After that, timber prices gradually climbed back up.

TIMBER REMOVALS

Growing Stock Removals

Total removals of growing stock in East Texas in 2006, including both pine and hardwood, decreased 7.6 percent from the previous year (Figure 1). The total volume of growing stock removed from the 43-county region was 641.3 million cubic feet in 2006, compared to 694.4 million cubic feet in 2005. Included in the total growing stock removals are timber harvested for industrial use and an estimate of logging residue. Growing stock removals in 2006 and the past years were adjusted using the new harvest residue ratios from the updated Texas Wood Utilization Study by the USDA Forest Service.

By species group, growing stock removals in 2006 were comprised of 491.4 million cubic feet of pine and 148.3 million cubic feet of hardwood. Pine removals were down 11.5 percent and hardwood removals were up 7.7 percent from 2005. 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 500.0 and 148.3 million cubic feet for pine and hardwood, respectively. The pine industrial roundwood harvest was down 11.5 percent, and the hardwood roundwood harvest was up 8.1 percent from 2005. The combined harvest dropped 7.6 percent to 648.4 million cubic feet. Ninety five percent of the industrial roundwood was from growing stock and 5 percent of the industrial roundwood was from non-growing stock in 2006 (Table 13).

Table 1 lists the harvest of pine and hardwood by county for 2006. Top timber producing counties included Polk, Tyler, Newton, Jasper, and Nacogdoches.

Figure 4 illustrates the intensity of timber harvest expressed in cubic feet of harvest per acre of timberland. San Augustine, Polk, Tyler, Angelina, and Marion Counties had the highest relative timber harvesting intensity during 2006.

Value of Timber Harvest

As Figure 2 illustrates, stumpage value of East Texas timber harvest decreased 13.6 percent in 2006 to $427.4 million. The delivered value was down 3.2 percent to $812.2 million. Pine timber accounted for 89.2 percent of the total stumpage value. The discrepancy in the trends for stumpage value and delivered value are apparently the result of higher logging and hauling costs due to higher oil prices and higher costs for logging the Hurricane damaged timber. Figure 3 depicts the value of the harvest by product. Table 7 lists stumpage and delivered value by product category.

Sawlogs

Harvest of sawlogs for lumber production decreased 6.0 percent to 1.5 billion board feet, which accounted for 37.8 percent of the 2006 total timber harvest. The pine sawlog cut totaled 1.2 billion board feet, down 5.9 percent, while the hardwood sawlog harvest was down 1.2 percent to 247.6 million board feet. Newton, Angelina, Tyler, Nacogdoches, and Polk counties were the top 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 181.4 million cubic feet in 2006, a 7.1 percent decline from 2005. The timber harvest for structural panels was 28 percent of the total timber harvest in 2006. Almost all of the veneer and panel roundwood were pine. Polk, Tyler, and Trinity counties were the top producers of veneer and panel roundwood. Table 3 lists the harvest of veneer and panel roundwood by county.

Pulpwood

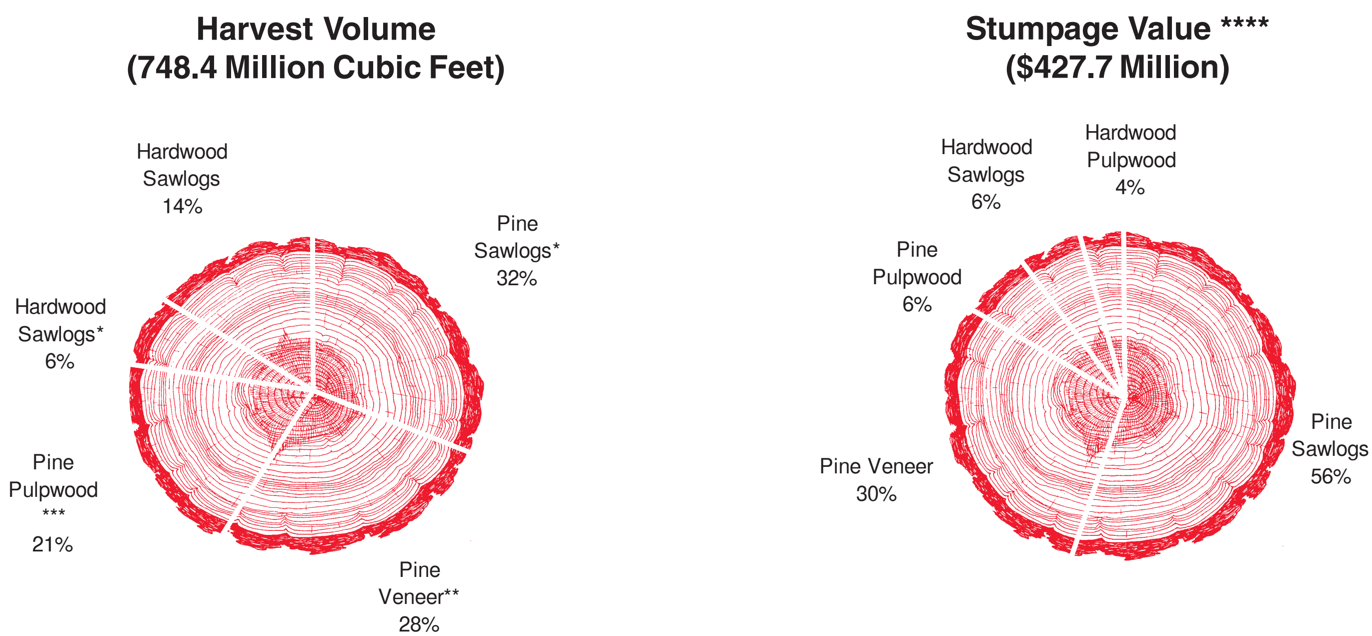
Harvest of timber for pulp and paper products in Texas decreased 1.3 percent in 2006 to 2.5 million cords. Roundwood pulpwood harvest accounted for 34.2 percent of the total timber harvest in 2006. Pine pulpwood made up 51.6 percent of the total pulpwood production in 2006. Newton, Tyler, Cass, Jasper, and San Augustine Counties were the top producers of pulpwood. Table 4 lists the roundwood pulpwood harvest by county.

Other Roundwood

Other roundwood harvest included posts, poles and pilings that totaled 3.4 million cubic feet in 2006. Table 5 lists harvest of these products by county.

Import-Export Trends

Timber products imported from surrounding states was almost equal to timber products exported to surrounding states in 2006. Exports of roundwood from Texas were 69.9 million cubic feet, while imports totaled 70.1



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

Figure 3. Volume and Value of the Timber Harvest, 2006

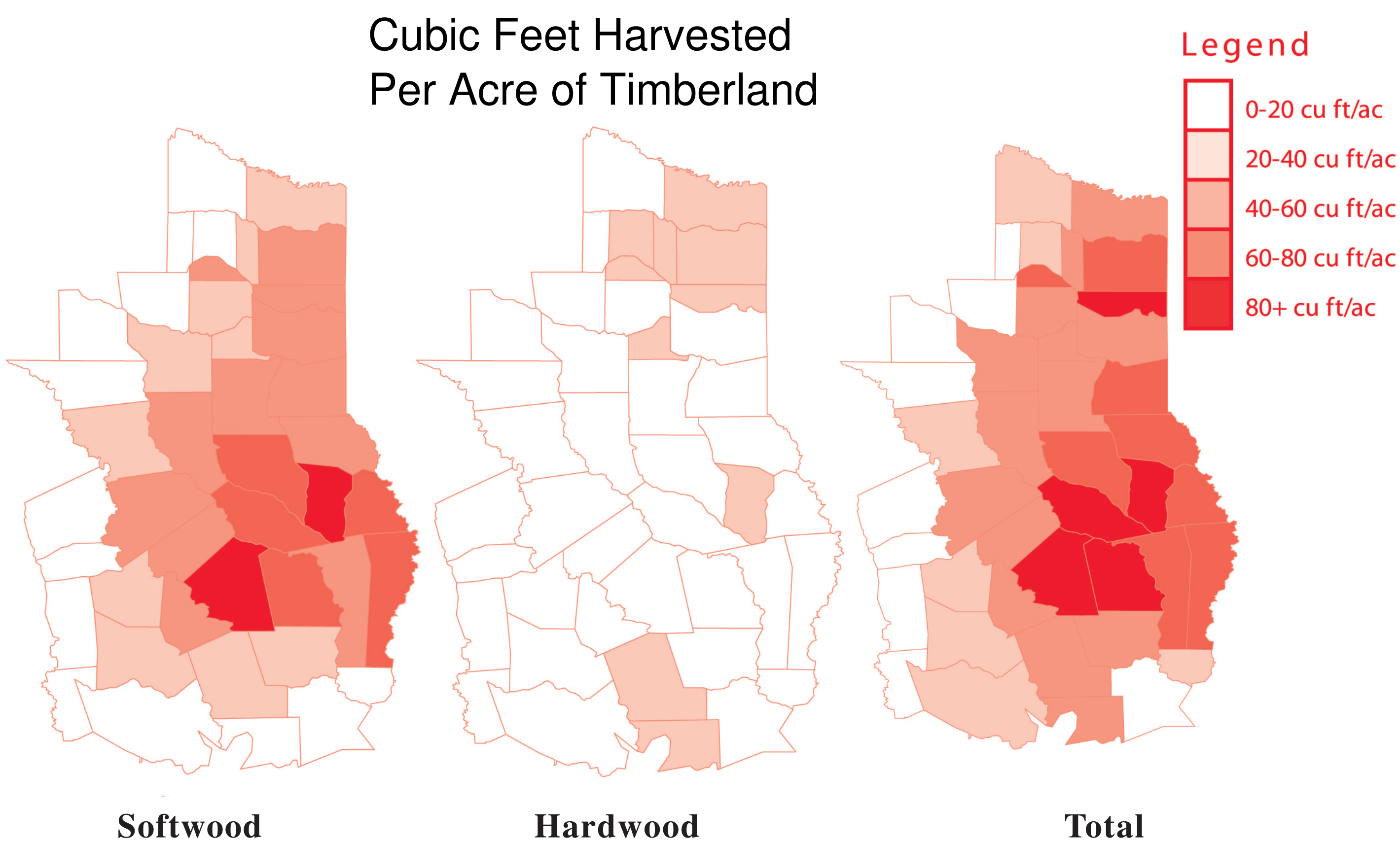


Figure 4. Intensity of Timber Harvest by County, 2006

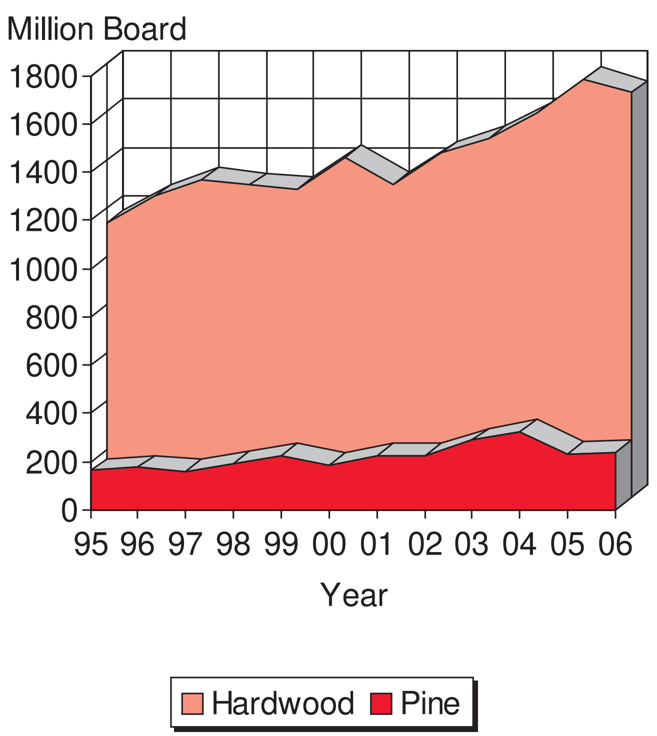


Figure 5. Texas Lumber Production, 1995-2006

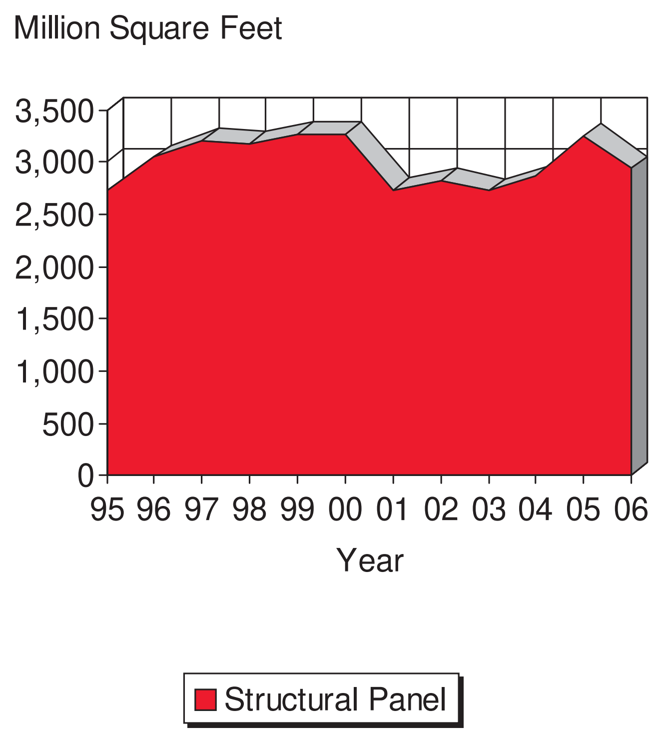


Figure 6. Texas Structural Panel Production, 1995-2006

million cubic feet in 2006. The net imports of roundwood were 178,000 cubic feet in 2006. Table 8 details the interstate movement of roundwood.

Texas mills utilized 89.2 percent of the timber harvested in the state in 2006. The remainder was processed mainly by mills in Arkansas, Louisiana, and Oklahoma. Details are listed in Table 8.

PRODUCTION OF FOREST PRODUCTS

Lumber

Texas sawmills produced 1.9 billion board feet of lumber in 2006, a decrease of 2.4 percent over 2005. Production of pine lumber decreased 3.3 percent to 1.7 billion board feet in 2006 while hardwood lumber production rose 4.4 percent to 240.2 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 9.7 percent to 2.9 billion square feet (3/8-inch basis) in 2006. Table 9 and Figure 6 show the recent trend in structural panel output.

Paper Products

Production of paperboard totaled 2.8 million tons in 2006, up 10.7 percent from 2005. There was no paper or market pulp production in Texas in 2006. Table 10 and Figure 7 summarize recent trends in paper product output.

Treated Wood Products

There was 18.1 percent increase in the volume of wood processed by Texas wood treaters in 2006 from the previous year. The total volume treated in 2006 was 48.5 million cubic feet. Among major treated products, lumber accounted for 57.7 percent of the total volume, crossties accounted for 27.2 percent, and utility poles and fence posts accounted for 6.8 percent and 6.9 percent, respectively. Table 11 contains treated volume by product for 2005 and 2006.

Primary Mill Residue

Total mill residue, including chips, sawdust, shavings, and bark in primary mills such as sawmills, panel mills and chip mills in 2006 was 6.5 million short tons, 2.5 percent lower than the 2005 level (Table 12). Eighty two percent of the mill residue was from pine species and 18 percent was from hardwood species in 2006. Chips accounted for

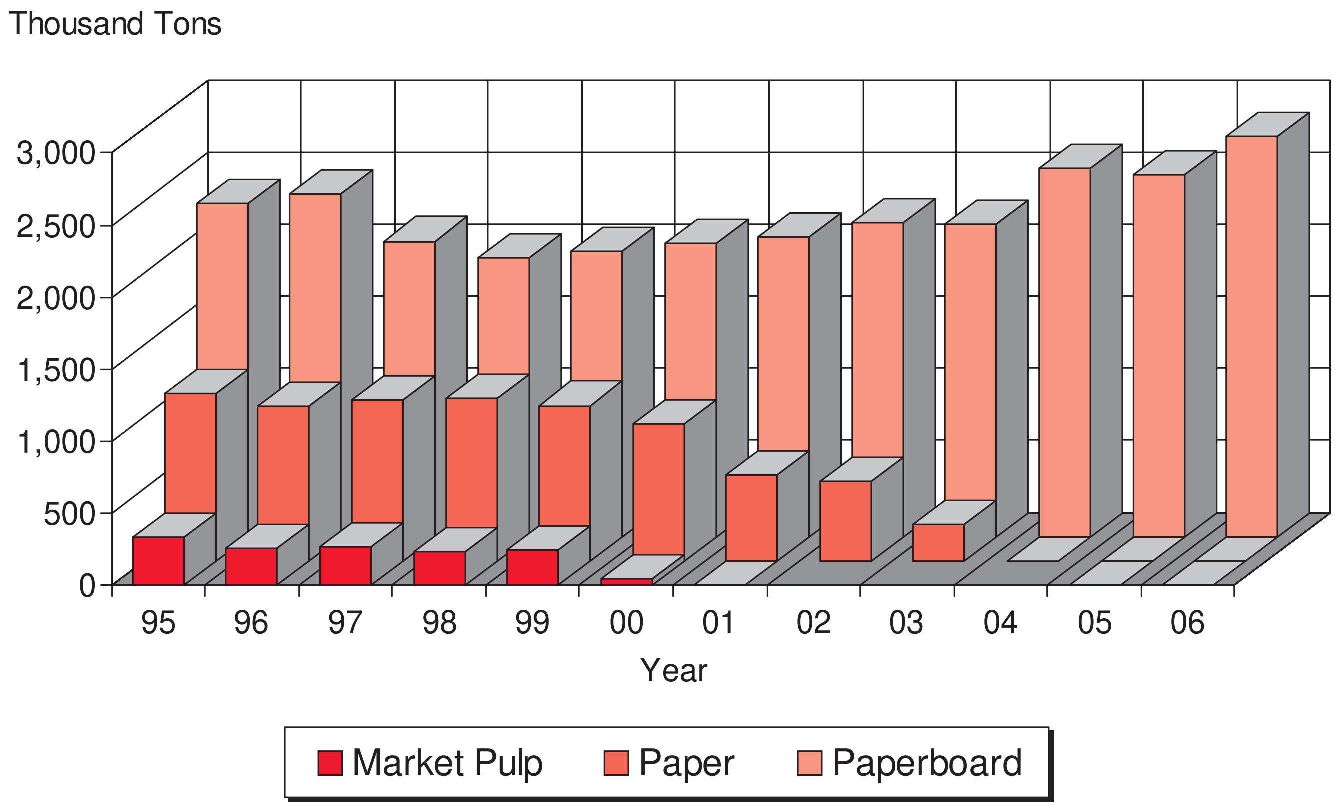


Figure 7. Texas Paper Production, 1995-2006

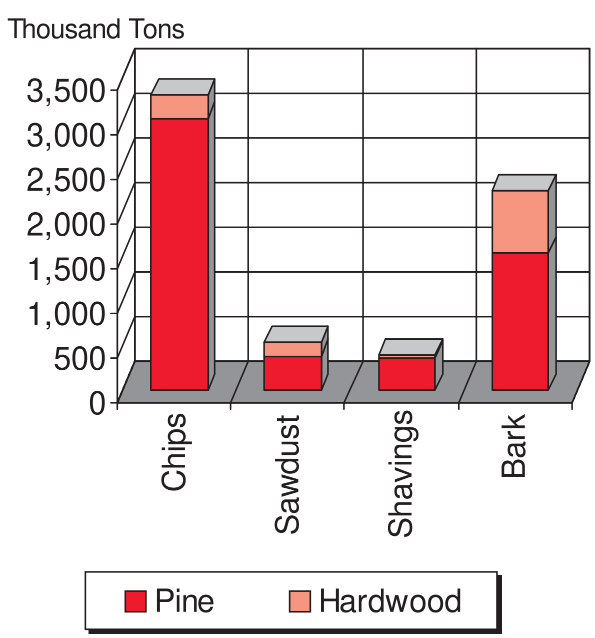


Figure 8. Texas Primary Mill Residue, 2006

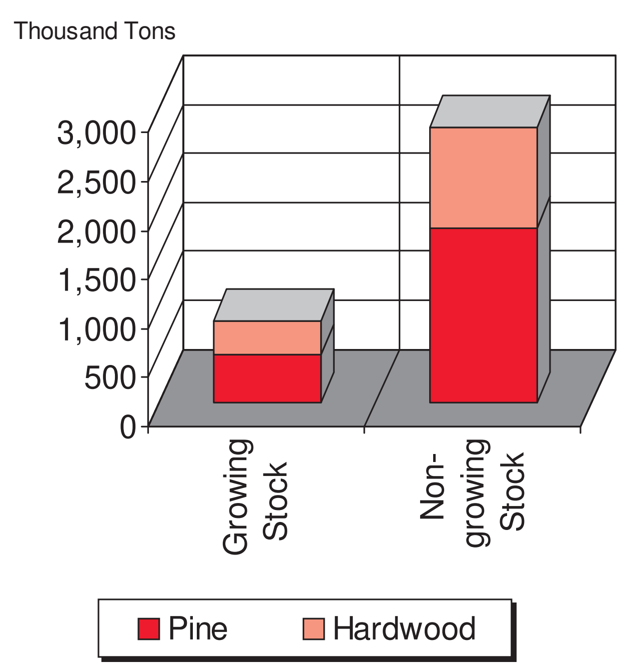


Figure 9. Texas Logging Residue, 2006

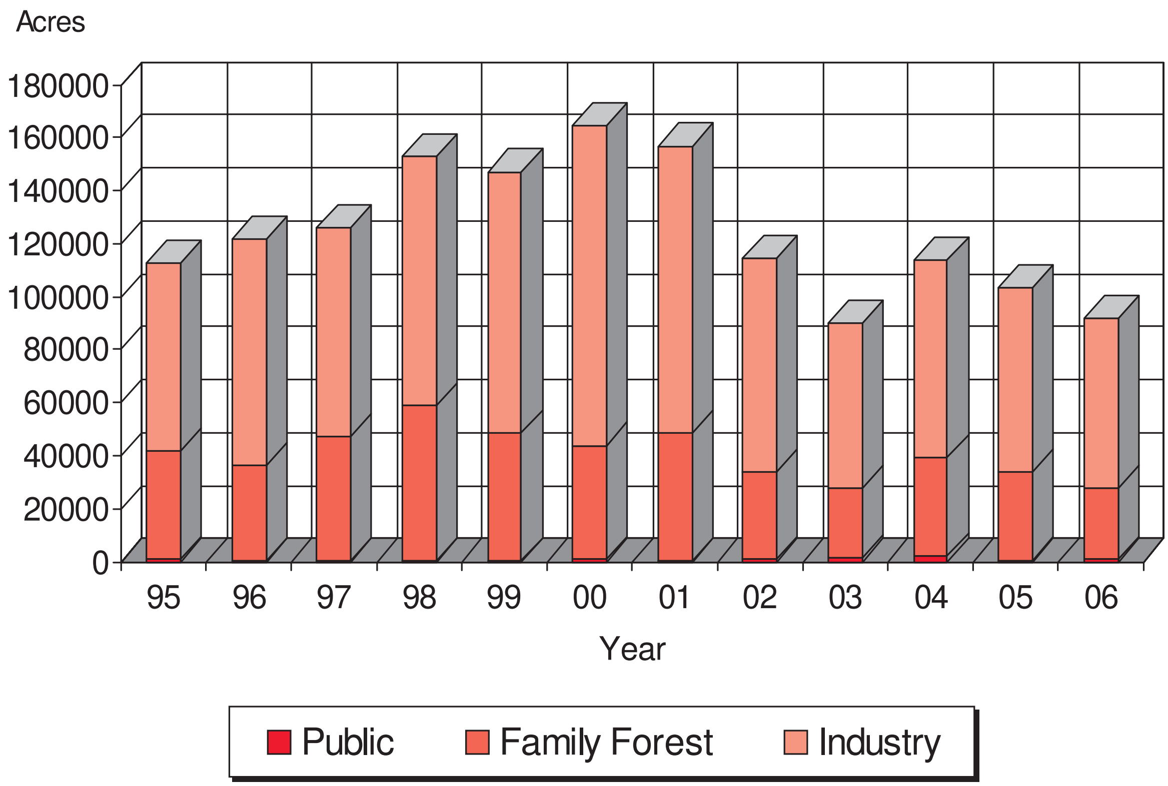


Figure 10. Reforestation Acreage by Ownership in Texas, 1995-2006

51.0 percent of mill residue, followed by bark (34.6 percent), sawdust (8.3 percent), and shavings (6.1 percent) (Figure 8).

Logging Residue

Types of logging residue include stumps, tops, limbs and unutilized cull trees. Total logging residue produced in 2006 was 3.67 million tons. Logging residue comes from both growing stock and non-growing stock trees. In 2006, 22.5 percent of the logging residue was from growing stock trees, and 77.5 percent of the logging residue was from non-growing stock trees. Sixty five percent of the residue was from pine and 35 percent was from hardwood in 2006 (Table 13, Figure 9).

REFORESTATION ACCOMPLISHMENTS

Accomplishments in reforestation by funding source and ownership are presented in Table 15. A total of 92,030 acres was planted during the winter 2005/spring 2006 planting season. This was an 11.2 percent decrease from the previous year. Industrial landowners planted 64,457 acres, down 7.5 percent from the previous year. Family Forest owners planted 26,710 acres, down 19.8 percent. Public landowners planted 863 acres in 2006. The Family Forest owners received $1,385,811 million in cost share assistance for reforestation through federal and industrial cost share programs. Federal programs provided $1,317,024 million in cost share funds. The Texas Reforestation Foundation provided $41,896 cost share funding.

REFERENCES

[1]Texas Agricultural Statistics 2005 Bulletin (http://www.nass.usda.gov/tx/mbullpdf.htm)
[2]2http://www.bea.gov/bea/dn/
[3]3http://www.federalreserve.gov/fomc/default.htm#calendars
[4]http://www.hsh.com/mtghst.html
[5]http://recenter.tamu.edu/data/
[6]Interactive Tables: Gross Domestic Product by State (http://www.bea.gov/regional/gsp/)
[7]Random Lengths, Year Book, 2007
[8]Pulp & Paper, RISI, Aprial 2007.

Table 1. Total Industrial Timber Harvest Volume and Value by County in Texas, 2006

County	Volume Harvested			Value of Harvest	
	Pine	Hardwood	Total	Stumpage Value	Delivered Value
	– – – – – – – – – – cubic feet – – – – – – – – – –			– – – – – thousand dollars – – – – –	
Anderson	9,456,759	2,157,967	11,614,726	9,527	16,456
Angelina	23,756,104	5,127,372	28,883,476	21,194	38,096
Bowie	8,221,162	6,703,776	14,924,938	7,982	17,155
Camp	1,250,678	821,678	2,072,356	1,001	2,282
Cass	18,574,107	12,518,292	31,092,399	17,193	36,147
Chambers	400,642	1,136,464	1,537,106	770	1,769
Cherokee	17,500,842	5,751,201	23,252,043	15,958	30,034
Franklin	167,312	238,024	405,336	253	527
Gregg	2,225,187	2,178,618	4,403,805	3,074	5,969
Grimes	2,293,423	11,239	2,304,662	2,493	3,770
Hardin	15,995,420	7,357,079	23,352,499	13,748	27,798
Harris	4,221,944	802,325	5,024,269	4,663	7,561
Harrison	15,069,203	5,865,194	20,934,397	12,992	25,548
Henderson	1,471,989	1,234,589	2,706,578	2,008	3,757
Houston	15,259,082	2,373,214	17,632,296	12,538	22,828
Jasper	27,476,764	5,531,189	33,007,953	18,490	37,926
Jefferson	690,859	295,666	986,525	740	1,330
Leon	1,731,852	417,661	2,149,513	2,010	3,283
Liberty	10,901,320	8,568,412	19,469,732	12,219	24,301
Madison	22,465	86,800	109,265	35	105
Marion	12,888,936	4,835,487	17,724,423	11,211	21,885
Montgomery	9,095,726	2,403,277	11,499,003	9,243	15,967
Morris	2,549,074	1,798,788	4,347,862	2,975	5,607
Nacogdoches	26,499,458	5,392,738	31,892,196	21,808	40,616
Newton	34,145,963	4,688,741	38,834,704	23,924	46,503
Orange	2,084,330	1,683,627	3,767,957	2,002	4,329
Panola	16,825,772	4,918,540	21,744,312	13,005	25,937
Polk	47,805,010	5,164,978	52,969,988	41,464	71,894
Red River	4,069,335	3,809,503	7,878,838	3,296	8,287
Rusk	12,390,495	3,142,476	15,532,971	11,098	20,385
Sabine	18,119,135	3,363,664	21,482,799	13,690	26,294
San Augustine	24,062,189	6,153,935	30,216,124	18,918	36,764
San Jacinto	13,058,783	2,518,517	15,577,300	10,562	19,632
Shelby	18,017,036	3,180,925	21,197,961	12,183	24,640
Smith	6,239,876	4,371,525	10,611,401	6,773	13,326
Titus	1,064,839	3,215,841	4,280,680	1,789	4,601
Trinity	18,270,067	1,041,234	19,311,301	17,143	28,120
Tyler	36,223,786	8,792,387	45,016,173	26,229	52,762
Upshur	7,857,180	3,420,735	11,277,915	8,863	15,696
Van Zandt	311,761	259,590	571,351	403	777
Walker	8,531,198	1,259,767	9,790,965	8,815	14,395
Waller	488,252	2,142	490,394	572	843
Wood	1,580,262	1,446,517	3,026,779	1,691	3,559
Other Counties	1,183,827	2,264,058	3,447,885	1,161	3,395
Total Production	500,049,404	148,305,752	648,355,156	427,705	812,855

Table 2. Sawlog Harvest by County in Texas, 2006

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – thousand board feet[1]	– – – – – – – – – – – –	
Anderson	31,485	10,246	41,731
Angelina	80,211	9,289	89,500
Bowie	28,322	5,321	33,643
Camp	3,003	1,184	4,187
Cass	63,305	9,824	73,129
Chambers	2,162	1,525	3,687
Cherokee	49,549	19,747	69,296
Franklin	525	1,177	1,702
Gregg	8,338	10,874	19,212
Grimes	3,704	5	3,709
Hardin	36,871	7,173	44,044
Harris	7,760	1,320	9,080
Harrison	41,331	7,936	49,267
Henderson	6,079	5,330	11,409
Houston	35,125	4,905	40,030
Jasper	60,465	7,707	68,172
Jefferson	1,724	476	2,200
Leon	7,400	2,044	9,444
Liberty	16,338	15,418	31,756
Madison	57	0	57
Marion	39,739	9,657	49,396
Montgomery	17,260	2,711	19,971
Morris	12,434	1,536	13,970
Nacogdoches	72,182	12,746	84,928
Newton	84,609	7,898	92,507
Orange	5,119	1,780	6,899
Panola	34,545	5,867	40,412
Polk	79,138	4,989	84,127
Red River	7,806	6,823	14,629
Rusk	36,414	11,375	47,789
Sabine	39,130	8,319	47,449
San Augustine	60,325	8,749	69,074
San Jacinto	26,635	815	27,450
Shelby	28,251	3,756	32,007
Smith	22,340	8,310	30,650
Titus	4,094	4,654	8,748
Trinity	39,334	3,391	42,725
Tyler	81,473	7,104	88,577
Upshur	34,673	10,484	45,157
Van Zandt	1,103	910	2,013
Walker	21,308	136	21,444
Waller	153	8	161
Wood	6,266	1,293	7,559
Other Counties	1,805	2,771	4,576
Total Production	1,239,890	247,583	1,487,473

[1]International ¼-inch rule.

Table 3. Veneer and Panel Roundwood Harvest by County in Texas, 2006

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – – cubic feet	– – – – – – – – – – – – – – – –	
Anderson	3,523,094	91,223	3,614,317
Angelina	5,318,852	0	5,318,852
Bowie	832,313	0	832,313
Camp	432,849	0	432,849
Cass	3,247,675	0	3,247,675
Chambers	31,064	0	31,064
Cherokee	6,525,309	45,611	6,570,920
Franklin	73,947	0	73,947
Gregg	660,080	0	660,080
Grimes	1,467,018	0	1,467,018
Hardin	5,758,434	0	5,758,434
Harris	2,439,820	0	2,439,820
Harrison	7,737,630	0	7,737,630
Henderson	394,889	91,223	486,112
Houston	6,992,845	0	6,992,845
Jasper	5,949,099	0	5,949,099
Jefferson	230,447	0	230,447
Leon	448,554	0	448,554
Liberty	5,564,919	0	5,564,919
Madison	13,226	0	13,226
Marion	2,242,756	0	2,242,756
Montgomery	4,957,593	0	4,957,593
Morris	381,803	0	381,803
Nacogdoches	7,260,076	91,223	7,351,299
Newton	7,163,132	0	7,163,132
Orange	315,203	0	315,203
Panola	6,814,005	0	6,814,005
Polk	30,926,860	0	30,926,860
Red River	1,270,603	0	1,270,603
Rusk	5,263,684	0	5,263,684
Sabine	4,289,251	0	4,289,251
San Augustine	4,472,846	0	4,472,846
San Jacinto	7,100,939	0	7,100,939
Shelby	6,824,900	0	6,824,900
Smith	1,773,410	45,611	1,819,021
Titus	148,404	0	148,404
Trinity	10,964,978	0	10,964,978
Tyler	14,283,704	0	14,283,704
Upshur	1,607,207	0	1,607,207
Van Zandt	89,468	91,223	180,691
Walker	4,149,241	0	4,149,241
Waller	445,792	0	445,792
Wood	484,674	0	484,674
Other Counties	107,414	0	107,414
Total Production	180,980,007	456,114	181,436,121

Table 4. Pulpwood Roundwood Harvest by County in Texas, 2006

County	Pine	Hardwood	Total
		cords	
Anderson	10,205	4,356	14,561
Angelina	61,960	44,620	106,580
Bowie	34,302	72,643	106,945
Camp	4,087	7,789	11,876
Cass	62,486	135,885	198,371
Chambers	236	11,009	11,245
Cherokee	33,159	29,925	63,084
Franklin	102	508	610
Gregg	2,636	4,438	7,074
Grimes	2,790	130	2,920
Hardin	52,596	76,927	129,523
Harris	6,472	7,262	13,734
Harrison	7,800	56,679	64,479
Henderson	1,132	3,119	4,251
Houston	31,095	19,383	50,478
Jasper	138,142	52,984	191,126
Jefferson	1,994	2,698	4,692
Leon	1,034	936	1,970
Liberty	33,186	74,785	107,971
Madison	0	1,085	1,085
Marion	51,681	40,200	91,881
Montgomery	16,547	24,358	40,905
Morris	1,873	19,265	21,138
Nacogdoches	90,828	39,550	130,378
Newton	159,798	42,053	201,851
Orange	11,597	17,314	28,911
Panola	52,130	49,183	101,313
Polk	49,999	54,104	104,103
Red River	18,451	33,316	51,767
Rusk	14,780	15,436	30,216
Sabine	92,433	24,607	117,040
San Augustine	117,831	58,584	176,415
San Jacinto	20,251	29,773	50,024
Shelby	78,998	31,888	110,886
Smith	10,434	36,654	47,088
Titus	3,121	30,442	33,563
Trinity	10,140	5,907	16,047
Tyler	106,586	95,013	201,599
Upshur	7,748	20,782	28,530
Van Zandt	537	197	734
Walker	11,456	15,462	26,918
Waller	218	10	228
Wood	986	15,371	16,357
Other Counties	2,467	22,492	24,959
Total Production	1,416,304	1,329,122	2,745,426

Table 5. Other Roundwood Harvest by County in Texas, 2006[1]			
County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – – –	cubic feet	– – – – – – – – – – – – – – – –
Anderson	3,337	0	3,337
Angelina	416,354	0	416,354
Bowie	19,440	0	19,440
Camp	0	0	0
Cass	3,402	0	3,402
Chambers	0	0	0
Cherokee	257,789	0	257,789
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	0	0	0
Houston	53,816	0	53,816
Jasper	537,026	0	537,026
Jefferson	19,440	0	19,440
Leon	0	0	0
Liberty	0	0	0
Madison	0	0	0
Marion	18,403	0	18,403
Montgomery	0	0	0
Morris	0	0	0
Nacogdoches	181,745	0	181,745
Newton	324,338	0	324,338
Orange	0	0	0
Panola	189,573	0	189,573
Polk	0	0	0
Red River	38,880	0	38,880
Rusk	26,924	0	26,924
Sabine	0	0	0
San Augustine	266,547	0	266,547
San Jacinto	0	0	0
Shelby	213,951	0	213,951
Smith	0	0	0
Titus	0	0	0
Trinity	107,698	0	107,698
Tyler	100,000	0	100,000
Upshur	1,879	0	1,879
Van Zandt	0	0	0
Walker	0	0	0
Waller	0	0	0
Wood	0	0	0
Other Counties	583,999	0	583,999
Total Production	3,364,541	0	3,364,541

[1] Including posts, poles and piling.

Table 6. Timber Stumpage Price in East Texas by Product, 1996-2006

Year	Sawtimber/Veneer		Pulpwood		Pine Chip-N-Saw	Pine Poles
	Pine	Mixed Hardwood	Pine	Mixed Hardwood		
	– – – $/MBF-Doyle – – –		– – – $/cord – – –		$/cord	$/ton
1996	395.46	88.28	25.25	10.78	59.18	77.33
1997	441.75	132.20	33.22	11.71	73.39	96.36
1998	414.51	138.75	37.01	14.41	76.40	72.26
1999	382.86	139.44	28.95	12.24	68.44	62.25
2000	376.57	120.88	19.20	7.97	57.69	54.92
2001	325.14	120.32	12.94	15.11	42.06	55.81
2002	334.86	156.97	12.33	15.67	41.92	66.63
2003	289.30	157.81	14.90	15.85	41.90	68.44
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

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

Table 7. Value of the East Texas Timber Harvest, 2006

Product	Unit	Stumpage		Delivered	
		Price[1]	Value	Price[2]	Value
PINE		$/unit	million $	$/unit	million $
Sawlogs/Chip-n-Saw	m bd.ft.[3]	–	235.4	–	344.7
Sawlogs		196.55	228.7	284.88	331.4
Chip-n-Saw		87.44	6.7	172.93	13.2
Veneer/Panel Roundwood	m cu.ft.	–	120.9	–	224.4
Veneer Logs	m cu.ft.	1,210.00	*	1,760.00	*
Small Roundwood	m cu.ft.	210.00	*	800.00	*
Pulpwood	cords	17.22	24.4	65.00	92.1
Others	m cu.ft.	–	2.8	–	4.7
All pine products			383.5		665.8
HARDWOOD					
Sawlogs	m bd.ft.[3]	106.60	26.4	236.20	58.5
Veneer/Panel Roundwood	m cu.ft.	–	0.3	–	0.6
Veneer Logs	m cu.ft.	640.00	0.3	1,410.00	0.6
Panel Roundwood	m cu.ft.	800.00	0.0	830.00	0.0
Pulpwood	cords	13.22	17.6	66.14	87.9
All hardwood products			44.3		147.0
All products			427.7		812.9

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

[3]International ¼-inch rule.

* Data suppressed to avoid disclosure of individual company information.

Table 8. Interstate Movement of Roundwood by Species Group and Product in Texas, 2006

Product	Units	Imports	Produced & Utilized in State	Exports	Texas Mill Receipts	Texas Roundwood Production
PINE						
Sawlogs	m bd.ft.[1]	78,151	1,161,854	78,036	1,240,005	1,239,890
Veneer/Panel Roundwood	m cu.ft.	5,623	161,629	19,351	167,253	180,980
Pulpwood	cords	367,305	1,081,214	335,090	1,448,519	1,416,304
Others	m cu.ft.	1,099	3,340	25	4,438	3,365
All Pine Products	m cu.ft.	49,141	440,883	59,167	490,024	500,049
HARDWOOD						
Sawlogs	m bd.ft.[1]	8,425	246,700	883	255,125	247,583
Veneer/Panel Roundwood	m cu.ft.	0	456	0	456	456
Pulpwood	cords	244,645	1,196,203	132,919	1,440,848	1,329,122
All Hardwood Products	m cu.ft.	20,984	137,524	10,782	158,509	148,306
TOTAL						
Sawlogs	m bd.ft.[1]	86,576	1,408,554	78,919	1,495,130	1,487,473
Veneer/Panel Roundwood	m cu.ft.	5,623	162,086	19,351	167,709	181,436
Pulpwood	cords	611,950	2,277,417	468,009	2,889,367	2,745,426
Posts, Poles, Pilings	m cu.ft.	1,099	3,340	25	4,438	3,365
All Products	m cu.ft.	70,126	578,407	69,948	648,533	648,355

[1]International ¼-inch rule.

Table 9. Texas Industrial Roundwood Products, 1996-2006				
Year	Lumber			Structural Panel
	Pine	Hardwood	Total	
	------------------- m. bd. ft ------------------			m. sq. ft.
1996	1,248,627	175,570	1,424,196	3,042,736
1997	1,316,762	160,553	1,477,315	3,200,317
1998	1,293,432	191,165	1,484,597	3,169,713
1999	1,279,487	225,570	1,505,057	3,260,055
2000	1,410,999	184,172	1,595,171	3,265,644
2001	1,293,823	213,795	1,507,618	2,732,940
2002	1,425,613	223,932	1,649,544	2,818,356
2003	1,490,311	287,062	1,777,373	2,723,225
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

Table 10. Texas Pulp, Paper, and Paperboard Production, 1996-2006				
Year	Paper Products			Market Pulp
	Paper	Paperboard[1]	Total	
	---------------------------------- tons ---------------------------------			
1996	1,071,015	2,376,486	3,447,501	255,141
1997	1,116,018	2,052,153	3,168,171	270,235
1998	1,126,648	1,933,906	2,925,856	230,155
1999	1,079,397	1,979,592	3,058,989	242,113
2000	955,117	2,037,148	2,992,265	48,413
2001	599,902	2,083,326	2,683,228	0
2002	551,367	2,179,423	2,730,790	0
2003	255,462	2,170,185	2,425,647	0
2004	0	2,560,480	2,560,480	0
2005	0	2,512,262	2,512,262	0
2006	0	2,781,865	2,781,865	0

[1]Includes fiberboard and miscellaneous products.

Table 11. Products Treated by Texas Wood Preserving Plants, 2005-2006					
Product	Volume by Specific Unit			Volume by Cubic Feet	
	Unit of Measure	2005	2006	2005	2006
Utility poles	number	196,821	196,851	3,314,565	3,315,070
Constr. poles	number	4,810	4,810	14,430	14,430
Piling	m lin.ft.	40,051	40,051	19,476	19,476
Fence posts	number	2,706,914	3,789,092	2,383,037	3,335,735
Crossties	number	3,202,656	3,569,887	11,821,296	13,176,779
Switch ties	m bd.ft.	39,574	1,989	3,932,297	197,641
Cross arms	number	0	0	0	0
Lumber	m bd.ft.	224,372	323,060	19,441,959	27,993,268
Plywood/OSB	m sq.ft.	3,574	13,074	111,698	408,573
Other	cu.ft.	0	0	0	0
Total	cu.ft.	–	–	41,038,757	48,460,971

Table 12. Texas Primary Mill Residue, 2006[1]			
Residue Type	Pine	Hardwood	Total
	------------ tons ------------------		
Chips[2]	3,041,439	261,834	3,303,273
Sawdust	385,586	151,335	536,921
Shavings	368,821	26,424	395,245
Bark[3]	1,529,699	696,764	2,226,463
Total	5,325,546	1,136,356	6,461,902

[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 and Logging Residue Removal by Product in East Texas, 2006

Product	Industrial Roundwood			Residue			Total Volume		
	Pine	Hardwood	Total	Pine	Hardwood	Total	Pine	Hardwood	Total
	----- million cubic feet -------			----- million cubic feet -------			----- million cubic feet -------		
Growing Stock									
Sawtimber	279.5	41.1	320.6	13.3	5.3	18.6	292.7	46.4	339.1
Poletimber	196.9	99.1	296.0	1.8	4.4	6.2	198.7	103.5	302.2
Sub-total	476.3	140.2	616.5	15.1	9.7	24.8	491.4	149.9	641.3
Non-growing Stock									
Sawtimber	5.3	0.9	6.2	31.9	9.0	40.9	37.2	9.9	47.1
Poletimber	18.4	7.2	6.2	24.2	20.5	44.7	42.6	27.7	70.3
Sub-total	23.7	8.1	31.8	56.1	29.5	85.6	79.8	37.6	117.4
All									
Sawtimber	284.8	42.0	326.7	45.2	14.3	59.5	330.0	56.2	386.2
Poletimber	215.3	106.3	321.6	26.0	24.9	50.9	241.3	131.2	372.5
Total	500.0	148.3	648.4	71.2	39.2	110.3	571.2	187.5	758.7

Note: Sawtimber includes sawlog, chip-n-saw, veneer log, and pole; poletimber include 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 wood utilization rates from Texas 2003 Wood Utilization Study.

Table 14. Removals of Industrial Roundwood and Growing Stock in East Texas, 1992-2006

Year	Pine		Hardwood		All	
	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock
	----------------- million cubic feet --------------					
1992	496.6	488.8	111.4	112.8	608.0	601.5
1993	512.1	504.0	121.7	123.2	633.8	627.2
1994	522.3	514.1	139.6	141.3	661.9	655.3
1995	523.5	515.3	143.1	144.8	666.6	660.1
1996	543.5	535.0	116.5	117.9	660.0	652.9
1997	557.5	548.7	118.4	119.8	675.9	668.5
1998	542.4	532.0	127.9	129.0	670.3	661.0
1999	541.4	533.7	157.9	158.1	699.3	691.8
2000	508.9	502.9	116.7	118.1	625.6	620.9
2001	488.5	476.6	111.6	113.8	600.0	590.4
2002	537.0	527.3	130.6	131.9	667.6	659.2
2003	542.1	530.2	126.1	129.1	668.3	659.3
2004	517.7	508.6	133.5	136.2	651.1	644.8
2005	564.3	555.3	137.2	139.1	701.4	694.4
2006	500.0	491.4	148.3	149.9	648.4	641.3

Note: Total industrial roundwood harvest incudes harvest from both growing stock and non-growing stock. The growing stock removal was calculated using wood utilization rates from Texas 2003 Wood utilization study.

Table 15. Tree Planting by Ownership and Funding Source in Texas, 1996-2006

Year[1]	Nonindustrial Private								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				
1995	17,414	911,500	10,108	464,645	27,522	1,376,145	13,318	40,840	70,731	974	112,545
1996	17,414	866,500	10,108	441,370	27,522	1,307,870	8,391	35,913	85,680	358	121,951
1997	9,254	409,272	13,041	485,242	22,295	894,514	24,715	47,010	78,730	496	126,236
1998	13,371	347,693	13,272	500,919	26,643	848,612	31,951	58,594	93,991	363	152,948
1999	11,998	262,590	11,628	441,787	23,626	704,377	24,732	48,358	98,449	282	147,089
2000	11,496	489,165	5,401	270,451	16,897	694,103	26,284	43,181	120,523	725	164,430
2001	15,818	602,700	6,325	315,030	22,143	917,730	26,295	48,438	108,254	183	156,875
2002	10,772	581,833	5,649	348,273	16,421	930,106	16,743	33,164	80,388	840	114,392
2003	4,938	907,098	3,763	238,903	8,701	1,146,001	17,657	26,358	62,557	1,278	90,193
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

[1] Federal fiscal year. For example, fiscal year 1995 begins on October 1, 1994 and ends on September 30, 1995.

[2] Includes Forestry Incentives Program (FIP), Stewardship Incentives Program (SIP), Environmental Quality Incentives Program (EQIP), Conservation Reserve Program (CRP), and Forest Land Enhancement Program (FLEP) accomplishments.
Federal funding also includes the Ice Storm Recovery Program in 2002 - 2004.

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

[4] Acres for industry tree planting includes acres planted by TIMOs.

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