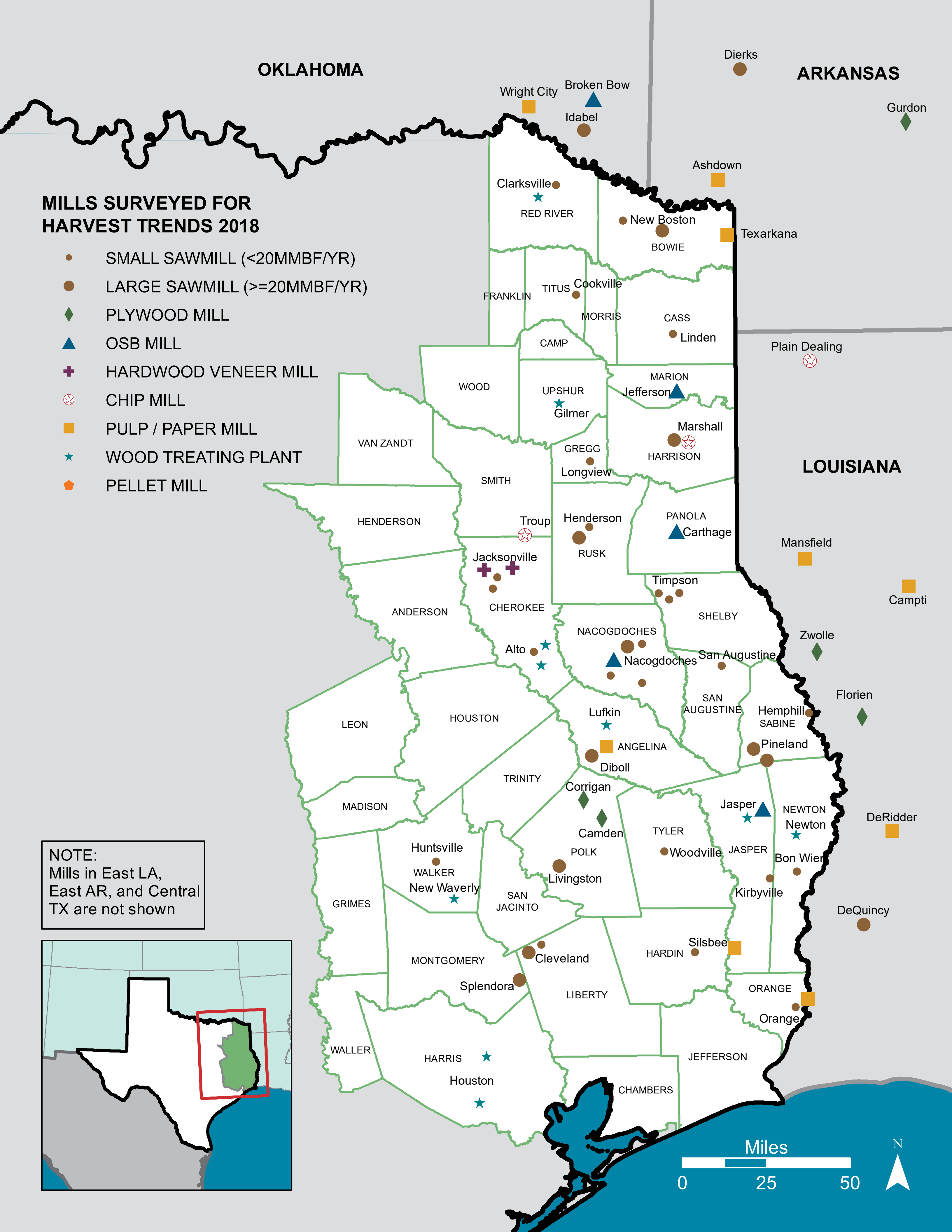
Harvest Trends 2018

April 2020

Texas A&M Forest Service


MILLS SURVEYED FOR HARVEST TRENDS 2018
SMALL SAWMILL (<20MMBF/YR)
LARGE SAWMILL (>=20MMBF/YR)
PLYWOOD MILL
OSB MILL
HARDWOOD VENEER MILL
CHIP 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
Texarkana
Clarksville
RED RIVER
New Boston
BOWIE
FRANKLIN
TITUS
Cookville
MORRIS
CASS
Linden
CAMP
Plain Dealing
WOOD
UPSHUR
Gilmer
MARION
Jefferson
VAN ZANDT
Marshall
HARRISON
GREGG
Longview
SMITH
HENDERSON
Troup
Henderson
RUSK
PANOLA
Carthage
Mansfield
Campti
Jacksonville
CHEROKEE
Timpson
SHELBY
ANDERSON
NACOGDOCHES
Alto
Nacogdoches
San Augustine
Zwolle
SAN AUGUSTINE
Florien
LEON
HOUSTON
Lufkin
Hemphill
SABINE
ANGELINA
Pineland
Diboll
TRINITY
Corrigan
MADISON
Jasper
NEWTON
Newton
DeRidder
Camden
TYLER
Huntsville
POLK
Woodville
JASPER
WALKER
Bon Wier
Livingston
New Waverly
Kirbyville
GRIMES
SAN JACINTO
DeQuincy
MONTGOMERY
Cleveland
HARDIN
Silsbee
Splendora
LIBERTY
ORANGE
Orange
WALLER
HARRIS
Houston
JEFFERSON
CHAMBERS
Miles
0
25
50
N

Harvest Trends 2018

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HIGHLIGHTS

Harvest Trends 2018

TIMBER REMOVAL

- ♦ Total growing stock timber removal was 519.7 million cubic feet, an increase of 7.9 percent from last year.
  - Pine removal was 437.4 million cubic feet, up 5.4 percent from last year.
  - Hardwood removal was up 24.0 percent to 82.3 million cubic feet.
- ♦ Harvest of timber for industrial use in the production of wood products was 540.3 million cubic feet.
  - 457.4 million cubic feet of pine were harvested for industrial consumption.
  - 82.9 million cubic feet of hardwood were harvested for industrial consumption.
- ♦ Stumpage value increased 13.5 percent to $277.9 million, and delivered value was up 5.6 percent to $631.2 million.
- ♦ Harvest of sawlogs was down 0.7 percent from last year to 1.1 billion board feet.
- ♦ Harvest for veneer and structural panel production increased 22.7 percent from last year to 160.4 million cubic feet.
- ♦ Pulpwood and pellet roundwood harvest was 3.0 million cords, an increase of 31.5 percent from last year.
- ♦ Total timber volume imported from other states was 103.8 million cubic feet while the total volume exported was 60.2 million cubic feet. The net import was 43.6 million cubic feet.

PRIMARY FOREST PRODUCTS

- ♦ Production of primary wood products included:
  - 1.5 billion board feet of lumber, an increase of 4.3 percent from last year.
  - 2.3 billion square feet (3/8-inch basis) of structural panel products, a decrease of 5.7 percent.
  - 2.7 million tons of pulp and paperboard, up 11.4 percent from last year.

MILL AND LOGGING RESIDUES

- ♦ Total production of mill residue was 5.8 million green tons, an increase of 5.1 percent.
- ♦ Total production of logging residue was 2.7 million green tons, up 8.1 percent from last year.

Cover photo: In spring 2019, straight line winds damaged acres of mature pine and hardwood timber on the ID Fairchild State Forest in Cherokee County. Texas A&M Forest Service employees cut, loaded, and hauled 48 loads (1,300 tons) to local sawmills using agency infrastructure.

Harvest Trends 2018

INTRODUCTION

Forests are vital economic and environmental assets in East Texas. The wood-based industry employed more than 67,000 people in 2017. The wood-based sector ranked fifth among manufacturing sector employers in the state in 2017. In 28 of 43 East Texas counties, the wood-based sector was among the top five manufacturing employers in 2017.[1] The value of harvested timber ranked ninth in 2017 among Texas' top agricultural commodities, behind cattle and calves, broilers, milk, miscellaneous crops, cotton lint, corn, chicken eggs, and sorghum grain.[2]

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 53rd annual report provides information on the volume and value of timber harvested in East Texas in 2018, 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 64 mills in Texas and 17 mills in surrounding states. Texas A&M Forest Service appreciates the cooperation of these companies that make this report possible.

2018 ECONOMIC CONDITIONS

The United States (U.S.) economy remained steady in 2018. The real Gross Domestic Product (GDP) increased 2.9 percent, which was higher than the 2017 annual increase of 2.2 percent.[3] The increase in real GDP growth from 2017 to 2018 was primarily due to positive contributions from nonresidential fixed investment, exports, federal government spending, private inventory investment, and state and local government spending. In 2018, the total real GDP amounted to about $20.9 trillion. The economy was on a path of recovery with a drop in the rate of unemployment to 3.9 percent in 2018, from 4.4 percent in 2017.[4] Given the considerable improvement in realized and expected labor market conditions and inflation, the Federal Reserve raised the target range for the federal funds rate to 2-1/4 to 2-1/2 percent in December 2018. The target range was 1-1/4 to 1-1/2 percent in 2017.[5]

The Consumer Price Index (CPI), the most closely watched indicator for U.S. inflation, increased 1.9 percent in 2018, which was lower than the 2.5 percent rise in 2017. This was the first time the 12-month change has been under 2.0 percent since August 2017. The energy index fell 0.3 percent in 2018; this represented the first 12-month decline in the energy index since the period ending September 2016.[6] The gasoline index declined 2.1 percent over 2018, and the food index rose 0.4 percent in 2018, the largest increase since May 2014.

The U.S. housing market continued to improve at a modest rate in 2018. Compared to 2017, housing starts rose 3.9 percent to 1,249,900 units in 2018, the highest annual total since 2007.[7] Single-family housing starts increased 3.2 percent to 875,800 units. The share of single-family starts was 70.1 percent, slightly higher than the 64.3 percent the previous year. Multi-family housing starts declined 1.3 percent. National residential housing permits, the best indicator of future housing starts activity, rose 3.7 percent to 1,328,800 units in 2018. A large share of this gain (64.4 percent) was due to single-family permits. Multi-family building permits increased 2.5 percent to 473,500 units in 2018.[7]

The housing affordability index was 155.3 in 2018, meaning that a family earning the median family income has 155.3 percent of the income necessary to qualify for a conventional loan covering 80.0 percent of a median priced existing single-family house, assuming a 20 percent down payment.[8] The median sale price of existing homes averaged $261,600 in 2018, up 5.1 percent from 2017.[8] Total existing home sales in 2018 were 5.34 million, down 3.1 percent over 2017.[8]

The average annual 30-year fixed mortgage rate was 4.5 percent in 2018, which was higher than the 2017 average of 4.0 percent. The national monthly average 30-year fixed mortgage rate ranged from 4.0 percent in January to 4.9 percent in November.[9]

The Texas economy continued to improve in 2018. Real GDP (GDP-State) in Texas grew 3.2 percent in 2018 compared to 2.7 percent in 2017.[10] Texas gained 342,800 additional jobs in 2018 with additions in major sectors, including construction, mining and logging, professional and business, leisure and hospitality, trade, transportation and utilities, education and health services, financial activities, information, and government.[11] The unemployment rate in Texas dropped to 3.9 percent in 2018, which was 0.4 percentage points lower than in 2017.[5]

Compared to 2017, the total number of residential building permits in Texas increased 10.6 percent in 2018

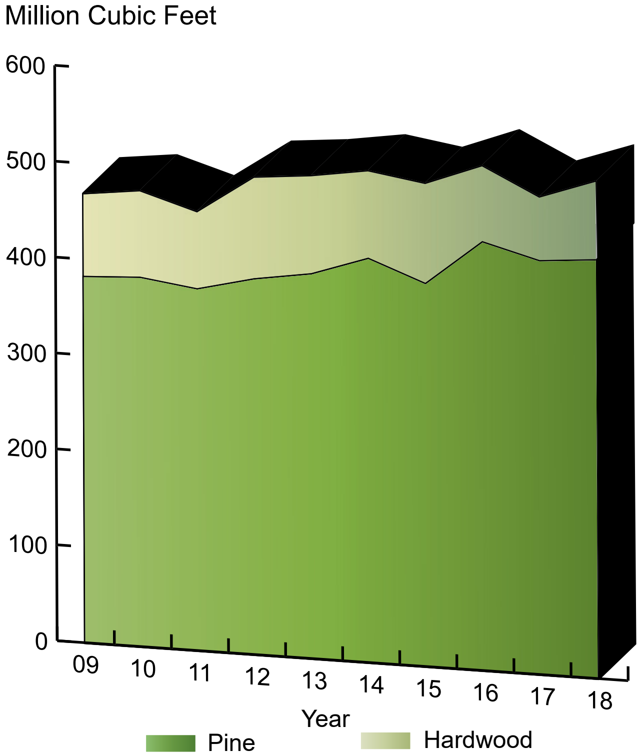


Figure 1. Total Timber Removal, 2009-2018

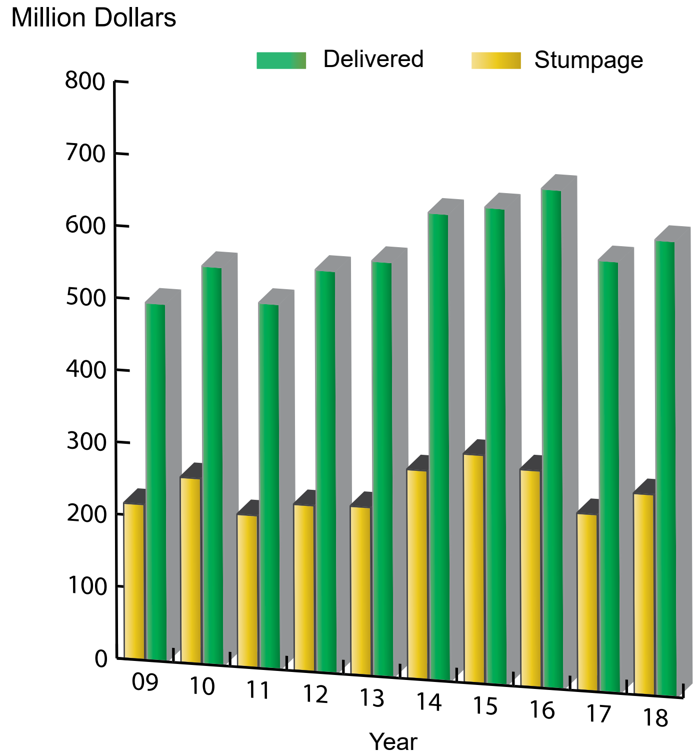


Figure 2. Value of Timber Harvest, 2009-2018

to 193,703 units. Single-family housing building permits increased 8.7 percent to 126,873. Multi-family building permits increased 14.5 percent to 66,830 units in 2018.[12]

Given a 3.2 percent rise in U.S. housing starts, the domestic softwood lumber market in the U.S. posted an upward trend in 2018. U.S. softwood lumber consumption was up 1.0 percent to 48.9 billion board feet (bbf).[13] In 2018, the U.S. South accounted for 29.5 percent of North America's softwood capacity.[14]

Structural panel production in the U.S. remained steady at 31.2 billion square feet (bsf) (3/8-inch basis),[13] including 8.9 bsf of plywood and 15.1 bsf of oriented strand board (OSB). This was about a 2.6 percent increase from the previous year. The U.S. South had the greatest structural panel capacity in North America, with 54% of OSB and 53% of plywood capacity in 2018.[14]

U.S. lumber prices rebounded slightly in 2018. The average annual Random Lengths framing lumber composite price in 2018 was $459 per thousand board feet (mbf), an 11.1 percent increase from 2017.[13] Similarly, the average annual Random Lengths structural panel composite price increased 10.0 percent to $481 per thousand square feet (msf) in 2018.[13] U.S. total exports of softwood lumber dropped to $886.6 million in 2018 from $1,128.2 million in 2017, and U.S. imports of softwood lumber from Canada decreased 21.7 percent to $4.5 billion in 2018. Since the expiration of the 2006 U.S.-Canada Softwood Lumber Agreement in October 2015, the everlasting softwood lumber trade debate between the U.S. and Canada has been active once again. In response to surging Canadian softwood lumber shipments to the U.S., the U.S. International Trade Commission levied heavy countervailing duties and antidumping tariffs against Canadian lumber flows to the U.S. starting in November 2017.

U.S. paper and paperboard production posted a slight decline in 2018, dropping about 1.1 percent to 77.2 million short tons. It was 7.0 percent lower than in 2010, and down 13.6 percent from 2005. A lower level of paper production was considered the primary reason behind this decline.[15]

STUMPAGE PRICES

Across the U.S. South, average annual prices for pine chip-n-saw and pulpwood in 2018 decreased 0.1 percent and 2.9 percent, respectively.[16] Average annual pine sawtimber prices increased 1.0 percentage. Average south-wide hardwood sawtimber and pulpwood prices were up 4.6 percent and 17.7 percent, respectively. Along with usual demand and supply factors, weather, competition, mill inventories, tract size and location, and tree size and quality are the major causes of stumpage price variation in the U.S. South.[17]

According to the *Texas Timber Price Trends* bimonthly timber market report, average annual pine sawtimber price in Texas increased 16.3 percent to $230.0 per mbf (Doyle scale) in 2018, compared to the previous year's average annual price of $197.8 per mbf. The average annual mixed hardwood sawtimber price decreased 6.4 percent from a year earlier to $268.8 per mbf. Pine pulpwood price decreased 9.4 percent to $19.3 per cord. Mixed hardwood pulpwood price increased 4.6 percent to $27.5 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, decreased 7.9 percent from the previous year (Figure 1). The total volume of growing stock removed was 519.7 million cubic feet, compared to 481.5 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 437.4 million cubic feet of pine and 82.3 million cubic feet of hardwood. Pine removals were up 5.4 percent and hardwood removals were up 24.0 percent from a year earlier. Figure 3 and Table 14 illustrate the harvest volume by species group and 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 457.4 and 82.9 million cubic feet for pine and hardwood, respectively. Pine industrial roundwood harvest was up 5.8 percent, and hardwood roundwood harvest was up 24.7 percent from a year earlier. The combined harvest increased 8.3 percent to 540.3 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, Newton, Cass, Cherokee, and Tyler.

Figure 4 on the next page illustrates the intensity of timber harvest expressed in cubic feet of harvest per acre of timberland. San Augustine, Cass, Polk, Cherokee, and Newton Counties had the five highest relative timber harvesting intensities.

Value of Timber Harvest

Stumpage value of East Texas timber harvest increased 13.5 percent to $277.9 million (Figure 2). The delivered value was up 5.6 percent to $631.2 million. Pine timber accounted for 86 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 decreased 0.7 percent to 1.1 billion board feet, which accounted for 33.0 percent of the total timber harvest. The pine sawlog cut totaled 1.0 billion board feet, down 0.7 percent. Hardwood sawlog harvest was down 0.1 percent to 73.0 million board feet. Newton, Polk, Cherokee, Angelina, and Jasper 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 146.6 million cubic feet, a 12.1 percent increase from a year earlier. The timber harvest for structural panels was 27.1 percent of the total timber harvest. Almost all of the veneer and panel roundwood was pine. Polk, Tyler, Harrison, Nacogdoches, and Houston 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 2.6 million cords, an increase of 14.8 percent from a year earlier. Pulpwood and pellet roundwood harvest accounted for 39.2 percent of the total timber harvest. Pine made up 66 percent of the total production. Cass, Newton, San Augustine, Hardin, and Jasper Counties were the top five producers. Table 4 lists the pulpwood and pellet roundwood harvest by county.

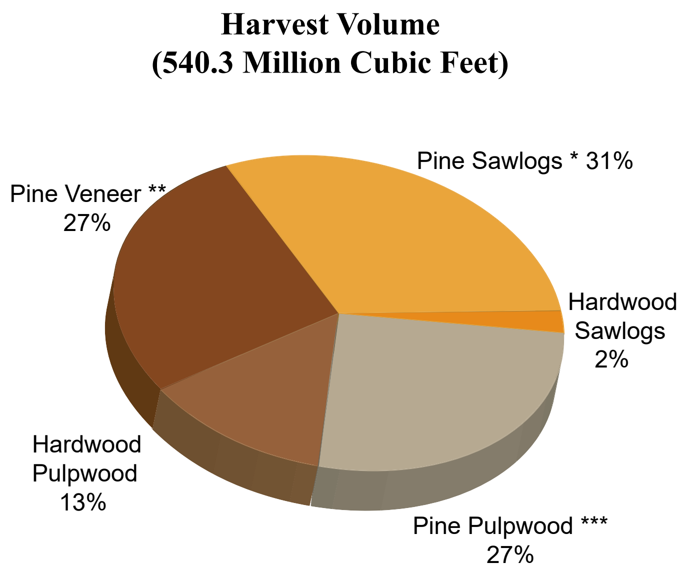
Other Roundwood

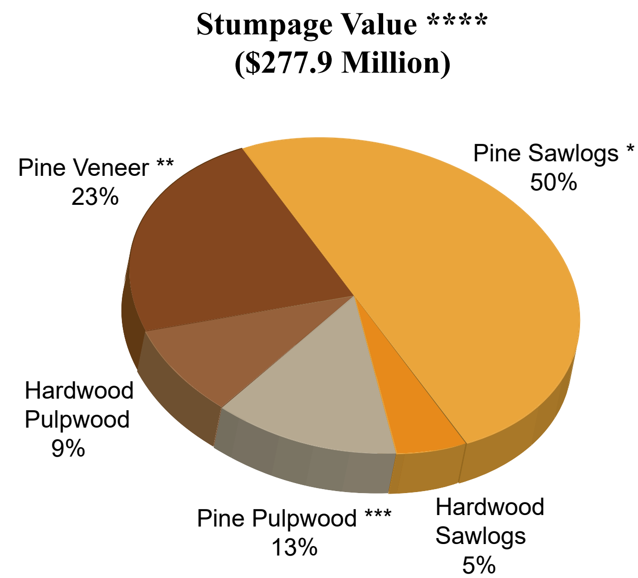
Other roundwood harvest included posts, poles, and pilings that totaled 6.7 million cubic feet. Table 5 lists harvest of these products by county.

Import-Export Trends

Texas imported more timber from surrounding states than exported to surrounding states. Exports of roundwood from Texas were 60.2 million cubic feet, while imports totaled 103.8 million cubic feet. The net import of roundwood was 43.6 million cubic feet. Table 8 details the interstate movement of roundwood.

Texas mills utilized 90.2 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.





*   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, 2018

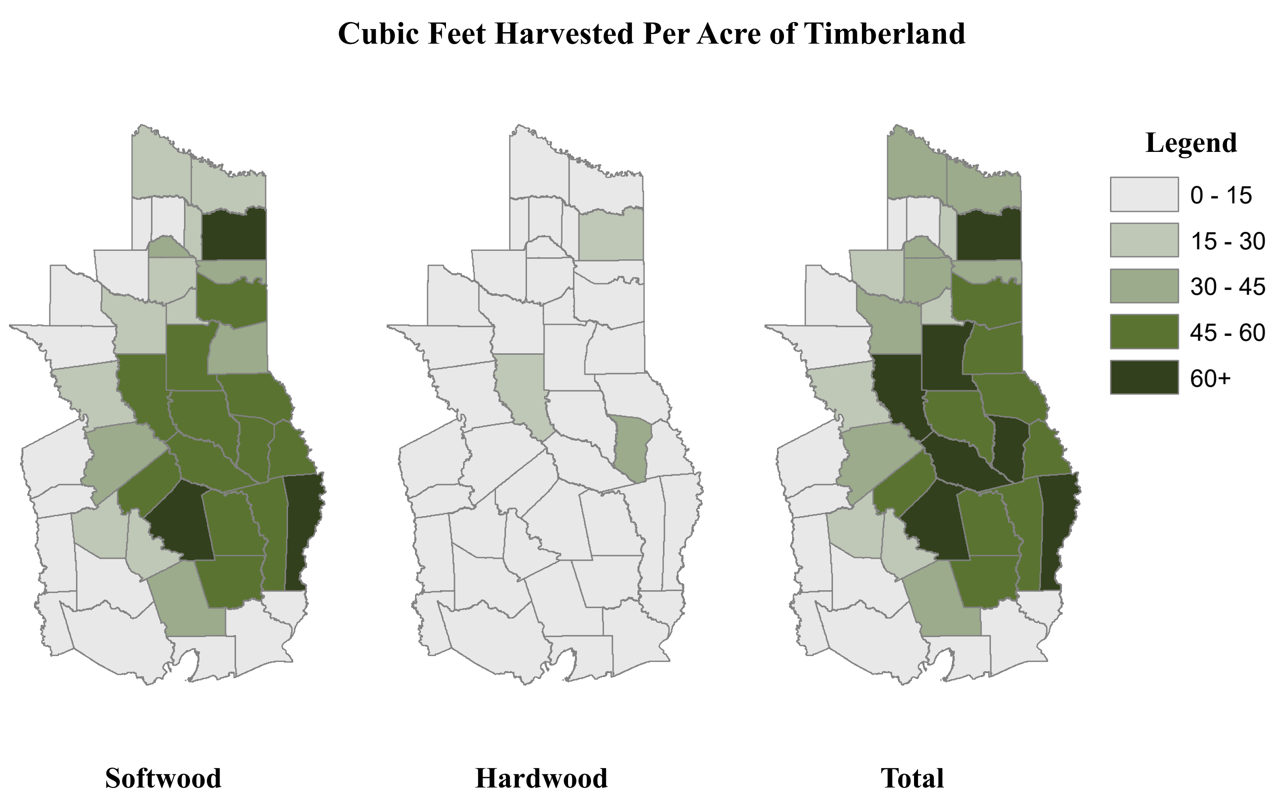


Figure 4. Intensity of Timber Harvest by County, 2018

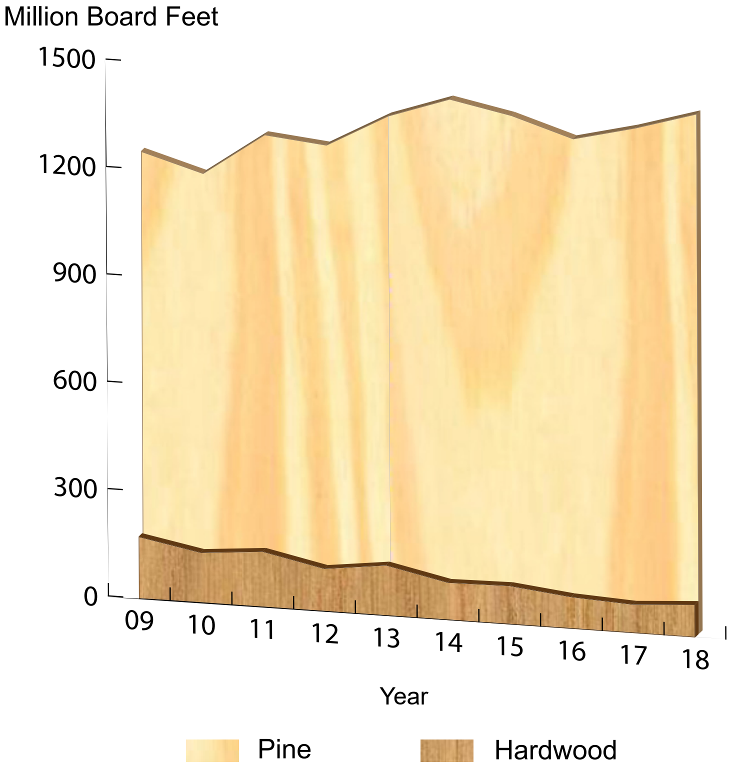


Figure 5. Texas Lumber Production, 2009-2018

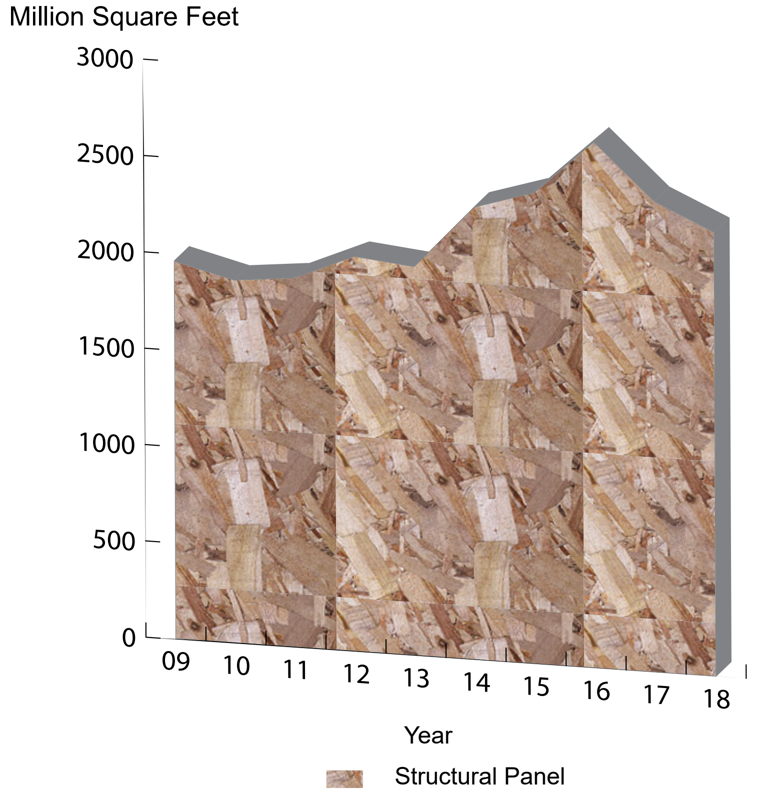


Figure 6. Texas Structural Panel Production, 2009-2018

PRODUCTION OF FOREST PRODUCTS

Lumber

Texas sawmills produced 1.5 billion board feet of lumber, an increase of 4.3 percent from a year earlier. Production of pine lumber was 1.5 billion board feet, up 3.7 percent from last year, and hardwood lumber production increased 14.5 percent to 90.6 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 5.7 percent to 2.3 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 2.7 million tons, up 11.4 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 38.9 million cubic feet, a decrease of 3.5 percent from a year earlier. Among major treated products, lumber accounted for 62.4 percent of the total volume, ties 13.2 percent, and poles and pilings 8.4 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 5.8 million tons (Table 12). Eighty-seven percent of the mill residue was from pine species and 13.0 percent was from hardwood species. Chips accounted for 48.2 percent of mill residue, followed by bark (32.5 percent), sawdust (13.3 percent), and shavings (6.0 percent) (Figure 8).

Logging Residue

Logging residue includes stumps, tops, limbs, and unutilized cull trees. Total logging residue produced was 2.7 million green tons. For this year, 23.5 percent of the logging residue was from growing stock, and 76.5 percent was from non-growing stock trees. Seventy-three percent of the residue was from pine and 27 percent was from hardwood (Table 13, Figure 9).

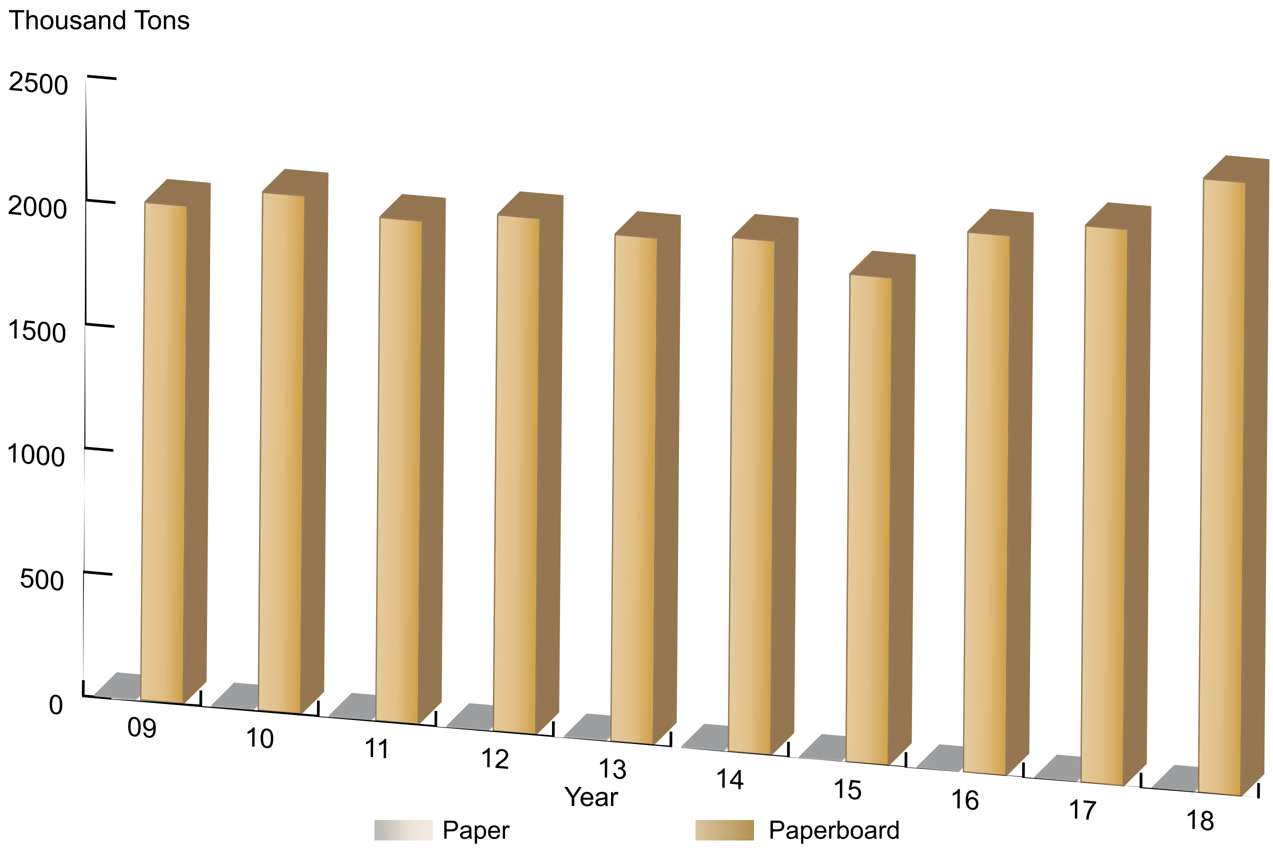


Figure 7. Texas Paper and Paperboard Production, 2009-2018

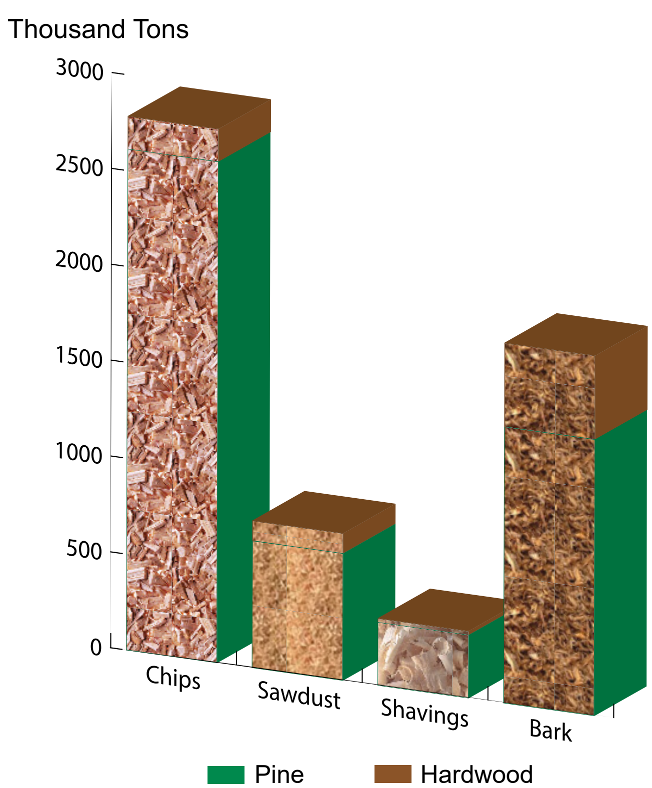


Figure 8. Texas Primary Mill Residue, 2018

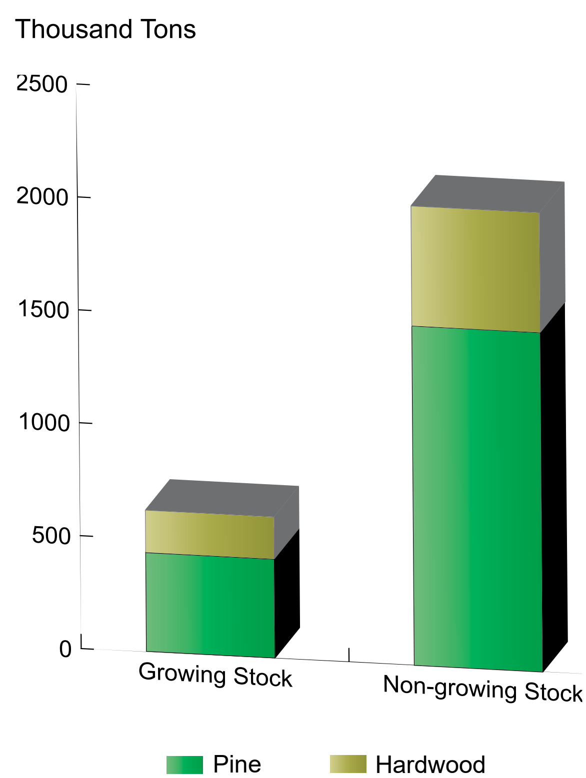


Figure 9. Texas Logging Residue, 2018

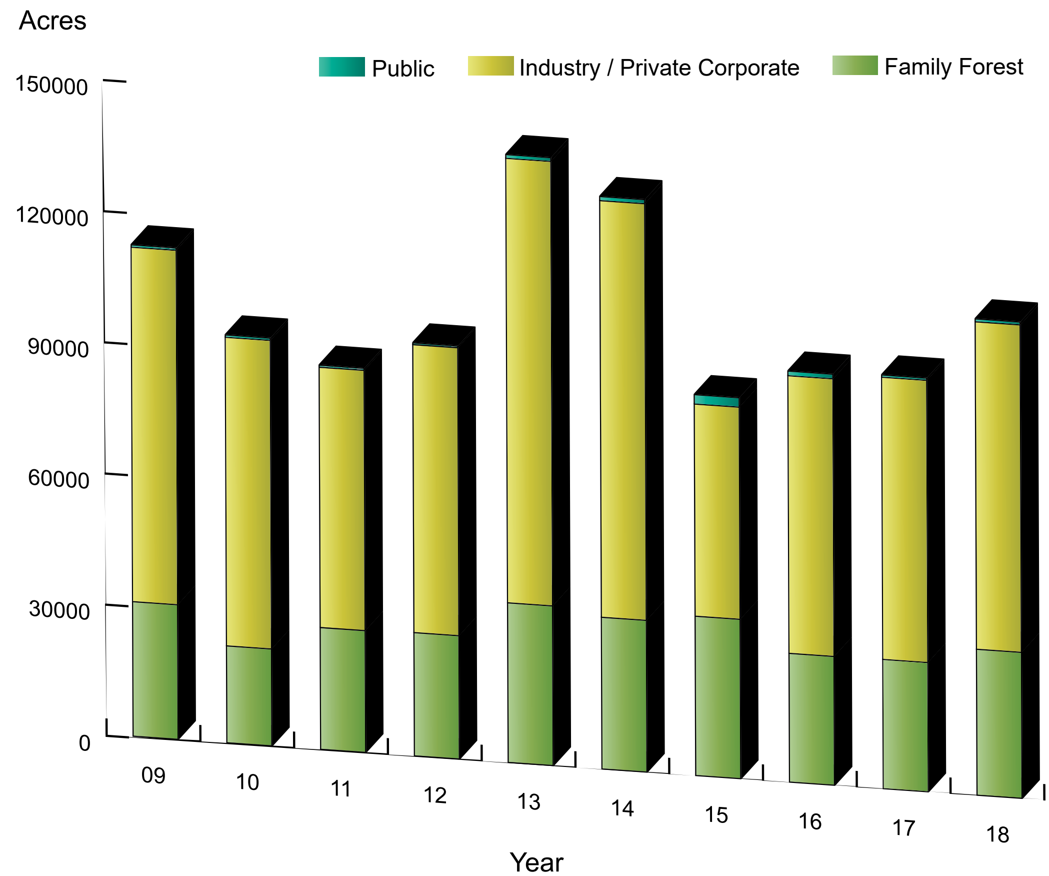


Figure 10. Reforestation Acreage by Ownership in Texas, 2009-2018

REFORESTATION

Accomplishments in reforestation by funding source and ownership are presented in Table 15. A total of 108,984 acres was planted during the winter 2017/spring 2018 planting season. Industrial landowners planted 74,910 acres, 16.1 percent more than the previous year. Family forest owners planted 33,406 acres. Public landowners planted 669 acres. Family forest owners received $3.1 million in cost share assistance for reforestation through federal cost share programs.

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[4]https://www.bls.gov/lau/lastrk18.htm

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[6]http://www.bls.gov/news.release/archives/cpi_01162015.pdf

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[13]Random Lengths, the Weekly Report on North American Forest Products Markets, 2018

[14]Forisk Multi-Client Study, North American Forest Market & Industry Rankings, 2019

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

[16]Timber-Mart South

[17]http://www.forest2market.com/uploads/Legacy/5-causes-of-stumpage-price-variation-in-the-us-south.pdf

Table 1. Total Industrial Timber Harvest Volume and Value by County in Texas, 2018

County	Volume Harvested			Value of Harvest	
	Pine	Hardwood	Total	Stumpage Value	Delivered Value
	– – – – – – – – – – cubic feet – – – – – – – – – –			– – – – – thousand dollars – – – – –	
Anderson	8,277,508	926,268	9,203,776	5,019	10,993
Angelina	22,199,262	3,588,091	25,787,353	16,096	33,001
Bowie	7,537,453	2,994,906	10,532,359	5,273	12,282
Camp	1,437,233	121,324	1,558,557	790	1,788
Cass	26,076,265	8,804,642	34,880,907	16,355	39,417
Chambers	183,824	2,348	186,172	56	173
Cherokee	23,464,794	6,639,287	30,104,081	17,873	37,740
Franklin	167,107	141,910	309,017	133	346
Gregg	1,229,401	359,283	1,588,684	1,086	2,145
Grimes	786,950	2,348	789,298	665	1,166
Hardin	22,935,720	2,057,517	24,993,237	10,108	26,268
Harris	1,721,066	28,348	1,749,414	1,450	2,562
Harrison	18,648,840	3,259,915	21,908,755	11,502	25,714
Henderson	619,255	184,000	803,255	479	1,006
Houston	13,031,424	634,102	13,665,526	7,308	16,064
Jasper	27,240,852	1,358,648	28,599,500	13,086	31,530
Jefferson	264,050	26,435	290,485	250	442
Leon	627,831	1,774,908	2,402,739	1,040	2,751
Liberty	11,167,852	3,963,495	15,131,347	8,067	18,257
Madison	87,849	880	88,729	63	120
Marion	8,224,927	1,420,054	9,644,981	3,816	10,060
Montgomery	3,900,737	146,019	4,046,756	2,703	5,282
Morris	1,122,144	240,891	1,363,035	762	1,657
Nacogdoches	21,612,845	3,265,195	24,878,040	13,511	29,651
Newton	39,898,453	950,716	40,849,169	19,276	45,414
Orange	897,588	76,988	974,576	399	1,022
Panola	14,379,451	3,227,866	17,607,317	8,941	20,424
Polk	38,751,275	2,122,772	40,874,047	22,420	49,004
Red River	6,970,027	3,204,794	10,174,821	4,327	11,143
Rusk	17,945,410	3,729,629	21,675,039	13,205	27,377
Sabine	12,483,587	1,131,600	13,615,187	7,508	16,305
San Augustine	15,945,379	12,134,188	28,079,567	12,525	31,643
San Jacinto	5,854,655	135,625	5,990,280	4,235	8,064
Shelby	14,926,151	2,517,594	17,443,745	9,001	20,324
Smith	5,576,862	3,304,031	8,880,893	3,907	9,877
Titus	183,774	126,179	309,953	245	463
Trinity	17,269,475	652,378	17,921,853	10,650	22,238
Tyler	27,711,467	1,637,571	29,349,038	13,059	32,034
Upshur	4,781,838	1,710,904	6,492,742	3,255	7,572
Van Zandt	617,484	180,880	798,364	238	760
Walker	5,270,099	217,388	5,487,487	3,484	7,004
Waller	687,653	2,348	690,001	598	1,036
Wood	3,468,344	2,322,608	5,790,952	2,068	5,977
Other Counties	1,193,020	1,596,386	2,789,406	1,116	3,070
Total Production	457,377,181	82,923,259	540,300,440	277,949	631,167

Table 2. Sawlog Harvest by County in Texas, 2018

County	Pine	Hardwood	Total
	– – – – — – – – –thousand board feet[1]– – – – — – – – –		
Anderson	17,511	2,767	20,278
Angelina	63,809	4,614	68,423
Bowie	17,998	2,746	20,744
Camp	3,384	120	3,504
Cass	48,158	7,563	55,721
Chambers	63	14	77
Cherokee	72,212	7,470	79,682
Franklin	84	248	332
Gregg	4,310	1,247	5,557
Grimes	4,013	14	4,027
Hardin	29,461	2,285	31,746
Harris	8,882	14	8,896
Harrison	42,655	2,025	44,680
Henderson	2,321	0	2,321
Houston	20,180	1,104	21,284
Jasper	63,265	1,341	64,606
Jefferson	1,084	150	1,234
Leon	1,568	14	1,582
Liberty	22,051	6,344	28,395
Madison	306	0	306
Marion	7,651	755	8,406
Montgomery	13,530	231	13,761
Morris	2,856	604	3,460
Nacogdoches	47,170	3,064	50,234
Newton	94,714	145	94,859
Orange	1,365	14	1,379
Panola	29,180	1,302	30,482
Polk	87,327	4,318	91,645
Red River	8,892	3,895	12,787
Rusk	51,926	5,520	57,446
Sabine	34,627	0	34,627
San Augustine	39,871	492	40,363
San Jacinto	21,897	159	22,056
Shelby	29,519	342	29,861
Smith	11,753	482	12,235
Titus	641	605	1,246
Trinity	44,821	1,493	46,314
Tyler	40,651	4,806	45,457
Upshur	9,986	2,569	12,555
Van Zandt	246	0	246
Walker	13,855	14	13,869
Waller	3,756	14	3,770
Wood	3,318	453	3,771
Other Counties	242	1,681	1,923
Total Production	1,023,109	73,038	1,096,147

[1]International ¼-inch rule.

Table 3. Veneer and Panel Roundwood Harvest by County in Texas, 2018

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – –	cubic feet	– – – – – – – – – – – – – – – –
Anderson	4,498,817	*	4,498,817
Angelina	8,725,519	*	8,725,519
Bowie	126,117	*	126,117
Camp	700,040	*	700,040
Cass	5,555,492	*	5,555,492
Chambers	3,921	*	3,921
Cherokee	8,106,809	*	8,106,809
Franklin	0	*	0
Gregg	518,272	*	518,272
Grimes	100,152	*	100,152
Hardin	2,295,607	*	2,295,607
Harris	56,030	*	56,030
Harrison	9,517,191	*	9,517,191
Henderson	171,983	*	171,983
Houston	8,787,284	*	8,787,284
Jasper	4,321,410	*	4,321,410
Jefferson	81,770	*	81,770
Leon	372,604	*	372,604
Liberty	3,176,226	*	3,176,226
Madison	38,165	*	38,165
Marion	3,857,203	*	3,857,203
Montgomery	298,473	*	298,473
Morris	216,370	*	216,370
Nacogdoches	9,379,062	*	9,379,062
Newton	5,694,890	*	5,694,890
Orange	20,156	*	20,156
Panola	6,262,827	*	6,262,827
Polk	12,695,670	*	12,695,670
Red River	2,054,981	*	2,054,981
Rusk	8,609,969	*	8,609,969
Sabine	3,248,874	*	3,248,874
San Augustine	3,728,455	*	3,728,455
San Jacinto	903,140	*	903,140
Shelby	7,059,121	*	7,059,121
Smith	2,293,835	*	2,293,835
Titus	8,347	*	8,347
Trinity	7,058,983	*	7,058,983
Tyler	11,351,695	*	11,351,695
Upshur	1,755,842	*	1,755,842
Van Zandt	405,812	*	405,812
Walker	2,003,133	*	2,003,133
Waller	882	*	882
Wood	440,375	*	440,375
Other Counties	64,878	*	64,878
Total Production	146,566,382	*	146,566,382

*Data suppressed to avoid disclosure of individual company information.

Table 4. Pulpwood and Pellet Roundwood Harvest by County in Texas, 2018

County	Pine	Hardwood	Total
	––––––––––––––– cords –––––––––––––––		
Anderson	11,607	5,778	17,385
Angelina	22,973	35,179	58,152
Bowie	55,481	31,680	87,161
Camp	2,329	1,265	3,594
Cass	156,971	94,204	251,175
Chambers	2,095	0	2,095
Cherokee	45,092	67,332	112,424
Franklin	1,895	1,254	3,149
Gregg	154	1,877	2,031
Grimes	448	0	448
Hardin	195,139	20,929	216,068
Harris	2,781	325	3,106
Harrison	27,374	36,504	63,878
Henderson	877	2,300	3,177
Houston	12,012	5,612	17,624
Jasper	156,341	14,172	170,513
Jefferson	81	16	97
Leon	13	22,157	22,170
Liberty	54,156	36,245	90,401
Madison	1	11	12
Marion	38,612	16,168	54,780
Montgomery	17,396	1,341	18,737
Morris	5,467	1,745	7,212
Nacogdoches	53,037	34,392	87,429
Newton	228,051	11,580	239,631
Orange	8,101	933	9,034
Panola	41,410	37,619	79,029
Polk	144,404	17,483	161,887
Red River	41,476	31,895	73,371
Rusk	11,336	35,049	46,385
Sabine	41,644	14,145	55,789
San Augustine	68,094	150,646	218,740
San Jacinto	17,309	1,362	18,671
Shelby	35,250	30,753	66,003
Smith	17,011	40,290	57,301
Titus	883	309	1,192
Trinity	36,347	5,025	41,372
Tyler	120,167	10,395	130,562
Upshur	17,374	16,001	33,375
Van Zandt	2,121	2,261	4,382
Walker	12,606	2,688	15,294
Waller	962	0	962
Wood	30,743	28,083	58,826
Other Counties	6,367	16,431	22,798
Total Production	1,743,988	883,434	2,627,422

Table 5. Other Roundwood Harvest by County in Texas, 2018[1]

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – –	cubic feet	– – – – – – – – – – – – – – – –
Anderson	0	0	0
Angelina	1,269,485	0	1,269,485
Bowie	0	0	0
Camp	0	0	0
Cass	0	0	0
Chambers	0	0	0
Cherokee	0	0	0
Franklin	0	0	0
Gregg	0	0	0
Grimes	0	0	0
Hardin	58,612	0	58,612
Harris	0	0	0
Harrison	0	0	0
Henderson	0	0	0
Houston	0	0	0
Jasper	842	0	842
Jefferson	0	0	0
Leon	0	0	0
Liberty	30,618	0	30,618
Madison	0	0	0
Marion	0	0	0
Montgomery	0	0	0
Morris	0	0	0
Nacogdoches	291,600	0	291,600
Newton	378,692	0	378,692
Orange	0	0	0
Panola	32,400	0	32,400
Polk	203,407	0	203,407
Red River	114,178	0	114,178
Rusk	0	0	0
Sabine	248,573	0	248,573
San Augustine	238,331	0	238,331
San Jacinto	0	0	0
Shelby	226,800	0	226,800
Smith	0	0	0
Titus	0	0	0
Trinity	940	0	940
Tyler	36,936	0	36,936
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	3,704,613	0	3,704,613

[1]Including posts, poles and pilings.

Table 6. Timber Stumpage Price in East Texas by Product, 2009-2018

Year	Sawtimber/Veneer		Pulpwood		Pine Chip-N-Saw	Pine Poles
	Pine	Mixed Hardwood	Pine	Mixed Hardwood		
	––– $/MBF-Doyle –––		––– $/cord –––		$/cord	$/ton
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
2014	217.10	319.55	24.42	27.27	34.68	51.50
2015	235.26	372.15	25.33	45.56	39.23	50.34
2016	213.29	371.21	24.65	29.76	34.29	50.31
2017	197.82	287.17	21.32	26.28	26.32	49.00
2018	229.93	268.75	19.33	27.45	37.26	47.52

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, 2018

Product	Unit	Stumpage		Delivered	
		Price[1] ($/unit)	Value (million $)	Price[2] ($/unit)	Value (million $)
PINE					
Sawlogs/Chip-n-Saw	MBF[3]	–	139	–	247
Sawlogs	MBF[3]	153.27	123	256.08	205
Chip-n-Saw	MBF[3]	74.52	17	186.75	42
Veneer/Panel Roundwood	MCF	–	63	–	156
Veneer Logs	MCF	945.51	38	1,579.78	63
Panel Roundwood	MCF	238.64	25	867.65	93
Pulpwood	cords	19.33	34	70.28	123
Others	MCF	–	3	–	5
All pine products			239		530
HARDWOOD					
Sawlogs	MBF[3]	197.62	14	335.09	24
Veneer	MCF	1,521.54	0	3,081.11	0
Pulpwood	cords	27.45	24	86.64	77
All hardwood products			39		101
ALL PRODUCTS			278		631

[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, 2018						
Product	Units	Imports	Produced & Utilized in State	Exports	Texas Mill Receipts	Texas Roundwood Production
PINE						
Sawlogs	MBF[1]	173,713	996,548	26,561	1,170,261	1,023,109
Veneer/Panel Roundwood	MCF	6,999	135,818	10,748	142,817	146,566
Pulpwood	cords	429,519	1,266,379	477,609	1,695,898	1,743,988
Posts, Poles, Pilings	MCF	1,489	3,705	0	5,194	3,705
All Pine Products	MCF	71,437	403,638	53,739	475,075	457,377
HARDWOOD						
Sawlogs	MBF[1]	2,985	73,038	0	76,023	73,038
Veneer	MCF	0	0	0	0	0
Pulpwood	cords	398,407	802,861	80,573	1,201,268	883,434
All Hardwood Products	MCF	32,373	76,477	6,446	108,851	82,923
TOTAL						
Sawlogs	MBF[1]	176,698	1,069,586	26,561	1,246,284	1,096,147
Veneer/Panel Roundwood	MCF	6,999	135,818	10,748	142,817	146,566
Pulpwood	cords	827,926	2,069,240	558,182	2,897,166	2,627,422
Posts, Poles, Pilings	MCF	1,489	3,705	0	5,194	3,705
ALL PRODUCTS	MCF	103,810	480,116	60,185	583,926	540,300

[1]International ¼-inch rule.

Table 9. Texas Industrial Roundwood Products, 2009-2018				
Year	Lumber			Structural Panel
	Pine	Hardwood	Total	
	– – – – – m. bd. ft[1] – – – – –			m. sq. ft.
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
2014	1,444,203	104,089	1,548,292	2,348,023
2015	1,410,472	107,029	1,517,501	2,444,464
2016	1,357,409	88,001	1,445,410	2,729,569
2017	1,399,502	79,090	1,478,592	2,443,043
2018	1,451,042	90,568	1,541,610	2,303,996

[1]Lumber tally.

Table 10. Texas Pulp and Paperboard Production, 2009-2018	
Year	Pulp and Paperboard Products[1]
	tons
2009	2,050,681
2010	2,089,521
2011	2,071,405
2012	2,081,521
2013	2,168,403
2014	2,213,026
2015	2,106,412
2016	2,317,537
2017	2,384,711
2018	2,655,432

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

Table 11. Products Treated by Texas Wood Preserving Plants, 2017-2018

Product	Unit of Measure	Volume by Specific Unit		Volume by Cubic Feet	
		2017	2018	2017	2018
Poles and pilings[1]	CF	3,707,169	3,264,843	3,707,169	3,264,843
Fence posts	number	2,344,274	2,150,829	2,063,786	1,893,486
Ties[2]	CF	5,647,530	5,135,084	5,647,530	5,135,084
Lumber	MBF	295,094	291,151	24,591,147	24,262,562
Plywood/OSB	MSF	11,124	8,158	347,631	254,949
Other	CF	3,900,136	4,049,053	3,900,136	4,049,053
Total	CF	–	–	40,257,399	38,859,978

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

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

Table 12. Texas Primary Mill Residue, 2018[1]

Residue Type	Pine	Hardwood	Total
	– — – – – – tons – — – – – –		
Chips[2]	2,612,950	170,399	2,783,349
Sawdust	661,911	103,905	765,816
Shavings	328,374	20,045	348,419
Bark[3]	1,440,680	436,622	1,877,302
Total	5,043,915	730,971	5,774,886

[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, 2018

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	6,695.4	474.7	7,170.1	398.6	68.6	467.1	7,093.9	543.2	7,637.2
Poletimber	6,804.9	2,129.2	8,934.1	38.6	119.5	158.2	6,843.5	2,248.8	9,092.3
Sub-total	13,500.3	2,603.9	16,104.2	437.2	188.1	625.3	13,937.5	2,792.0	16,729.4
Non-growing Stock									
Sawtimber	127.5	8.7	136.2	789.3	112.6	901.8	916.8	121.3	1,038.1
Poletimber	910.6	189.8	1,100.4	713.2	419.7	1,132.9	1,623.8	609.5	2,233.3
Sub-total	1,038.1	198.5	1,236.6	1,502.5	532.3	2,034.8	2,540.6	730.8	3,271.4
All									
Sawtimber	6,822.9	483.4	7,306.3	1,187.8	181.1	1,369.0	8,010.8	664.5	8,675.3
Poletimber	7,715.5	2,319.0	10,034.5	751.8	539.3	1,291.1	8,467.3	2,858.3	11,325.6
Total	14,538.4	2,802.4	17,340.8	1,939.7	720.4	2,660.1	16,478.1	3,522.8	20,000.8

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, 1999-2018

Year	Pine		Hardwood		All	
	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock
	– — – – – – – – — – – – – MMCF – — – – – – – – — – – – –					
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
2014	439.8	422.3	91.5	91.4	531.3	513.7
2015	418.2	400.2	105.2	104.5	523.4	504.7
2016	467.2	447.9	79.4	79.4	546.6	527.3
2017	432.3	415.1	66.5	66.4	498.8	481.5
2018	457.4	437.4	82.9	82.3	540.3	519.7

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, 2009-2018

Year[1]	Family Forest				Industry[3]	Public	Total
	Federal Cost Share Programs[2]		Non-Cost Share	Total Acres	Acres	Acres	Acres
	Acres	Cost Share $	Acres				
2009	17,152	746,763	13,639	30,791	81,067	564	112,422
2010	16,255	1,569,178	5,919	22,174	70,577	555	93,306
2011	22,338	2,060,568	5,522	27,860	59,554	473	87,887
2012	23,299	2,172,624	4,913	28,212	65,867	402	94,481
2013	29,818	3,130,118	6,709	36,527	101,671	872	139,070
2014	27,008	2,750,446	7,716	34,724	95,306	941	130,971
2015	18,941	2,245,453	17,526	36,467	48,530	2,153	87,150
2016	16,585	2,108,513	12,886	29,471	63,498	1,075	94,044
2017	15,590	1,782,048	13,985	29,575	64,551	530	94,655
2018	25,529	3,082,535	7,877	33,406	74,910	669	108,984

[1]Federal fiscal year. For example, fiscal year 2018 begins on October 1, 2017 and ends on September 30, 2018.

[2]Includes Environmental Quality Incentives Program (EQIP).

[3]Acres for industry tree planting includes acres planted by Timberland Investment Management Organizations (TIMOs) and Real Estate Investment Trusts (RE-ITs).