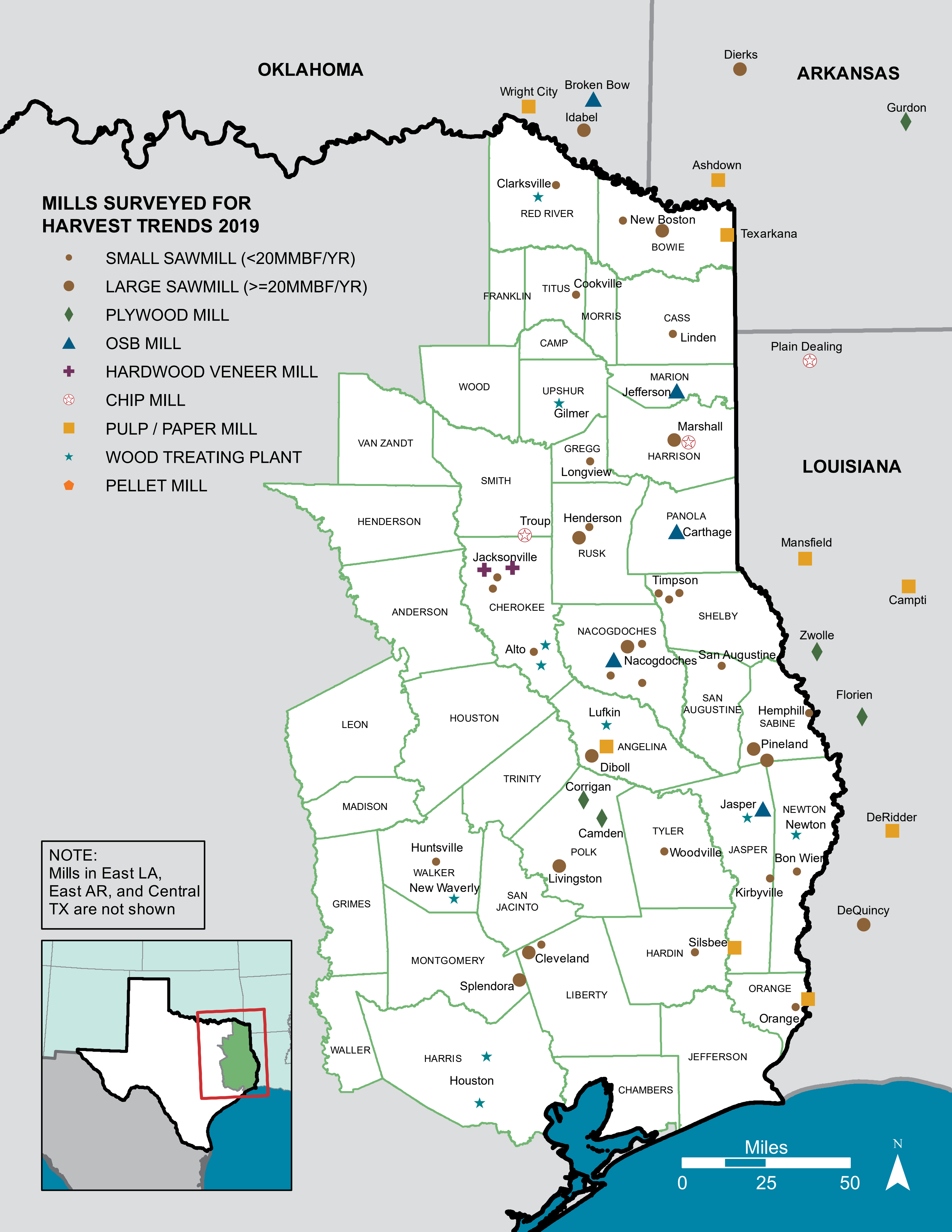
Harvest Trends 2019

April 2021

Texas A&M Forest Service



OKLAHOMA
ARKANSAS
LOUISIANA
MILLS SURVEYED FOR HARVEST TRENDS 2019
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
Dierks
Gurdon
Wright City
Broken Bow
Idabel
Ashdown
Clarksville
RED RIVER
New Boston
BOWIE
Texarkana
FRANKLIN
TITUS
Cookville
MORRIS
CASS
Linden
CAMP
Plain Dealing
WOOD
UPSHUR
Gilmer
MARION
Jefferson
Marshall
HARRISON
VAN ZANDT
GREGG
Longview
SMITH
HENDERSON
Troup
Henderson
RUSK
PANOLA
Carthage
Mansfield
Campti
Jacksonville
CHEROKEE
ANDERSON
Timpson
SHELBY
NACOGDOCHES
Nacogdoches
Alto
San Augustine
Zwolle
SAN AUGUSTINE
Hemphill
SABINE
Florien
LEON
HOUSTON
Lufkin
ANGELINA
Diboll
Pineland
TRINITY
Corrigan
MADISON
Jasper
NEWTON
Newton
DeRidder
Camden
TYLER
Huntsville
POLK
Woodville
JASPER
WALKER
Livingston
Bon Wier
New Waverly
Kirbyville
GRIMES
SAN JACINTO
DeQuincy
Silsbee
HARDIN
MONTGOMERY
Cleveland
Splendora
LIBERTY
ORANGE
Orange
WALLER
HARRIS
JEFFERSON
Houston
CHAMBERS
Miles
0
25
50
N

Harvest Trends 2019

Aaron Stottlemyer, Ph.D.
Edward Dougal, Ph.D.
Xufang Zhang, Ph.D.
Rebekah Zehnder, M.En.
Eric Taylor, Ph.D.
Burl Carraway, MFR
Forest Resource Development and Forest Analytics
College Station, Texas

April 2021

HIGHLIGHTS

Harvest Trends 2019

TIMBER REMOVAL

- ♦ Total growing stock timber removal was 542.9 million cubic feet, an increase of 4.5 percent from last year.
  - Pine removal was 462.2 million cubic feet, up 5.7 percent from last year.
  - Hardwood removal was down 1.9 percent to 80.8 million cubic feet.
- ♦ Harvest of timber for industrial use in the production of wood products was 566.2 million cubic feet.
  - 484.8 million cubic feet of pine were harvested for industrial consumption.
  - 81.3 million cubic feet of hardwood were harvested for industrial consumption.
- ♦ Stumpage value increased 19.1 percent to $331.2 million, and delivered value was up 10.2 percent to $695.4 million.
- ♦ Harvest of sawlogs was up 1.4 percent from last year to 1.1 billion board feet.
- ♦ Harvest for veneer and structural panel production increased 15.4 percent from last year to 169.2 million cubic feet.
- ♦ Pulpwood and pellet roundwood harvest was 2.6 million cords, the same as last year.
- ♦ Total timber volume imported from other states was 109.4 million cubic feet while the total volume exported was 52.4 million cubic feet. The net import was 57.0 million cubic feet.

PRIMARY FOREST PRODUCTS

- ♦ Production of primary wood products included:
  - 1.5 billion board feet of lumber, a decrease of 3.5 percent from last year.
  - 3.1 billion square feet (3/8-inch basis) of structural panel products, an increase of 14.3 percent.
  - 2.4 million tons of pulp and paperboard, down 9.6 percent from last year.

MILL AND LOGGING RESIDUES

- ♦ Total production of mill residue was 5.7 million green tons, a decrease of 1.7 percent.
- ♦ Total production of logging residue was 2.7 million green tons, up 2.9 percent from last year.

Cover photo: Workers load mine props and crossties into a Texas & Pacific rail car bound for Mexico in Marion County, Texas, in 1927.

Harvest Trends 2019

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 54th annual report provides information on the volume and value of timber harvested in East Texas in 2019, 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.

2019 ECONOMIC CONDITIONS

The United States (U.S.) economy remained steady in 2019. The real Gross Domestic Product (GDP) increased 2.3 percent, which was higher than the 2018 annual increase of 2.9 percent.[3] The increase in real GDP growth from 2018 to 2019 was primarily due to positive contributions from personal consumption expenditures, nonresidential fixed investment, federal government spending, state and local government spending, and private inventory investment. In 2019, the total real GDP amounted to about $21.7 trillion.[3] The economy was on a path of recovery with a drop in the rate of unemployment to 3.7 percent in 2019, from 3.9 percent in 2018.[4] Given the considerable improvement in realized and expected labor market conditions and inflation, the Federal Reserve lowered the target range for the federal funds rate to 1-1/2 to 1-3/4 percent in December 2019. The target range was 2-1/4 to 2-1/2 percent in 2018.[5]

The Consumer Price Index (CPI), the most closely watched indicator for U.S. inflation, increased 2.3 percent in 2019, which was higher than the 1.9 percent rise in 2018. This was the largest 12-month increase since the period ending October 2018. The energy index increased 3.4 percent in 2019, with its major component indexes mixed. The gasoline index increased 7.9 percent and the food index rose 1.8 percent over the12-month of 2019.[6]

The U.S. housing market continued to improve at a modest rate in 2019. Compared to 2018, housing starts rose 3.3 percent to 1,291,300 units in 2019, the highest annual total since 2007.[7] Single-family housing starts increased 1.4 percent to 888,200 units. The share of single-family starts was 68.8 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 3.1 percent to 1,370,300 units in 2019. A large share of this gain (62.3 percent) was due to single-family permits. Multi-family building permits increased 9.0 percent to 516,100 units in 2019.[7]

The housing affordability index was 159.5 in 2019, meaning that a family earning the median family income has 159.5 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 $274,600 in 2019, up 5.0 percent from 2018.[8] Total existing home sales in 2019 were 5.34 million, which maintained the same as 2018.[8]

The average annual 30-year fixed mortgage rate was 3.9 percent in 2019, which was lower than the 2018 average of 4.5 percent. The national monthly average 30-year fixed mortgage rate ranged from 4.5 percent in January to 3.7 percent in December.[9]

The Texas economy continued to improve in 2019. Real GDP (GDP-State) in Texas grew 4.4 percent in 2019 compared to 3.2 percent in 2018.[10] Texas gained 342,800 additional jobs in 2019 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 3.5 percent in 2019, which was 0.4 percentage points lower than in 2018.[5] In 2019, Texas set a record for the lowest unemployment rate since series tracking began in 1976.[10]

Compared to 2018, the total number of residential building permits in Texas increased 8.4 percent in 2019 to 209,895

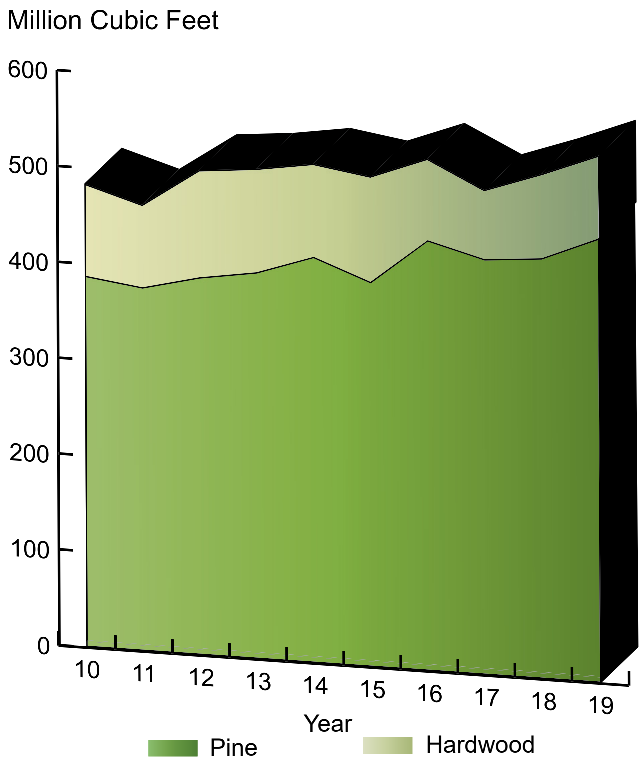


Figure 1. Total Timber Removal, 2010-2019

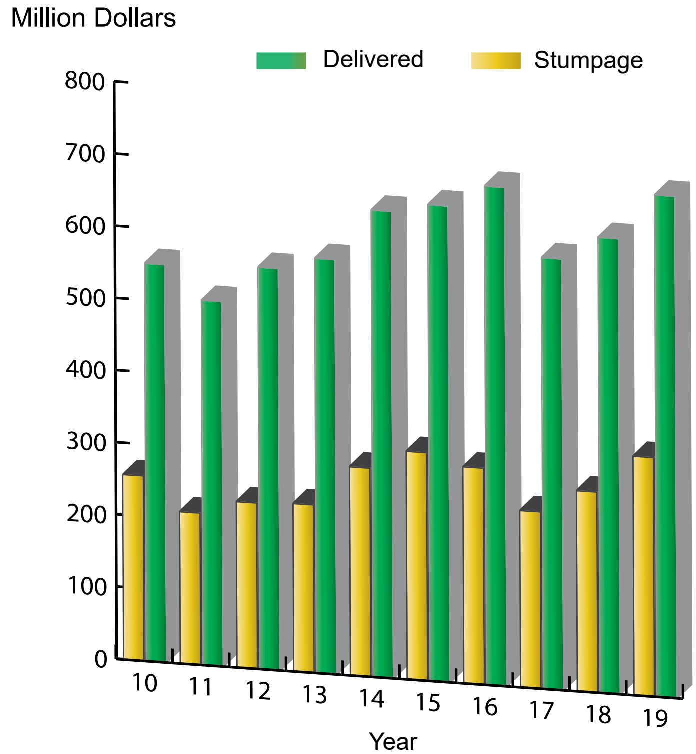


Figure 2. Value of Timber Harvest, 2010-2019

units. Single-family housing building permits increased 1.8 percent to 129,094. Multi-family building permits increased 20.9 percent to 80,801 units in 2019.[12]

Given a 3.8 percent rise in U.S. housing starts,[13] the domestic softwood lumber market in the U.S. posted the same trend in 2019. U.S. softwood lumber consumption remained steady of 48.9 billion board feet (bbf).[14] Lumber production in the U.S. South accounted for 55.1 percent, or 19.4 bbf, of the U.S. total, a 3.2 percent increase from 2018.[15]

Structural panel production in the U.S. remained steady at 23.9 billion square feet (bsf) (3/8-inch basis) in 2019, decreasing about a 0.4 percent from the previous year.[15] The U.S. Southern softwood lumber production was at 19.4 mmbf in 2019, which was up 2.8 percent from 2018.[15]

U.S. lumber prices decreased in 2019. The average annual Random Lengths framing lumber composite price in 2019 was $356 per thousand board feet (mbf), a 22.5 percent decrease from 2018.[14] Similarly, the average annual Random Lengths structural panel composite price decreased 27.1 percent to $350 per thousand square feet (msf) in 2019.[14]

U.S. total exports of softwood lumber dropped to 1,126 million board feet (mmbf) in 2019 from 1,431 mmbf in 2018, and U.S. imports of softwood lumber from Canada decreased 4.7 percent to 8,794.2 mmbf in 2019. 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 2019, dropping about 0.5 percent to 73.3 million short tons. It was 11.7 percent lower than in 2010, and down 18.0 percent from 2005. A lower level of paper production was considered the primary reason behind this decline.[16]

STUMPAGE PRICES

Across the U.S. South, average annual prices for pine chip-n-saw and pulpwood in 2019 increased 0.2 percent and 0.3 percent, respectively.[17] Average annual pine sawtimber prices increased 2.0 percentage. Average south-wide hardwood sawtimber and pulpwood prices were up 1.3 percent and 18.7 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.[18]

According to the Texas Timber Price Trends bimonthly timber market report, average annual pine sawtimber price in Texas increased 4.5 percent to $240.4 per mbf (Doyle scale) in 2019, compared to the previous year's average annual price of $229.9 per mbf. The average annual mixed hardwood sawtimber price increased 19.8 percent from a year earlier to

$322.1 per mbf. Pine pulpwood price increased 38.9 percent to $26.8 per cord. Mixed hardwood pulpwood price increased 34.8 percent to $37.0 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 4.5 percent from the previous year (Figure 1). The total volume of growing stock removed was 542.9 million cubic feet, compared to 519.7 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 462.2 million cubic feet of pine and 80.8 million cubic feet of hardwood. Pine removals were up 5.7 percent and hardwood removals were down 1.9 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 484.8 and 81.3 million cubic feet for pine and hardwood, respectively. Pine industrial roundwood harvest was up 6.0 percent, and hardwood roundwood harvest was down 1.9 percent from a year earlier. The combined harvest increased 4.8 percent to 566.2 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 Newton, Polk, Cass, San Augustine, and Cherokee.

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, Newton, Cherokee, and Polk counties had the five highest relative timber harvesting intensities.

Value of Timber Harvest

Stumpage value of East Texas timber harvest increased 19.1 percent to $331.2 million (Figure 2). The delivered value was up 10.2 percent to $695.4 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 increased 1.4 percent to 1.1 billion board feet, which accounted for 31.9 percent of the total timber harvest. The pine sawlog cut totaled 1.0 billion board feet, up 1.5 percent. Hardwood sawlog harvest was the same as the previous year at 73.1 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 169.2 million cubic feet, a 15.4 percent increase from a year earlier. The timber harvest for structural panels was 29.9 percent of the total timber harvest. Almost all of the veneer and panel roundwood was pine. Polk, Houston, Trinity, Harrison, and Cherokee 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 0.3 percent from a year earlier. Pulpwood and pellet roundwood harvest accounted for 37.5 percent of the total timber harvest. Pine made up 67 percent of the total production. Cass, San Augustine, Newton, Hardin, and Jasper counties were the top five producers. Table 4 lists the pulpwood and pellet roundwood harvest by county.

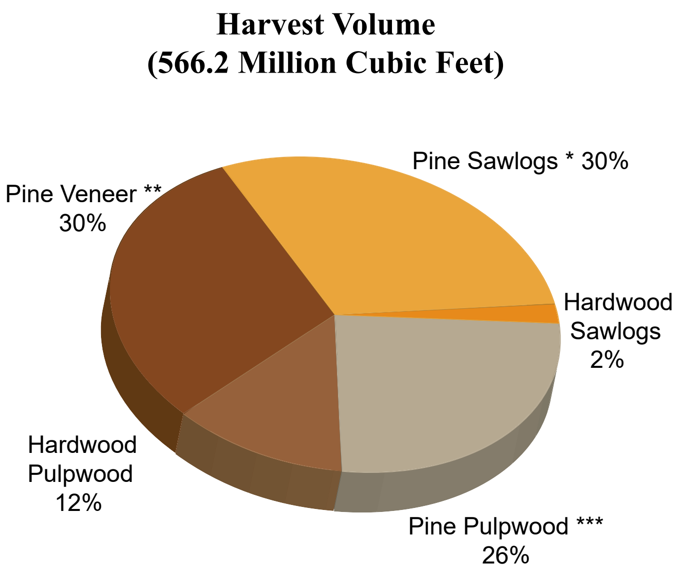
Other Roundwood

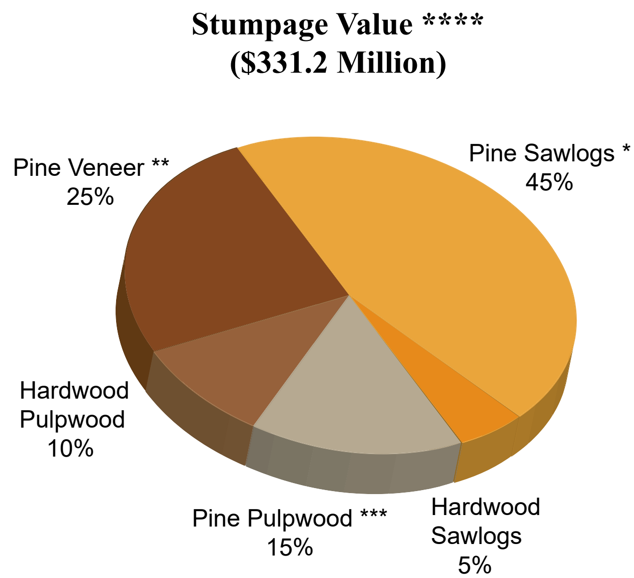
Other roundwood harvest included posts, poles, and pilings that totaled 3.9 million cubic feet. Table 5 lists harvest of these products by county.

Import-Export Trends

Texas imported more timber from surrounding states than exported to surrounding states. Exports of roundwood from Texas were 52.4 million cubic feet, while imports totaled 109.4 million cubic feet. The net import of roundwood was 57.0 million cubic feet. Table 8 details the interstate movement of roundwood.

Texas mills utilized 90.7 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.





* 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, 2019

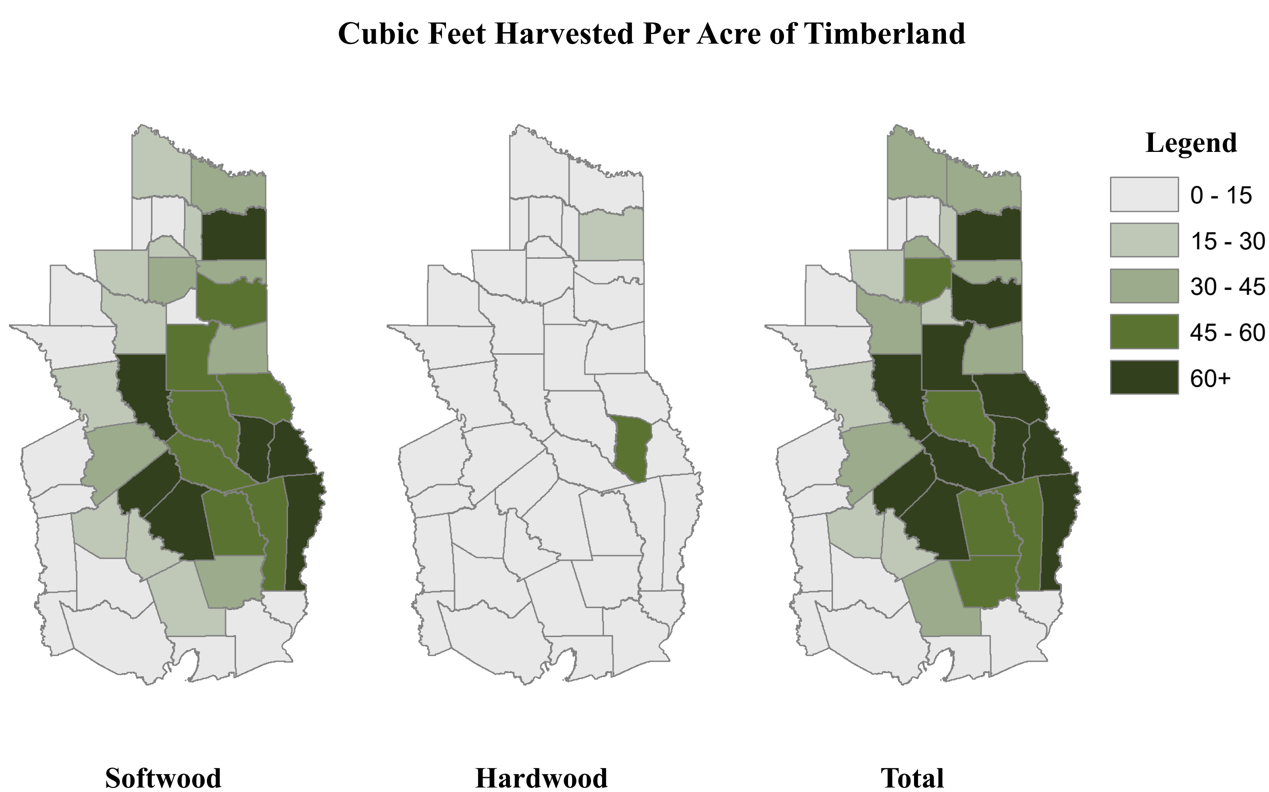


Figure 4. Intensity of Timber Harvest by County, 2019

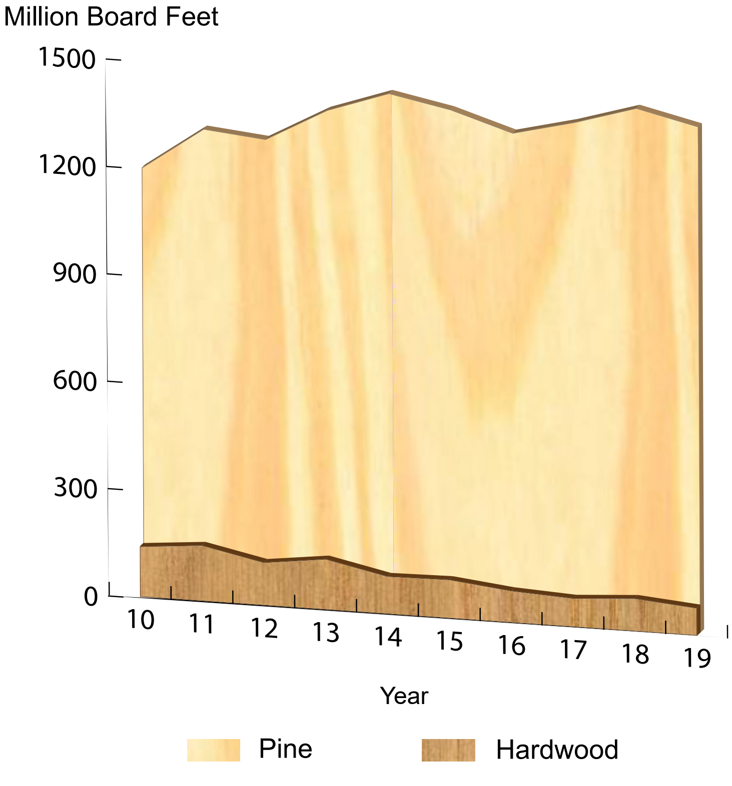


Figure 5. Texas Lumber Production, 2010-2019

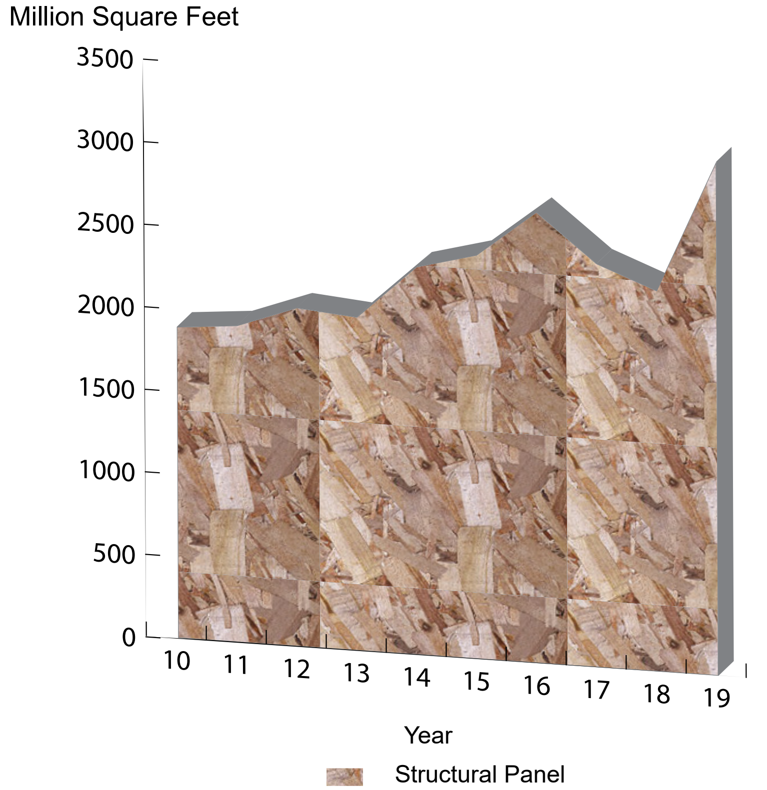


Figure 6. Texas Structural Panel Production, 2010-2019

PRODUCTION OF FOREST PRODUCTS

Lumber

Texas sawmills produced 1.5 billion board feet of lumber, a decrease of 3.5 percent from a year earlier. Production of pine lumber was 1.4 billion board feet, down 2.7 percent from last year, and hardwood lumber production decreased 16.1 percent to 76.0 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 up 14.3 percent to 3.1 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 2.4 million tons, down 9.6 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 33.7 million cubic feet, a decrease of 13.4 percent from a year earlier. Among major treated products, lumber accounted for 58.5 percent of the total volume, ties 12.5 percent, and poles and pilings 11.3 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 5.7 million tons (Table 12). Eighty-eight percent of the mill residue was from pine species and 12 percent was from hardwood species. Chips accounted for 47.0 percent of mill residue, followed by bark (34.4 percent), sawdust (12.7 percent), and shavings (5.9 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, 23.1 percent of the logging residue was from growing stock, and 76.9 percent was from non-growing stock trees. Seventy-four percent of the residue was from pine and 26 percent was from hardwood (Table 13, Figure 9).

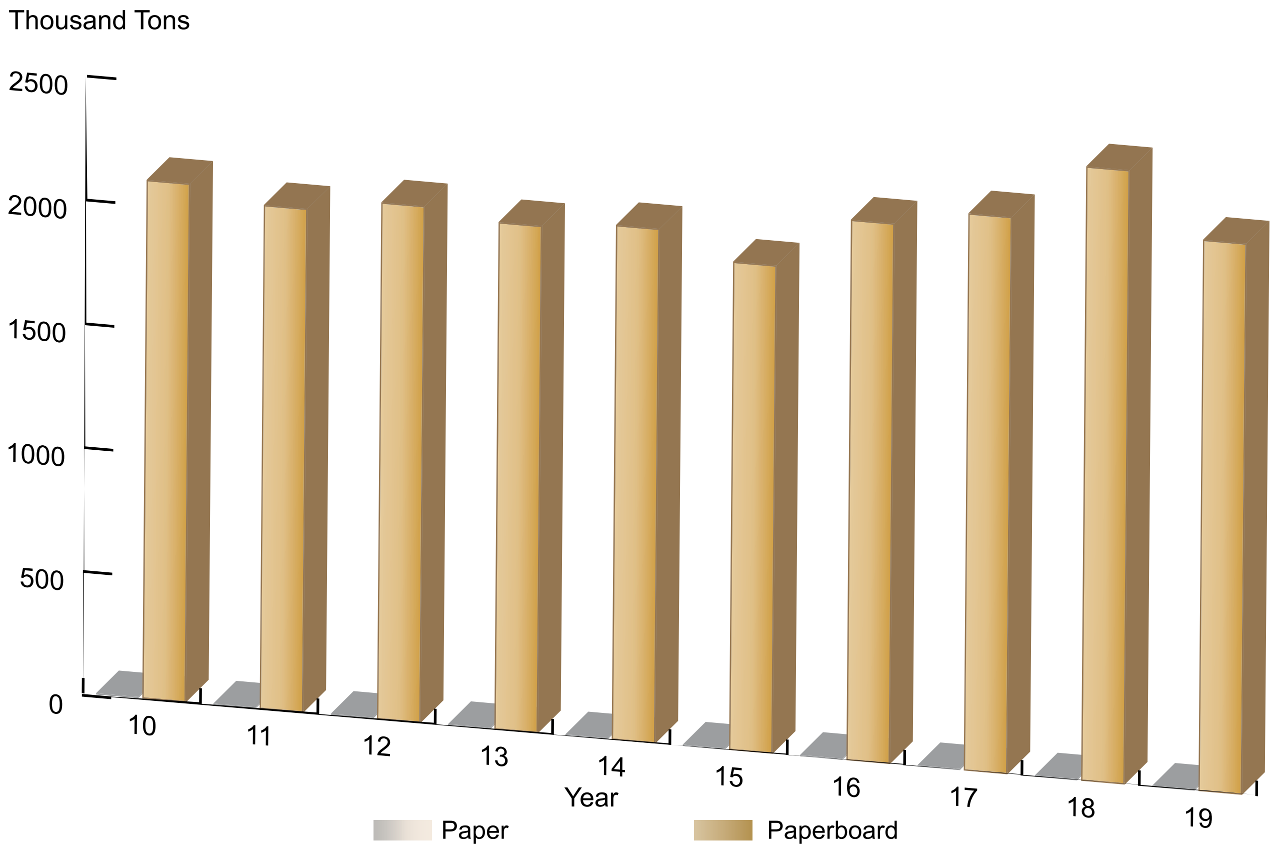


Figure 7. Texas Paper and Paperboard Production, 2010-2019

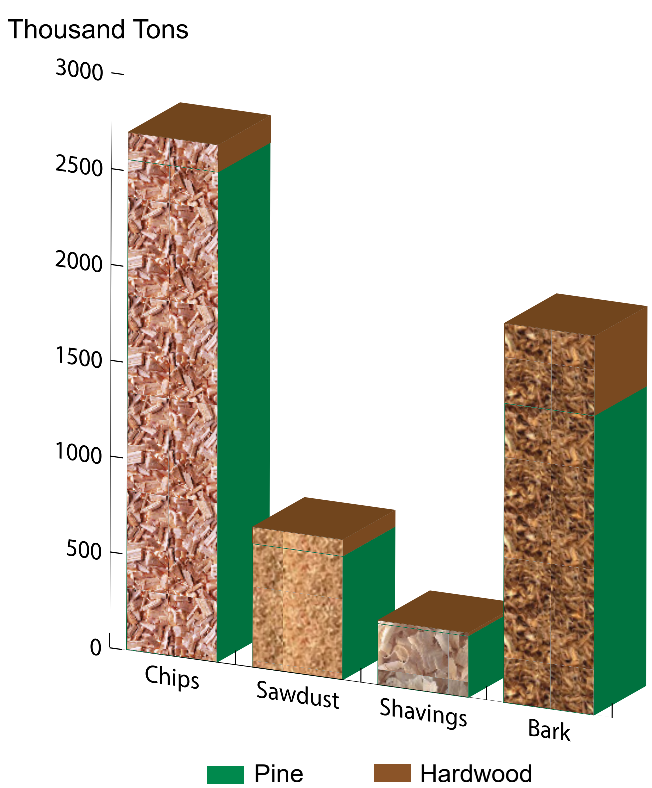


Figure 8. Texas Primary Mill Residue, 2019

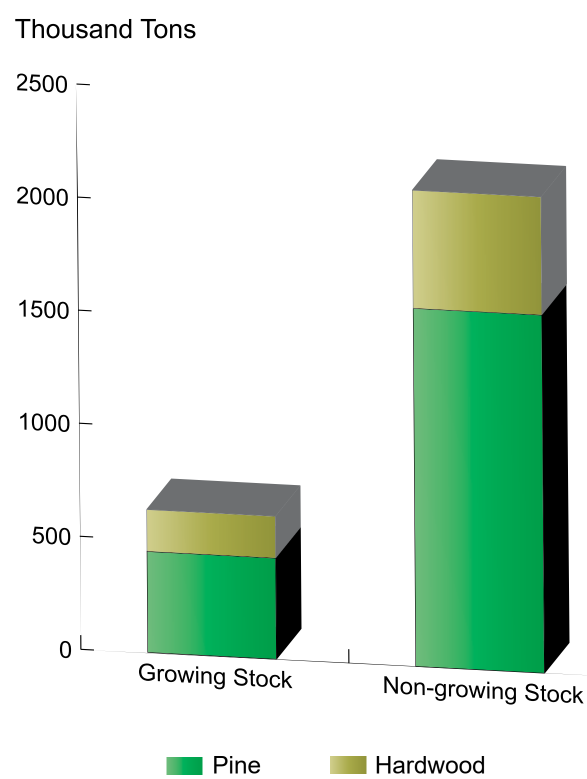


Figure 9. Texas Logging Residue, 2019

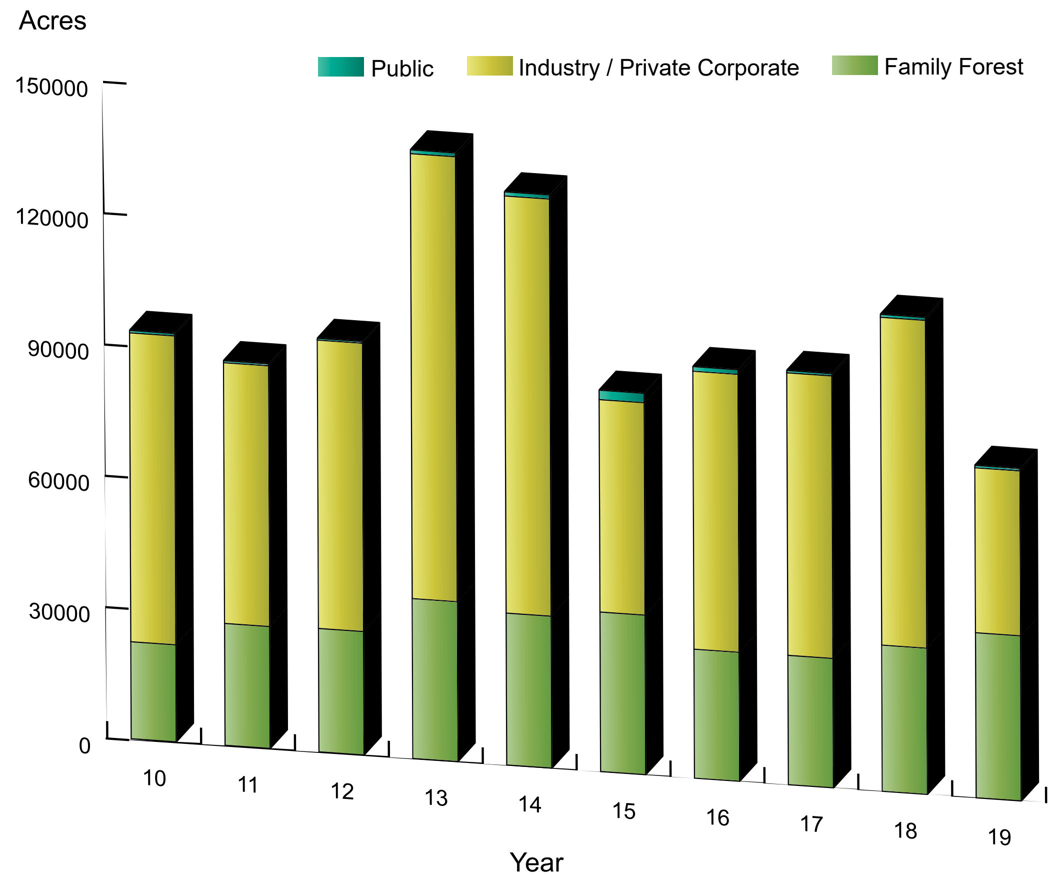


Figure 10. Reforestation Acreage by Ownership in Texas, 2010-2019

REFORESTATION

Accomplishments in reforestation by funding source and ownership are presented in Table 15. A total of 75,983 acres was planted during the winter 2018/spring 2019 planting season. Industrial landowners planted 37,667 acres, 49.7 percent less than the previous year. Family forest owners planted 37,744 acres. Public landowners planted 572 acres. Family forest owners received $3.3 million in cost share assistance for reforestation through federal cost share programs.

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[3]https://www.bea.gov/news/2020/gross-domestic-product-fourth-quarter-and-year-2019-advance-estimate

[4]https://www.bls.gov/lau/lastrk19.htm

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

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[9]http://www.freddiemac.com/pmms/pmms30.html

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[12]https://www.recenter.tamu.edu/data/building-permits/

[13]https://fred.stlouisfed.org/series/HOUST

[14]Random Lengths, the Weekly Report on North American Forest Products Markets, 2019

[15]Random Lengths Yardstick, 2019

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

[17]Timber-Mart South

[18]Harvest Trends 2018, Texas A&M Forest Service, Texas A&M University System, 2020

Table 1. Total Industrial Timber Harvest Volume and Value by County in Texas, 2019					
County	Volume Harvested			Value of Harvest	
	Pine	Hardwood	Total	Stumpage Value	Delivered Value
	– – – – – – – – – – – cubic feet – – – – – – – – – – –			– – – – – thousand dollars – – – – –	
Anderson	8,093,193	1,046,588	9,139,781	5,799	11,704
Angelina	20,961,922	2,691,691	23,653,613	16,947	32,252
Bowie	9,021,627	2,730,855	11,752,482	6,912	14,553
Camp	1,100,898	46,844	1,147,742	733	1,467
Cass	29,839,327	9,858,130	39,697,457	21,850	47,578
Chambers	182,203	2,348	184,551	71	186
Cherokee	26,299,155	5,373,447	31,672,602	21,331	41,952
Franklin	18,641	67,268	85,909	85	148
Gregg	1,004,104	527,603	1,531,707	1,151	2,181
Grimes	746,830	2,348	749,178	671	1,159
Hardin	19,297,500	1,960,332	21,257,832	10,807	24,316
Harris	1,685,565	153,211	1,838,776	1,691	2,908
Harrison	19,252,202	2,439,665	21,691,867	13,668	27,622
Henderson	1,093,361	288,720	1,382,081	935	1,835
Houston	16,723,679	204,902	16,928,581	9,353	20,057
Jasper	28,834,773	1,694,974	30,529,747	15,971	35,311
Jefferson	195,889	3,628	199,517	170	300
Leon	879,481	1,858,591	2,738,072	1,426	3,272
Liberty	10,552,899	3,899,135	14,452,034	9,070	18,572
Madison	63,096	0	63,096	60	101
Marion	7,463,596	746,854	8,210,450	4,052	9,254
Montgomery	4,160,922	213,161	4,374,083	3,124	5,945
Morris	1,288,661	757,371	2,046,032	1,145	2,490
Nacogdoches	22,165,332	2,909,835	25,075,167	15,625	31,763
Newton	42,348,936	1,687,853	44,036,789	23,336	51,187
Orange	426,522	76,988	503,510	309	634
Panola	14,125,761	1,483,546	15,609,307	9,348	19,340
Polk	40,547,445	1,751,405	42,298,850	25,474	52,483
Red River	7,013,180	3,433,757	10,446,937	5,533	12,361
Rusk	17,682,723	2,718,349	20,401,072	14,306	27,579
Sabine	16,932,598	2,195,200	19,127,798	10,234	22,425
San Augustine	18,752,325	14,147,868	32,900,193	16,569	38,137
San Jacinto	7,057,158	134,185	7,191,343	5,031	9,640
Shelby	16,819,312	2,512,634	19,331,946	11,779	24,203
Smith	4,422,030	3,147,871	7,569,901	3,963	8,929
Titus	132,621	182,502	315,123	321	548
Trinity	22,234,058	410,378	22,644,436	13,113	27,492
Tyler	23,932,092	1,540,267	25,472,359	14,282	30,522
Upshur	7,969,784	2,865,425	10,835,209	5,688	12,710
Van Zandt	285,190	800	285,990	173	354
Walker	7,716,037	226,133	7,942,170	4,651	9,693
Waller	685,221	2,348	687,569	629	1,078
Wood	3,904,479	1,765,601	5,670,080	2,459	6,111
Other Counties	933,943	1,567,875	2,501,818	1,324	3,014
Total Production	484,846,271	81,328,486	566,174,757	331,169	695,367

Table 2. Sawlog Harvest by County in Texas, 2019

County	Pine	Hardwood	Total
	– – – – — – – – –thousand board feet[1]– – – – — – – – –		
Anderson	18,149	2,767	20,916
Angelina	62,186	4,614	66,800
Bowie	20,147	3,238	23,385
Camp	3,075	120	3,195
Cass	53,774	7,455	61,229
Chambers	53	14	67
Cherokee	76,083	7,470	83,553
Franklin	109	227	336
Gregg	3,524	1,247	4,771
Grimes	3,822	14	3,836
Hardin	29,629	1,726	31,355
Harris	8,778	739	9,517
Harrison	48,226	2,003	50,229
Henderson	4,108	0	4,108
Houston	20,388	1,104	21,492
Jasper	63,653	812	64,465
Jefferson	687	14	701
Leon	965	513	1,478
Liberty	21,894	5,996	27,890
Madison	306	0	306
Marion	7,113	755	7,868
Montgomery	13,306	639	13,945
Morris	2,551	604	3,155
Nacogdoches	48,622	3,064	51,686
Newton	94,419	168	94,587
Orange	1,226	14	1,240
Panola	27,813	1,302	29,115
Polk	86,735	4,182	90,917
Red River	9,786	3,646	13,432
Rusk	51,254	5,520	56,774
Sabine	33,170	0	33,170
San Augustine	36,051	492	36,543
San Jacinto	22,092	159	22,251
Shelby	37,078	342	37,420
Smith	9,071	482	9,553
Titus	641	782	1,423
Trinity	42,748	1,493	44,241
Tyler	41,852	4,564	46,416
Upshur	12,154	2,564	14,718
Van Zandt	731	0	731
Walker	13,842	90	13,932
Waller	3,741	14	3,755
Wood	2,570	478	3,048
Other Counties	119	1,625	1,744
Total Production	1,038,241	73,052	1,111,293

[1]International ¼-inch rule.

Table 3. Veneer and Panel Roundwood Harvest by County in Texas, 2019

County	Pine	Hardwood	Total
	––––––––––––––– cubic feet –––––––––––––––		
Anderson	4,436,013	*	4,436,013
Angelina	8,745,517	*	8,745,517
Bowie	369,420	*	369,420
Camp	545,496	*	545,496
Cass	5,681,644	*	5,681,644
Chambers	3,921	*	3,921
Cherokee	9,903,426	*	9,903,426
Franklin	0	*	0
Gregg	328,698	*	328,698
Grimes	90,993	*	90,993
Hardin	1,960,545	*	1,960,545
Harris	53,992	*	53,992
Harrison	10,605,957	*	10,605,957
Henderson	322,477	*	322,477
Houston	12,442,339	*	12,442,339
Jasper	5,818,834	*	5,818,834
Jefferson	81,770	*	81,770
Leon	722,001	*	722,001
Liberty	2,817,227	*	2,817,227
Madison	13,412	*	13,412
Marion	2,819,969	*	2,819,969
Montgomery	737,038	*	737,038
Morris	457,599	*	457,599
Nacogdoches	9,618,501	*	9,618,501
Newton	7,731,362	*	7,731,362
Orange	6,419	*	6,419
Panola	6,838,779	*	6,838,779
Polk	15,821,402	*	15,821,402
Red River	472,088	*	472,088
Rusk	7,859,423	*	7,859,423
Sabine	7,290,196	*	7,290,196
San Augustine	4,752,919	*	4,752,919
San Jacinto	2,052,163	*	2,052,163
Shelby	6,944,620	*	6,944,620
Smith	1,373,531	*	1,373,531
Titus	27,014	*	27,014
Trinity	12,142,706	*	12,142,706
Tyler	9,127,837	*	9,127,837
Upshur	3,010,222	*	3,010,222
Van Zandt	96,064	*	96,064
Walker	4,451,016	*	4,451,016
Waller	882	*	882
Wood	465,930	*	465,930
Other Counties	111,014	*	111,014
Total Production	169,152,376	*	169,152,376

*Data suppressed to avoid disclosure of individual company information.

Table 4. Pulpwood and Pellet Roundwood Harvest by County in Texas, 2019

County	Pine	Hardwood	Total
	– – – – – – – – – – – – – – – cords	– – – – – – – – – – – – – – –	
Anderson	8,830	7,282	16,112
Angelina	10,462	23,974	34,436
Bowie	66,500	27,348	93,848
Camp	703	334	1,037
Cass	190,633	107,599	298,232
Chambers	2,095	0	2,095
Cherokee	50,157	51,509	101,666
Franklin	12	365	377
Gregg	1,286	3,981	5,267
Grimes	448	0	448
Hardin	154,256	20,886	175,142
Harris	2,576	366	2,942
Harrison	10,232	26,297	36,529
Henderson	1,296	3,609	4,905
Houston	12,055	247	12,302
Jasper	155,429	19,485	174,914
Jefferson	34	16	50
Leon	13	22,157	22,170
Liberty	51,363	36,170	87,533
Madison	1	0	1
Marion	43,095	7,753	50,848
Montgomery	15,642	1,325	16,967
Morris	5,155	8,201	13,356
Nacogdoches	53,996	29,950	83,946
Newton	233,980	20,746	254,726
Orange	2,733	933	3,666
Panola	33,903	15,815	49,718
Polk	129,250	13,126	142,376
Red River	59,762	35,279	95,041
Rusk	18,704	22,408	41,112
Sabine	49,862	27,440	77,302
San Augustine	97,563	175,817	273,380
San Jacinto	17,289	1,344	18,633
Shelby	44,878	30,691	75,569
Smith	19,483	38,338	57,821
Titus	21	642	663
Trinity	38,962	2,000	40,962
Tyler	97,401	9,686	107,087
Upshur	36,907	30,443	67,350
Van Zandt	872	10	882
Walker	12,608	2,638	15,246
Waller	962	0	962
Wood	37,309	21,068	58,377
Other Counties	2,845	16,192	19,037
Total Production	1,771,563	863,470	2,635,033

Table 5. Other Roundwood Harvest by County in Texas, 2019[1]

County	Pine	Hardwood	Total
	––––––––––––––––– cubic feet –––––––––––––––––		
Anderson	0	0	0
Angelina	1,288,601	0	1,288,601
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	39,658	0	39,658
Harris	0	0	0
Harrison	0	0	0
Henderson	0	0	0
Houston	0	0	0
Jasper	108,313	0	108,313
Jefferson	0	0	0
Leon	0	0	0
Liberty	26,341	0	26,341
Madison	0	0	0
Marion	0	0	0
Montgomery	0	0	0
Morris	0	0	0
Nacogdoches	291,600	0	291,600
Newton	360,288	0	360,288
Orange	0	0	0
Panola	32,400	0	32,400
Polk	197,251	0	197,251
Red River	114,178	0	114,178
Rusk	0	0	0
Sabine	226,800	0	226,800
San Augustine	253,109	0	253,109
San Jacinto	23,490	0	23,490
Shelby	229,295	0	229,295
Smith	0	0	0
Titus	0	0	0
Trinity	6,026	0	6,026
Tyler	130,734	0	130,734
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	3,901,283	0	3,901,283

[1]Including posts, poles and pilings.

Table 6. Timber Stumpage Price in East Texas by Product, 2010-2019

Year	Sawtimber/Veneer		Pulpwood		Pine Chip-N-Saw	Pine Poles
	Pine	Mixed Hardwood	Pine	Mixed Hardwood		
	––– $/MBF-Doyle –––		––– $/cord –––		$/cord	$/ton
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
2019	240.35	322.06	26.82	36.99	39.80	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, 2019

Product	Unit	Stumpage		Delivered	
		Price[1] ($/unit)	Value (million $)	Price[2] ($/unit)	Value (million $)
PINE					
Sawlogs/Chip-n-Saw	MBF[3]	–	148	–	258
Sawlogs	MBF[3]	160.21	131	266.66	217
Chip-n-Saw	MBF[3]	79.61	18	182.69	41
Veneer/Panel Roundwood	MCF	–	82	–	188
Veneer Logs	MCF	988.36	40	1,645.08	66
Panel Roundwood	MCF	331.11	43	948.27	122
Pulpwood	cords	26.82	48	76.81	136
Others	MCF	–	4	–	6
All pine products			282		589
HARDWOOD					
Sawlogs	MBF[3]	236.83	17	371.56	27
Veneer	MCF	1,874.55	0	3,367.18	0
Pulpwood	cords	36.99	32	92.13	80
All hardwood products			49		107
ALL PRODUCTS			331		695

[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, 2019						
Product	Units	Imports	Produced & Utilized in State	Exports	Texas Mill Receipts	Texas Roundwood Production
PINE						
Sawlogs	MBF[1]	169,539	1,011,680	26,561	1,181,219	1,038,241
Veneer/Panel Roundwood	MCF	5,951	160,576	8,577	166,527	169,152
Pulpwood	cords	471,868	1,349,778	421,785	1,821,646	1,771,563
Posts, Poles, Pilings	MCF	1,582	3,901	0	5,484	3,901
All Pine Products	MCF	73,237	437,800	47,046	511,037	484,846
HARDWOOD						
Sawlogs	MBF[1]	1,914	73,052	0	74,966	73,052
Veneer	MCF	0	0	0	0	0
Pulpwood	cords	448,220	796,106	67,364	1,244,326	863,470
All Hardwood Products	MCF	36,179	75,939	5,389	112,118	81,328
TOTAL						
Sawlogs	MBF[1]	171,453	1,084,732	26,561	1,256,185	1,111,293
Veneer/Panel Roundwood	MCF	5,951	160,576	8,577	166,527	169,152
Pulpwood	cords	920,088	2,145,884	489,149	3,065,972	2,635,033
Posts, Poles, Pilings	MCF	1,582	3,901	0	5,484	3,901
ALL PRODUCTS	MCF	109,415	513,740	52,435	623,155	566,175

[1]International ¼-inch rule.

Table 9. Texas Industrial Roundwood Products, 2010-2019

Year	Lumber			Structural Panel
	Pine	Hardwood	Total	
	––––– m. bd. ft[1] –––––			m. sq. ft.
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
2019	1,411,440	76,026	1,487,466	3,106,076

[1]Lumber tally.

Table 10. Texas Pulp and Paperboard Production, 2010-2019

Year	Pulp and Paperboard Products[1]
	tons
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
2019	2,400,724

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

Table 11. Products Treated by Texas Wood Preserving Plants, 2018-2019					
Product	Unit of Measure	Volume by Specific Unit		Volume by Cubic Feet	
		2018	2019	2018	2019
Poles and pilings[1]	CF	3,264,843	3,793,306	3,264,843	3,793,306
Fence posts	number	2,150,829	2,144,474	1,893,486	1,887,892
Ties[2]	CF	5,135,084	4,197,324	5,135,084	4,197,324
Lumber	MBF	295,094	236,089	24,591,147	19,674,062
Plywood/OSB	MSF	11,124	6,821	347,631	213,162
Other	CF	3,900,136	3,893,189	3,900,136	3,893,189
Total	CF	–	–	40,257,399	33,658,935

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

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

Table 12. Texas Primary Mill Residue, 2019[1]			
Residue Type	Pine	Hardwood	Total
	– — – – – – tons – — – – – –		
Chips[2]	2,555,737	143,038	2,698,775
Sawdust	643,846	87,221	731,067
Shavings	319,412	16,827	336,238
Bark[3]	1,561,114	417,194	1,978,308
Total	5,080,108	664,280	5,744,388

[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, 2019

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	6,790.4	474.8	7,265.1	404.2	68.6	472.8	7,194.6	543.3	7,737.9
Poletimber	7,472.5	2,081.1	9,553.7	42.4	116.8	159.2	7,515.0	2,197.9	9,712.9
Sub-total	14,262.9	2,555.9	16,818.8	446.6	185.4	632.0	14,709.6	2,741.3	17,450.8
Non-growing Stock									
Sawtimber	129.3	8.7	138.0	800.5	112.6	913.1	929.8	121.3	1,051.1
Poletimber	999.9	185.5	1,185.4	783.2	410.3	1,193.4	1,783.1	595.8	2,378.9
Sub-total	1,129.3	194.2	1,323.5	1,583.7	522.8	2,106.5	2,712.9	717.0	3,430.0
All									
Sawtimber	6,919.7	483.5	7,403.2	1,204.7	181.1	1,385.8	8,124.4	664.6	8,789.0
Poletimber	8,472.5	2,266.6	10,739.1	825.6	527.1	1,352.7	9,298.1	2,793.7	12,091.8
Total	15,392.2	2,750.1	18,142.3	2,030.3	708.2	2,738.5	17,422.5	3,458.3	20,880.8

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, 2000-2019

Year	Pine		Hardwood		All	
	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock
	––––––––––––– MMCF –––––––––––––					
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
2019	484.8	462.2	81.3	80.8	566.2	542.9

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, 2010-2019

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				
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
2019	25,995	3,291,844	11,749	37,744	37,667	572	75,983

[1]Federal fiscal year. For example, fiscal year 2019 begins on October 1, 2018 and ends on September 30, 2019.

[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).