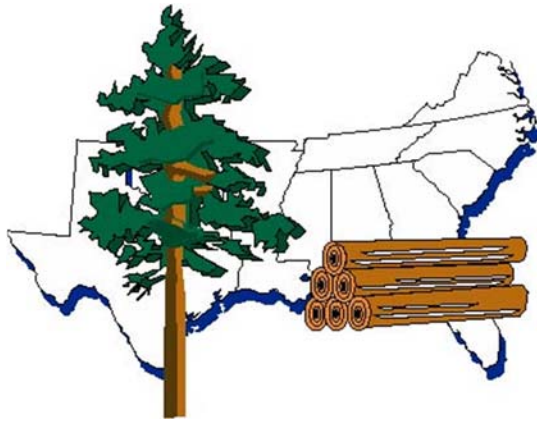


3rd Quarter 2019 -- Vol. 24 No. 3

TimberMart-South



Market News Quarterly

The Journal of Southern Timber Market News
*A Quarterly Report of the Market Conditions
for Timber Products of the US South*

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Publisher: Tom Harris

Senior Research Editor: Jacek Siry, Ph.D.

Research Editor: Harrison Hood, Ph.D.

Contributing Editors: Jon Caulfield, Ph.D.

News Editor: Sara Baldwin

Price Editor: Jonathan Smith

Staff Editor: Matt Gaw

Administrative Coordinator: Cathy Law

Research Assistants: Brynнан Adams, Lane Anderson, John Bell, Robert Massenburg, John Pilcher, & Thomas Reddick

For general inquiries and subscription rates –

- **Phone:** (706)247-7660 • **Fax:** (706)389-9196
- **E-mail:** tmart@timbermart-south.com • **Web address:** www.TimberMart-South.com
- **Mailing address:** TimberMart-South, 1860 Barnett Shoals Road, PMB 103-598, Athens, GA 30605

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TimberMart-South

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3rd Quarter 2019 – Vol. 24 No. 3

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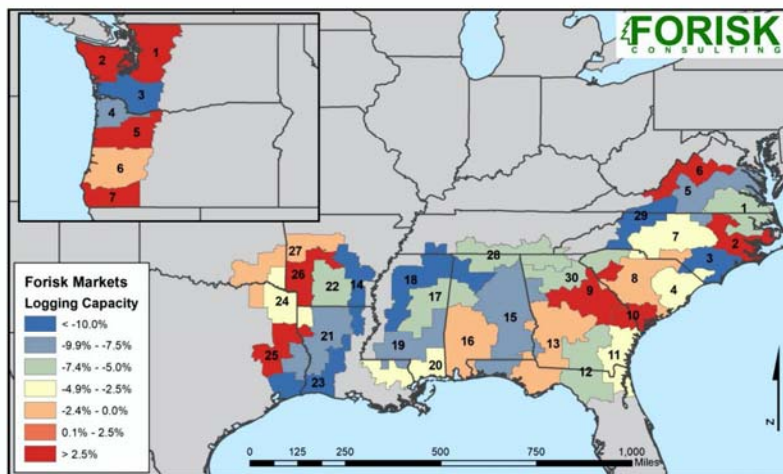
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Executive Summary

South-wide Stumpage Markets

South-wide average stumpage prices declined for four of the five major products in the 3rd Quarter. Only hardwood sawtimber prices improved this quarter. Hot and dry weather prevailed over most of the South this quarter, easing accessibility to supply, which helped push prices downward.

This downward price movement was in line with seasonal, summertime trends that have seen stumpage prices decrease quarter-over-quarter (Q/Q) in the 3rd Quarter in 12 of the last 15 years for pine sawtimber and 11 of the last 15 years for pine chip-n-saw. The upward movement in hardwood sawtimber price also followed seasonal trends, as hardwood sawtimber prices have increased Q/Q in the 3rd Quarter in 19 of the last 20 years.

South-wide Delivered Markets

As with stumpage prices, South-wide average delivered prices were down for four of the five major products in the 3rd Quarter, with only the hardwood sawtimber price up this quarter. However, delivered prices were up (or unchanged) Y/Y for all five major products.

South-wide Average 3Q19 Stumpage and Delivered Prices \$/ton				
	Stumpage Price		Delivered Price	
Product	Price	Q/Q Change	Price	Q/Q Change
Pine Sawtimber	\$23.64	(\$0.92)	\$43.53	(\$0.49)
Hardwood Sawtimber	\$31.49	\$0.67	\$52.91	\$0.08
Chip-n-saw	\$16.52	(\$0.19)	\$35.95	(\$0.37)
Pine Pulpwood	\$8.67	(\$0.59)	\$28.79	(\$0.86)
Hardwood Pulpwood	\$11.22	(\$0.42)	\$32.46	(\$1.30)

Warning Signs Continue but Economy Still Strong

- ❖ Many wood product prices were down this quarter and pulp prices continued to decrease.
- ❖ Housing construction in the South remained ahead of last year and unemployment is low.

Major Stories

- ❖ Conifex to phase in an indefinite curtailment at its El Dorado AR sawmill; Great Pacific makes offer to take Canfor private.
- ❖ Drax and Enviva announce further pellet capacity expansion projects.

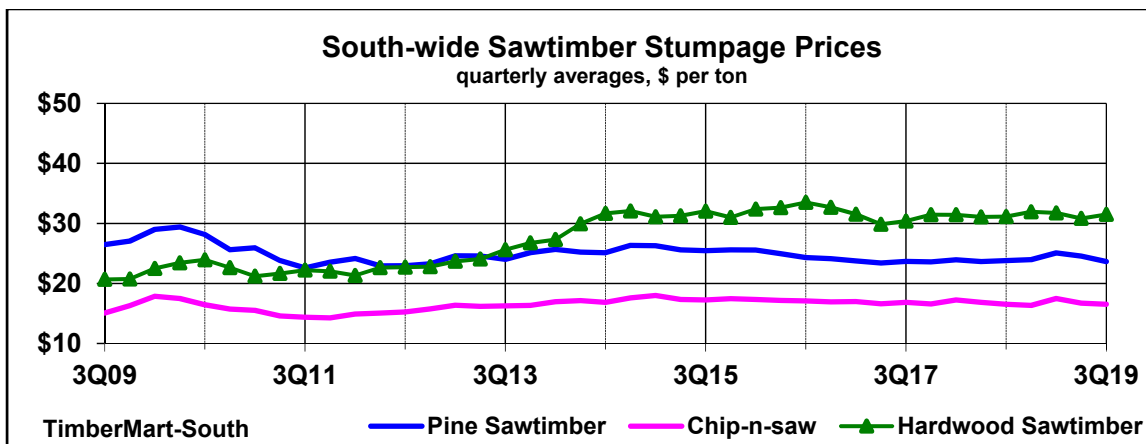
Prices & Market Conditions

South-wide Stumpage Prices

Sawtimber Stumpage Prices

South-wide average stumpage prices for both pine sawtimber (\$23.64 per ton) and pine chip-n-saw (\$16.52 per ton) were down this quarter; hardwood sawtimber at \$31.49 per ton was up. While this 3rd Quarter price decline has become expected for the major pine sawtimber products, it doesn't help ease the fact that, with the exception of 1st Quarter 2019, South-wide pine sawtimber prices have remained below \$25 per ton for more than three years (since 2nd Quarter 2016). On the other hand, hardwood sawtimber prices continue to hold strong and have averaged greater than \$30 per ton for the last five years (since 3rd Quarter 2014).

This quarter, pine sawtimber averaged highest in Texas (\$27.76 per ton), while pine chip-n-saw averaged highest in Florida (for the 29th consecutive quarter) at \$21.15 per ton. Hardwood sawtimber averaged highest in Mississippi at \$41.98 per ton.

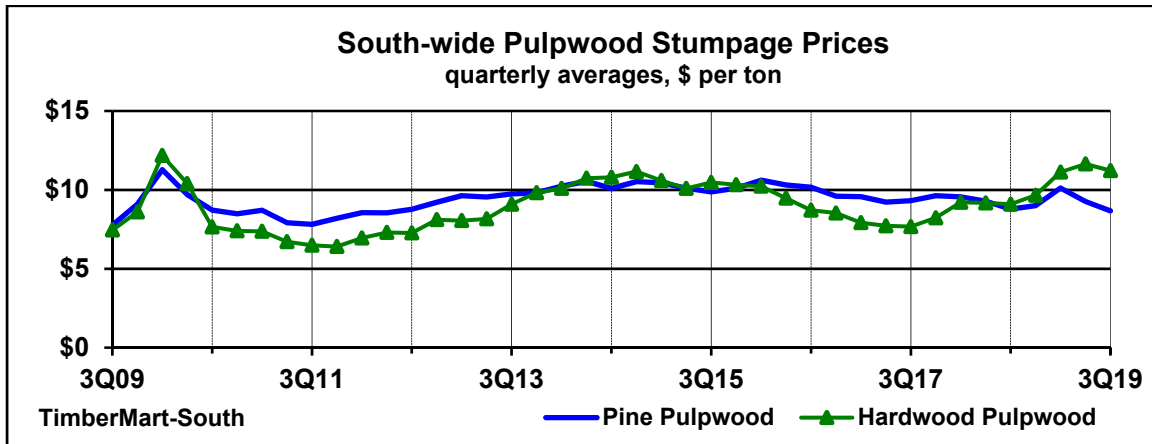


- ❖ The Pine Sawtimber price (\$/ton) was:
 - Highest in Texas at \$27.76.
 - \$23.64 for the South-wide average.
 - Lowest in Tennessee at \$18.40.
- ❖ The Hardwood Sawtimber price (\$/ton) was:
 - Highest in Mississippi at \$41.98.
 - \$31.49 for the South-wide average.
 - Lowest in Florida at \$19.41.
- ❖ The Pine Chip-n-saw price (\$/ton) was:
 - Highest in Florida at \$21.15.
 - \$16.52 for the South-wide average.
 - Lowest in Tennessee at \$10.10.

South-wide Average Sawtimber Stumpage Prices \$/ton							
Product	3Q19	one quarter ago		one year ago		ten years ago	
		2Q19	up/(dn)	3Q18	up/(dn)	3Q09	up/(dn)
Pine Sawtimber	\$23.64	\$24.56	(\$0.92)	\$23.81	(\$0.17)	\$26.47	(\$2.83)
Pine Chip-n-saw	\$16.52	\$16.71	(\$0.19)	\$16.52	no chng.	\$15.05	\$1.47
Hardwood Sawtimber	\$31.49	\$30.82	\$0.67	\$31.13	\$0.36	\$20.67	\$10.82

Pulpwood Stumpage Prices

South-wide average pine pulpwood at \$8.67 per ton in the 3rd Quarter was down both Q/Q and Y/Y. Hardwood pulpwood (\$11.22 per ton) was also down Q/Q but up Y/Y and up 46% since 3rd Quarter 2017. This quarter, pine pulpwood averaged highest in Florida at \$12.91 per ton. Hardwood pulpwood averaged highest in Alabama at \$19.02 per ton.



- ❖ The Pine Pulpwood price (\$/ton) was:
 - Highest in Florida at \$12.91.
 - \$8.67 for the South-wide average.
 - Lowest in Tennessee at \$5.33.
- ❖ The Hardwood Pulpwood price (\$/ton) was:
 - Highest in Alabama at \$19.02.
 - \$11.22 for the South-wide average.
 - Lowest in North Carolina at \$5.54.

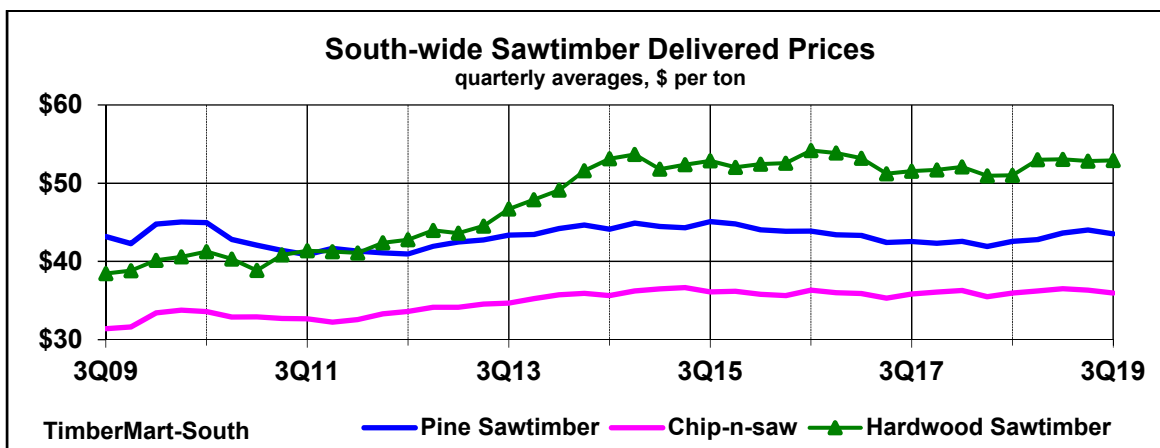
South-wide Average Pulpwood Stumpage Prices \$/ton							
		one quarter ago		one year ago		ten years ago	
Product	3Q19	2Q19	up/(dn)	3Q18	up/(dn)	3Q09	up/(dn)
Pine Pulpwood	\$8.67	\$9.26	(\$0.59)	\$8.78	(\$0.11)	\$7.76	\$0.91
Hardwood Pulpwood	\$11.22	\$11.64	(\$0.42)	\$9.09	\$2.13	\$7.45	\$3.77

South-wide Delivered Prices

Sawtimber Delivered Prices

South-wide delivered pine sawtimber (\$43.53 per ton) and pine chip-n-saw (\$35.95 per ton) were both down Q/Q. Hardwood sawtimber (\$52.91 per ton) was up from last quarter. Delivered prices for both pine and hardwood sawtimber were up Y/Y; delivered pine chip-n-saw price was unchanged from a year ago.

In the 3rd Quarter, delivered pine sawtimber averaged highest in Texas at \$48.38 per ton, while delivered pine chip-n-saw averaged highest in Virginia at \$41.09 per ton. Delivered hardwood sawtimber averaged highest in Mississippi at \$64.79 per ton.

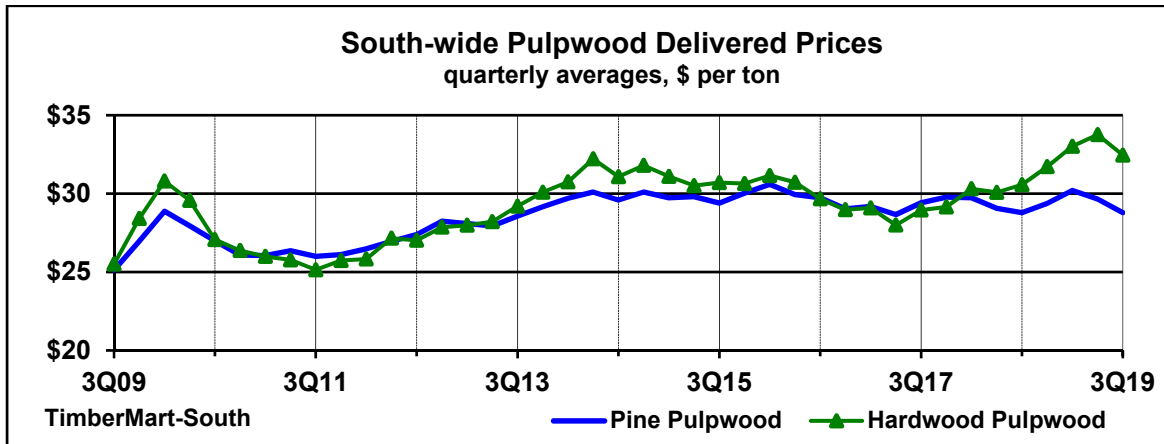


- ❖ The Pine Sawtimber price (\$/ton) was:
 - Highest in Texas at \$48.38.
 - \$43.53 for the South-wide average.
 - Lowest in Tennessee at \$37.94.
- ❖ The Hardwood Sawtimber price (\$/ton) was:
 - Highest in Mississippi at \$64.79.
 - \$52.91 for the South-wide average.
 - Lowest in Florida at \$38.38.
- ❖ The Chip-n-saw price (\$/ton) was:
 - Highest in Virginia at \$41.09.
 - \$35.95 for the South-wide average.
 - Lowest in Tennessee at \$29.68.

South-wide Average Delivered Prices \$/ton							
Product	3Q19	one quarter ago		one year ago		ten years ago	
		2Q19	up/(dn)	3Q18	up/(dn)	3Q09	up/(dn)
Pine Sawtimber	\$43.53	\$44.02	(\$0.49)	\$42.56	\$0.97	\$43.18	\$0.35
Pine Chip-n-saw	\$35.95	\$36.32	(\$0.37)	\$35.95	no chng.	\$31.40	\$4.55
Hardwood Sawtimber	\$52.91	\$52.83	\$0.08	\$51.01	\$1.90	\$38.45	\$14.46

Pulpwood Delivered Prices

South-wide delivered pine pulpwood (\$28.79 per ton) was down Q/Q but unchanged from a year ago. Delivered hardwood pulpwood (\$32.46 per ton) was also down Q/Q but up Y/Y. In the 3rd Quarter, delivered pine pulpwood averaged highest in Virginia at \$32.62 per ton. Delivered hardwood pulpwood averaged highest in Alabama at \$38.10 per ton.



- ❖ The Pine Pulpwood price (\$/ton) was:
 - Highest in Virginia at \$32.62.
 - \$28.79 for the South-wide average.
 - Lowest in Mississippi at \$25.28.
- ❖ The Hardwood Pulpwood price (\$/ton) was:
 - Highest in Alabama at \$38.10.
 - \$32.46 for the South-wide average.
 - Lowest in Virginia at \$26.69.

South-wide Average Delivered Prices \$/ton							
Product	3Q19	one quarter ago		one year ago		ten years ago	
		2Q19	up/(dn)	3Q18	up/(dn)	3Q09	up/(dn)
Pine Pulpwood	\$28.79	\$29.65	(\$0.86)	\$28.79	no chng.	\$25.12	\$3.67
Hardwood Pulpwood	\$32.46	\$33.76	(\$1.30)	\$30.57	\$1.89	\$25.50	\$6.96

For wood fuel prices, see the TimberMart-South *Biomass & Residuals Report*.

News of Note

The pulp and paper sector announced more machine shut downs this quarter, while expansions continued at southern pine sawmills and pellet mills.

❖ Openings & Closings:

- Domtar shut down an uncoated free sheet paper machine at its mill in Ashdown, Arkansas on page 29.
- Georgia-Pacific is shutting down pulp and paper operations at its mill in Crossett, Arkansas on page 29.
- WestRock plans to shut down a linerboard machine at its mill in North Charleston, South Carolina on page 30.
- Abbeville Fiber started up its new southern pine sawmill in Abbeville, Alabama on page 30.
- Interfor completed upgrades at its sawmills in Monticello, Arkansas, and Meldrim, Georgia on page 30.
- Teal-Jones is expanding its two new southern pine sawmills in Virginia on page 31.
- Georgia-Pacific plans expansions for its plywood and lumber complex in Gurdon, Arkansas on page 32.

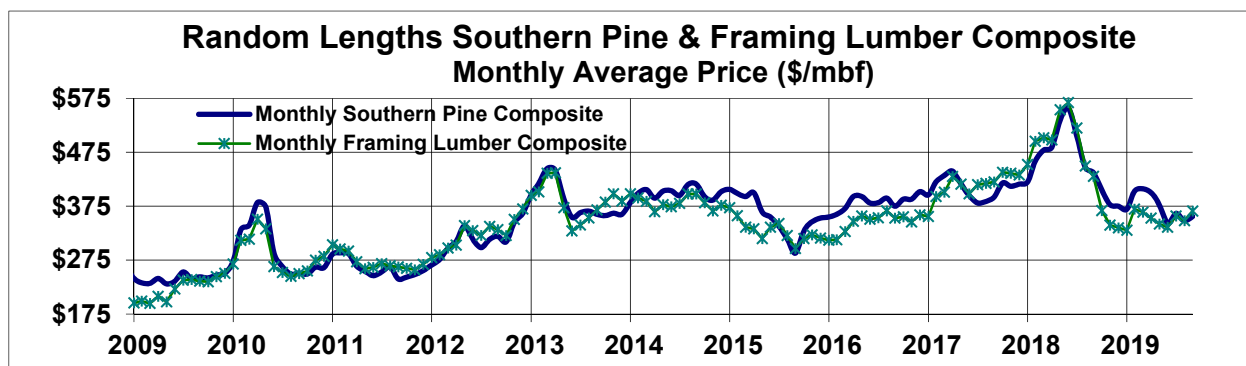
❖ Biofuel & Bioenergy

- Drax announced expansions at three pellet mills on page 34.
- Enviva announced the Alabama location for its newest pellet mill and expansions at two existing pellet facilities on page 35.

Market Indicators

Market conditions for wood products and pulp producers continued to be challenging in the 3rd Quarter. The following are based on the latest available data:

- ❖ Southern pine lumber prices were up 4% Q/Q while hardwood lumber prices were down 7% Q/Q. Both were down from a year ago.
- ❖ Softwood and hardwood pulp prices were both down this quarter, -15% and -16% Q/Q, respectively.
- ❖ US building construction was down from a year ago. Year-to-date through August, the latest available, housing starts were down 2% and improvement expenditures down 15% compared to the same period in 2018.
- ❖ Crude oil prices were up \$2 per barrel Q/Q (+4%); however, diesel prices were down \$0.04 per gallon (-1% Q/Q). Natural gas prices were up 7% Q/Q.
- ❖ US log and lumber exports were down through the first eight months of the year. Exports totaled approximately 5.1 million m³ YTD-August, the latest available, which was down 25% compared to the same period in 2018.
- ❖ Financial markets were up overall in the 3rd Quarter, with the Dow Jones Industrial Average (DJIA) up 1% Q/Q but more than 15% since the start of 2019.
- ❖ The US dollar strengthened a bit in the 3rd Quarter, allowing for increased imports but limiting exports.

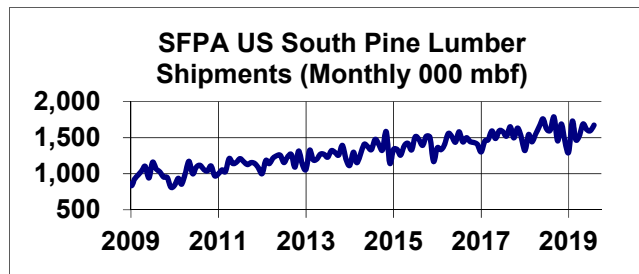


Lumber Indicators

Softwood lumber prices showed signs of improvement in the 3rd Quarter. The September monthly average **Random Lengths Southern Pine Composite**¹ at \$356 per thousand board feet (mbf) was up \$13 Q/Q (+4%) but down \$81 (-19%) from a year ago.

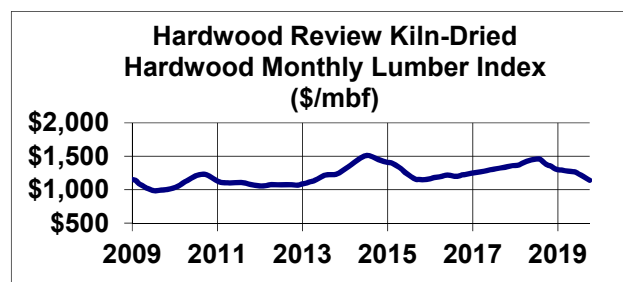
The September **Random Lengths Framing Lumber Composite** at \$366 per thousand board feet (mbf) was up \$30 Q/Q (+9%) but down \$65 Y/Y (-15%).

The Southern Forest Products Association (SFPA) reported southern pine lumber shipments at 11.3 billion board feet (bbf) YTD-July, the latest available, which was up 129 million bf (+1%) from the same period a year ago.



For more details on softwood sawmill activity this quarter, see Openings & Closings on page 30.

Hardwood lumber prices declined further this quarter. The September **Hardwood Review US Kiln Dried Hardwood Lumber Index** at \$1,142 per mbf was down \$91 Q/Q (-7%) and down \$230 (-17%) from a year ago.



For more details on hardwood sawmill activity this quarter, see Openings & Closings on page 31.

¹ The Southern Pine Composite averages 35 southern framing lumber prices and the Framing Lumber Composite is a weighted

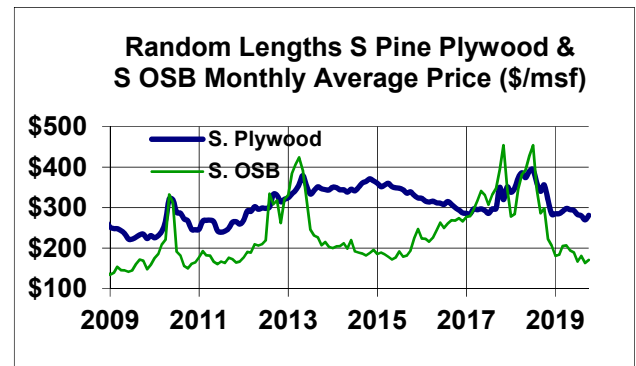
average of 15 key framing lumber prices.

Panel Indicators

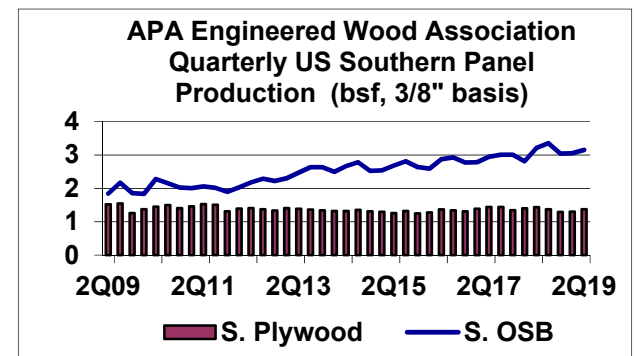
Southern OSB and Southern Plywood prices had been on a downward slide, with plywood prices falling nearly 30% and OSB prices falling more than 60% from September 2018 through June 2019. However, prices held relatively steady this quarter, with plywood prices down only marginally and OSB prices up slightly.

The September monthly average **Random Lengths Southern Pine Plywood** price for 3/8 inch exterior sheathing at \$281 per thousand square feet (msf) was down \$2 Q/Q (-1%) and \$75 Y/Y (-21%).

The September **Random Lengths Southern Oriented Strand Board (OSB)** price for 7/16 inch at \$171 per msf was up \$4 Q/Q (+2%) but down \$127 Y/Y (-43%).



The **APA Engineered Wood Association** reported combined Southern OSB and Plywood production at 4.5 billion square feet (bsf) in the 2nd Quarter of 2019, the latest available, which was down -2.6% from the same period a year ago.



For more details on panel mill activity this quarter, see Openings & Closings on page 32.

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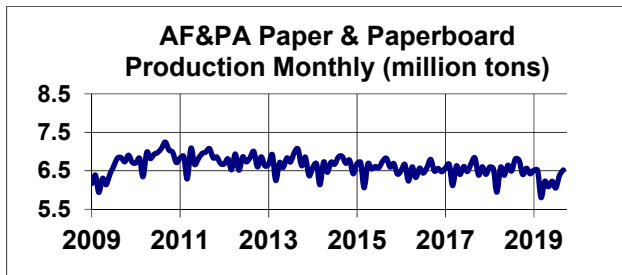
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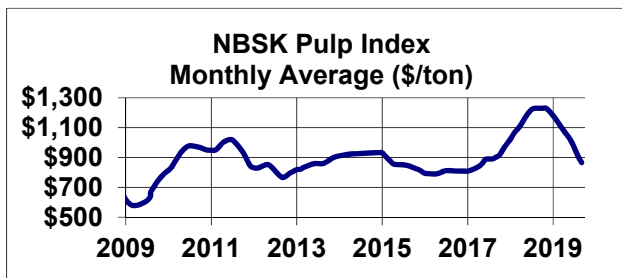
Pulp & Paper Indicators

Paper and paperboard production was down a combined 5% YTD-August compared to the same period a year ago. Both softwood and hardwood pulp prices were also down in the 3rd Quarter. Recycled container (OCC) prices were unchanged Q/Q but down 63% Y/Y.

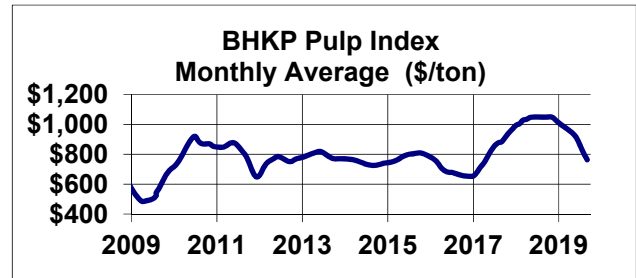
The American Forest and Paper Association (AF&PA) reported US paper and paperboard production YTD-August, the latest available, totaled 49.8 million tons, which was down 2.4 million tons (-5%) compared to the same period in 2018.



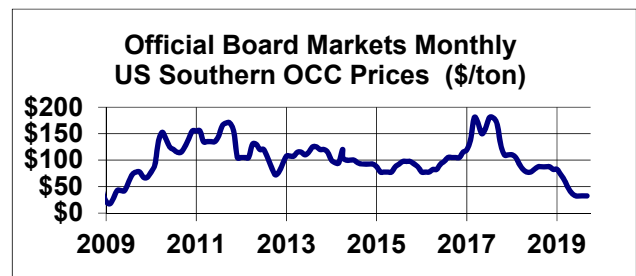
The September Northern Bleached Softwood Kraft (NBSK) pulp price index at \$866 per ton was down \$147 Q/Q (-15%) and \$364 Y/Y (-30%).



The September Bleached Hardwood Kraft Pulp (BHKP) index at \$764 per ton was down \$147 Q/Q (-16%) and down \$286 Y/Y (-27%).



The September RISI/Fastmarkets Official Board Markets Old Corrugated Container (OCC) price in the South was \$33 per ton, which was unchanged from last quarter but down \$55 Y/Y (-63%).

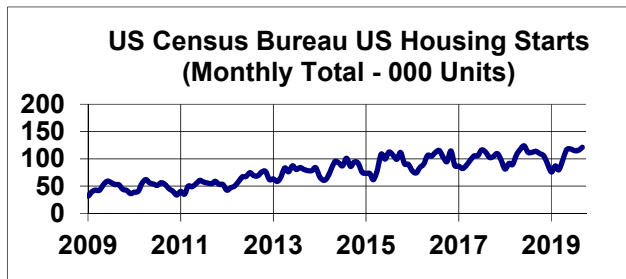


For more details on pulp mill activity this quarter, see Openings & Closings on page 29.

US Building Construction

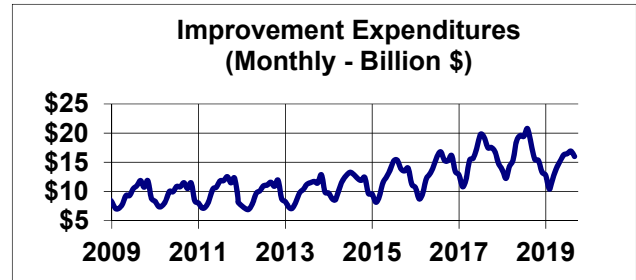
US residential building construction, a principal driver of the wood products industry, took some setbacks early in the year but has gained some positive momentum over the last several months. According to the US Census, housing starts totaled YTD-August totaled 852,000 units, which was down 15,800 units (-2%) from the same period in 2018.

Total starts in the South generally follow a similar trend. However, at 457,000 units YTD-August, housing starts in the South were up 19,000 units (+4%) from the same period a year ago.



<http://www.census.gov/construction/nrc/pdf/newresconst.pdf>

Residential remodeling activity was down the first eight months of the year. The US Census reported remodeling and improvement expenditures at \$117.3 billion YTD-August, the latest available, which was down \$21.2 billion (-15%) from the same period in 2018.



<http://www.census.gov/construction/c30/c30index.html>

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Andrew Carey
Pacific Northwest
901-309-3337
andrew.carey@metlife.com

Brandon Hatchett
Lake States &
Processing Facilities
901-309-3339
walter.b.hatchett@metlife.com

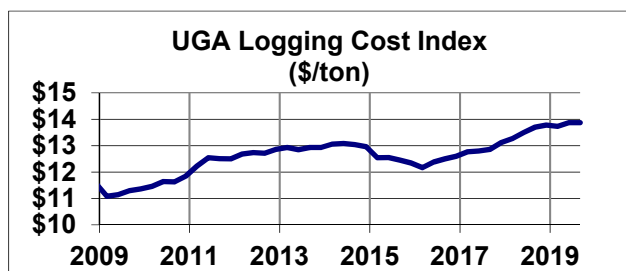
Kirk Purvis
National Director
901-309-3334
kpurvis@metlife.com



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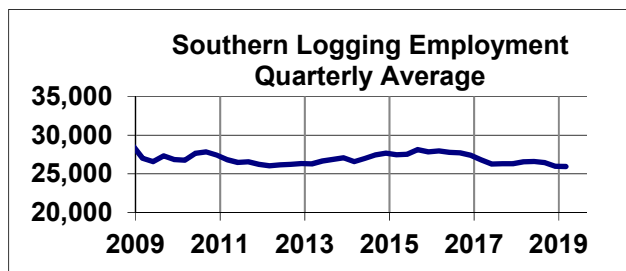
Supply Chain Indicators

The **UGA Logging Cost Index**² at \$13.87 per ton in the 3rd Quarter of 2019 was unchanged Q/Q but up \$0.17 Y/Y (+1%).



While fuel costs were down, they were balanced by flat labor costs and slightly higher interest rates.

Logging employment in the South has held steady. The **US Bureau of Labor Statistics (BLS)** reported the number of loggers employed in the eleven TMS states was 25,945 in the 1st Quarter of 2019, the latest available. That was nearly unchanged from the previous quarter but down 621 loggers (-2%) from the same period in 2018 (Note that the BLS report does not include small, independent contractors).



Log & Lumber Exports

The **USDA Foreign Agricultural Service (FAS)** reported that total exports for the four major forest products -- Southern yellow pine (SYP) logs, SYP lumber, hardwood logs, and hardwood lumber -- were 5.1 million cubic meters (m³) in August, the latest available, which was down 25% from the same period in 2018.

Compared to a year ago, SYP log and lumber exports YTD-August were down 27% and 39%,

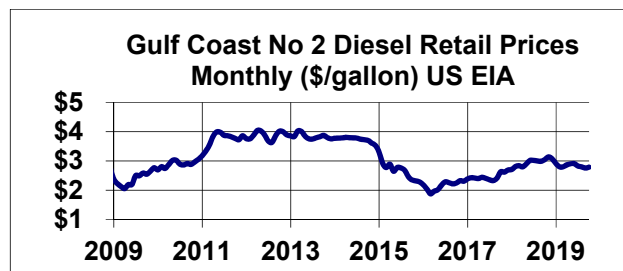
respectively. Hardwood log exports were down 23%, while hardwood lumber exports were down 21%. Total log and lumber exports to China, the dominant US trade partner, were down 38% for this period.

US Log and Lumber Exports Volume in Thousand Cubic Meters				
Product	World	World	China	China
	Ytd 2019	Ytd 2018	Ytd 2019	Ytd 2018
SYP Softwood logs	1,036.7	1,423.6	836.1	1,225.8
SYP Softwood lumber	550.6	900.7	114.0	264.1
Hardwood logs	1,263.7	1,638.9	553.5	878.5
Hardwood lumber	2,279.8	2,899.5	917.5	1,526.5
Total	5,130.8	6,862.7	2,421.1	3,895.0

Fuel & Energy Indicators

Transportation fuel prices were down slightly this quarter; crude oil and natural gas prices were up.

The September monthly average **Gulf Coast No. 2 Diesel** price was \$2.79 per gallon, down \$0.04 Q/Q and down \$0.26 Y/Y.

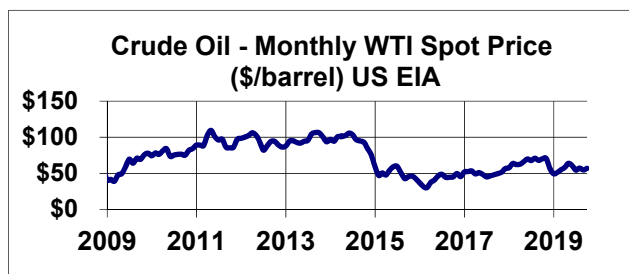


<https://www.eia.gov/petroleum/gasdiesel/xls/psw18vwall.xls>

² The value for the 3rd Quarter of 2019 will be updated if

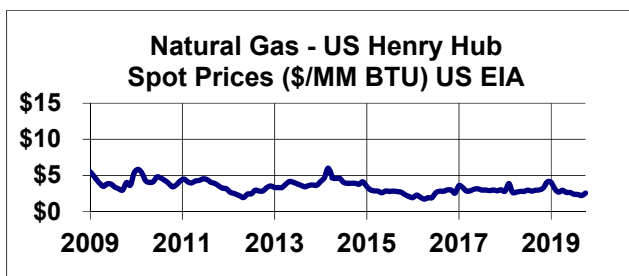
needed next quarter when final labor costs are reported.

Crude oil prices were up in the 3rd Quarter. The September **West Texas Intermediate Crude** spot price (WTI) at \$57 per barrel was up \$2 Q/Q but down \$13 Y/Y.



https://www.eia.gov/dnav/pet/xls/PET_PRI_SPT_S1_M.xls

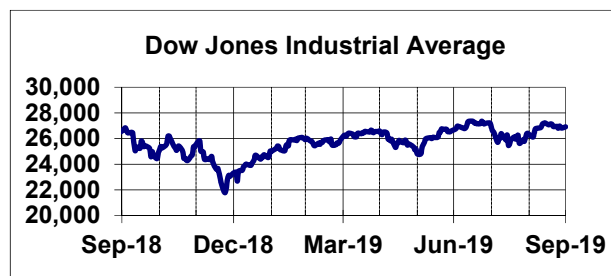
Natural gas prices were up this quarter. The September **Henry Hub Natural Gas** spot price at \$2.56 per million BTU (mm Btu) was up \$0.16 Q/Q (+7%) but down \$0.44 (-15%) from a year ago.



http://www.eia.gov/dnav/ng/ng_pri_fut_s1_m.htm

Financial Indicators

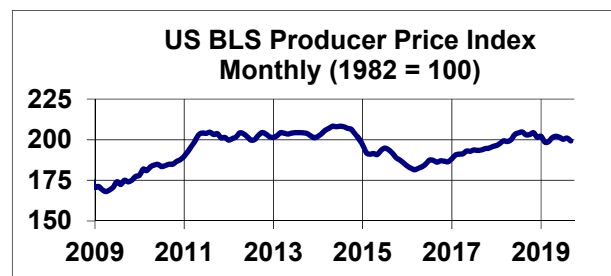
Financial markets remained strong in the 3rd Quarter. The **Dow Jones Industrial Average** (DJIA) closed out September at 26,917, which was up 1% Q/Q and 11% Y/Y. The quarterly low was 25,479 on August 14th and quarterly (and new record) high was 27,359 on July 15th.



The **S&P 500** ended September at 2,977.

The **NASDAQ Composite** ended September at 7,999.

The **US Bureau of Labor Statistics Producer Price Index (PPI)** for all commodities was 199 (1982 dollars=100) in August, the latest available. There was a -1.8% change¹ in PPI from a year ago; however, the PPI has increased 1.3% per year² since August of 2009 (ten years ago).



¹ Annual percent change year-over-year.

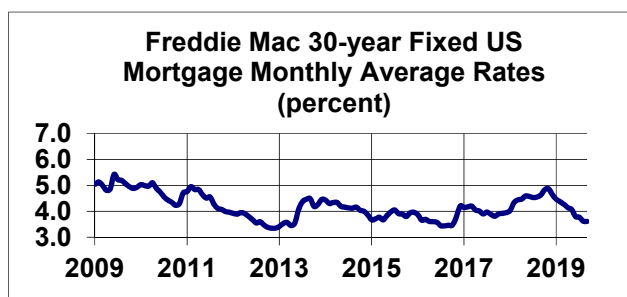
² Compound average annual percent change year-over-year.

Manufacturing activity decreased for paper products in the 3rd Quarter but increased for wood products most of the quarter. The **Institute for Supply Management's Purchasing Managers Index (PMI)**, which aggregates activity in US manufacturing, showed growth in July at 51.2 but contraction in August and September, 49.1 and 47.8, respectively. A PMI value below 50 indicates contraction and a value above indicates expansion.

- ❖ Paper Products manufacturers reported contraction in July, August, and September.
- ❖ Wood Products manufacturers reported growth in July and August but contraction in September.

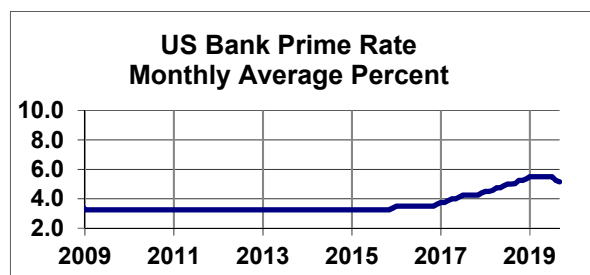
<http://www.ism.ws/index.cfm>

Mortgage rates were down from last quarter. In September, the 30-year fixed-rate mortgage rate averaged 3.61% according to the **Federal Home Loan Mortgage Corp.** (Freddie Mac), which was down 19 basis points from the previous quarter.



The **Bank Prime Rate** charged on short-term loans to businesses at 5.15% in September was down 35 basis points from a quarter ago.

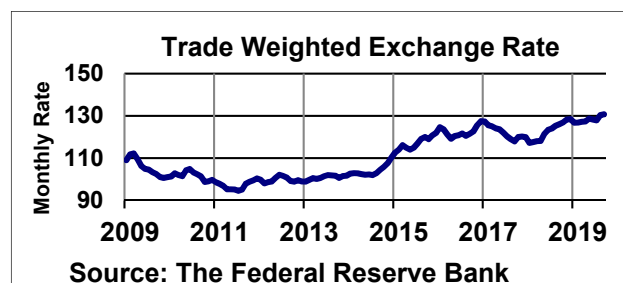
<http://www.federalreserve.gov/releases/h15/data.htm>



The **Federal Open Market Committee (FOMC)** decided to lower the target range for the federal funds rate to 1.75 – 2.00% at their September meeting in the light of the implications of global developments for the economic outlook as well as muted inflation pressures. The Committee will continue to monitor incoming information regarding the economic outlook and will act as appropriate to sustain the expansion, with a strong labor market and inflation near its symmetric 2% objective.

Foreign Exchange Rates: The US Dollar strengthened a bit further in the 3rd Quarter.

The **Federal Reserve Bank's** trade-weighted nominal broad dollar index (goods only) in current units vs. the US Dollar was 131 in September, which was up from 128 in June and up from 125 a year ago.

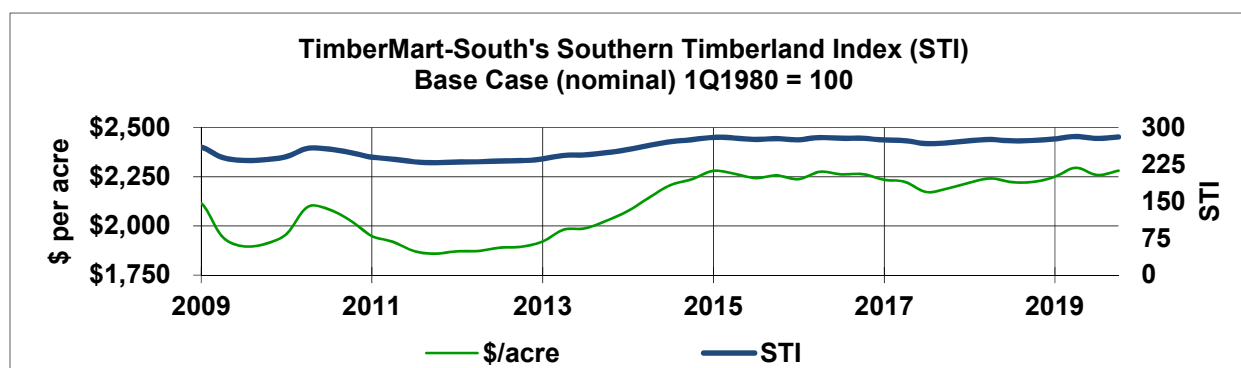


http://www.federalreserve.gov/releases/h10/summary/indexb_m.htm



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Southern Timberland Index

In the 3rd Quarter, the base case **Southern Timberland Index (STI)** was 281 (1st Quarter 1980=100), which implies a value of \$2,281 per acre. The Index was up marginally (+1%) from last quarter and up 3% Y/Y. The STI was developed to provide an indication of how the value of an average acre in the South has changed over time. Recently, the land component has been increasing or steady while the timber component has balanced decreasing pine prices with increasing hardwood prices.

Weyerhaeuser to Lyme in Michigan

Weyerhaeuser announced an agreement to sell 555,000 acres of timberland in the Upper Peninsula of Michigan to **Lyme Great Lakes Holding LLC**, an affiliate of The Lyme Timber Company LP, for \$300 million in cash (roughly \$540 per acre). The former Plum Creek Timber had paid approximately \$530 per acre for the land in 2005 (650,000 acres from Escanaba Timber, formerly MeadWestvaco, for \$345 million). Lyme plans to employ at least part of Weyerhaeuser's management team. The parties expect the deal to close in the 4th Quarter.

Timberland Transactions

Highlights:

- ❖ Weyerhaeuser's proposed sale of 555,000 acres in the Upper Peninsula of Michigan to Lyme Timber is the largest sale of the year so far.
- ❖ Nationwide, there were roughly 897,000 acres of timberland sales year-to-date through September, of which 225,000 were in the South.
- ❖ The average sale price per acre in the US South through September was \$1,648.

For details of this quarter's retail timberland market survey in the South, see "Southern Timberland Proffered 3rd Quarter 2019" on page 24.

Transactions in the South

CatchMark sold 4,400 acres of timberland from its Dawsonville Bluffs joint venture in northern Georgia in July for \$8.7 million (\$1,980 per acre) to an undisclosed buyer. The company announced that this sale disposed of the last remaining timberland assets of the 2.5-year joint venture.

CatchMark also sold 10,800 acres of timberland from its own estate in Georgia and Alabama in July for \$19.9 million (\$1,840 per acre) to **Southern Pine Plantations**. The company further announced its sale of 3,600 acres of its Georgia timberland to an undisclosed buyer for \$5.5 million (\$1,530 per acre) in June. CatchMark attributed the lower price on the June sale to low stocking levels.

Domain Timber Advisors sold 10,100 acres in Florida to **Rayonier** for \$14.7 million (about \$1,455 per acre). Domain also sold 18,300 acres in Oklahoma to **IKEA** for \$17.2 million (\$940 per acre) as well as a severely hurricane damaged 7,300-

acre tract in Gulf County, Florida (TMS FL2) to **Deseret Ranches** for about \$900 per acre.

Jamestown Properties acquired 6,044 acres in Clay and Coosa Counties, Alabama (TMS AL1) for \$9.75 million (roughly \$1,610 per acre) in the 2nd Quarter. The seller was not disclosed.

International Transaction Highlights:

- ❖ **BillerudKorsnäs** sells interest in Bergvik Skog Öst.
- ❖ **Cambium Global** sells tree farm in Brazil.
- ❖ **New Forests** completes sale of **Hikurangi Forest Farms**.
- ❖ **SCA** acquired **Sundin Mezs** in Latvia.

BillerudKorsnäs announced an agreement to sell 89.9% interest in its newly acquired Bergvik Skog Öst to Swedish pension company **AMF**. The deal closed in August with a value of SEK 12.2 billion (\$1.2 billion or \$1,460 per acre) and includes a 15-year wood supply agreement for BillerudKorsnäs facilities. BillerudKorsnäs acquired the 350,000 hectares (864,000 acres) of forest land in Sweden from Bergvik Skog for SEK 6.4 billion (\$678 million or roughly \$820 per acre) last quarter. AMF is a limited liability life insurance company that is owned equally by the Swedish Trade Union Confederation and the Confederation of Swedish Enterprises with a focus on occupational pensions for both individuals and companies. AMF has SEK 649 billion (\$65 billion) in assets under management for approximately 4 million customers.

In August, **Cambium Global Timberland**, based in Jersey, UK, announced the sale of its Água Santa tree farm in Minas Gerais, Brazil, for BR30 million (roughly \$7.2 million), with payments to be made over 24 months. The size of the tree farm and buyer were undisclosed. Cambium was established in 2007 and acquired roughly 10,400 hectares (25,700 acres) of bare land in Brazil for about \$300 per acre in 2008. The company planned to invest a similar amount to establish eucalyptus plantations on the properties over the subsequent two years. In 2012, the company began divesting its timberland assets

but continues to hold timberland interests in Tocantins, Brazil, and in two other properties in Minas Gerais, all classified as discontinued operations, held for sale.

New Forests of Sydney, Australia, completed its previously-announced purchase of **Hikurangi Forest Farms** (HFF) based in Gisborne, New Zealand, from **Samling Group** on behalf of investment clients. HFF includes 25,000 hectares (roughly 61,800 acres) of commercially managed timberland on 35,000 hectares (about 86,500 acres) of combined freehold, forests rights, and lease hold land. As part of the ownership transition, HFF has been renamed **Aratu Forests Limited**. Terms of the transaction were not disclosed.

Svenska Cellulosa AB (SCA) announced their acquisition of **Sundin Mezs SIA** from Swedish company Livland Skog AB for SEK 260 million (\$27 million). Sundin Mezs owns forest and land assets in Latvia that total approximately 9,600 hectares (23,700 acres), of which 8,500 hectares are forest. The price averaged roughly \$1,140 per acre. This transaction follows SCA's purchase of 10,000 hectares in Estonia last quarter for about \$1,800 per acre and 10,000 hectares in Latvia in the 1st Quarter of 2019 for about \$1,100 per acre. SCA owns 2.6 million hectares (6.4 million acres) of forests in northern Sweden.

Timberland for Sale

Highlights:

- ❖ Approximately 351,000 acres were offered for sale nationwide in 3rd Quarter, of which about 190,000 were in the South.
- ❖ **LandVest** announced the availability of a Term Timber Agreement with **Western Pocahontas Properties, LLC**, on more than 147,000 acres in three states.

American Forest Management announced six new offerings totaling nearly 44,400 acres in five states, two in the South:

- ❖ 3,668 acres in two tracts in Brunswick County, North Carolina (TMS NC2).
- ❖ 3,341 acres known as the Brissey Tract in Morgan and Roane Counties, Tennessee (TMS TN1).
- ❖ 2,582 acres known as Henry Creek Timberlands in Clackamas and Marion Counties, Oregon.
- ❖ 7,222 acres known as Ketchum Lake Tree Farm in Hood River and Wasco Counties, Oregon.
- ❖ 14,306 acres known as Vulcan Timberlands in Houghton and Ontonagon Counties, Michigan, in the Upper Peninsula.
- ❖ 13,235 acres known as Wilkeson Tree Farm in Pierce County, Washington.

Larson & McGowin announced their offering of the 1,044-acre Mount Willing Tract in Lowndes County, Alabama (TMS AL2).

LandVest announced four new offerings totaling 202,000 acres in four states, two in the South:

- ❖ 86,605 acres known as Tyler Timberlands (East and West) located in East Texas (TMS TX2) on behalf of Hancock Natural Resource Group.
- ❖ 11,856 acres known as Fiver Rivers Timberlands located in the Coastal Plain of Georgia (TMS GA2) on behalf of Rayonier.
- ❖ 92,200 acres known as Wolverine Timberlands located in the Upper Peninsula of Michigan.
- ❖ 11,718 acres known as Clarion Timberlands located in the Allegheny Plateau region of Pennsylvania on behalf of Domain Capital.

Three-State Term Timber Agreement

LandVest announced an offering of the Western Pocahontas Timberlands, a 147,344-acre Term Timber Agreement on timberland located in the central Appalachian region in three states: West Virginia, Kentucky, and Maryland. Established in 2006, the Agreement still has 12 years remaining.

Timberland Managers & Funds

Highlights:

- ❖ Lyme Timber invests in Pennsylvania log marketing firm.
- ❖ Brookfield Asset Management sells interest in Acadian Timber.
- ❖ Egger Forestry sells forest management unit to RTS.
- ❖ Klabin-TIMO joint venture in Paraná, Brazil.

Lyme Timber Invests in Log Marketing Firm

Lyme Timber Company, a timberland investment management organization based in Hanover, New Hampshire, announced in July its minority investment in **Northern Appalachian Log & Forestry** (NALF), a log marketing and export business based in Coudersport, Pennsylvania. Lyme has been a timber supplier to NALF over the past 18 months, having about 67,000 acres under management in the North-Central Pennsylvania and Southwest New York region. In late 2018, Lyme made a similar minority investment in Emporium Hardwoods, which operates a sawmill in Emporium, Pennsylvania.

Brookfield Asset Management Sells Interest in Acadian Timber

In August, **Acadian Timber**, based in Vancouver BC, announced changes including:

- ❖ The sale by **Brookfield Asset Management** (BAM) of 100% of its interest in Acadian to **Macer Forest Holdings** of Ontario.
- ❖ Malcolm Cockwell, director and principal of Macer, will assume the role of chairman with the resignation of Benjamin Vaughan, the previous Acadian chairman.

-
- ❖ Various changes to loan agreements and removal of terms that require BAM to hold a minimum equity interest in Acadian.

Acadian has approximately 1.1 million acres of land under management, of which about 300,000 acres are in Maine with the remainder in New Brunswick, Canada. The company also provides timber services to 1.3 million acres of Crown licensed timberland in New Brunswick.

BAM announced the private transaction of \$17 per share for 7.5 million shares, totaling approximately \$128 million in cash. The shares represented roughly 45% of Acadian's issued and outstanding common shares. While Macer owned no shares in Acadian prior to the transaction, BAM reported that Mr. Cockwell personally owned 214,400 common shares, or less than 2% of Acadian's shares.

In September, Acadian announced termination of the external management agreement with **Brookfield Timberlands Management**, with a consideration of \$18 million to be paid to Brookfield. The current agreement was to end in 2025, subject to renewals at 10-year intervals. Acadian plans to manage its timberland internally, eliminating asset management fees paid to Brookfield or other management firms. In addition, Mark Bishop has resigned as CEO and president of Acadian, with Erika Reilly, former CFO of Acadian, taking an interim CEO and president position at the company. Acadian has contracted with Brookfield to provide transition services over the next 24 months at no cost to Acadian.

Egger Forestry Sells Forest Management Unit to RTS

In September, panel manufacturer **Egger UK** announced the sale of its forestry management business to Scotland-based **RTS Ltd.**, a forest management consultancy. The unit employs 40 people and includes management of more than 8,000 hectares (19,800 acres) of privately-owned woodlands. RTS will employ the forest management staff and manage the timberland. Egger will exit direct forest management but continue harvest operations that support the company's

manufacturing facilities in Hexham, Northumberland, as well as Auchinleck, Ayrshire. The parties expect the transaction to close October 1st.

Klabin-TIMO JV in Paraná, Brazil

Klabin SA, based in São Paulo, Brazil, announced in July an agreement with an unnamed timber investment management organization (TIMO) to form a joint venture with the company's subsidiary Sapopema Reflorestadora SA (a special purpose entity or "SPE"). The venture will develop forestry activity in the state of Paraná, Brazil. Klabin will contribute 8,000 hectares (19,800 acres) of planted forest valued at BR 114 million (roughly \$28 million). The TIMO will contribute up to BR 325 million (\$80 million) in cash. Proceeds of the SPE will fund acquisition of an additional 15,000 hectares (37,000 acres).

Klabin will have the right of first refusal to purchase the forest production of the SPE and remain its controlling shareholder. The company expects to increase its wood supply in the region through the venture without requiring further capital allocation for asset acquisition. Klabin has a containerboard expansion project under construction at its Ortigueira Mill in Paraná and owns 342,700 hectares (846,800 acres) in the state.

This transaction is similar to the one announced by Klabin in the 4th Quarter of 2018, which created Guaricana Reflorestadora SA in association with a TIMO to develop and manage timberland assets in Santa Catarina, Brazil.



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Southern Timberland Proffered 3rd Quarter 2019

By Brynnan Adams, Giles Moree, & Sara Baldwin

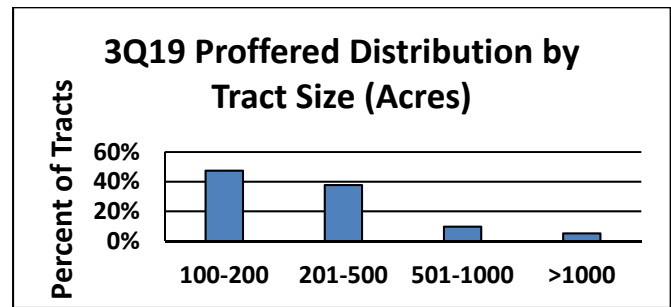
Within TimberMart-South's eleven-state regional survey, the number of timberland properties proffered³ for sale increased from 1,981 to 2,240 this quarter. The increase in property listings corresponded with a 13.1% increase in timberland acres that fell within the study parameters⁴. These properties do not include the timberland listed in the Timberland for Sale section on page 20.

Southern Timberland Proffered Survey Results				
Quarter	No. of Tracts	Acres in Survey	Avg. Price per Acre	Avg. Size (Acres)
3Q 18	1,920	734,776	\$2,016	383
4Q 18	1,989	761,270	\$2,072	383
1Q 19	1,928	721,592	\$2,042	374
2Q 19	1,981	782,174	\$2,085	395
3Q 19	2,240	826,073	\$2,058	369

The total acres in the survey increased to 826,073 this quarter, the highest since the survey began in 2011. The average price of timberland decreased slightly to \$2,058 per acre, and the average tract size decreased to 369 acres. In comparison to long-term survey averages⁵, the number of tracts, total acres, and price per acre this quarter were above their averages while average property size fell below the average.

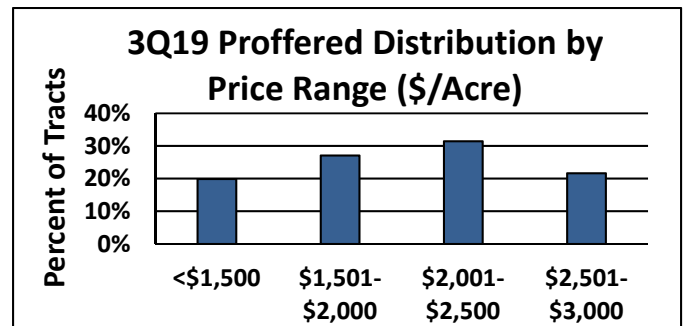
³ **proffer** The word proffer is derived from Anglo-French "por-", forth, and "offrir", to offer. The act of proffering involves making an offer prior to any formal negotiations. Synonyms include offer, tender and present.
<http://www.merriam-webster.com/dictionary/proffer>

⁴ Our study limits results to timberland properties proffered in TimberMart-South's eleven-state region that were greater than or equal to (\geq) 100 acres in size, proffered for less than



The frequency distribution of tracts by size shows approximately 85% of the properties proffered this quarter were 500 acres or smaller.

Of the properties larger than 500 acres, 115 (5.1% of properties surveyed) exceeded 1,000 acres and represented 33% of the total acreage. The average size for these larger tracts was 2,340 acres.



The distribution of the surveyed properties by price shows roughly 59% were proffered at prices between \$1,501 and \$2,500 per acre.

- ❖ Tracts smaller than 1,000 acres were proffered at a higher per acre price, averaging \$2,065 this quarter, compared to \$1,934 per acre for tracts larger than 1,000 acres.
- ❖ Of the tracts proffered this quarter, 1,083 were new listings.

or equal to (\leq) \$3,000 per acre, and located in non-metropolitan counties (as determined by the US Census).

<http://www.census.gov/population/www/metroareas/metrodef.html>

⁵ Long-term survey averages are based on TMS quarterly records dating back to 2Q 2011 (number of tracts=1,470; total acres=606,645; price per acre=\$2,023; average tract size=417 acres).

Conservation Transactions

Highlights:

- ❖ In total, 187,000 acres of timberland were acquired for conservation in the US during the 3rd Quarter, of which 173,000 acres were in the South.
- ❖ Another 88,000 acres were placed under conservation easements of which 26,000 acres were in the South.
- ❖ The Nature Conservancy (TNC) made the largest acquisition this quarter: 153,000 acres in Virginia from The Forestland Group.

TNC Acquisition from The Forestland Group

A fund managed by **The Nature Conservancy** acquired 153,000 acres in southwestern Virginia (TMS VA1) from **The Forestland Group**. This sale consisted of two different tracts, The Highlands Property and Lonesome Pine, both managed in accordance with Forest Stewardship Council

sustainability standards and enrolled in an Improved Forest Management carbon sequestration program with the California Air Resources Board.

This acquisition is part of The Nature Conservancy's Cumberland Forest Project, which also includes the Ataya acquisition from the Molpus Group announced last quarter, which had a combined 100,000 acres in Kentucky and Tennessee.

US Transactions in the South

The Nature Conservancy announced a 22,856-acre conservation easement on land in Russell County, Virginia (TMS VA1), known as the Clinch Highlands. TNC, in partnership with the Virginia Department of Forestry and the Virginia Department of Environmental Quality, developed a working forest easement for the property to sustain economic development in the area. The property is adjacent to the newly formed Clinch River State Park and supplements the Cumberland Forest Project described above. Terms were not disclosed.

The North Carolina Division of Coastal Management acquired 2,224 acres in Tyrell County, North Carolina (TMS NC2), known as the Woodley Tract. The land, purchased through a



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partnership with the US Air Force and The Nature Conservancy, will expand the state's 29,335-acre Buckridge Reserve wetlands complex in the Dismal Swamp. Terms were not disclosed.

The Conservation Fund transferred a 3,041-acre conservation easement to the **Tennessee Wildlife Resources Agency** as an addition to the Skinner Mountain Wildlife Management Area (TMS TN1). The land will continue to be managed for timber as well as recreation in order to support the local economy. Terms were not disclosed. The Conservation Fund acquired the property in 2017 as part of the 14,779-acre Skinner Mountain Forest and anticipates working with the Tennessee Wildlife Resources Agency in the coming year to protect the remaining 11,759 acres.

The Conservation Fund purchased 7,880 acres of timberland in Charlotte County, Virginia (TMS VA2), from **Stanley Land and Lumber** for \$18.3 million (\$2,320 per acre). Known as the Roanoke River Forest, the timberland will remain a working forest and support the rural economy.

The Conservation Fund announced its acquisition of 10,366 acres of timberland in Alabama and Georgia (TMS AL1 and GA1) from a fund managed by **Jamestown Timber** for \$22 million (roughly \$2,120 per acre). The land in Haralson and Polk Counties, Georgia, and in Cleburne County, Alabama, will be managed as the Stateline Forest, a working forest with some longleaf pine restoration.

Correction: The buyer of 51,300 acres in the Adirondack Park, New York, was **The Conservation Fund**, not as TMS reported last quarter, The Nature Conservancy. The seller was **Domain Timber Advisors** and the price averaged roughly \$720 per acre.

US Transactions outside the South

The Conservation Fund acquired 2,620 acres in North Hampton and Monroe Counties, Pennsylvania, from the Pennsylvania-American Water Company to add to the Cherry Valley National Wildlife Refuge. This purchase, with partners US Fish and Wildlife, the National Park Service, as well as other public and private sponsors, adds to a similar 1,760-acre purchase in 2017 and will help to establish a core, protected area in the refuge. The tract also secured five miles of the Appalachian National Scenic Trail. Terms were not disclosed.

The Montana Fish and Wildlife Commission approved the Fish, Wildlife and Parks conservation easement on 22,295 acres of Kootenai Forestlands Conservation easement for \$8.3 million (\$372 per acre) from owner **Stimson Lumber**. Funding for this project will come from a \$6 million grant from the US Forest Service Forest Legacy Program and from a grant secured by The Trust for Public Land from the National Fish and Wildlife Foundation.

The Trust for Public Land and **The Pacific Crest Trail Association** announced the acquisition of 10,300 acres along Northern California's Trinity Divide in the Klamath and Shasta-Trinity National Forests. The purchase includes 17 miles of the Pacific Crest Trail in 16 tracts. Estimated value of the transaction is \$15 million, or roughly \$1,456 per acre.

Washington State DNR has acquired 656 acres from **Green Diamond** for \$4.1 million (\$6,250 per acre) to add to their 1,465-acre conservation area near the Capital State Forest in Washington. This purchase was funded by state and federal programs and will help to conserve salmon spawning grounds.

Wisconsin DNR agreed to purchase a 14,342-acre conservation easement on timberland in Iron County, Wisconsin, from **Keweenaw Land** for \$4.24 million (\$295 per acre). This easement eliminates future development and subdivision of the property but specifically permits forest management activities and timber harvesting.



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Openings & Closings Projects -- US South – Current Quarter

Company	Location	State/ TMS Region	Annual Capacity	Production Change	Year
Pulp & Paper Mills			000 Tons Pulp		
Domtar	Ashdown	AR1	747	UCF paper machine shutdown	2019
Georgia-Pacific	Crossett	AR1	984	Bleached board shutdown	2019
Shandong Sun Paper	Arkadelphia	AR1	1,800	Proposed new mill, air permit	n/a
Georgia-Pacific	Palatka	FL1	520	Hurricane shut	2019
WestRock	Fernandina Beach	FL1	930	Hurricane shut	2019
DS Smith	Riceboro	GA2	350	Hurricane shut	2019
Georgia-Pacific	Brunswick	GA2	942	Hurricane shut	2019
Georgia-Pacific	Monticello	MS2	895	Curtailement	2019
WestRock	N. Charleston	SC2	975	Hurricane shut & linerboard shutdown	2020
Graphic Packaging	Texarkana	TX1	540	Maintenance & boiler upgrade	2019
Wood Products: Softwood Sawmills			Million bf		
Abbeville Fiber	Abbeville	AL2	50	Sawmill startup	2019
Rex Lumber	Troy	AL2	240	Sawmill under construction	2019
Conifex Timber	El Dorado	AR1	180	Indefinite curtailement	2019
Conifex Timber	Glenwood	AR1	100	Extending operating hours	2019
Georgia-Pacific	Gurdon	AR1	187	Upgrades	2020
Interfor	Monticello	AR1	115	Completed Phase 1 Project	2019
Interfor	Eatonton	GA2	90	Upgrade	2021
Interfor	Meldrim	GA2	135	Completed Phase 1 Project	2019
Interfor	Thomaston	GA2	170	Upgrade	2021
Shuqualak Lumber	Shuqualak	MS1	123	Plans for downtime	2019
Interfor	Georgetown	SC2	90	Upgrade	2021
Teal-Jones	Martinsville	VA1	50	Upgrade & new kiln	2021
Teal-Jones	Kinsale	VA2	75	Upgrade & new kiln	2021
Wood Products: Hardwood Sawmills			Million bf		
Seguin Moreau	Hot Springs Co.	AR1	n/a	Upgrade and restart stave mill	2019
Northwest Hardwoods	Buena Vista	VA1	8	To close	2019
Wood Products: OSB, Engineered Wood & Panels			Million sf		
Georgia-Pacific Plywood	Gurdon	AR1	335	Upgrades	2020
Norbord Inc.	Cordele	GA2	1,040	Reduced production schedule	2019
Georgia-Pacific OSB	Allendale	SC2	400	Hurricane shut	2019
Georgia-Pacific OSB	Clarendon	SC2	500	Hurricane shut	2019
Swiss Krono	Barnwell	SC2	n/a	MDF Expansion	2019

Openings & Closings

Highlights:

Pulp & Paper Mills in the South:

- ❖ Hurricane Dorian brought temporary shutdowns to at least five pulp mills and two OSB mills along the Atlantic Coast.
- ❖ Domtar shut down an uncoated free sheet paper machine at its mill in Ashdown, Arkansas, with plans to increase pulp production.
- ❖ Georgia-Pacific plans to shut down pulp and paper operations at its mill in Crossett, Arkansas, in October.
- ❖ WestRock plans to permanently shut down a linerboard machine at its North Charleston, South Carolina, mill in early 2020.

Softwood Sawmills:

- ❖ Abbeville Fiber started up its softwood sawmill in Abbeville, Alabama.
- ❖ Conifex Timber phased in an indefinite curtailment at its El Dorado, Arkansas, sawmill and plans to extend operating hours at its Glenwood, Arkansas, sawmill.
- ❖ Interfor completed upgrades at its sawmills in Monticello, Arkansas, and Meldrim, Georgia.
- ❖ Shuqualak Lumber took downtime at its Shuqualak, Mississippi, sawmill.
- ❖ Teal-Jones plans to more than double lumber capacity at its Kinsale and Martinsville, Virginia sawmills.

Hardwood Sawmills:

- ❖ Northwoods Hardwoods plans to close one of its Buena Vista, Virginia, sawmills.
- ❖ Seguin Moreau Napa Cooperage plans to re-open a stave mill near Malvern, Arkansas.

Panels & Engineered Wood:

- ❖ Georgia-Pacific plans upgrades for its plywood and lumber complex in Gurdon, Arkansas.

- ❖ Norbord reduced operations at its OSB mill in Cordele, Georgia.
- ❖ Swiss Krono's expansion at its MDF plant in Barnwell, South Carolina, is almost complete.

Pulp & Paper Mills outside the South:

- ❖ ND Paper started up the Old Town pulp mill and Verso announced an expansion project at its Androscoggin mill, both in Maine.

Pulp & Paper Mills outside the US:

- ❖ Canfor and Paper Excellence both curtailed pulp production in British Columbia this quarter.
- ❖ Domtar and JD Irving have expansion plans for pulp mills in eastern Canada.
- ❖ Svenska Cellulosa AB (SCA) plans to expand production at its pulp mill in Umeå, Sweden.
- ❖ UPM confirmed plans to build a new greenfield pulp mill in Uruguay.

Pulp & Paper Mills in the South

Domtar announced plans to shutdown two uncoated free sheet paper machines, one at its mill in Ashdown, Arkansas (TMS AR1), and the other at a mill in Port Huron, Michigan. The closures affect a total of 100 employees. Ashdown will continue to employ 725 people and ramp up production of softwood and fluff pulp over the next twelve months.

DS Smith took precautionary downtime in September at its pulp mill in Riceboro, Georgia (TMS GA2), ahead of Hurricane Dorian.

Georgia-Pacific plans to shut down bleached board production at its mill in Crossett, Arkansas (TMS AR1) in October. The company will no longer produce pulp at the Crossett mill but will still manufacture tissue. The closure affects about 530 employees. The company also continues to curtail linerboard production at its pulp mill in Monticello, Mississippi (TMS MS2).

Georgia-Pacific took precautionary downtime at its pulp mills in Palatka, Florida (TMS FL1) and Brunswick, Georgia (TMS GA2), as well as its two

South Carolina OSB mills in Allendale and Clarendon (both TMS SC2).

Graphic Packaging took extended scheduled downtime this quarter at its pulp mill in Texarkana, Texas (TMS TX1). In addition to routine annual work, the company replaced a section of the recovery boiler to improve safety and reliability. This mill is part of Graphic Packaging's joint venture with International Paper.

Shandong Paper received an air permit in September for its Sun Bio Material Company kraft linerboard mill proposed for Arkadelphia, Arkansas (TMS AR1). Permit applications suggest that the pulp mill will have about 1.8 million tons per year of capacity, potentially the largest pulp mill in North America.

WestRock announced in early September that it would reconfigure its paper mill in North Charleston, South Carolina (TMS SC2), including the shut down of one of the mill's three paper machines and related infrastructure. The change will eliminate roughly 288,000 tons per year of kraft linerboard capacity. The company expects to reduce operating costs as well as capital needs to focus on the high-value products. The shutdown will affect approximately 260 employees beginning in January 2020. WestRock acquired the mill from KapStone in late 2018.

WestRock also announced the precautionary closing of three containerboard mills located in areas of mandatory evacuation in September ahead of the advance of Hurricane Dorian: Fernandina Beach and Jacksonville ("Seminole"), Florida (TMS FL1), as well as Charleston, South Carolina (TMS SC2). The hurricane did not make landfall near the facilities but there were costs to idle and restore the mill operations as well as supply chain impacts.

For pulp prices and industry production, see "Pulp and Paper Indicators" on page 13. For pulp and paper mill updates outside the South, see page 32.

Wood Products: Softwood Sawmills

Abbeville Fiber, a subsidiary of Great Southern Wood Preserving, began operations at its new softwood sawmill in Abbeville, Alabama (TMS AL2), in early July. Initial capacity is 50 mmbf of lumber per year, but the company plans to double production over the next 12 to 15 months. The operation will have about 115 employees. The company invested \$40 million in the project with an \$850,000 federal grant received to assist with construction of adjacent infrastructure. In August, the company announced the name of the mill was changed from Abbeville Fiber to the Lancaster Mill in honor of the sawmill's general manager, Michael Lancaster.

Conifex Timber announced on August 13th that it would phase in an indefinite curtailment at its El Dorado, Arkansas (TMS AR1), sawmill over the next 60 days. The company also announced plans to extend operating hours at its Glenwood, Arkansas (TMS AR1), sawmill over the next several months. Last quarter, Conifex reduced operations to a single-shift configuration at both mills. These market-related curtailments are expected to reduce their US South lumber production by about 21 mmbf through the end of the year.

Interfor has completed its previously announced Phase I upgrade projects at the Meldrim, Georgia (TMS GA2), and Monticello, Arkansas (TMS AR1), sawmills and they are now in the ramp-up phase. The company announced that Phase II upgrade projects at Thomaston and Eatonton sawmills in Georgia (TMS GA2) and the Georgetown sawmill in South Carolina (TMS SC2) are on schedule for completion between 2019 and 2022.

Rex Lumber's Troy, Alabama (TMS AL2), sawmill received financial assistance from Pike County and the US Government this quarter. Pike County received a \$500,000 grant from the Economic Development Administration (EDA) of the US Department of Commerce that will be used to resurface four miles of road expected to endure heavy traffic from logging trucks. This grant will be matched with \$500,000 in state funds. Rex Lumber

expects to invest \$110 million in the sawmill project and employ roughly 110 people at the facility. Target lumber capacity is 240 mmbf annually. The 294-acre complex will include two lumber storage facilities, three kilns, and two finish facilities in addition to the sawmill.

Shuqualak Lumber took downtime from August 15th to September 3rd to allow for the installation of a new sorter and profiler at its sawmill in Shuqualak, Mississippi (TMS MS1).

Teal-Jones, a British Columbia-based forest products firm, plans to invest more than \$31 million to expand production and dry kiln capacity at its two recently purchased southern pine sawmills:

- ❖ The former Potomac Supply in Kinsale, Virginia (TMS VA2).
- ❖ The former Pine Products in Martinsville, Virginia (TMS VA1).

Teal-Jones acquired the two Virginia facilities in October of 2018, and this quarter, Virginia Governor Northam announced the company plans would double employment at the two mills and triple lumber capacity. The company operates sawmills in Canada as well as in Oklahoma and

Washington, and recently curtailed production in British Columbia due to challenging market conditions.

For more on lumber prices and production levels, see “Lumber Indicators” on page 11.

Wood Products: Hardwood Sawmills

Northwest Hardwoods of Tacoma, Washington, announced plans to close its Maury River hardwood sawmill in Buena Vista, Virginia (TMS VA1), effective November 20th. At the same time, the company will also close a hardwood sawmill in Mt. Vernon, Washington. The decision affects a total of approximately 100 employees. The company cited challenging market conditions and concerns about prolonged reductions in hardwood lumber exports to China. Northwest Hardwoods acquired two Buena Vista sawmills in 2015. Maury River was the former Shenandoah Hardwood sawmill. The other Buena Vista hardwood sawmill, the former Fitzgerald Lumber, will continue operations.

Seguin Moreau Napa Cooperage Inc. of Napa, California, announced plans to reopen a closed oak cooperage facility in Hot Spring County, Arkansas

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(TMS AR1) near Malvern. The company will invest in upgrades to the stave mill and employ 15 people.

For more on hardwood lumber prices, see “Lumber Indicators” on page 11.

Wood Products: OSB, Engineered Wood & Panels

Georgia-Pacific announced plans to invest up to \$70 million to upgrade its plywood and lumber operations in Gurdon, Arkansas (TMS AR1). Capital improvement projects include an advanced merchandiser to determine best end-product use, new scanning systems, and an upgraded power plant. Work is scheduled to be complete in 2020.

Georgia-Pacific planned to close two particleboard facilities: Hope, Arkansas (TMS AR1), and Monroeville, Alabama (TMS AL2), this quarter; however, the company did not announce final closures by press time. The decision impacts about 100 employees at each facility.

Norbord began operating Line 1 of its two-line OSB mill in Cordele, Georgia (TMS GA2), on a reduced 10/4 schedule (ten-hour days, four days per week) on September 5th. This schedule will reduce production at the mill by about 12%. The company cited continued poor market conditions for the decision. The reduced schedule will continue until further notice.

Shaw Industries closed its engineered hardwood flooring plant in Clinton, South Carolina (TMS SC2), in August. The company will move production to other Shaw operations in the South and give the approximately 120 employees opportunities to apply for open positions at other locations in South Carolina. Shaw sold two solid hardwood flooring facilities in Franklin and Bryson City, North Carolina (both TMS NC1), to **Beasley Flooring Products** of Macon, Georgia, in March. Shaw cited plans to most effectively meet customer needs for both the closure and the sale.

Swiss Krono started up operations in September after completing an expansion project at its Medium Density Fiberboard (MDF) plant in Barnwell, South Carolina (TMS SC2). The company plans an

additional upgrade project at the plant to increase High Density Fiberboard (HDF) production. Both projects strengthen Swiss Krono’s laminate divisions in response to growing demand.

For more on panel prices and production levels, see “Panel Indicators” on page 12.

US Pulp & Paper Mills outside the South

ND Paper hired 130 workers and had its grand opening on August 13th at its recently acquired mill in Old Town, Maine. ND Paper is a subsidiary of Nine Dragons Paper, and they acquired the mill in October. The company is expected to eventually produce 275,000 air-dried metric tons of softwood unbleached kraft (UKP). The company will look to send pulp to both the U.S. and its factories in China.

Pulp & Paper Mills outside the US

Canfor Pulp Products extended the curtailment which started on June 29th at its bleached chemi-thermomechanical pulp (BCTMP) mill in Taylor, British Columbia, through September 30th. The market-related curtailment of two of Canfor’s BC northern bleached softwood kraft (NBSK) pulp mills, Intercontinental and Northwood, as well as maintenance scheduled in September at their Prince George BC NBSK pulp and paper mill also reduced Canfor’s NBSK pulp production. The company cited weak demand and prices for both BCTMP and NBSK, especially in China. NBSK production has also been impacted by fiber supply constraints due to recent BC sawmill shutdowns.

Domtar will receive C\$29 million (\$22 million) for projects at its Espanola Mill in Ontario from the Canadian government. The funding will support a C\$57.5 million (\$43 million) new fiber technology project and equipment upgrades. The company plans to develop solutions that could replace single-use plastics over the next four years, and increase competitiveness in specialty recycled paper products.

Flambeau River Papers (FRP) restarted its mill in Park Falls, Wisconsin, in July and then shut down again. A deal in July with client **CellMark Paper**

allowed the court-ordered partial restart. The mill was then idled in anticipation of an expected sale to buyer **Element Ventures** but the sale failed to close and the mill remained shut down at press time.

Ilim Group reduced production of bleached softwood pulp at its Bratsk and Ust-Ilimsk pulp mills in Siberia by 165,000 tons from June until October during a scheduled maintenance shutdown. The curtailment was part of an ongoing large-scale modernization of the Ust-Ilimsk pulp line and primarily impacted Ilim's exports to Asia.

JD Irving announced a \$22 million investment is underway at Irving Tissue and Irving Pulp & Paper mills in St John, New Brunswick. The project includes environmental improvements and equipment modernization.

Jari Cellulose, a Brazilian dissolving pulp (DP) producer, shut down its single-line pulp mill in Monte Dourado, Pará, on July 12th due to a pay dispute with workers. The company filed for bankruptcy protection on July 17th and resumed operation at Monte Dourado on July 24th after negotiating means to fund operations as well as pay down debt. Jari started eucalyptus-based DP production at the mill in 2015 after a two-year conversion project which took longer than expected to complete and consumed more financial resources than planned.

Paper Excellence extended curtailment of its Catalyst Powell River mill at Powell River, British Columbia, due to continued tight fiber supply, weak demand, and soft publication papers markets. The curtailment, initially begun in April, was extended intermittently through September 30th. The interim general manager mentioned that Catalyst is actively

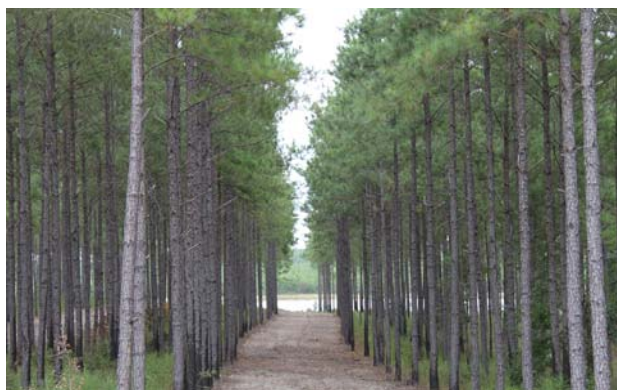
studying strategic alternatives for the paper machines in addition to continuing to pursue opportunities to grow in more sustainable product lines.

Paper Excellence also shut down newsprint and packaging grade paper machines at the Catalyst mill in Crofton, British Columbia, at the end of September. The company expected the curtailment to last about two weeks but no schedule was announced for restart.

Svenska Cellulosa AB (SCA) announced in September its decision to proceed with a new kraftliner paper machine at its Obbola pulp mill in Umeå, Sweden. The project will increase annual capacity from 450,000 to 725,000 tons to meet growing demand for paper-based packaging. Expected investment will be about SEK 7.5 billion (\$760 million) with startup expected in early 2023.

Svetlogorsk Pulp and Paper Mill struggled to complete a pulp mill project at its containerboard mill in Belarus this quarter. The new Chinese-designed and financed bleached softwood kraft (BSK) pulp line at the mill was launched in 2018; however, output reportedly failed quality standards and a nearby town complained of people with symptoms of chemical poisoning. Early in 2019, the Belarus government described the new line as 95% complete and running in trial mode at 70% of its 400,000 tonnes-per-year design capacity. After disputes with their main engineering partner, Chinese engineering firm CAMCE, the government now plans to use domestic contractors to finish the project by year-end.

UPM-Kymmene of Finland announced in July its decision to invest \$2.7 million to develop and



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Bioenergy Project Updates - US South - Current Quarter					
Company	Location	State/ TMS Region	Annual Capacity	Annual Wood Consumption	Startup
Wood Fuel Pellets/Briquettes			000 Tons	000 Tons	
Enviva*	Sumter Co.	AL1	n/a	n/a	n/a
LaSalle BioEnergy (Drax)	Urania	LA1	450	990	2020/21
Morehouse BioEnergy (Drax)	Bastrop	LA1	575	1,150	2020/21
Amite BioEnergy (Drax)	Gloster	MS2	575	1,150	2020/21
Enviva (Hancock JV)	Lucedale	MS2	500	1,000	2021
Enviva	Port of Pascagoula	MS2	n/a	n/a	2020
Active Energy Group*	Lumberton	NC2	400	800	2019
Enviva	Garysburg	NC2	550	1,100	2020
Enviva (Hancock JV)	Greenwood	SC2	550	1,100	n/a
Enviva	Franklin	VA2	510	1,020	2020
Cogeneration/BioEnergy			Megawatts	000 Tons	
Active Energy Group	Lumberton	NC2	n/a	n/a	n/a
Craven County Wood Energy	New Bern	NC2	48	540	Running

(*) Indicates a new announcement.

construct a 2.1 million-ton greenfield eucalyptus pulp mill near Paso de los Toros in central Uruguay. The company plans to invest an additional \$350 million in port operations in Montevideo as well as local facilities in Paso de los Toros. Startup is scheduled for late 2022. This will be UPM's second pulp mill in Uruguay. The company acquired the first mill, Fray Bentos, in 2009 through an asset swap with UPM's Finnish partner **Metsäliitto Cooperative**, which started production at the mill in 2007. The company plans to supply both mills with fiber from its 382,000 hectares (about 944,000 acres) of owned and leased plantations in Uruguay.

Volga Paper, a newsprint producer, received a government permit in July for forest areas in the Nizhny Novgorod Region of Russia. The permit will provide wood supply for Volga's ongoing construction of a second thermo-mechanical pulp (TMP) line and a sawmill complex at its Balakhna mill in the region. Volga's investment in this project is about \$19 million. The company is also rebuilding a groundwood line at the mill, with expected startup before year-end.

Biofuel & Bioenergy

Highlights:

- ❖ Drax Group announced expansions at three wood pellet mills, two in Louisiana and one in Mississippi.
- ❖ Enviva announced a possible location in Alabama for one of its proposed new facilities and a planned expansion of its pellet mill in Greenwood, South Carolina.
- ❖ Enviva executed an option to build a new pellet storage facility at the Port of Pascagoula and plans to begin construction on a new pellet mill in Lucedale, Mississippi.
- ❖ Enviva continues expansion at two existing mills, one in North Carolina and one in Virginia.

Wood Fuel Pellets/Briquettes

Drax Group announced plans to increase wood pellet capacity at its three existing facilities by 385,000 tons per year to a combined total capacity of roughly 2 million tons per year. Total expected investment is \$62.3 million, with expansions to be complete by 2021.

- ❖ LaSalle BioEnergy in Urania, Louisiana (TMS LA1).
- ❖ Morehouse BioEnergy located in Bastrop, Louisiana (TMS LA1).
- ❖ Amite BioEnergy outside of Gloster, Mississippi (TMS MS2).

Enviva Partners LP announced its evaluation of a \$175 million wood pellet plant project within the Epes Industrial Park in Sumter County, Alabama (TMS AL1). The company is also assessing other areas in Alabama and Mississippi as potential sites for two proposed plants.

- ❖ **Enviva Partners LP** announced its joint-venture (Enviva and John Hancock) intends to increase pellet production from 500,000 to 600,000 metric tons (660,000 tons) at its Greenwood, South Carolina (TMS SC2), facility subject to permit approval. A schedule was not announced.
- ❖ **Enviva** announced in August its execution of a lease option with the Jackson County Port Authority to build a \$60 million deep-water marine terminal in the Bayou Casotte Harbor, Port of Pascagoula (TMS MS2). The terminal will have storage capacity for 90,000 tons of pellets, and the company expects to complete construction in the second half of 2020. The company plans to export pellets from new pellet mills planned for Alabama and Mississippi.
- ❖ **Enviva** announced that the first new plant will be in Lucedale, Mississippi (TMS MS2). The Lucedale plant received air permits this quarter and the company expects to begin construction soon.
- ❖ **Enviva** expansions are currently underway at the company's Garysburg (Northampton County), North Carolina (TMS NC2), and Franklin (Southampton County) Virginia (TMS VA2), facilities. The projects, expected to be complete in 2020, will increase total pellet capacity at the two mills by 400,000 tons per year.

Cogeneration/Bioenergy

Active Energy Group (AEG) continued to develop its Lumberton, North Carolina (TMS NC2), CoalSwitch plant and made progress in developing alternative biomass black pellets utilizing CoalSwitch products in combination with other feedstock options such as chicken litter and miscanthus grass. The company expects the plant to be operational in the 4th Quarter of 2019.

Atlantic Power of Dedham, Massachusetts, closed its acquisition of the 50% equity ownership interest in the 48 Megawatt Craven County Wood Energy Biomass plant in North Carolina (TMS NC2) and the 30% equity ownership interest in the 37 Megawatt Grayling Generating Station in Michigan from **AltaGas Power Holdings** in August. Atlantic Power shares ownership of Craven County Wood Energy with CMS Energy and has a Power Purchasing Agreement (PPA) with Duke Energy Carolinas through December 2027.



Other Bioenergy News

- ❖ The **Intergovernmental Panel on Climate Change** (IPCC) published a detailed report, *Climate Change and Land* (SRCCL), on the planet's land-climate system. One section of the report focuses on the role of bioenergy and sustainable forest management in mitigating the negative impact of climate change. The study may serve as a key reference in future climate/environmental negotiations and regulations. Most of the report's mitigation scenarios include bioenergy solutions. The IPCC highlighted Sweden as an example of effective government regulation combined with active forest management over an extended period which both increased bioenergy production and also increased forest carbon stocks.

https://www.ipcc.ch/2019/08/08/land-is-a-critical-resource_srccl/

- ❖ **Træ-Fuels** listed their 130,000-ton-per-year wood pellet plant located in Bumpass, Virginia (TMS VA2) for sale.

<https://traefuels.com>

Carbon Markets

CO₂ markets weakened slightly quarter-over-quarter but continued stronger year-over-year. The greatest percent increase was in the Northeast US, followed by the European Union. California increased the least.

- ❖ In Europe, the EU Allowance price was €25.26 per ton (roughly \$27.62 per ton) at the end of September, up nearly +15% year-over-year.

- ❖ In the Northeast US, the Regional Greenhouse Gas Initiative (RGGI) 2019 vintage carbon allowances were \$5.20 per ton in the September auction, up \$0.70 year over year (+16%).
- ❖ The California Air Resources Board (CARB) 2019 vintage carbon allowances were \$17.16 per ton at the August auction, up \$2.11 from one year ago (+14%).

The auction cap on number of CARB credits has declined 3% per year since 2013 but beginning in 2020 the cap on credits will decline 4% per year.

Note: A CO₂ allowance represents a limited authorization to emit one ton of CO₂.

Carbon Offset News

- ❖ NC State Extension has released *An Introduction to Forest Carbon Offset Markets*, an educational publication detailing forest carbon offset markets. The document contains information about carbon offset credits, carbon project types, and carbon marketplaces.

<https://content.ces.ncsu.edu/an-introduction-to-forest-carbon-offset-markets>

- ❖ The cities of West Springfield, Holyoke, and Westfield, Massachusetts, initiated the **Tri-City Carbon Sequestration Program** in July. The cities estimate the project will generate a return of \$2 million over the next ten years through carbon credits from trees on 15,000 acres of watershed and parklands. The project developer, **Bluesource**, announced in September that the project was issued 2017 and 2018 credits for a total of over 242,000 metric tons.

Restructuring

Highlights:

- ❖ Hood Container acquired Progressive Packaging.
- ❖ Great Pacific made an offer to take Canfor private.
- ❖ PalletOne buys Bay Wood Products in Alabama.
- ❖ Rayonier AM to sell Matane QB pulp mill to Sappi.
- ❖ Cascades acquired Orchids Paper.

Hood Container Acquired Progressive Packaging

Hood Container Corp. announced in late August that the company's Stronghaven division had acquired the corrugated packaging business, **Progressive Packaging Inc.** of Simpsonville, South Carolina. The transaction includes all of Progressive Packaging's design, manufacturing, assembly, and fulfillment operations in both the Greenville-Spartanburg area (TMS SC1) as well as Early Branch, South Carolina (TMS SC2). Stronghaven operates locations in eight states east of the Mississippi River as well as Texas and California. Hood Container Corp. also owns and operates linerboard, medium and specialty paper manufacturing operations in New Johnsonville, Tennessee, (TMS TN2) and St. Francisville, Louisiana (TMS LA2). Terms of the transaction were not disclosed.

Great Pacific Offer to Take Canfor Private

Great Pacific Capital Corp., a member of the Jim Pattison Group based in Vancouver, announced in August an offer to take **Canfor Corp.** private at a price of \$16.00 per common share in cash. Great Pacific owns approximately 51% of Canfor issued and outstanding shares. The offer represented a premium of 81.8% to the most recent closing price and approximately 60% premium on the 60- day

volume-weighted average price of the shares. Canfor's Board of Directors formed a special committee of independent directors to review the offer.

Great Pacific stated that the elimination of administrative expenses incurred in maintaining a public company listing in Canada would allow for reinvestment of those funds to stabilize Canfor's operations, particularly in British Columbia. Great Pacific expects Canfor to face important strategic and capital decisions best suited to a private company with a long-term focus, citing the current uncertain and challenging industry environment.

At press time, the transaction was still under consideration.

PalletOne Buys Bay Wood Products

PalletOne, America's largest new pallet manufacturer, purchased **Bay Wood Products, Inc.**, a pallet and crate manufacturing business located in Baldwin County on the Alabama Gulf Coast (TMS AL2). Jimmy Wilson, founder and former owner of Bay Wood Products, will remain as general manager of the Baldwin County business. PalletOne owns Sunbelt Forest Ventures which has a sawmill under construction in Selma, Alabama (TMS AL1), as well as wood treater Sunbelt Forest Products based in Bartow, Florida.

Rayonier AM Sells Matane QB Mill to Sappi

In August, **Rayonier Advanced Materials** announced its agreement to sell its Matane, Québec, pulp mill to **Sappi Ltd.** for \$175 million. The mill has annual capacity of 270,000 metric tons of high yield pulp. The company said the sale allows divestiture of a non-core asset. Rayonier AM plans to continue manufacturing roughly 240,000 metric tons per year of high-yield pulp at its facility in Témiscaming, Québec. The company acquired the mill in November of 2017 as part of its deal with **Tembec, Inc.** The parties expect the deal to close in the 4th Quarter.

Cascades Acquired Orchids Paper

Cascades acquired assets of **Orchids Paper Products** this quarter for a cash consideration of \$207 million. Assets included Orchids' Barnwell, South Carolina (TMS SC2), and Pryor, Oklahoma, tissue manufacturing operations. Orchids experienced financial distress early in the year and proposed to file for Chapter 11 bankruptcy protection in April. The company's integrated plants have an estimated parent roll capacity of up to 114,000 tons with a comparable converting capacity. Orchids had recently completed an investment of \$240 million in modernization and expansion at the two facilities. According to RISI/Fastmarkets, the acquisition will make Cascades the fourth largest tissue paper maker in North America (by capacity), behind Georgia-Pacific, Kimberly Clark, and Proctor & Gamble.

International Restructuring

CMPC Acquired SEPAC in Brazil

In August, **Softys Brazil**, a subsidiary of Empresas CMPC of Chile, acquired **SEPAC**, a family-owned company with tissue manufacturing facilities in Paraná, Brazil, for BR1.3 billion (\$330 million). Softys began operations in the Brazilian market in 2009 and has industrial operations in the São Paulo state. SEPAC was established in 1974 and manufactures both tissue products and diapers. The transaction makes Softys the largest tissue producer in Brazil.

Norske Skog IPO

Norske Skog ASA, a major news and magazine paper producer headquartered in Oslo, Norway, announced plans to launch an initial public offering (IPO) on the Oslo Børs (a stock exchange within the Nordic countries). The company has mills in Australia, New Zealand, Norway, Austria, and France. Norske Skog filed for bankruptcy protection in December of 2017. **Oceanwood Capital Management**, a London-based private equity firm acquired the company in the 2nd Quarter of 2018 for an estimated \$276 million, plus debt obligations.

The proposed offering began October 8th, to be complete by October 16th. The final number of shares and offering price will be set by the selling shareholder but are estimated at 29 to 41 million shares at a price between NOK 35 and NOK 45 per share (\$3.85 to \$4.95 per share). The shareholders expect a total equity value of between \$320 and \$410 million with existing shareholders retaining about 42% of the company.

New Wood Promotions

Highlights:

- ❖ Paper batteries.
- ❖ New CLT facilities.
- ❖ Biomaterial bottles.

Paper Batteries

BillerudKorsnäs, the Swedish pulp and paper manufacturer, and **Uppsala University** in Sweden are working collaboratively to develop paper batteries. In July, their pilot project successfully produced a prototype electrode from wood cellulose on a paper machine, confirming the possibility of industrial production of a paper electrode material. The cellulose electrode for a paper battery is key in efforts to produce smart packaging that requires small, sustainable power sources. BillerudKorsnäs also seeks to identify partners for energy storage and other paper-based electrochemical application projects.

Stora Enso announced in July that it would invest €10 million (\$11 million) to build a pilot facility for producing bio-based carbon materials for energy storage batteries based on lignin. The plant will be located at Stora Enso's Sunila Mill in Finland. Construction will begin before the end of 2019, with completion scheduled for early 2021. Decisions about commercialization of products will depend upon the results of the pilot-scale production. If successful, the project will enable replacement of graphite used in lithium-ion batteries with a sustainable and renewable biomaterial.

New CLT Facilities

Colorado: **Timber Age Systems**, a design firm based in Durango, Colorado, is leading a cross-laminated timber (CLT) home construction project in Southwest Colorado with the assistance of a \$243,000 grant from the US Forest Service. The project is designed to address the viability of sourcing CLT construction from remote, beetle-killed ponderosa pine in the San Juan National Forest and promote use of local business resources.

Maine: **LignaTerra Global**, a North Carolina CLT manufacturer, announced plans to build a \$31 million CLT manufacturing facility on the former Lincoln Paper and Tissue mill site in Lincoln, Maine. The town of Lincoln's economic development group and Acadia Capital Management II, Inc. have zoned the area as an Opportunity Zone, which can offer favorable tax incentives to LignaTerra investors at the Lincoln site. The company expects construction to be complete in about one year. The plant will employ about 100 workers.

Washington: **Katerra**, a construction technology company, opened their CLT manufacturing facility in Spokane, Washington, in September. The \$150-million facility has an annual capacity of 13 mmsf, which makes it the largest CLT facility in North America. Due to its location, the company expects the facility to serve as an outlet for insect-damaged timber from thinning projects on nearly 1.25 million acres of federal, state, and private lands in eastern Washington.

Biomaterial Bottles

Origin Materials, an Ontario-based biomaterial company, plans to make recyclable plastic water bottles from sawmill residuals when its 300 million bottle per year production facility is completed in 2020. Pepsi, Nestle, and Danone launched their **NaturALL Bottle Alliance** in 2017, committed to buying 100% plant-derived bottles by 2020. Origin Materials is collaborating with the bottled water companies to develop the biobased plastic bottles at commercial scale.

Paper and Paperboard Check-off

In July, the Paper and Packaging Board released its 2018 Annual Report highlighting a survey finding that 67% of consumers say trees are a smart choice for paper/packaging and 77% see the industry as innovative.

Since the "How Life Unfolds" campaign began in 2015, consumer perceptions about the paper/packaging products and the overall industry have improved. The full report can be accessed online at the following link:

<https://www.paperandpackaging.org/industry-resources/news/unfolding-success-2018-annual-report>



Timber Security Update

Highlights:

- ❖ Texas timber theft case.
- ❖ Virginia timber theft law.
- ❖ International timber security.

Texas Timber Theft Case

In July, Texas A&M Forest Service (TFS) law enforcement investigators made an arrest in a timber theft case in Rusk County (TMS TX1). Anthony Holman of Beckville, Texas, was arrested and charged with a third-degree felony of timber purchase as trustee with intent to defraud. Holman posted a \$75,000 bond and was released from Panola County jail on July 3rd.

TFS also reported that recent investigations have resulted in around \$289,000 being recovered and paid back to various affected landowners in timber theft cases. They recommend taking the following measures to protect oneself from becoming a victim of timber theft:

- ❖ Visit your property frequently.
- ❖ Have someone you know and trust report any cutting on your land immediately.
- ❖ Never sign a contract without checking several references of the buyer.
- ❖ For the best price, insist on getting bids for your timber.
- ❖ Mark all property lines to assure cutting on adjacent property does not encroach on yours.
- ❖ Utilize trail/deer cameras on your property that can record suspicious activity or individuals.

Virginia Timber Theft Law

Virginia State House and Senate drafted the bills HB2411 and SB1469 in the 1st Quarter of 2019 to address timber sales, theft, and accounting. A combined bill was signed into law by the governor

on March 12th and the new law went into effect on July 1st 2019.

<http://lis.virginia.gov/cgi-bin/legp604.exe?191+ful+CHAP0353>

International Timber Security

The following timber theft or security news came from Ireland, Brazil, and Peru this quarter.

Europe

Ireland: In July, Garret Hevey and David Peile were jailed in Ireland for five years and four years, respectively, for actions that they took during their involvement with Arden Forestry Management between January 2014 and June 2016. The scheme involved 143 foreign investors and about €5.5 million (\$6 million). According to the Circuit Criminal Court, the investment scheme would have required around 858 acres of land, but when the fraud came to light the company owned just over 30 acres, purchased for €61,000 (\$67,000).

South & Central America

Brazil: In July, the country's System of Detection of Deforestation in Real Time (DETER) reported increased deforestation in the Brazilian Amazon, with May's data the highest single-month level in ten years: 182,600 acres were felled, a 34% increase over May 2018. The Jamanxim National Forest in Pará was hardest hit, losing 3% of its forest cover in May. For the Amazon as a whole, April to June 2019 deforestation was 24.8% higher than the same period last year. According to residents, land thieves sought to make a profit by logging trees and selling the newly cleared land to ranchers.

Brazil: On July 12th, Brazil's Federal Police launched Operation "Paper Forests" in the Brazilian Amazon states of Roraima, Mato Grosso, Amazonas, Maranhão, and Pará. The operation identified about 91,000 cubic meters of lumber (38 mmbf) that could have been sold using fraudulent documents of forest origin (DFOs) between 2014 and 2017. The scheme involved more than 20 timber companies. A business owner from Manaus who owns eight of the companies was arrested.

Peru: In July, the United States Trade Representative Robert Lighthizer directed the United States Customs and Border Protection (CBP) to block future timber imports from Inversiones WCA E.I.R.L. (WCA), a Peruvian exporter, due to illegally harvested timber found in its supply chain. The Government of Peru found that one of the shipments from WCA had not been harvested in compliance with Peru's laws and regulations, but Peru failed to take enforcement action. This is the second time since November of 2016 that the USTR has taken such action under the United States – Peru Trade Promotions Agreement's (PTPA) Annex on Forest Sector Governance. The first action was in October of 2017 against Peruvian company, Inversiones Oroza (Oroza), after Peru was unable to verify the legality of the company's shipments. That order is still in force.

Government Policy & Regulations

Highlights:

- ❖ H-2A Visas for forest workers.
- ❖ Repeal of 2015 WOTUS.
- ❖ ESA regulatory reform

Revision of H-2A Worker Visa Certification Process

In July, the Department of Labor (DOL) proposed a Notice of Proposed Rulemaking (NPRM) to revise the H-2A non-immigrant worker visa certification process. The proposal includes:

- ❖ Switching to an electronic application process.
- ❖ The option for employers to stagger entry of H-2A workers on a single application.
- ❖ The DOL will set the adverse-effect wage rate (AEWG) for each individual agricultural occupation which is the average hourly gross

wage for all field and livestock workers in a state or region.

- ❖ The DOL proposed that housing and accommodations be guaranteed by employers.
- ❖ The DOL also proposed that “reforestation” and “pine straw” activities be included in the uncapped H-2A visa program rather than the limited (62,000 workers annually) H-2B visa program.

The Forest Resources Association (FRA) submitted comments including that under the current H-2A requirements, the organization would favor these forestry activities be included, but preferred the existing H-2B program to the proposed new H-2A requirements. Criticism of the H-2A revision included:

- ❖ A required state-wide average wage which incorporates urban areas will skew the actual average wage upward.
- ❖ Most forestry-related employers with a mobile workforce already provide no-cost housing via motels to H-2B workers, so the new proposal to require housing for H-2A workers would not present a significant change. However, if “rental and public accommodation housing” are held to OSHA standards designed for temporary labor camps under the new proposal, issues could arise.

These and other stipulations suggest that the DOL has a misunderstanding of the forestry work-structure and that the proposed revision could add unjustifiable financial burdens to employers. The comment period closed September 24th.

https://www.regulations.gov/document?D=WHD_FRDOC_0001-0070

Repeal of 2015 WOTUS Rule

In September, the Environmental Protection Agency (EPA) along with the Department of the Army officially repealed the 2015 Rule governing the Clean Water Act that redefined and expanded the definition of waters of the United States (WOTUS). This was Step 1 for the agencies,

completing a process of rule-making, comment, and final rule to restore the regulatory regime for waterways subject to federal regulation to measure prior to the 2015 Rule.

The agencies can now proceed to Step 2 and create a new definition of WOTUS in an effort to provide more regulatory clarity.

The 2015 Rule, passed under the Obama administration, shielded many wetlands, streams, and waterways from pollution, but removed “navigable” from the original description of waterways. As a result, many developers and farmers claimed the regulations infringed on property rights and hindered economic development. Environmental groups supported the 2015 Rule for providing Americans with safer drinking water and preventing flood damage to wetlands.

Greg Ugalde, chairman of the National Association of Home Builders (NAHB), commended the administration for repealing the 2015 WOTUS Rule that vastly expanded federal jurisdiction over water and land use by regulating man-made ditches and isolated ponds on private property. He added that by repealing the 2015 rule, the EPA and Corps restored consistency among all 50 states, which will

make the federal permitting process more predictable and affordable.

<https://www.epa.gov/wotus-rule/definition-waters-united-states-recodification-pre-existing-rules-pre-publication-version>

ESA Regulation Reform

In August, US Secretary of the Interior, David Bernhardt unveiled improvements to the Endangered Species Act (ESA) regulations, making final a series of rules that clarify standards for delisting and reclassification of species. These changes to the ESA would only impact future listing decisions. The US Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) revised sections of the ESA as follows:

- ❖ A listing determination will be made on both scientific and commercial information regarding the species status.
- ❖ Consideration of areas unoccupied by the species as critical habitat will be limited to situations when there is inadequate occupied habitat.
- ❖ Species designated as "threatened" will no longer be required to receive the same level and types of protections as "endangered" species.

The regulation was effective September 26th.

<https://www.govinfo.gov/content/pkg/FR-2019-08-27/pdf/2019-17518.pdf>



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Trade Disputes & Legal Issues

Highlights:

- ❖ NAFTA Panel of Softwood Lumber decision.
- ❖ China Trade Dispute.
- ❖ ITC Cases.
- ❖ WOTUS in GA Court.
- ❖ Plywood lawsuit against Brazilian imports.
- ❖ Judge cuts Roundup verdict award.

NAFTA Panel on Softwood Lumber Decision

In September, a North American Free Trade Agreement (NAFTA) panel issued a decision concerning the softwood lumber dispute between the US and Canada. The NAFTA panel upheld the decision by the US International Trade Commission (ITC) that found that imports from Canada were causing adverse impacts to the US Industry.

The ITC had previously issued Anti-dumping (AD) duties ranging from 3.2% to 7.3% and countervailing (CV) duty rates from 3.3% to 18%.

In part of the decision, the NAFTA panel directed the ITC to reconsider its methods of calculation in order to better take into consideration price movements.

<https://www.federalregister.gov/documents/2019/09/10/2019-19533/north-american-free-trade-agreement-nafta-article-1904-bilateral-panel-review-notice-of-nafta-panel>

China Trade Dispute

Tariffs and retaliatory increases gradually affected most wood products this quarter.

Southern Pine lumber exports to China faced a 20% import tariff effective June 1st, up from the previous 10%. Other species as well as OSB and softwood plywood now face a 25% tariff. The measure came in retaliation to the US raising tariffs on Chinese

imports after trade negotiations between the two countries reached an impasse in May.

Meetings in Beijing at the end of July showed little progress. In late August, China announced that it would double prior duties on US wood pulp imports, increasing tariffs to up to 10% for a total of 20%, effective December 15th. The announcement came in response to the Trump Administration's August 15th announcement to levy 10% tariffs on \$300 billion of Chinese goods. In addition to the 10% tariffs on wood pulp, China increased tariffs on recycled fibers such as old corrugated containers and old newspapers from 25% to 30%. OSB and softwood plywood will face a 25% tariff.

Note: China has initiated a process whereby applicants from within China can apply for exemption from Chinese import tariffs. Similar efforts are also underway in the US with applicants within the US requesting exemptions from US tariffs.

ITC Cases

ITC Anti-Circumvention Investigation on Uncoated Paper Imports: The United Steelworkers (USW) union joined with several paper producers in filing a request with the Department of Commerce to address circumvention of existing antidumping and countervailing duty orders on uncoated paper imports.

The original case covered uncoated paper in sheets, mostly used for copy paper. To get around these tariffs, countries have been importing the same paper in rolls, which is then cut into sheets.

The domestic producers joining the effort are Domtar Corporation, Packaging Corporation of America, North Pacific Paper Company, and Finch Paper. The products being imported come from Australia, Brazil, China, Indonesia, and Portugal.

ITC Countervailing Duties on Cabinets from China: The Department of Commerce made preliminary countervailing duty determinations against Chinese imports of wooden cabinets and vanities. This case is one of the largest cases filed against China at the International Trade

Commission (ITC). The subsidy rates range from 10.97% to 229.24%. The 229.94% tariffs are for Chinese producers who failed to cooperate with the investigation. Most producers who did participate will receive a 16.41% rate. A final decision is expected by early 2020.

ITC Antidumping Rates on Chinese Wood Flooring: Antidumping rates for Chinese wood flooring have increased for almost all producers, who were previously paying no duties. Antidumping duties have increased to 85.13% for 46 companies and 42.57% for 59 other companies.

Countervailing duty rates, which address the Chinese governments subsidization of wood flooring products, increased to between 2.96% and 3.2%.

These duties are separate from the 25% tariffs which have been recently levied by the Trump Administration on Chinese imports. Most Chinese flooring will be subject to these 25% tariffs as well.

WOTUS in GA Court

In August, Judge Lisa Wood of the US District Court for the Southern District of Georgia in Brunswick ruled that the Obama-era 2015 Waters of the US (WOTUS) Rule went beyond the Environmental Protection Agency's legal authority to regulate ephemeral bodies of water. This is the first case that found substantive evidence that the 2015 Rule violates the Clean Water Act (CWA).

However, the Court did not vacate the rule, therefore it remained in effect in 22 states and the District of Columbia, and the previous regulations issued in 1986 are in effect in the remaining 28 states.

Judge Wood found that:

- ❖ The agencies' assertion of jurisdiction over tributaries "is an impermissible construction of the CWA" because it captures water bodies that do not have a significant nexus to navigable waters.
- ❖ The 2015 rule works a "vast expansion of jurisdiction over waters and land traditionally within the states' regulatory authority," which

"cannot stand absent a clear statement from Congress in the CWA. Since no such statement has been made, the WOTUS rule is unlawful under the CWA."

The Judge sent the rule back to the EPA for reworking. See page 41 for EPA rule-making in September that rescinded the 2015 Rule and the EPA announcement that they intend to rework the rule.

Plywood Lawsuit against Brazilian Imports

In September, The US Structural Plywood Integrity Coalition, a group of ten domestic plywood producers, filed a Lanham Act claim in the US District Court for the Southern District of Florida against three US certifying agencies alleging false labeling of imported Brazilian plywood. The essential claim is that structural plywood panels produced in South America were being fraudulently certified and stamped as compliant with US Product Standard PS1-09 for Structural Plywood. The plaintiffs assert that the panels do not in fact meet the US minimum structural requirements for stiffness and deflection.

The agencies, PFS TECO, Timber Products Inspection, and International Accreditation Service, stand by their certifications of the products. The US producers allege that 30 companies operating 35 plywood plants in Brazil "are falsely stamping millions of square feet of structural plywood panels imported into the United States" as meeting American standards. The suit claims that beginning in early 2016, the inspection services issued certifications that they either knew or should have known did not meet US standards.

In 2018, the APA- Engineered Wood Association issued an advisory that test results on recently imported Brazilian softwood plywood panels did not meet design specifications. Panels were trademarked with US Product Standard PS-1, Structural Plywood, but failed stiffness tests by a margin of 23-55% and span rated plywood sheathing failed to meet deflection criterion by 15-41%. The tests were performed between July 2017 and April 2018.

The plaintiffs seek \$300 million in damages and want the court to direct the certifying agencies to “immediately revoke” the Brazilians’ licenses to make structural plywood. The underlying issue is that when species such as loblolly and slash pine are planted in Brazil, they grow much faster than they do in their natural regions, causing the fiber to have very little stiffness or strength when used in plywood panels. The Lanham Act is the primary trademark protection act in the US, originally passed in 1946.

Case: 0:19-cv-62225-RKA

Judge Cuts Roundup Verdict Award

US District Court for the Northern District of California Judge Vince Chhabria cut damages owed to a California man who blamed Bayer’s Roundup weed killer for his cancer from \$80 million awarded in May to \$25 million. The Judge stated that the jury acted reasonably in awarding punitive damages, but the level was constitutionally impermissible because they were nearly 15 times the compensatory damages award and there was little evidence that Bayer’s Monsanto division intentionally concealed a known or obvious safety risk. The Judge rejected Bayer’s bid for a new trial and the company still plans to appeal the verdict.

International Forestry Issues

Highlights:

- ❖ BC plan to help forest industry workers.
- ❖ Beetles hit Swedish forests.
- ❖ Colombia reforestation plans.
- ❖ Fire season: Brazil, Indonesia, & Russia.

BC Plan to Help Forest Industry Workers

In September, the **British Columbia** government announced a \$69 million fund to help forest industry workers who have been impacted by mill closures. The BC forest industry has been closing

mills and cutting shifts with reduced timber harvest driven by results of the mountain pine beetle infestation as well as the 2017 and 2018 fire seasons. Recent mill closures include:

- ❖ Conifex to curtail Mackenzie sawmill operations indefinitely and reduce production at its Isle Pierre sawmill.
- ❖ Interfor to permanently close its Hammond sawmill in Maple Ridge.
- ❖ Tolko to shut down their Kelowna sawmill.
- ❖ Teal-Jones Group to shut down three mills in Surrey.

The \$69 million will include \$40 million for an early retirement program for older forest workers, \$15 million for a new short term forest employment program, \$12 million for workers to access skills training, and \$2 million to establish a new job placement co-ordination office.

Beetles Hit Swedish Forests

In August, the **Sweden Forest Agency** warned forest owners that a second wave of European Spruce Bark Beetle (*Ips typographus*) has spread across southern Sweden, causing timber price declines. Lower prices are, in part, due to landowners increasing harvest ahead of the beetle infestations, where damage is expected to be more than 4 million cubic meters. The effect compounds an expected annual decline in demand following the peak summer season.

Colombia Reforestation Plans

Colombia announced in July that deforestation rates declined from roughly 220,000 hectares (545,000 acres) in 2017 to 197,000 hectares (487,000 acres) in 2018 and the country plans to replant around 300,000 hectares (740,000 acres) by 2022. Colombia will also set goals to further reduce the annual deforestation rate.

According to the Minister for Environment and Sustainable Development, Ricardo Lozano, rapid deforestation is caused by illegal logging. Plans also include reducing illegal activity, noting

deforestation in the national park system accounted for over 10% of the total. The government hopes to reduce deforestation by 30% by 2020 at least in part by working to increase understanding that appropriating timber in national parks is a crime.

Fire Season: Brazil, Indonesia, & Russia

The number of fire incidents in Brazil was at a record high for the past ten years. Indonesia and Russia also experienced severe fires seasons.

Brazil: Amazon wildfires made headlines in August as Brazil's National Institute for Space Research, known as INPE, reported preliminary estimates from satellite data revealing that the number of fires in June rose almost 90% compared with the same month in 2018. The Instituto de Pesquisa Ambiental da Amazônia (IPAM) noted that the fires were driven less by drought and more by certain land use categories: 33% on private land, 30% with no specified land use, and 20% on public forest. While the outbreak detected 45,256 hotspots, the greatest number since 2010, an IPAM scientist noted the total was only 7% above the 10-year average. The highest recent incidence of burning was under President Lula (2003-2008). Alarm in the international press drove celebrities and even members of the G7 Summit in Biarritz, France, to offer emergency aid. A Presidential decree released by Brazil's federal government on August 29th prohibited all burning of crops and forests for the following 60 days and IPAM expected the measure to reduce fire incidents over the next few months.

Indonesia: Indonesia deployed military and police in July to help fight fires in seven different provinces on the island of Sumatra and in the province of Kalimantan on Borneo. These fires are commonly started by Indonesian farmers using the slash and burn technique to plant palm and pulp plantations; however, recent drought conditions are also a factor. By September, considered peak of the fire season, 328,000 hectares (810,000 acres) had burned in Indonesia since January, causing multiple school closures, flight cancellations due to poor visibility, and unhealthy air conditions on Borneo

and Sumatra. Poor air conditions and smog spread as far as Malaysia and Singapore, but Indonesian officials noted that fires were also burning in adjacent countries, naming Malaysia, the Philippines, and Thailand among others.

Russia: Wildfires burned almost two million hectares (4.9 million acres) of land in Siberia and the Russian Far East regions year-to-date by July. Russia declared a state of emergency in four districts across the Siberian Territory due to plumes of smoke being visible from space. There were efforts to fight only 107,000 hectares (264,000 acres) out of the total. The wildfires are located primarily in remote forested areas where officials say the cost of fighting them would be greater than the potential short-term damage they could cause. In August, wildfires increased to 332 incidents burning on a total of 2.4 million hectares (5.9 million acres), with most of them located in Yakutia, the Krasnoyarsk Territory, and the Irkutsk region. By August 22nd, both the number of fires and acres burned had decreased from earlier numbers. Fire-fighting efforts had increased including the Defense Ministry sending transport planes and helicopters.

USDA News Updates

Highlights:

- ❖ Progress on NEPA reform.
- ❖ Arizona Court halts forest management.
- ❖ Also note on page 46 USFS participation in the Southern Timber Supply Analysis tool.

US Forest Service NEPA Reform

In August, the comment period closed on the US Forest Service proposal to change its compliance with the National Environmental Policy Act (NEPA). The proposed rule would contribute to increasing the pace and scale of work accomplished on the ground. The final rule was not available at press time.

<https://www.regulations.gov/document?D=FS-2019-0010-0001>

Arizona Court Halts Forest Management in Six National Forests

In September, US District Judge Raner Collins ruled in US District Court in Tucson, Arizona, that the US Forest Service (USFS) and the US Fish and Wildlife Service were to halt timber management activities in Region 3 national forests: all five national forests in New Mexico and the Tonto National Forest in Arizona.

The injunction responded to complaints initiated in 2013 that the Agencies were not performing their responsibilities under the Endangered Species Act for the recovery of the Mexican Spotted Owl. Environmental advocacy group WildEarth Guardians based in Santa Fe, New Mexico, filed the lawsuit claiming the Agencies were putting the endangered Mexican Spotted Owl at risk by failing to monitor owl populations on a regional basis and determining how various forest treatments effect the owl population.

According to the USFS, actions halted include timber sales, stewardship contracts, planned prescribed fire activities, as well as the issuance and implementation of commercial or personal-use forest product permits. Personal-use permits include those for gathering firewood. Timber management activities also include restoration-focused activities, thinning operations, and hazardous fuels reduction projects designed to protect wildlife and communities from fire danger.

The forests will remain open for recreation and other activities. The USFS promised to work quickly to resolve the issue but did not provide a timeframe. At press time, the court issued a separate statement allowing personal-use firewood permits.

Case: Wild Earth Guardians v. United States Fish and Wildlife Service, et al. (D. Ariz. No. 13-cv-00151- TUC-RCC)

Global Agriculture Information Network (GAIN) Reports from USDA

The United States Department of Agriculture (USDA) released one Attaché Report for Wood Products in the 3rd Quarter: a wood products annual for China. A special report covered the Japanese new forest management system plus another report detailed China's increases to tariffs on August 23rd.

There were also eight Attaché Reports for Biofuel: Argentina, Brazil, Canada, China, Colombia, the European Union (28), India, and Indonesia. A special report covered an ethanol conference in Seoul, South Korea.

For the complete reports, access the link <https://www.fas.usda.gov/data/search> and search for Attaché Reports (GAIN) and then Horticulture & Forestry reports or Biofuels reports.

Forest Service Publications

The USDA Forest Service released one new forestry-related report this quarter.

Heirs' Property and Land Fractionation: fostering stable ownership to prevent land loss and abandonment. Gaither, Cassandra et al. 2019. E-Gen. Tech. Rep. SRS-244. Asheville, NC: US Department of Agriculture, Forest Service. 105 p.

This anthology of studies on real property, ownership, and how land passes to the next generation includes essays specific to the US South and Appalachia focused on implications of inheritance laws on natural resource management.

https://www.srs.fs.usda.gov/pubs/gtr/gtr_srs244.pdf

Other News

Highlights:

- ❖ Virginia Forestry Association seeks new director.
- ❖ American Tree Farm System to review standard.
- ❖ Georgia Timber Tax Credit for Timber Loss.
- ❖ Southern Timber Supply Analysis Tool.
- ❖ Longleaf Stewardship Fund Grants.

Virginia Forestry Association Seeks New Director

In August, the Virginia Forestry Association (VFA) announced the retirement of long-term Executive Director Paul Howe and began a formal search for a new director.

Howe held the position for nearly 25 years and worked with key partners on many successful legislative efforts. He also served as publisher and advisor of the quarterly *Virginia Forests* magazine, oversaw VFA's annual convention and Forestry Summits, and helped form the state Sustainable Forestry Initiative committee. After retirement, Howe plans to pursue government relations and forestry project opportunities.

<https://www.vaforestry.org/>

American Tree Farm System to Review Standard

In August, the American Forest Foundation (AFF) announced its intent to initiate revisions to the current Standards of Sustainability for forest certification under the American Tree Farm System® (ATFS) program. The Standards are designed for application to family-owned and small woodlands in the US. The review process takes place every five years to conform with partner Programme for the Endorsement of Forest Certification (PEFC) which applies to a large international network of private landowners.

The revision process is led by an Independent Standards Review Panel (ISRP), which is appointed by the AFF Board of Trustees. In September, the Board sought recommendations for candidates to represent stakeholder groups. US representatives of ISRP can include:

- ❖ Family and small forest owners.
- ❖ Forest industry/end users.
- ❖ Conservation and environmental nongovernmental organizations (ENGOs).
- ❖ Indigenous people and communities.
- ❖ Science and technological communities.
- ❖ Foresters/forest workers.
- ❖ State and federal governments.

The ATFS will transition from the 2015 to 2020 standards to the new standards in 2021, barring any major changes, and the new standards will run through 2025.

<https://www.treefarmssystem.org/standards-process-timeline>

Georgia Timber Tax Credit for Timber Loss

In August, the Georgia Forestry Commission and the Warnell School of Forestry and Natural Resources released a bulletin as a guide to Georgia's new timber tax credit legislation for timberland owners who have experienced severe timber loss from Hurricane Michael in 2018. The FAQ bulletin answers "frequently asked questions" including:

- ❖ What is the Georgia Timber Tax Credit?
- ❖ Who is eligible for the tax credit?
- ❖ How is the amount of the timber tax credit calculated?

The bulletin adds that non-resident Georgia landowners may be eligible and that funds are still available.

Authors of the bulletin advise landowners to contact competent professionals regarding technical tax and legal aspects of the program;

however, they encourage landowners to recognize several points:

- ❖ The program provides state income tax relief to help affected Georgia private forest landowners recover from their loss.
- ❖ The program calculates timber casualty loss by an appraisal of fair market value of timber before and after the disaster up to a \$400 per acre limit. This calculation is different from federal income tax provisions which only rely on adjusted basis to calculate loss.

http://www.gatrees.org/forest-management/storm-damage/TimberTaxCredit_June_3.pdf

Southern Timber Supply Analysis Tool

In September, the Southern Group of State Foresters launched a new web application at <http://southerntimbersupply.com/> that estimates the amount of standing timber, growth, and removals within a user-specified distance or trucking time from a site of interest in the US South. The application has layers that include mill locations and state/county boundaries. Users can also display estimates of timberland acreage in private and public ownership.

In addition, the site provides state-level and other forest inventory reports derived from the US Forest Service (USFS) Forest Inventory and Analysis (FIA) program in partnership with state forestry agencies. The application is a project of the Southern Group of State Foresters, funded in part by the USFS, and developed by Texas A&M Forest Service for the 13 southern states.

<https://www.southernforests.org/services>

Longleaf Stewardship Fund Grants for 2019

In August, the National Fish & Wildlife Foundation announced its award of 24 new forest conservation grants in nine Southeastern states totaling more than \$6.3 million for 2019.

These grants will support conservation work in Alabama, Florida, Georgia, Louisiana, Mississippi,

North Carolina, South Carolina, Texas, and Virginia. Projects will establish approximately 11,000 acres of longleaf pine forest and improve wildlife habitat in more than 305,000 acres of existing longleaf pine forest. Grantees will provide educational and technical assistance related to longleaf restoration to more than 3,700 private landowners.

www.nfwf.org

US Endowment News

The US Endowment for Forestry and Communities (the Endowment) announced the following new initiative this quarter.

- ❖ **Innovative Finance for National Forests** is a new partnership to provide private capital in support of forest health in the National Forest System as well as meet the mission of the US Forest Service. An example of the type of projects considered is the Forest Resilience Bond, a financial vehicle that funds forest restoration activities by aggregating payments from forest beneficiaries such as water utilities and large-scale water consumer as well as, hydroelectricity generators to reimburse investors. www.ifnfrants.org

Publications of Interest

UN FAO Pulp and Paper Capacities 2018-2023

This publication presents statistics on wood pulp and paper production capacity along with short-term forecast estimates from main pulp and paper producing countries. The survey includes 39 countries which represent about 89% of world paper and paperboard production.

Wood Pulp: The US reported the highest total capacity of wood pulp for paper and paperboard at 52.14 million metric tons (air dried) in 2018 of which 8.9 million tons was market pulp. The report projects this capacity will decline by 2021 to 51.67 million tons (less than 1%). Brazil reported second highest capacity wood pulp capacity at 23.53 million

tons, projected to increase to 24.3 million tons by 2021.

Total reported capacity was 157.1 million tons which is expected to increase to 160.4 million tons by 2021. In addition to Brazil, countries expecting to increase capacity included Chile, France, the Russian Federation, and Sweden.

Paper and Paperboard: The US also reported the highest paper and paperboard capacity at 76.56 million tons in 2018 and expects to decline to about 76.32 million tons in 2021 (less than 1%). Japan reported the second highest capacity of paper and paperboard at 29.7 million tons and expects to decrease capacity slightly to 29.1 million tons by 2021.

Total reported capacity was 267.36 million tons, projected to grow to 275.66 million tons by 2021. Of countries that plan to increase capacity, the Russian Federation expects the largest increase, from 9.8 million tons to 12.7 million tons. Germany the third highest capacity country expects to increase capacity from 23.57 million tons to 25.59 million tons.

<http://www.fao.org/3/ca5690t/ca5690t.pdf>

UN FAO Yearbook of Forest Products 2017

This publication contains annual data on production and trade in forest products for the years 2013-2017. These data are available on the internet at <http://www.fao.org/forestry/statistics>.

- ❖ World industrial roundwood consumption was roughly 1.91 billion cubic meters (m³) nearly matched by world wood fuel consumption at about 1.89 billion m³.
- ❖ The US was the greatest consumer of industrial roundwood at 342.88 million m³ followed by China at 216.88 million m³.
- ❖ India was the greatest consumer of wood fuel at 304.43 million m³ followed by China at 166.02 million m³.

❖ China was the top producer and consumer of both sawnwood (lumber) and wood-based panels.

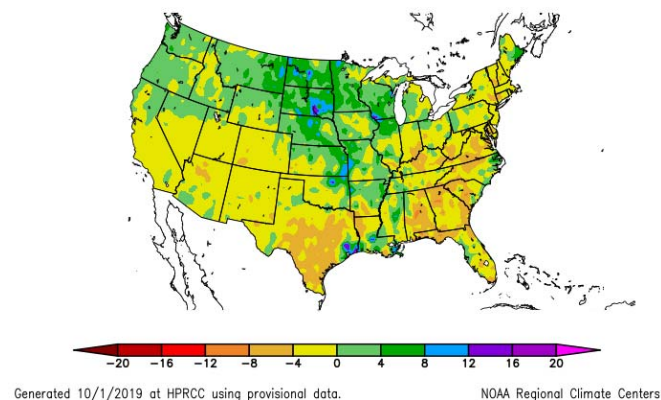
❖ The US was the top producer and consumer of wood pulp.

<http://www.fao.org/3/ca5703m/ca5703m.pdf>

Weather, Etc.

General Weather: Hot and dry weather prevailed over most of the South this quarter. However, storms impacted some areas. Two named tropical storms made landfall in the west: Barry in Louisiana in July and Imelda in Texas in September. Major Hurricane Dorian ran up the East Coast without making landfall but brought wind and heavy rain to coastal areas from Florida to North Carolina in September.

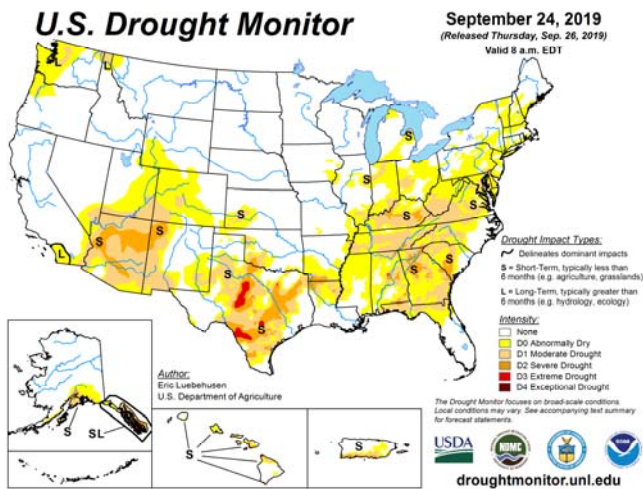
Departure from Normal Precipitation (in)
7/1/2019 – 9/30/2019



<http://www.hprcc.unl.edu/maps.php?map=ACISCIimateMaps>

<https://www.ncdc.noaa.gov/temp-and-precip/us-maps/>

Drought: By the end of September, drought conditions had returned to most of the South.



<http://droughtmonitor.unl.edu/>

Forecast: The National Weather Service predicts above normal precipitation for the East Coast in the 4th Quarter. The forecast includes normal levels for the rest of the South. Expected temperatures continue to be above average.

<http://www.cpc.ncep.noaa.gov/>

Fire: Wildland fire activity year-to-date through September continued to be the lowest in five years and well below 10-year averages. About 4.4 million acres burned nation-wide with less than 420,000 acres in the South. However, the National Interagency Fire Center predicts fire potential in the South will be above average in the 4th Quarter.

<http://gacc.nifc.gov/sacc/intelligence.php>

Southern Pine Bark Beetle: States report very little pine beetle activity; however, agencies encourage landowners to monitor their property and contact their county forester if they see signs of infestation.

<http://tfsweb.tamu.edu/Insects/>

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In Depth & In Focus:

Timberland Prices & Farmland Values 2016-2019

By Sara Baldwin, TimberMart-South

This article analyses the relationship between timberland prices and farmland values from 2016 through the 3rd Quarter of 2019. We summarize reported timberland transaction prices from our *TimberMart-South News Quarterly* and compare to farmland values based on the US Department of Agriculture (USDA) annual survey released in August.

Timberland Prices vs. Farmland Values in the South

Figure 1 compares annual average timberland prices in the 11-state TMS South to annual average farmland values in the same states for the years 2016 through 2019 year-to-date.

- ❖ Farmland values in the South increased steadily from 2016 to 2018 in small increments from \$3,566 per acre to \$3,691 per acre, or roughly 3.5% overall.

- ❖ Timberland prices have been more volatile, rising from \$1,768 to \$2,079 per acre from 2016 to 2017. Prices declined in 2018 to \$1,426 per acre, mostly due to the CatchMark Timber acquisition from Campbell Global of over one million acres at about \$1,265 which overwhelmed higher prices. Prices year-to-date suggest a potential recovery may be underway so far in 2019.
- ❖ Farmland generally sells at a premium over timberland that varies between 38% and 57%. Farmland values tend to be higher, taking into account major differences such as regular annual income and initial infrastructure investment, as well as the cost to convert timberland to a productive farm.

Regional Comparisons for Timberland vs. Farmland

Average timberland prices and farmland values in the South tend to be close to national averages for each sector. However, the Pacific Northwest region can have timberland prices higher than the South, and farmland values in other regions can be more than double those in the South. Higher farmland prices reflect the spread between prices of high-value products such as California pistachio and almond groves compared to farms in other regions that specialize in row crops, berries, and vegetables.

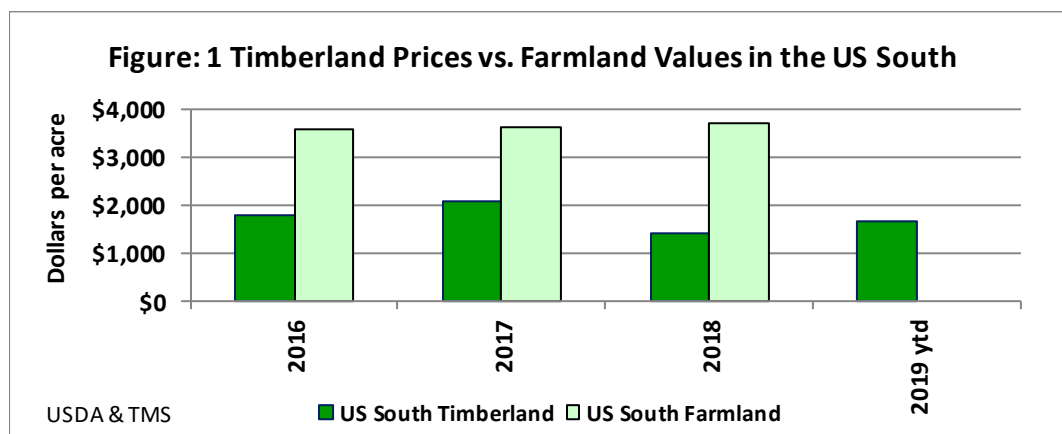


Table 1: US Timberland Sales per acre				
Region	2016	2017	2018	2019 ytd
South-wide	\$1,768	\$2,079	\$1,426	\$1,648
Pacific NW	\$3,526	\$2,807	\$4,380	\$1,953
US-wide	\$1,610	\$1,536	\$1,599	\$1,005

Table 2: US Farm Real Estate Value per acre				
Region	2016	2017	2018	2019 ytd
South-wide	\$3,566	\$3,625	\$3,691	n/a
Corn Belt	\$5,990	\$6,110	\$6,100	n/a
California	\$8,970	\$9,350	\$10,000	n/a
US-wide	\$3,030	\$3,100	\$3,160	n/a

Table 1 shows South-wide average timberland prices compared to prices in the Pacific Northwest and US-wide in 2016 through 2019 year-to-date.

Table 2 shows that South-wide farmland values tend to be above the US average but are far below values in the Corn Belt (Illinois, Indiana, Iowa, Missouri, and Ohio) and California.

TimberMart-South timberland sales are based on reported timberland transactions.

The USDA bases their farmland values on an annual survey conducted in June of each year. The most recent 2019 report is the result of the June Area Survey for 2018 values. See their report (link provided on page 64) for more detail.

State Ranking by Price per acre in the South

Comparing average timberland sales prices is challenging because several of the larger sales each year are not broken down by state, instead giving an aggregate price per acre for two or more states. The following comparisons are for the 11-state TMS region in the South.

Table 3 shows the TMS calculated weighted average timberland price for the highest and lowest state for each year, acknowledging that the values are dependent on limited information about the sales. Prices for 2019 are year-to-date through the 3rd Quarter. The variation between the highest and the lowest price is roughly \$1,000 per acre, and

Table 3: Average Timberland Sales Prices by State in the South								
	2016		2017		2018		2019 ytd	
	State	\$/acre	State	\$/acre	State	\$/acre	State	\$/acre
Highest	Texas	\$2,053	South Carolina	\$2,702	Florida	\$1,879	Alabama	\$1,859
Lowest	South Carolina	\$1,047	Virginia	\$1,788	Tennessee	\$728	Arkansas	\$875

Table 4: Average Farmland Values by State in the South								
	2016		2017		2018		2019 ytd	
	State	\$/acre	State	\$/acre	State	\$/acre	State	\$/acre
Highest	Florida	\$5,860	Florida	\$5,900	Florida	\$5,950	n/a	n/a
Lowest	Texas	\$1,920	Texas	\$2,050	Texas	\$2,120	n/a	n/a

Note: TMS timberland sales are taken from eastern counties in Texas and northern counties in Florida, while USDA farmland values include all counties in each state.

reflects factors such as stocking, terrain, and proximity to mills.

Table 4 shows the USDA reported farmland value for the highest and lowest state for each year. Values for 2019 are not yet available. Note that Florida and Texas hold the highest and lowest positions, respectively, in all three years. The variation between the highest and lowest is roughly \$3,850 per acre, reflecting Florida's farms being considered mostly higher-valued crop land compared to Texas's predominance of lower-valued pasture land.

Conclusions

TMS continues to recommend that landowners evaluate historical transaction prices for both timberland and farmland asset classes to gain better insight into land values.

Location continues to be a primary driver of price differences; although stocking levels in timberland assets and product mix, soil type, and irrigation can all affect farmland values, contributing to relevant premiums and discounts.

Finally, TMS publishes a Southern Timberland Index (STI) every quarter (see page 19). This index relies on quarterly stumpage prices but also depends on annual farmland values from the US Department of Agriculture's *National Agricultural Statistical Service* (NASS). The TMS "base case" description of how we calculate the STI, published in 2016, provides more detail on how the average timberland tract value relates to average farmland values.

Resources:

TimberMart-South 3rd Quarter 2014, Farm Land Values 2013.

TimberMart-South 3rd Quarter 2016, Southern Timberland Index – Base Case.

TimberMart-South US South Annual Review: 2018, Timber Prices & Markets, 2015 through 2018

USDA National Agricultural Statistics Service
Land Values 2019 Summary (August 2019)

<https://downloads.usda.library.cornell.edu/usda-esmis/files/pn89d6567/g732dn07g/9306t9701/land0819.pdf>



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