



Industry News

■ ***Stronger than steel, able to stop a speeding bullet—it's super wood!*** (October 18th)

Some varieties of wood, such as oak and maple, are renowned for their strength. But scientists say a simple and inexpensive new process can transform any type of wood into a material stronger than steel, and even some high-tech titanium alloys. Besides taking a star turn in buildings and vehicles, the substance could even be used to make bullet-resistant armor plates.

— *Scientific American*

■ ***Proposed mine near Baxter State Park is first real test of Maine's new mining law*** (October 19th)

Wolfden Resources, a Canadian company based in Thunder Bay, Ontario is proposing to build a mine near Pickett Mountain, a remote, serene area near the Penobscot-Aroostook county line, which is likely to be the center of an environmental battle as Maine's recently enacted mining law — considered to be among the toughest in the nation — is tested for the first time.

— *Bangor Daily News*

■ ***Company plans biorefinery for zero-emission heating oil in Maine*** (October 28th)

Biofine Developments Northeast Inc. of Bangor has formed a partnership with Sprague Resources LP to help produce and market a patented biofuel made from an organic chemical compound EL. Biofine hopes to finalize the site of its first biorefinery by next month and be operating by 2023. The plant would process 100 tons a day of cellulose-based waste, primarily from paper and lumber mills, to make 3 million gallons of heating oil a year.

— *Press Herald*

Industry Overview

Forestland Operations

It would not take a very thorough analysis to determine that 2020 was a year of extremes across the economic, political, and social landscapes. The view from the vantage point of the forest products industry has been no different. The year began with a general sense of optimism, quickly shifted to a negative outlook, then back again a few times. For those in our industry with more than a few years behind them, this volatility has been a source of discomfort and frustration. We are in the business of growing trees after all -- an endeavor that favors a predictable workflow and benefits from a long-term outlook. With so many events occurring recently that have forced us to change, abandon, or adapt our plans, it is clear to this author at least that any predictions for the coming year should be heavily spiced with doubt.



Winter's first snowfall blankets the forest in northern Maine.

Thankfully, the forest products industry in the Northeast did have one ally for most of the year - the amenable weather. For the first three quarters, and most of the fourth quarter, lack of rain has allowed fairly unrestricted access for timber harvesting and forest products suppliers. While many areas were officially labeled to be in "drought" condition, the dry weather permitted the unimpeded flow of wood to mills and summer-long entry into areas typically limited to a tight weather window. Considering the complications arising from the Coronavirus pandemic, eight months of good operable weather was a welcome relief to many.

NUMBER 2 DIESEL FUEL PRICES - NEW ENGLAND

3 YEAR HISTORICAL MONTHLY AVERAGES



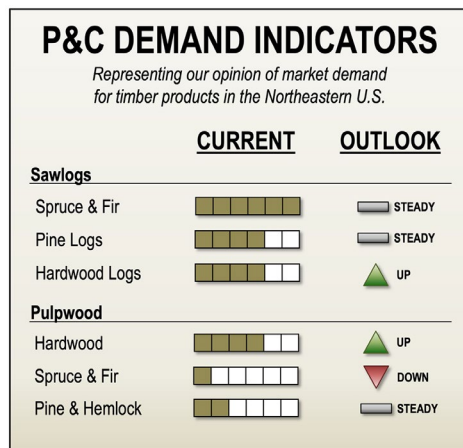
In early December, however, weather began to shift as cold rains kicked in throughout the region, along with several significant rain events that saturated the soils. Abnormally warm weather around Christmas time dashed any hopes of an early start to winter. At this point, the ground has been slow to harden, even in the northern areas of the northeast, which has left a lot of standing water and has since slowed the supply chain. Contractors have started their winter operating season, but harvesting has been limited to higher & dryer ground, and deliveries to mills have yet to pick up speed.

Thankfully, the nature of our remote work has allowed our field operations to continue despite the pandemic. Our administrative staff and office-based forestry team has once again found ourselves working remotely, and our offices are closed with only minor headaches, all things considered. Our partners at sawmills and pulp mills, where the concentration of people is generally higher, remain concerned about localized outbreaks that could affect production. For the past eight months mills have been enforcing new rules & regulations regarding masks, sanitation, self-service scaling, and what visitors can and cannot do within the facility. While we have heard about some minor issues, it appears to be held in check.

Forest Products Markets

Because the tremendously good weather throughout the summer months supported steady production and a sustained flow of timber, raw material inventories at most of our forest products markets

were full coming into the fourth quarter of 2020. Seeing the high inventories, and with concern about the prospect of holding back loggers during the busy winter season, some mills took the opportunity this fall to slow down timber purchasing in order to moderate inventories and line themselves up for steady winter purchases. Moreover, the late shift in weather was a minor reality check for some mills, who had enjoyed a supply that was fairly unimpeded.



Because of the combination of attuned inventory management and the late fall rains, inventories today are far lower than they were even a month ago. Although there is no sign of desperation, mills are not topped off like they have been in previous months. Therefore, the regional supply-demand picture appears to be much more in balance than it has been in recent quarters. As a result, we expect relatively consistent consumption of most forest products during the winter season.



LANDOWNER
update
4th Quarter 2020

■ ND Paper Rumford Division further expanding into packaging grades (October 28th)

ND Paper is repurposing the Rumford Division for a competitive future. With the COVID-19 pandemic battering economic activity across the world, demand for printing & writing papers has plummeted. ND Paper will be transforming the mill to increase its product flexibility and shift further into packaging grades. The work is expected to be completed by the end of 2020.

— PaperAge

■ Katahdin Forest Products acquires new mill in Chester (December 2nd)

Back in September, Katahdin Forest Products was hit with a major setback after losing one of their sawmills in a fire. Since then, the Oakfield company is ramping up production again after purchasing a cedar mill in Chester. While many have lost jobs due to the pandemic, KFP is hopeful that this acquisition will not only benefit the company, but also create more opportunity for those looking for work in this industry.

—WAGM

■ Jay mill to permanently idle paper machine, not rebuild pulp mill (December 9th)

The Androscoggin Mill announced that it will not rebuild a wood pulp digester that exploded April 15 and will permanently shut down one paper machine idled by the blast. The decision is part of its long-term strategy to continue manufacturing specialty papers on its other two machines and utilizing more than 250 full-time employees. About 177 jobs have been eliminated at the mill since the explosion.

— Sun Journal

Pulpwood Products

The balance of consumption between softwood and hardwood pulpwood continues to flip-flop as markets adjust to various market factors. During 2019 and the first part of 2020, the market for softwood pulpwood appeared poised to surge, with consumption ramping up and new markets coming online. In response to the relative high availability and low price of softwood feedstocks, several regional pulp mills that traditionally produced northern hardwood kraft pulp had started to either include softwood species in their production mix, or occasionally switched over to softwood kraft pulp entirely. The favored species for these consumers are spruce & fir, which is widely available both as a resource coming from the stump and as residual offtake from dimension lumber mills.

Twelve months ago, landowners and loggers were anticipating demand for softwood pulpwood to increase as pulp mills planned to up their production. Several things happened during 2020 that have caused everyone to abandon their plans and develop new ones. With the combination of the unexpected and catastrophic loss of the Pixelle Specialty Solutions pulp digester, the market shifts brought about by the pandemic, extremely high raw material inventories, and the wide availability of softwood residuals from sawmills, those pulp mills that do consume softwood are taking fairly limited deliveries from the forest and aren't paying much for the fiber. Frustratingly, the plans may change again, and we have learned to stay on our toes.

The flip-side to this is that hardwood pulpwood consumption in the region appears to have stabilized somewhat, and most pulp mills have lifted delivery quotas that had been in place for several quarters. In most parts of the region right now, landowners appear to have enough market options to meet planned harvest levels.

While pulpwood-quality hardwood is most often used in a pulping process to create a fiber sheet like paper, it also is used in the production of engineered construction materials. With the recent boom in construction, regional manufacturers of these types of building products have not only ramped up their own consumption but also compete for timber with pulp mills in some regions. With momentum building for the use of natural materials in building products, we believe there is potential for this market to grow beyond where it is today.

Sawn Products Softwood Sawstock

If there is any forest product that exemplifies the kind of volatility that our industry is facing right now, it is dimension lumber. Nearly every grade and form of lumber easily smashed price records during the first half of 2020, once again thanks in large part to the thriving construction industry, and several factors that constrained the available lumber supply. By the end of the 3rd quarter, prices fell just as quickly as they had risen, and bounced back. Certain products are still setting records today.

Honestly, it is difficult for us to pinpoint a reason for these wide swings. Lumber demand



LANDOWNER

update

4th Quarter 2020

- **Construction starts on unusual \$80 million, 25-story mass timber apartment tower in downtown Milwaukee**
(August 31st)

Construction began on an unusual downtown Milwaukee apartment tower. The \$80 million project, known as Ascent is a 25-story, 259-unit high-rise being constructed with a technique known as mass timber or cross-laminated timber. The mass timber process uses layers of wood pressed together to create columns, beams and other building frame components. At 284 feet, Ascent is to be the tallest mass timber structure in the world. The building is scheduled for completion in summer of 2022.

—Milwaukee Journal Sentinel

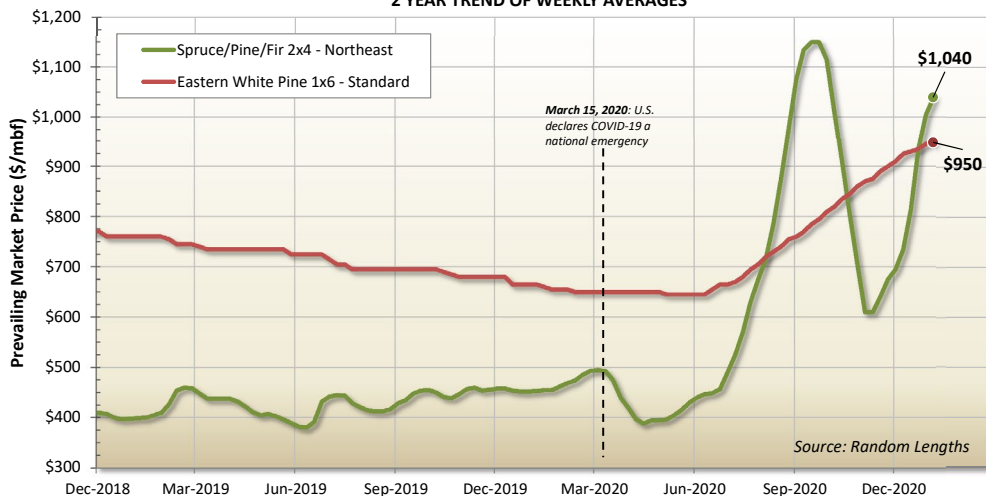
- **Maine's climate plan focuses on building economy while tackling challenges**
(December 2nd)

An ambitious plan to tackle climate change and its effects while building Maine's economy and creating jobs was unveiled by Gov. Janet Mills. It seeks to double the number of jobs in renewable energy and energy efficiency industries, offer energy efficiency incentives to businesses and consumers, harness new timber products for construction, lower dependency on fossil-fuel burning transportation and ensure equity for Maine's vulnerable populations.

— Maine Biz

PRICE TRENDS IN SOFTWOOD LUMBER

2 YEAR TREND OF WEEKLY AVERAGES



has been exceedingly high and has shown resilience in the face of the pandemic. In this environment, our regional spruce & fir sawmills are keeping raw material inventories high and finished good inventories low - a good sign of overall health and optimism. In spite of the up-and-down swings of 2020, buyers appear confident of their markets and demand for spruce & fir timber continues to be heated. Moreover, softwood pulp consumers appear to be easily consuming the additional residual waste chips that are coming out of sawmills.

As the market for hardwood pulpwood deteriorated and the market for softwood lumber pressed through the stratosphere, many timber suppliers shifted harvests to favor softwood stands to keep crews busy and the timber moving. As a result, regional production of studwood in the forest increased substantially. This helped keep hungry sawmills well fed, and raw material inventories have swelled. While the outlook for demand this winter is extremely positive, the broad availability of softwood sawstock has limited the suppliers' leverage and will likely keep the raw material prices not nearly as volatile as that seen in lumber.

Hardwood Logs

Since August, hardwood lumber manufacturers have been enjoying an upward trend in the price of several important hardwood species. Hard maple, which is the predominant species in the regions we operate, has advanced after a long steady fall over the last two years. Red

oak lumber, after hitting the bottom a year ago, has bounced back as well. After having a difficult time sourcing logs in the past eight months, regional sawmills are reporting that it is becoming a little easier to acquire the raw material. While the optimism isn't nearly as striking as that among our softwood lumber producers, the sentiment is more positive than it has been in a while.

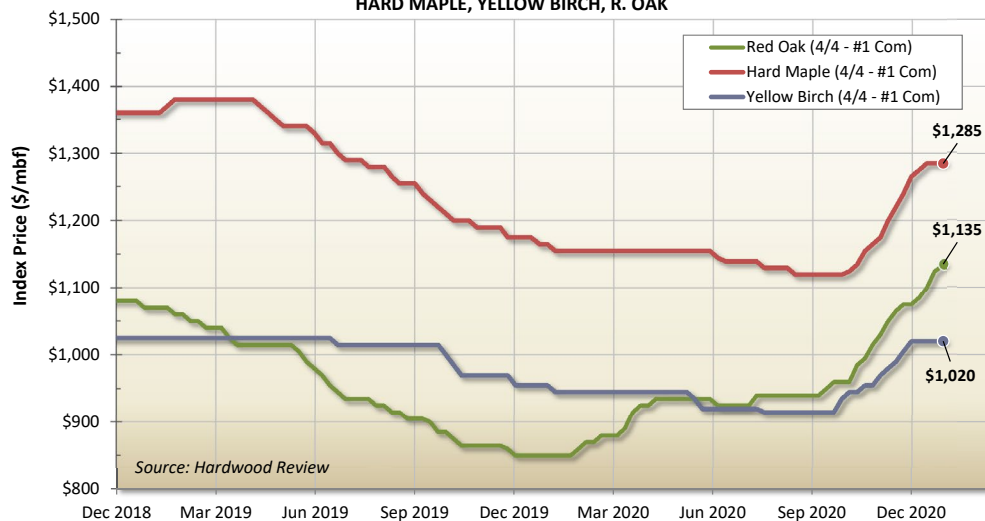
The region's hardwood log pricing has improved as well, and demand for logs of nearly all grades is better than we have reported in the past several newsletters. We are optimistic for the coming winter harvest season.

Lower grade manufacturers -- ones that produce lumber for industrial products such as timber mats, crossties, decking, and posts -- are especially hungry for logs. In particular, changes in the way goods are shipped in this post-pandemic world has increased demand for low grade wood used in shipping pallets. Material that once would have ended up going to a pulp mill can in some cases meet the specifications for logs and will now head to a sawmill instead. On the other end of the quality spectrum, regional demand for logs used for veneer products continues to strengthen as well. Both of these improvements have opened up new doors for landowners.

Benjamin D. Carlisle
PRESIDENT

RECENT PRICES IN HARDWOOD LUMBER - NORTHEAST

HARD MAPLE, YELLOW BIRCH, R. OAK



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Please note: This report is intended to be an unbiased and accurate source of information on timber markets and timberland investments. However, timber market conditions and the forest products industry vary greatly within and across regions and depend on a substantial number of factors that this publication does not cover. Therefore, anyone using information published in this report for any specific purpose, sale or contract does so at his or her own risk. Information included in this report and provided by other sources is believed to be reliable and accurate. Prentiss & Carlisle assumes no responsibility for errors or omissions.



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4th Quarter 2020

■ **Loggers wait for share of stimulus money** (December 26th)

Timber industry was largely denied coronavirus aid money until Congress stepped in. Now, tucked inside the new \$900 billion coronavirus relief package passed by Congress, but facing an uncertain fate with President Trump, is \$200 million in aid for the loggers and the trucking companies that transport their wares to paper mills and other processing facilities. Maine's Senator, Susan Collins was one of the lead negotiators on the overall congressional relief package that is awaiting Mr. Trump's signature.

— *Fox Business*