Prentiss & Carlisle
LANDOWNER update
2nd Quarter 2020

Industry Overview

Forestland Operations

I wish I could say that this quarter's newsletter would be devoid of any discussion of Covid-19; I recognize that the virus has dominated the world news headlines and many people are ready to turn their attention onto other issues. However, the reality is that the virus has colored almost everything we do and that's a reality that won't be going away anytime soon.

Here at Prentiss & Carlisle, our office-based staff are slowly returning to a somewhat normal routine. We've had to adapt to the crisis in our own way. We have appropriate precautions in place at our offices and we remain closed to outside visitors to limit exposures for our employees. As many of you noticed, we were unable to publish our normal *Landowner Update* newsletter last quarter, and we're pleased to be getting back into that routine as well.

A skidder pulls a hitch of tree-length softwood in the background as summer harvesting operations resume for the year.

Despite the significant impact the virus has had on everyday life and the broad economy, forest operations in the woods continue in somewhat normal order, markets permitting. There have been a few reasons this has been possible. For one, throughout most of the Northeast the forest products sector was declared "essential" by the various state administrations, allowing forestry, logging, and trucking activities to continue to operate despite restrictions placed on many other business activities. Additionally, much of the activity being done in the forest is either performed by a sole individual working alone, or as a team at adequate distances or in separate pieces of equipment. This substantially reduces the risk of an outbreak among woods workers - social distancing is built into how our industry operates. Lastly, the virus' arrival occurred just as the industry was preparing for the lull of mud season, which gave breathing

Industry News

- ***GO Lab's insulation might be the right product at the right time, and in the right place***
  (January 27th)

  GO Lab's $65 million Timber Pure Technologies plant in the former Madison Paper Mill will begin manufacturing three wood fiber insulation products beginning next year. GO Lab hopes its product will replace traditional fossil fuel insulation. The mill will run three shifts and employ about 130 people once it's producing all three products in 2022.
  — *MaineBiz*

- ***Verso Corp. completes sale of Androscoggin Mill in Jay***
  (February 10th)

  After months of drama involving a rogue shareholder group that tried to scuttle the deal, Verso Corp. has completed the sale of its Androscoggin Mill in Jay to Pixelle Specialty Solutions LLC. The $400 million transaction also included the sale of Verso's Stevens Point Mill in Wisconsin.
  — *Portland Press Herald*

- ***This program that trains new loggers shows promise for Maine's industry***
  (March 5th)

  Expecting to lose an average of 200 workers each year for the next decade, Maine's logging industry's plan to meet the rising demand seems to be working. In its fourth year, the Mechanized Logging Operations Program is addressing a myriad of problems that have plagued the industry in recent years — such as high training costs and a growing workforce shortage — as mills around the state expand or reopen after a time when the market appeared to be collapsing.
  — *Bangor Daily News*

room to establish new working procedures and practical safety guidelines.

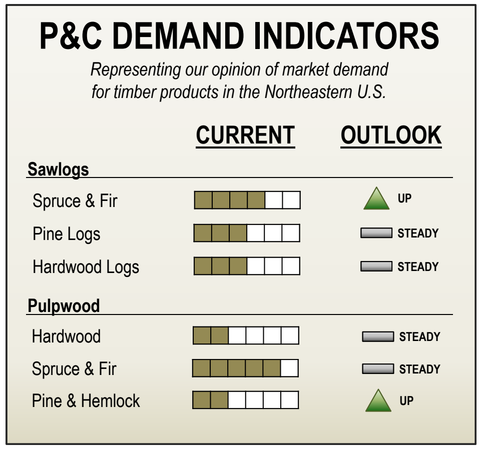
That said, as soon as the timber is delivered to a consuming facility – sawmill, pulp mill, wood yard – the concentration of workers on site increases dramatically, and that is where daily impacts are being felt. Large consumers are naturally concerned about an outbreak at their facilities and have put into practices stringent guidelines to limit interactions among workers and contractors - increasing automation and restricting movement. In some cases, this also involves reducing staff density during shifts. Thankfully these precautions have been working - we have not heard of a significant, production-altering outbreak at any of our regional facilities. We had predicted this would be a bigger problem than it has been.

The primary impact of the virus on the forest products industry has been felt in the dampening in the global economy and its ripple effect in the end user consumption of forest products. Unfortunately, this is something that our regional industry has little control over. Moreover, the volatility of market demand from our regional mills, and their reluctance to commit to longer-term supply volume has significantly increased the in-woods work required to produce products that can be reliably sold. The volatility isn't solely as a result of the virus – more on that in a bit – but for landowners, this means that the timing of harvests can change on a weekly, if not daily, basis. Moreover, once the harvests have started, volatile markets can make it difficult to keep the right mix of timber in front of loggers. It has not been uncommon for harvesting equipment to be moved weekly, and for a business that thrives on predictability (we are, after all, in the business of growing trees), this can become a costly routine.

Thankfully, summer in the northeast began this year exceptionally dry, and work to tune up road systems was able to begin early without much impediment. Harvesting in many areas were going by early June, where the products that were being produced were a good fit for available markets. At this point most crews in the region are at full speed, but in between trying to stay away from perishable products and the constantly changing markets, that doesn't always mean they are spending all their time harvesting.

Forest Products Markets

By the beginning of the second quarter, markets were largely as flush as typical during springtime, but with the uncertainty primarily driven by Covid-19, consumption was generally lighter than usual. Most of the roundwood consumers in the region still find themselves eating through their winter inventory buildup.



Overall demand for forest products in the Northeast has shifted substantially since our last newsletter, due to two significant events. First, of course, is the coronavirus, which has altered how end users are consuming products. Probably even more impactful regionally was a boiler explosion at a regional pulp mill (more on this below), which changed the supply/demand balance overnight.

Pulpwood Products

Inventories of both raw materials (timber) and finished goods (pulp) are currently extremely high at all our regional hardwood pulpwood facilities. Pulp mills have been relying on their network of satellite yards and remote chip plans to provide furnish across broad areas of the region, and until the buildup of hardwood pulpwood starts to decline, supply of the timber will exceed demand for it. Mill prices for hardwood pulpwood have been on a slide as well.

In the past several years regional pulp mills have been increasingly substituting hardwood consumption for softwood consumption. Regional competition & input costs of hardwood

- ***Virus will have impact on wood products industry well into 2021*** (April 8th)

  There are projections that it could take up to three years for the U.S. economy to recover from the COVID-19 coronavirus pandemic. The effects will be delayed for the forest products industries, and since demand for wood is derived from manufactured products, the recovery will be slower, particularly for landowners who will likely see very weak stumpage markets in 2021 and 2022.
  — Magnolia Reporter

- ***Forest Products Imports to China drop*** (April 8th)

  The coronavirus epidemic in China has resulted in sharply reduced importation of forest products in early 2020. During January and February, the import value of logs, lumber, pulp and wood chips totaled $4.6 billion. This was down 26% and 14% from the same periods in 2018 and 2019. The import value for wood pulp fell the most, just over $300m y-o-y, followed by softwood lumber, which was down $190m.
  —American Journal of Transportation

- ***With eastern spruce budworm outbreak looming, UNH researchers provide guidance*** (April 15th)

  Researchers at UNH are providing guidance for landowners and government leaders with the expectation that the next major eastern spruce budworm outbreak will likely hit forests in the northeastern US within the next few years. During an outbreak, approximately 500,000 acres of New Hampshire's public and private forests would be considered at high risk for infestation and a large number of tree deaths.
  — NH Union Leader

pulpwood has resulted in more consumption in softwood, either as a blended fiber into the hardwood recipe, or as a pure product itself. This shift has accelerated more recently as the market price of finished softwood pulp has begun to exceed that of similar grade hardwood pulp. Accordingly, mills that can flexibly shift production between hardwood and softwood are deciding to consume softwood when they can.

The boiler explosion in Jay captured by an in-vehicle dashboard camera. (photo credit: Richard Carrier Trucking)

The dramatic April 15th explosion at the Pixelle Specialty Solutions mill did more than shake the ground in Jay, Maine - it also shook the supply chain during a very vulnerable time. The mill - which was sold by Verso a mere six months ago - was capable of consuming nearly 2M tons of wood and represented a substantial portion of the regional pulping capacity. Its prior owners had poured millions into upgrades to expand its capacity and capabilities. As a consumer of both softwood and hardwood pulpwood, this immediate loss of consumption was a proverbial gut-punch into the recovering demand for regional pulpwood. The investigation as to what exactly happened and root causes remains ongoing, and it is unclear whether or not the new owners will decide to rebuild the pulp facility. There was one saving grace, however - miraculously, despite the dramatic nature of the explosion, there were no significant injuries.

Because hardwood pulpwood represents a significant portion of the volume we sell, it is nearly impossible to avoid producing it entirely, even when demand is slack. While we are optimistic that the next quarter looks better than the past quarter, we have found ourselves cutting timber that we can't immediately sell. This has left everyone anxious about starting new harvesting operations as plans can and do change frequently. In addition to managing in-woods inventory, landowners have to stay as flexible as possible to respond to changes in the marketplace.

Regional demand for softwood pulpwood has been steadily increasing as mills find ways to consume more of it in favor of hardwood, and the prices landowners are receiving for the product has been on the rise. The preferred species at most facilities is spruce & fir, and while hardwood pulpwood represents up to 75-80% of the regional hardwood harvest, the inverse is true for spruce & fir - currently, most of the volume ends up sawn instead of pulped. That said, where the wood is sold frequently ends up being a decision about which market brings the most value. As the mill pricing for softwood pulpwood rises, and as sawmills get better at consuming lower value, lower quality wood, we may see a time where the value lines between softwood sawstock and pulpwood begin to approach each other.

The demand for hemlock & pine pulpwood has eased slightly in recent months, however the only significant market currently is ND Paper, with its mill in Rumford Maine. The startup of their mill in Old Town (which will be a second significant market for hemlock & pine pulpwood) has been

- ***Paper mill is back in business after dramatic explosion***
  (April 23rd)

  Pixelle Specialty Solutions' Androscoggin Mill in Jay, which was disabled by a dramatic explosion last week has resumed production with two of its three paper machines. The restart of the mill followed a blast that happened in a large, kettle-like digester, in which a slurry of wood chips, water and chemicals is transformed into pulp. Thankfully, no one was hurt and that there was no environmental damage.
  —*US News & World Report*

- ***Canadian forestry industry bracing for 'brutal' 2020***
  (April 20th)

  Canada's struggling forestry companies and its hard-hit sawmilling sector need federal support to get them through to the end of this year. The crash of lumber prices, the pandemic-related halt to the North American economy, combined with the pain felt by softwood lumber tariffs over the last two years has many industry players facing a "brutal" next couple of financial quarters.
  — *Northern Ontario Business*

- ***Why timber could still have a big role to play in the buildings of the future***
  (June 5th)

  From concrete and steel to bricks and bamboo, the materials used to construct the buildings are wide and varied. The technology, innovations in the wood industry have enabled cross laminated timber to become a reality and it's being used in very ambitious projects. Cross-laminated timber, or CLT, is taking small pieces of wood, gluing them together at right angles to each other to make massive panels, making it easier to build very quickly and efficiently.
  — *CNBC*

painfully slow and plagued with problems. It's been 16 months since their announcement of a restart at that location, and they've only just recently been able to string together several weeks of consistent production. Once this mill begins reliably consuming on a regular basis, they can begin drawing down the substantial volume that they have built, which will help alleviate the prevailing oversupply problem with hemlock & pine.

Sawn Products

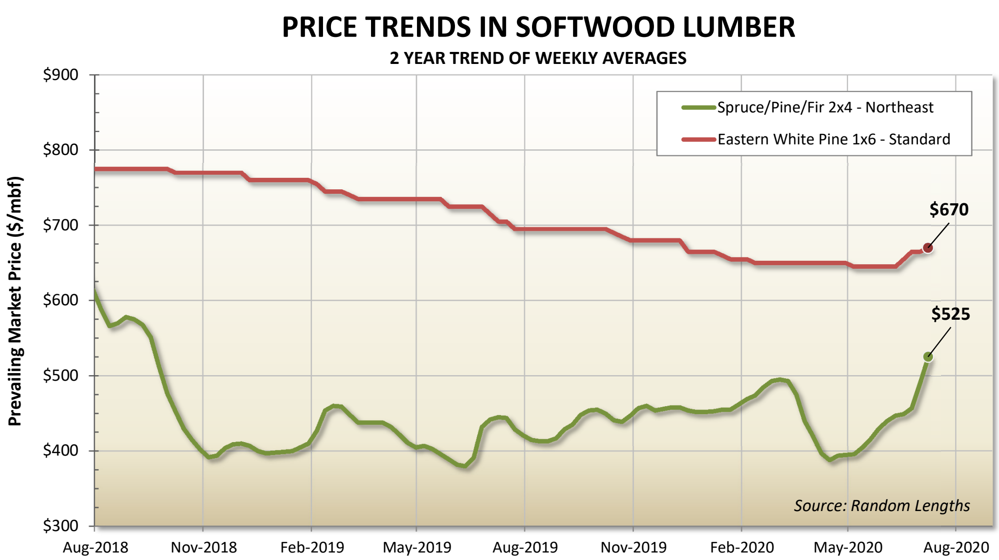
Softwood Sawstock

Prices for dimension lumber took a plunge as coronavirus cases increased in March, but turned the corner in April and were fully back to pre-coronavirus prices by mid-June, bucking the trend seen in other forest products. Mills report higher order volumes and increased

is one of the few that we can predictably sell throughout the region - given the circumstances, we're happy with that for now.

As softwood pulpwood consumption increases regionally, it brings with it increased demand for residual chips from sawmills. This is an important outlet for sawmills, and hopefully a good boost to their bottom line at this critical time.

The demand for other species of softwood sawlogs are more varied. Cedar sawstock continues to sell well; shingle-grade cedar had been in a slump for some time but recently demand appears to be increasing slightly. Pine mills have slightly curtailed production and pulled back in buying logs in recent months - pine mills try to tighten their supply chain as the hot humid air of summer tends to spoil their furnish if it sits too long.



confidence that they are able to predictably move finished goods. While new housing construction has taken a significant hit during the pandemic, renovation has carried the bulk of consumption as homeowners find themselves with more time and shelter at home. With the strong consumption throughout the past winter and spring, regional spruce & fir sawmills have relatively low inventories for the season, despite the dry weather. By June, many were relieved to see wood begin flowing again after mud season.

Log prices for spruce & fir timber have stayed essentially flat during this period, but the product

Demand for hemlock sawlogs has been elevated for some time, mostly due to lack of availability. With limited ability to sell hemlock pulpwood, landowners are generally opting to avoid hemlock stands altogether instead of harvesting the logs and being unsure about whether or not the pulpwood will be sold or rot in the forest. This decision reduces the quantity of logs available to hemlock saw markets. Interestingly, we have seen some timber mat producers – who generally favor hardwoods – pick up some of the slack in the lower-quality hemlock log grades.

- ***Lumber demand causes rise in prices amid coronavirus pandemic***
  (June 22nd)

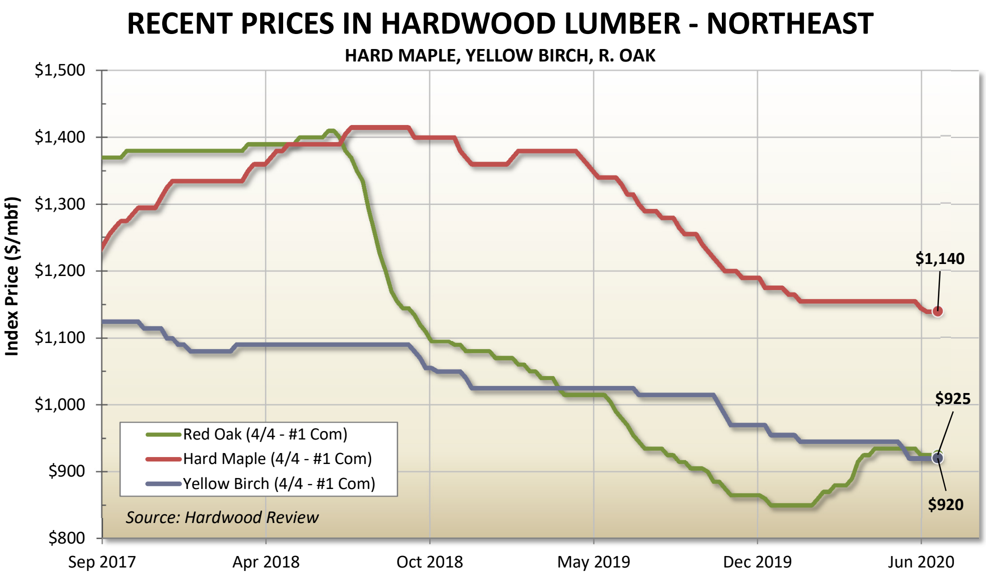
  With the spread of COVID-19 the demand for lumber has outpaced the supply. Industry insiders say manufacturing was slow during the winter but then the pandemic hit. There was a surge in home improvement projects. Reports that the price of some products jumped 40 to 60 percent. Before the pandemic a 4x4 8 treated piece of lumber sold for $7.00. It will now cost you $12.50 to $13.00.
  — *WLBT News*

- ***Maine Forest Service fighting high number of wildfires***
  (June 22nd)

  Fire season is just starting, but Maine Forest Service rangers already have endured the second-highest fire count in a decade. The rangers have so far responded to 663 fires statewide that consumed more than 847 acres. The number of wildfires caused by campfires has increased 170 percent compared to the same period in 2019.
  — *Portland Press Herald*

Hardwood Logs

Much like with hemlock, when landowners are working hard to avoid harvesting hardwood pulpwood, not many hardwood logs are produced for the sawmill markets. Due to constrained hardwood pulp markets, most operations are currently trying to steer clear of hardwood pulp stands when possible and therefore sawmills are not getting their usual summer deliveries. Accordingly, raw material inventories of hardwood grade logs at our regional sawmills are relatively low. That said, their finished goods inventories are generally high, with hardwood lumber prices currently in an extended slump for most species, brought on largely by the US-China trade war in 2018. Currently sawmills are beginning to sell as much as they produce, but are concerned about the regional drop in hardwood pulp harvesting. Most of these mills have scaled their business based upon the overall harvest levels of hardwood, and as the production of pulpwood decreases, there is a real concern that sawmills may have a difficult time getting the logs they need to run at scale.



One bright spot in the hardwood market has been in lower-quality timber mat logs used for construction, infrastructure projects, and for railroad crossties. What used to be a fledgeling boutique market is now well-established with several high-quality regional competitors with well established customer bases. For landowners, the timber mat market has made it possible to sell timber that was once destined for the pulpwood pile for values that exceed grade logs in some locations.

Hardwood veneer markets – interested in high-quality defect-free logs that can be spun into sheets on a lathe – have faced difficult times with the arrival of the coronavirus. This past spring, regional veneer producers took downtime for the first time in recent memory to help attenuate the blossoming raw material inventories. While pricing held up, specifications were reigned in, signalling that mills were only interested in the cream of the crop. Veneer mills share the same concerns about hardwood log availability during this period of slackened hardwood pulpwood demand. To us, this only highlights once again the interdependence between the forest product markets of our region.

Benjamin D. Carlisle
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