



Industry News

■ ***New wood-based business established at old Verso mill site (Oct 5th)***

The Verso paper mill closed in 2014, but a new type of wood-based industry might be starting at the old mill site. Last month, Maine Biomass Exports Inc. started stacking logs of hemlock on a former wood yard at the site. Once they arrive at the wood yard, the logs are debarked and trucked to Boston. The bark is used to make mulch, while the logs are shipped from Boston to manufacturers in China.

— *The Ellsworth American*

■ ***Vision for turnaround of wood-fired plant in West Enfield takes a hit (Oct 11th)***

A potential investor in Stored Solar LLC, a wood-fired power plant in West Enfield, has withdrawn its request to have the state guarantee a \$5 million loan amid allegations that the plant's owner owes an estimated \$500,000 to wood suppliers and contractors, and has failed to pay last year's \$90,000 tax bill in Jonesboro, where it owns a second power plant that has rarely operated this year.

— *Press Herald*

Industry Overview

Forestland Operations

At the beginning of the fourth quarter, preparation was underway in anticipation of the fall rains we usually receive in the Northeast. When possible, our foresters attempt to front-load harvests for earlier in the year in order to minimize landowner costs coming into the wet fall and to get ahead of the temporary closures of the private road systems that normally occur. Having just wrapped up an ideally dry summer harvesting season, most of our foresters found themselves well ahead of their plans and in good shape.

Much of our preparation & planning for the fall wound up to be unnecessary, as the rains lasted only a short duration. As it turned out, the Northeast only had to endure about two weeks of wet weather and landowners were fortunate to have had a relatively short period of dealing with the freezing/thawing cycle, which causes the most damage to roads. The fall quickly transitioned into cold winter weather, which is conducive to harvesting activity and the construction of winter transportation systems. The cold weather drives the frost into the ground to stabilize it and allows the heavy harvesting equipment to ride on the forest ground without damage.

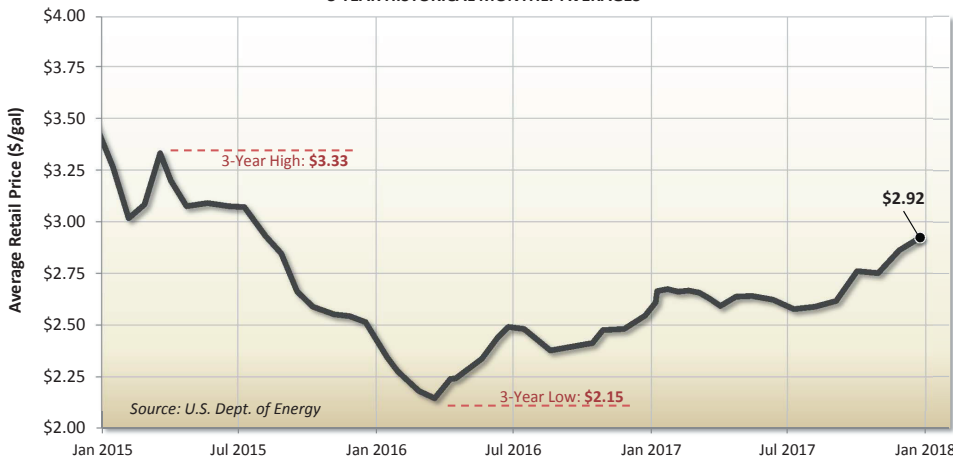


Late season road building in northern Maine will support an active winter harvest.

The early cold also allowed for a “running start” to winter operations, which has been elusive in the last few years. In recent history, at least some of the early winter is spent waiting for the ground to get cold enough to support active harvests and we have had a tough time getting the infrastructure in place to start the new year with momentum. This year, however, most of the roads are in place and ready to go for 2018.

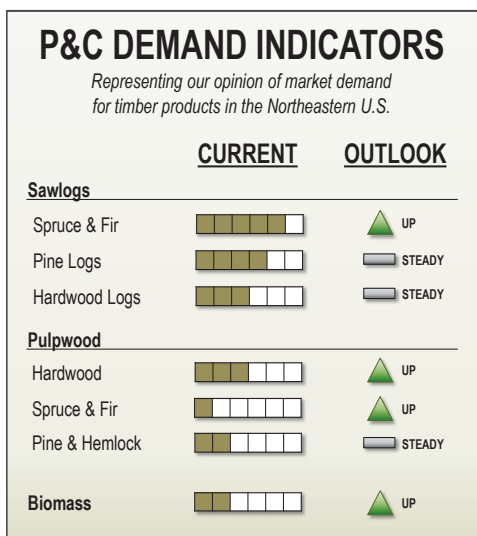
Cold weather however, has its extremes too. Late in the fourth quarter (and into the first quarter of this year), the Northeast has been dealing with extended and exceptionally frigid cold, in some cases setting low temperature records. In times of extreme cold, a variety of new hazards and challenges related to both people and equipment introduce themselves. For example, diesel fuel – the lifeblood of harvesting equipment – can freeze, and therefore has to be reformulated properly to be usable. Equipment has difficulty starting, and we have heard of some cases where equipment has been left running overnight simply to keep it warm and prevent problems the next day. Steel also gets brittle in colder temperatures, and handling frozen wood can fracture or break cutting surfaces. Moreover, the equipment operator's safety and attentiveness can be compromised if they are distracted or do not have the experience in the extreme cold. Suffice it to say, all this can serve to slow down the flow of wood to the mills.

NUMBER 2 DIESEL FUEL PRICES - NEW ENGLAND
3 YEAR HISTORICAL MONTHLY AVERAGES



We are getting slightly concerned with the increasing cost of diesel fuel in recent months (see chart above). The cost for logging contractors to acquire diesel fuel, while still manageable, is on a steady rise. The index remains below the threshold where we pay a “fuel premium” to get our wood harvested, however the current trajectory implies we will have to revisit this shortly. Despite the upward swing, we are thankful to have not seen the volatility that wreaks havoc on an industry which craves consistency.

Forest Product Markets



Last year at this time we were worried about having enough market demand for timber products to consume what we produced. Fortunately, our markets quickly adjusted and mills consumed everything that was produced in the early part of 2017, and still proved to have quite an appetite through early summer. As the logging conditions improved in the third quarter, once again we were concerned markets would trim off demand as inventories built.

As it turned out, this never occurred and demand continued to be solid throughout the quarter. One would think that with the

■ **Maine lawmakers to examine cost, benefit of land conservation** (Oct 11th)

Lawmakers have begun diving into the issue of land conservation programs, which supporters say benefit surrounding communities and Gov. Paul LePage has often derided as a tax giveaway for wealthy interests. LePage has criticized lawmakers for catering to wealthy groups and individuals whom he claims enjoy scenic views on tax-exempt land that increase property taxes for seniors and poor Mainers.

— Press Herald

■ **After 15 years of decline, demand for manufactured Maine wood products is booming** (Oct 24th)

Maine has lost more 2,400 papermaking jobs over the last six years, but analysts say the state is making some strides in manufacturing that are infusing segments of the wood products industry with new hope and vitality. The goal is to find new products that require more skill to make.

— Maine Public

■ **Canada has paid half billion in duties on softwood lumber** (Nov 15th)

Tensions have been escalating over the dispute since April, when the Trump Administration imposed preliminary countervailing duties of as much as 24 percent on Canadian imports. Canada disagreed with the duties strongly, calling them unfair. Canadian softwood lumber firms have called them crippling, having paid around \$500 million in duties since April.

— Woodworking Network

mill closures, loss of aggregate regional consumption, and the excellent logging conditions, that the market would be bursting at the seams with timber inventory. However, mills appeared able and willing to adjust their consumption to match the available wood, and so the supply never got out of control. Moreover, we have seen additional improvements & investments at our regional facilities that have offset the mill closures to some degree. From our perspective, these factors, combined with a decline in overall harvest levels, have served to counteract the losses and rebalance the market.

Pulpwood Products

Demand for hardwood pulpwood – the primary pulpwood product in the Northeast – remained strong, with mills demonstrating both a healthy appetite for the product and an occasional willingness to reach out to distant zones to procure enough wood to meet their needs. Mills still prefer to acquire wood that is local to the facility as it carries a lower cost – but often cannot source enough supply nearby the mill to be comfortable. After several years of watching pulp mills work to close or scale down their remote wood yard networks, we expect that some pulpwood buyers may begin to utilize concentration yards again in a targeted fashion, when operating costs and sourcing costs can be kept low. This could be a relief for landowners at distance to the mill, who have been unable to reliably sell hardwood pulpwood for some time.

Because of the high timber volumes produced in the wintertime, this is the season that sets the tone for pulp markets for the remainder of the year. What landowners choose to cut – a decision driven largely by the prevailing mill prices – can also have a fairly sizable influence on determining what material is available to the mills. Prices for hardwood pulpwood have been largely stable over the quarter, and the general sentiment is one of cautious balance – the belief that the market instability of 2015 and 2016 is now in the rear view. Although slightly slimmer than in recent years, mills are relatively comfortable with their raw material inventories and production has been good.

At this time, softwood pulpwood remains a very limited market, but we believe there is potential for this to change over the long term as the regional supply available of hardwood gets thinner and less reliable to attain. Meanwhile, the market value of a ton of softwood kraft pulp has been on the rise in the U.S., up by estimates of 15% or more year-over-year. Historically when this has happened, we have seen a shift of consumption at our regional mills between softwood and hardwood pulpwood in order to match the supply and manufacturing economics. We expect our regional kraft mills are monitoring this closely, and ultimately a shift to more softwood production could help alleviate pressure on the important softwood residual market for our regional sawmills.

Sawn Products

Softwood

Demand for spruce & fir sawstock – a staple in the Northeast – has been energetic for the last 18 months. Driving this demand has been lumber prices. During the last quarter, the index prices for spruce & fir lumber hit highs not seen in 15 years, and regional sawmills have been taking all they can get. When lumber prices began to turn in mid-late 2016, wood buyers were initially skeptical about the staying power of the elevated prices and were more fastidious regarding their log sourcing and specifications. Now that we are into it, the caution has turned to optimism that this will hold.

So what does this mean for landowners? Importantly, sawlog prices diverge from lumber prices for a variety of reasons. First, log prices tend to lag lumber prices by a fairly long period simply because of the time it takes to work inventory through the system and for sawmill



■ **Legal dispute snags revitalization of Old Town mill** (Nov 19th)

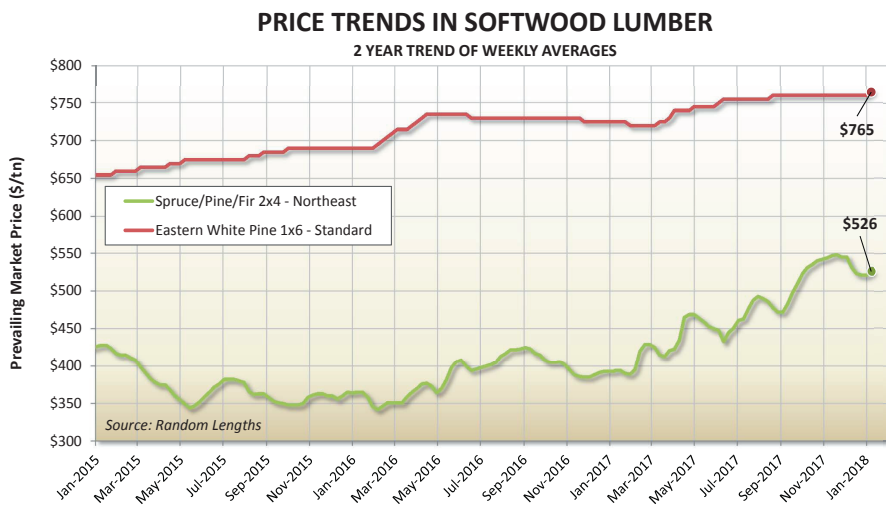
The latest attempt to transform a shuttered pulp mill in Old Town into a production center for wood-based energy and fuels is tangled in a lawsuit filed by a prospective buyer, who says he was illegally pushed out of a \$10 million deal in favor of a competitor. The dispute - which also involves the University of Maine, a trio of major Maine timberland owners and ConEdison Solutions - is another setback for efforts to revitalize the state's forest economy and find new uses for closed paper mills.

— *Press Herald*

■ **Finch Paper: Loggers needed to support industry** (Dec 5th)

The North Country has an abundant supply of timber to support the region's forest products industry. The key is developing a trained, well-equipped workforce of loggers that employers depend on for their livelihood. A logger training program at Paul Smith's College, was established to provide opportunities to young people.

— *The Saratogian*



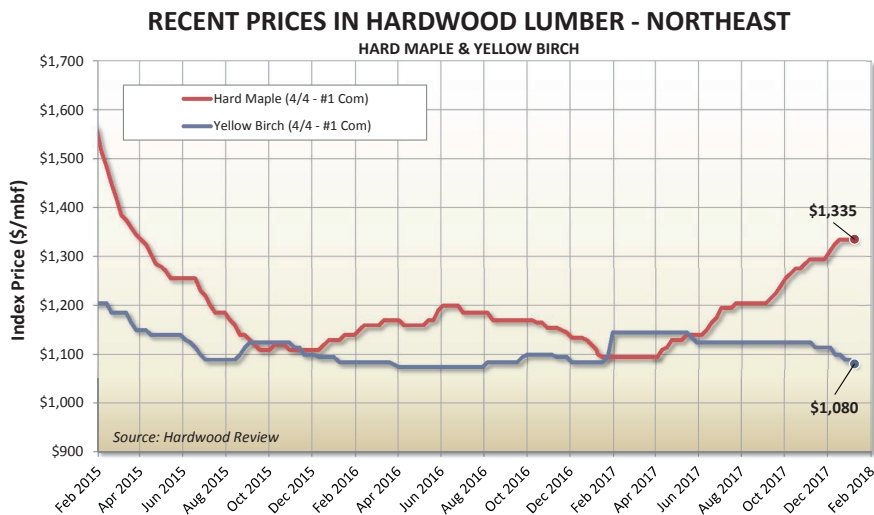
wood buyers to gain confidence in their market. Second, dimension lumber is a commodity that is bought, sold and traded in a global context; whereas, softwood log products are much more influenced on local supply & demand, and regional issues govern a much larger slice of the pricing dynamics. In short, the economic machinery takes a while to build momentum. In the Northeast, given sawmill owners' current faith in their operations, we have seen some mills become more aggressive in their log prices.

Pine has demonstrated the same dynamics as spruce & fir, but it is a much smaller and much more local market. We have seen strong pricing combined with less volatility, and pine sawmill consumption has been robust. Like spruce & fir, our pine business is better than one year ago, and optimism has dragged log prices slowly up.

The softwood lumber dispute between the U.S. and Canada – which we have reported on at length in the past – continues to cast its shadow on the marketplace, despite the fact that both sides have effectively entered a standstill. The trade row is in some degree responsible for our recent price upticks in lumber prices, as Canadian mills are now required to pay a nearly 20% tariff when importing lumber. However tempting this might be for landowners in the Northeast to stand by and enjoy the short-term effect on the lumber markets, we remain convinced that our regional markets are best served by an open flow of both raw materials and finished goods across the border. The Canadian sawmills just over the border feel the pain of the new U.S. trade policy, and with so much of the region's forest products economy being dependent on Canadian sawmills, we think the long-term health of these mills is paramount.

Hardwood

Hard maple lumber prices – along with most other species of logs -- have been strengthening lately, but we have yet to see meaningful adjustments to log prices. The raw material inventories at our regional hardwood sawmills are at customary levels for this time of year, and both consumption and demand for logs have been steady and strong. Yellow birch lumber indices have fallen in recent months, but we have not seen any effect on demand and prices remain flat over the quarter.





The regional demand for ash logs has been strong, and log buyers have been responding to demand with increasing prices. We have been approached by several foreign log buyers in search of logs ultimately destined for the export market, making it more difficult for local mills and secondary manufacturers to acquire the product. Ash is not a huge component in the northern forest, but it is large enough to have prices influence landowner's desire to cut it.

Regional demand for industrial-quality logs – used for products such as timber mats, railway ties, and landscape timbers – has been strengthening. This past summer, the market was saturated and mills were holding back on log deliveries rather than continue to let it trickle in.

Now, log inventories have dwindled and buyers of these types of logs are finding out that they cannot be produced on a moment's notice – it takes time to build enough logs to deliver consistent volumes. As such, demand has taken a sharp positive turn and we expect this to continue through winter.

Veneer quality markets are running at full steam as well. We are seeing more interest from veneer markets for poplar logs, which is used as a filler product in the plywood backer material. Again, another sign of the improving building materials market.

Biomass

Now deeply into the regional heating season, biomass energy generators are entering the small window where they can be profitable on a stand-alone basis. The outlook is still quite bleak, but electricity prices are in a temporary spike due to the seasonal cold, and inventories at our regional biomass facilities are dwindling. Production of low-grade biomass in the forest is increasing, which is typical with the seasonal ramping up of harvesting activity, but the integrity & consistency of the supply chain remains troublingly susceptible to minor swings in weather.

Benjamin D. Carlisle
PRESIDENT

Update on Lake States Timber Prices

by Sam Radcliffe, Vice President

Every year in the fourth quarter we report on what happened to Lake States timber prices during the year¹. The Lake States are dominated by hardwoods, and as usual we will focus on Wisconsin hardwood prices for pulpwood and sawtimber, with an emphasis on hard maple. Hard maple is the most valuable sawtimber species in the region and accounts for about one-third of the sawtimber harvest among the higher quality species.

In 2017 hardwood pulpwood prices continued the downward slide that began in 2015, when nominal prices were at an all-time high. Since that time, demand has slackened, and mills have done a better job of managing inventories to avoid weather-related panic buying. Even with low inflation, real prices have also sunk to an early 2000's level (Figure 1). With the drop in 2017, since 1996 real hardwood pulpwood prices have still increased at a healthy annual rate of 1.4%.

As Figure 2 shows, the index of hardwood pulpwood prices dropped significantly below the S&P 500 index for only the second time during the period. This may say more about the stock market than the pulpwood market – the other such dip occurred during the runup to the dot-com bubble. Although not many analysts are calling the current stock market a bubble, few would argue that it is not richly valued.

Figure 1: Wisconsin Hardwood Pulpwood

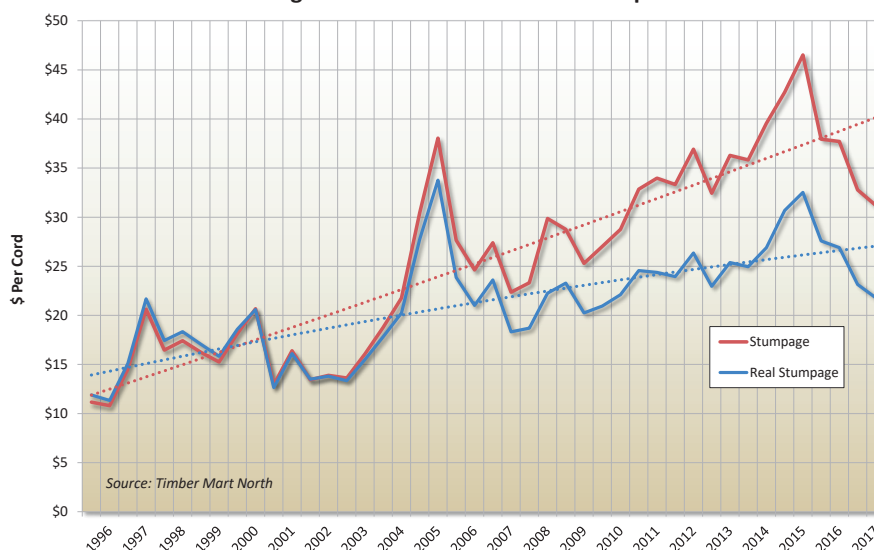
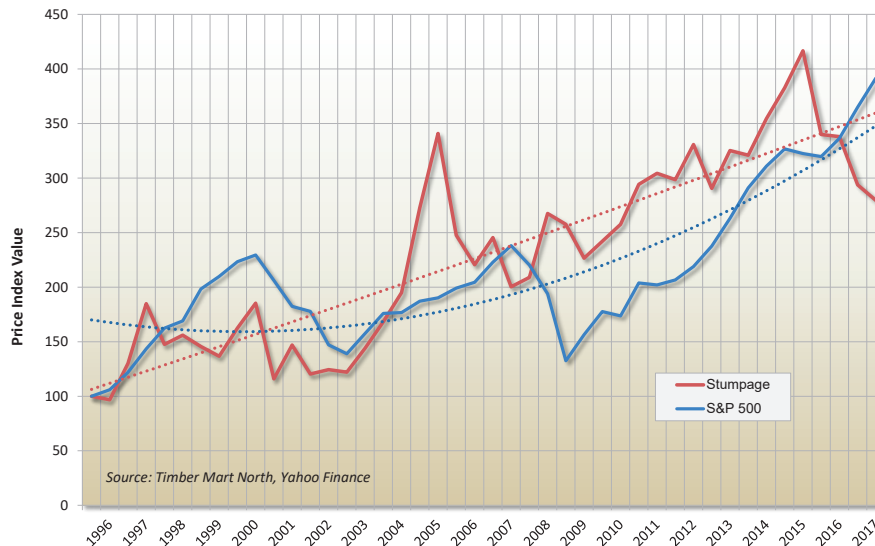




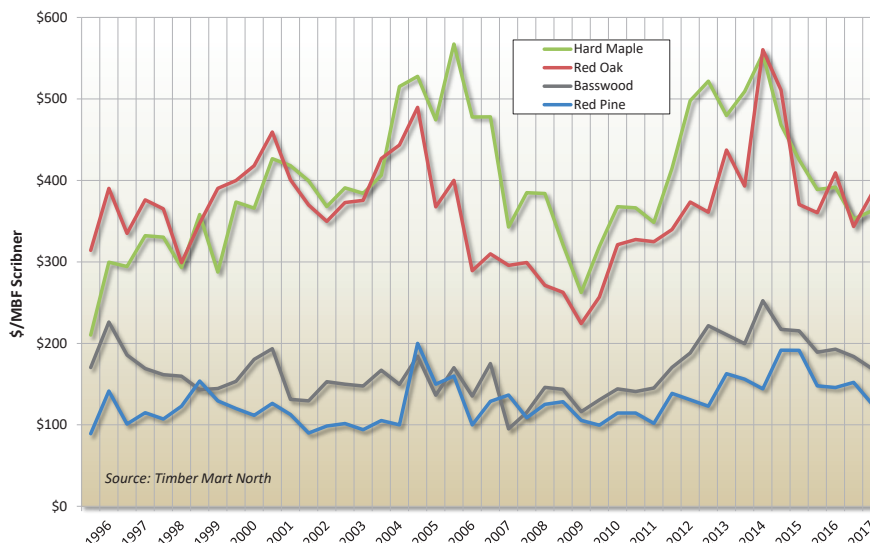
Figure 2: Wisconsin Hardwood Pulpwood vs S&P 500



The region continues to have some of the priciest hardwood pulpwood stumpage in the US. The average hardwood pulpwood stumpage price across the South dipped to about \$22 per cord² in the third quarter while in that same period the price in Wisconsin dropped to about \$31. Part of the reason for this discrepancy is that in Lake States stumpage sales, saw bolts are often advertised as “pulpwood” so the average “pulpwood” price actually represents some blend of logs that are bought by pulp mills and higher valued bolts that are bought by sawmills.

For the premium species, hardwood sawtimber stumpage prices have also been declining since a 2014 peak, as have the lesser species such as basswood (Figure 3). Woodsrun (mixed grades) stumpage prices need to be interpreted carefully, as a small sample may be subject to significant swings due to atypical timber quality, operating conditions or bidder behavior. Also apparent in Figure 3 is that hard maple can no longer claim to be the undisputed most valuable species in the region, as red oak has clawed back to price parity. The two species essentially serve the same markets, but consumer preferences for grain and color cycle every ten years or so, and it appears that the darker, more open-grained oak is on the ascent.

Figure 3: Wisconsin Sawtimber Stumpage



The long-term trend in real hard maple sawtimber prices is decidedly negative (Figure 4), a sharp contrast to the long-term pulpwood trend (Figure 1). Real hard maple sawtimber prices remain at a 1996 level (Figure 4), clearly related to the poor performance of hard maple lumber prices (Figure 5). The recent uptick in housing and the general economy may spur higher lumber prices, but there is a lot of ground to be made up for those who invested in the maple market in 2014 (or 2004!).



Weather is of course the wild card that can significantly move prices in the short term; the 2015 peak in pulpwood prices was largely a result of several consecutive warm winters. In 2017 mill inventories were reportedly in good shape going into spring breakup, but then Wisconsin experienced the wettest summer on record. Logger inventories of stumpage were not drawn down, but mill inventories may have suffered. The fall generally produced good logging weather, but it is hard to understate how the Wisconsin deer season slows down operations. Now in late December we are experiencing consistent cold temperatures without excessive snow, so the 2018 winter logging season is at least starting out on the right foot.

**Figure 4: Wisconsin Hard Maple Sawtimber
Woodsrun Stumpage**

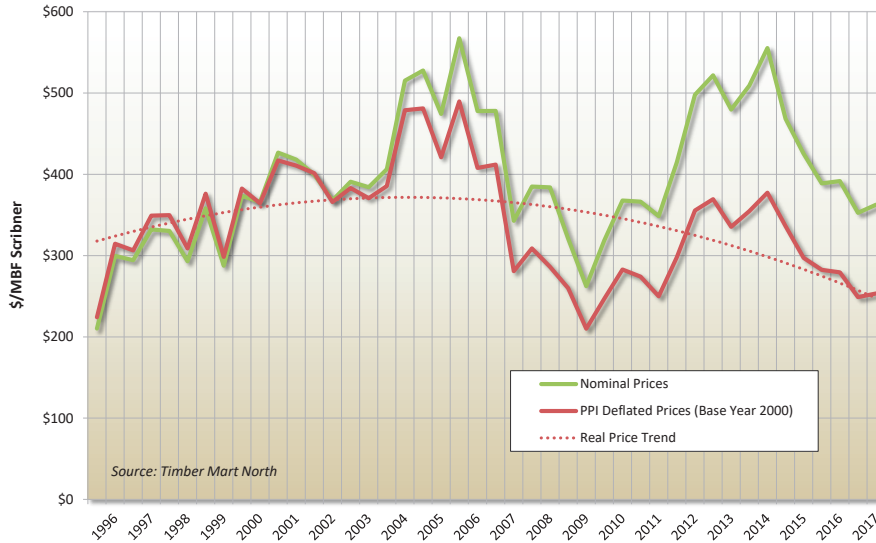
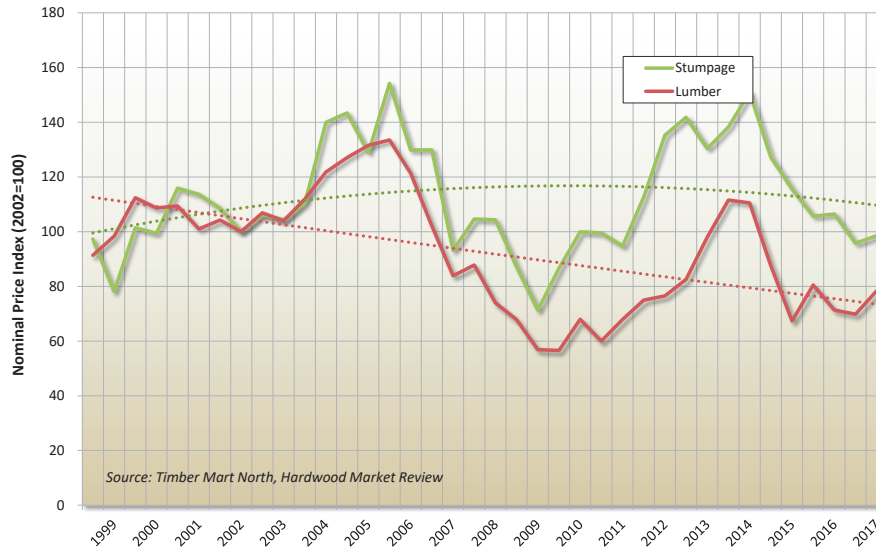


Figure 5: Wisconsin Hard Maple



The source of these price trends is our timber price survey, Timber Mart North. Please see our website for a sample issue and subscription form: <http://www.timbermartnorth.com>

1 Prices and trends reported here are through the end of the third quarter 2017.
2. Timber Mart South, <http://www.tmart-south.com>, hardwood pulpwood prices converted by Timber Mart South at 2.9 tons per cord.



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