

Michigan Public Timber Markets, 2nd Quarter (January - March), FY 2017

State Forest data – Sale volume rose sharply in the 2nd quarter of FY 2017. Bid-species-only volume increased by 60,000 cords, from about 196,600 to over 256,600 cords while total sale (bid & non-bid species) volume increased over 100,000 cords, from 230,200 to 323,500 cords. Offered sales fell from the 1st quarter record of 366,531 cords to 310,320 cords. It was expected that the 2nd quarter's sale volume would increase due to spillover of sale contract information not being recorded before the end of the 1st quarter. NLP bid species 1st quarter sale volume increased from 133,000 to 154,000 cords. UP bid species sale volume sharply increased, from under 64,000 to almost 103,000 cords. The 4th quarter overall State Forest average bid price dropped back from \$55.26 to \$51.16 per cord. This overall price index reached a record \$69.99 per cord in the 3rd quarter of FY 2015, but it has been mostly in a range between \$51 and \$62 since then.

NLP aspen pulpwood bid species sale volumes averaged 29,000 cords per quarter for FY 2016, fell to 22,460 cords in the 1st quarter, and then shot up to 40,356 cords in the 2nd quarter. At the same time, its price rose from \$29.50 to \$31.94 per cord. UP aspen pulpwood sale volume also rose from 10,781 to 14,364 cords in the 2nd quarter while prices plummeted from \$49.72 to \$33.80 per cord. UP red pine pulpwood bid species sale volumes dipped from 16,460 to 15,335 cords while the NLP volume went from 20,486 back to 15,663 cords. The NLP red pine pulpwood price rose from \$60.61 to \$65.43 per cord while the UP price was virtually unchanged at \$84.59 per cord. NLP jack pine pulpwood bid species volume dropped back from 9,773 to 6,878 cords; it had reached 29,292 cords in the 2nd quarter of last year. UP jack pine pulpwood sale volume dropped further from 5,327 to 4,417 cords. Jack pine pulpwood cord prices were unchanged in the UP at \$62.58 per cord while they declined in the NLP from \$35.24 to \$30.28. UP softwood pulpwood sale volume almost doubled from a low 7,886 to 15,346 cords while its price dropped sharply from \$39.77 to \$25.81 per cord. NLP Oak pulpwood sale volume declined from 20,885 to 17,232 cords while its average price jumped from \$15.69 to \$23.32 per cord. Other hardwood pulpwood volume leaped from 28,537 to 61,933 cords while its price dipped further from \$33.29 to \$30.98 per cord. Statewide red pine sawtimber prices declined again for the eighth quarter in a row, dipping from \$169.38 to \$168.49 per mbf while volumes increased from 8.4 to 9.7mmbf. UP sugar maple sawtimber prices dropped from \$804 to \$585 per mbf as volume more than tripled 336 to 1,117mbf. The NLP sugar maple sawtimber price also dropped from \$650 to \$421 per mbf as the volume almost doubled from 568 to 1,093mbf. NLP oak sawtimber volume increased from 4.92 down to 2.84mmbf while its price went down from \$221 to \$189per mbf.

National Forest data – Huron-Manistee (H-M) 1st and 2nd quarter combined volumes and values were reported to be less than the 1st quarter volumes and values, so obviously there must be an error in the reporting. H-M data will be summarized later if and when the information reported is corrected. The Ottawa and the Hiawatha cut and sold data appear correct, so their summary information is presented below.

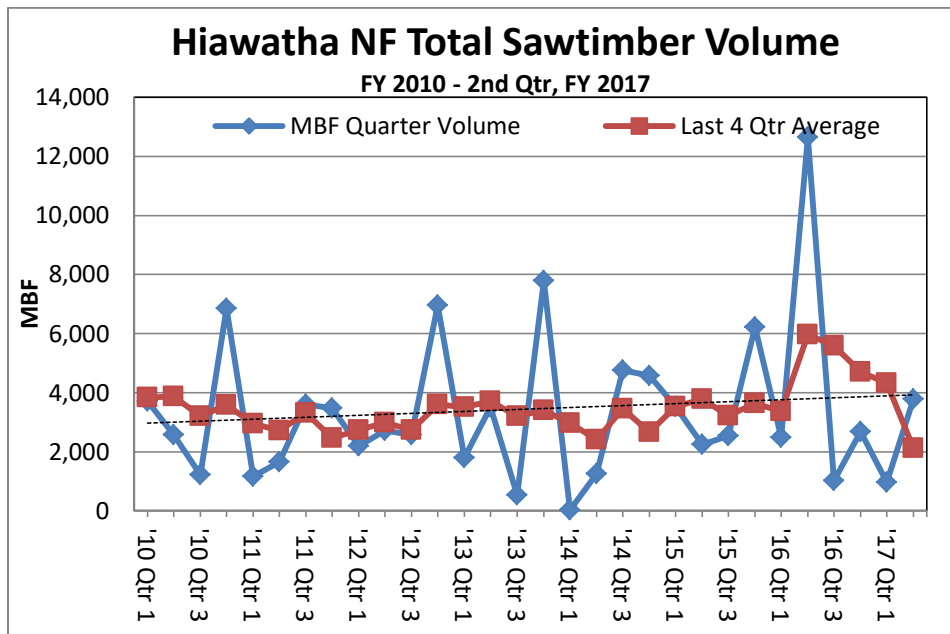
Ottawa sawtimber sale volumes more than doubled, from 3.0 to 6.5mmbf while its pulpwood volume went from 8 to 10mmbf. Hiawatha sawtimber sale volume went from .97 to 3.8mmbf while its pulpwood volume also rebounded from 1.2 to 7.7mmbf.

Ottawa's overall average sawtimber mbf price dropped sharply from \$336 to \$143 while its overall pulpwood mbf price rose fairly sharply from \$46.98 to \$57.93. Ottawa sugar maple sawtimber sale volume dropped sharply from 1.05mmbf to only 49mbf at the same time its price dropped from \$628 to \$334 per mbf. Its aspen pulpwood sale volume rose from 1.6 to 2.4mmbf as its price went back down from \$74 to \$60 per mbf. The "hardwood-other" pulpwood volume dropped further from 5.1 to 3.6mmbf as its price increased again, from \$29 to \$31per mbf.

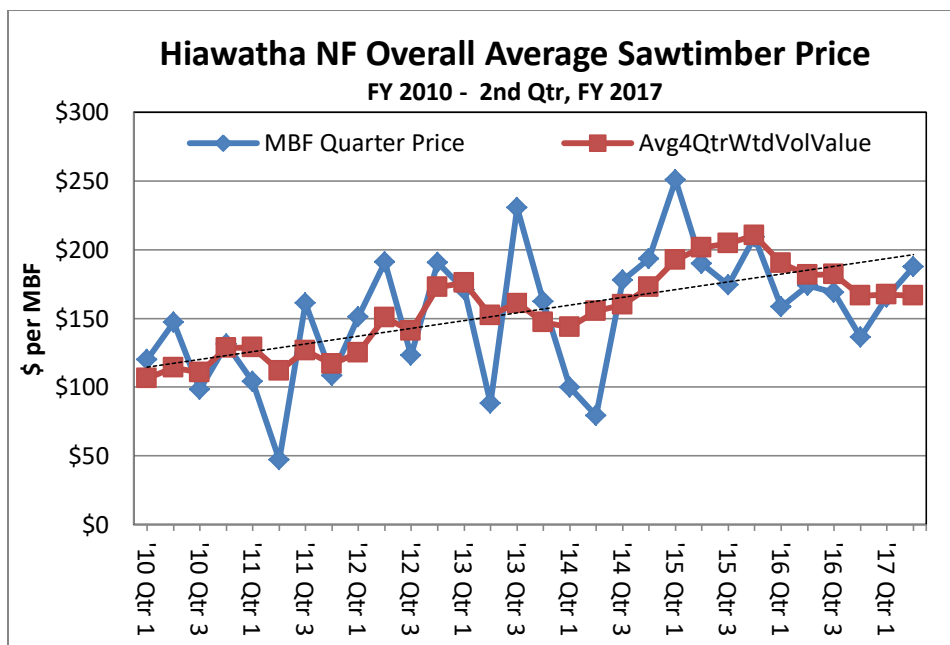
The Hiawatha's overall average sawtimber price climbed further from \$165 to \$187 per mbf as its red pine sawtimber price rose to almost \$170 per mbf. Very little jack pine sawtimber was sold, while "hardwood-other" sawtimber sale volume reached 438mbf at an average of \$174 per mbf. "Hardwood-other" pulpwood volume was 3.48mmbf at an average price of almost \$70 per mbf. Aspen pulpwood sale volume was only 347mbf at a low average price of \$17 per mbf. No jack pine pulpwood was sold. The low red pine pulpwood sale volume of 176mbf sold at an average of \$142 per mbf.

Hiawatha National Forest Major Species Product Timber Sales, FY 2010 – 2nd Qtr, 2017

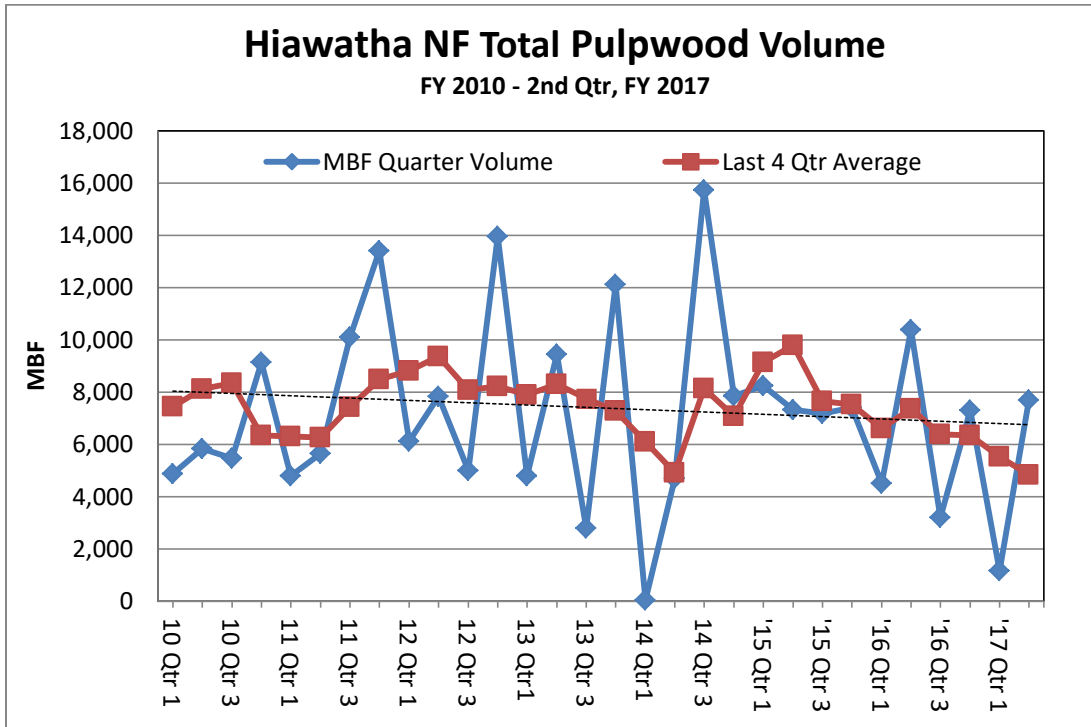
All graphs include a dotted trend line based upon the data set for the average of the most recent four quarters. Gaps in the blue quarter line indicate no sales in the quarter where the gap occurs. The National Forests follow the federal fiscal year (FY) from October 1 through September 30 (as does the MI DNR). The most recent data included here is for the 2nd quarter of FY 2017, covering January through March of 2017 sales. Only certain major categories of timber sales are shown; more information is available through the Region 9 pdf reports posted on the Forest Service website: <http://www.fs.fed.us/forestmanagement/products/cut-sold/index.shtml>



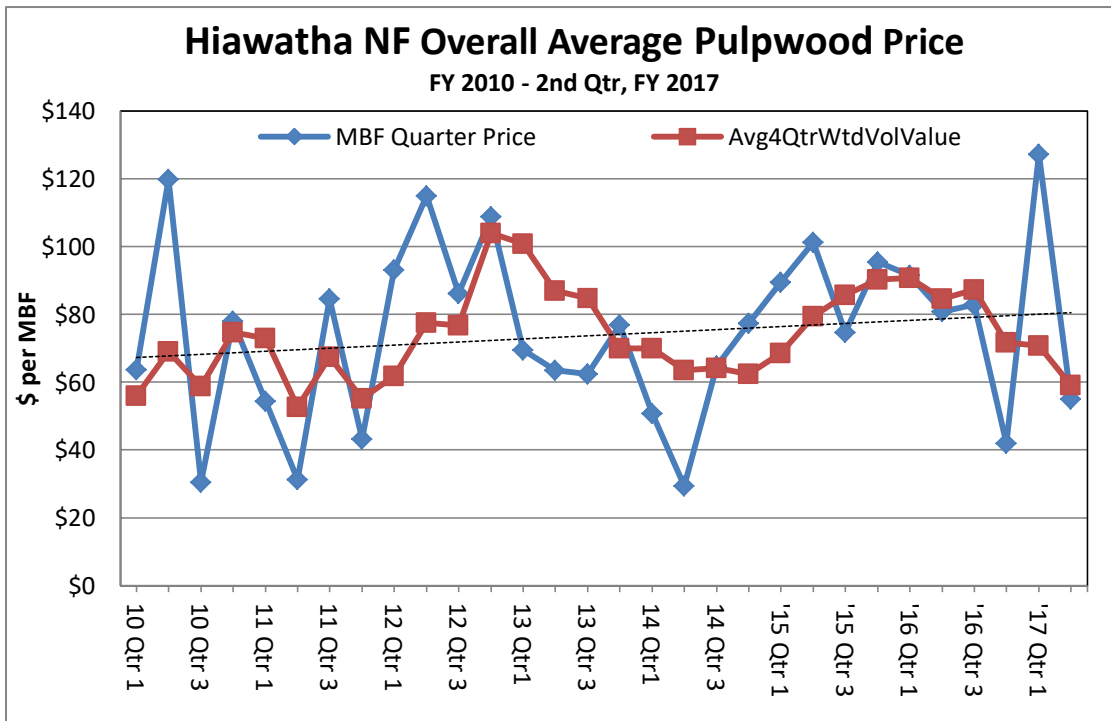
Hiawatha sawtimber sale volume increased from .97 to 3.8mmbf in the 2nd quarter. Sales were at a record 12.6mmbf volume in the 2nd quarter of last fiscal year before falling sharply to just 1.025mmbf. The 6-year trend of sawtimber sale volume is slightly increasing, in large part due to that record 2nd quarter record volume last year. Sale volumes are likely to increase modestly next (3rd) quarter, but they are also likely to fall towards 1mmbf again in some future quarters as well.



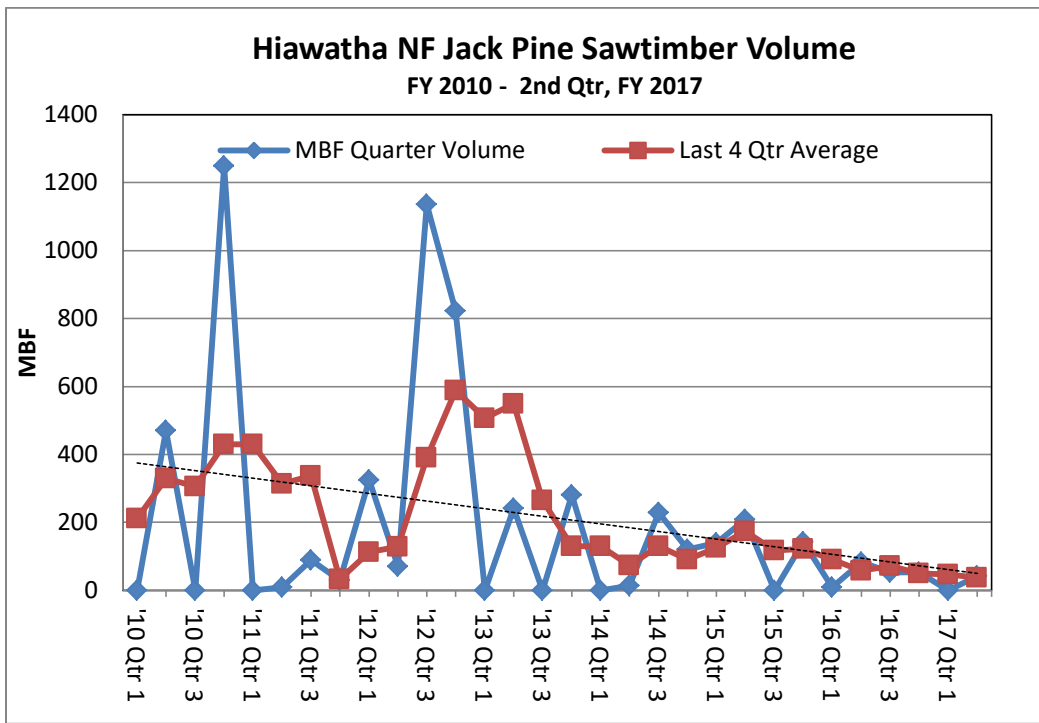
Average Hiawatha sawtimber prices rose from \$136.25 to \$165.52 per mbf in the 1st quarter and then rose again to \$187.48 in the 2nd quarter. The average peaked at \$250 in the 1st quarter of FY 2015. The average sawtimber price is strongly influenced by the mix of species and products offered. The most recent increase in the average price brings it back in line with the increasing six-year price trend.



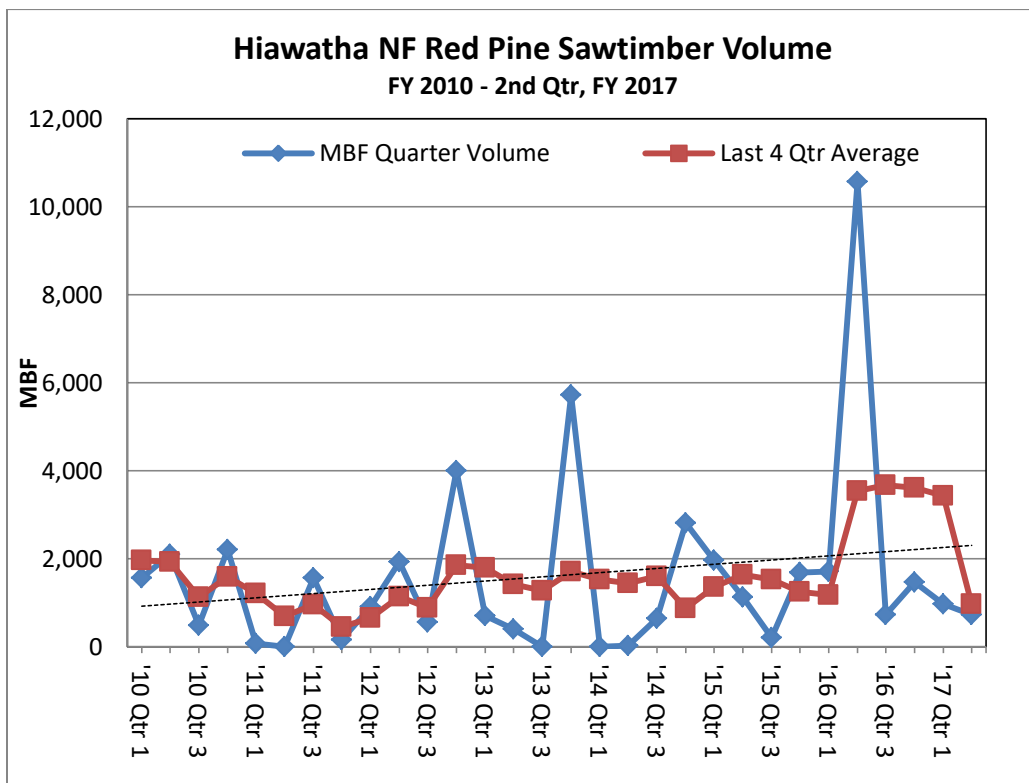
Hiawatha 1st quarter pulpwood sale volume fell sharply from 7.3 to 1.2 mmbf, but it bounced back in the 2nd quarter to 7.7mmbf. There have been large swings in pulpwood volumes the last six quarters, similar to, but slightly smaller than what was frequently seen from 2011 through 2014. For the past six years, the highest sale volume was 15.73mmbf in the 3rd quarter of FY 2014. The six-year quarterly sales trend is slightly falling.



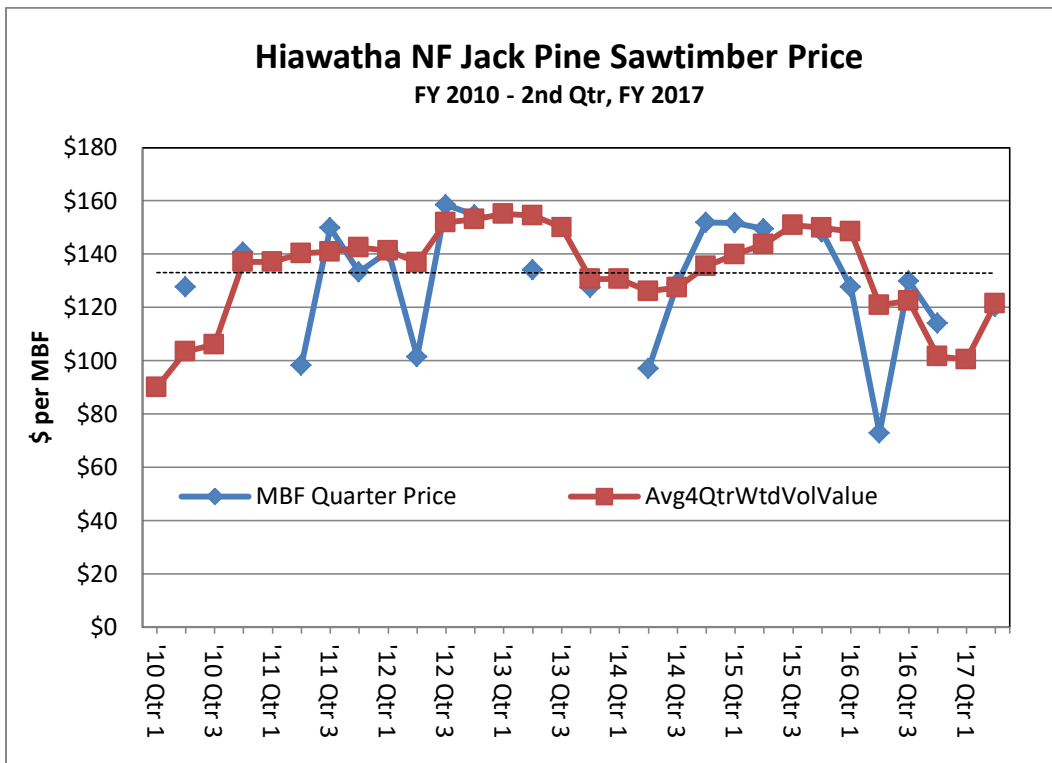
The 1st quarter FY 2017 average pulpwood price had the sharpest quarterly rise in price in recent years, from a low \$42 to over \$127 per mbf. It fell back sharply in the 2nd quarter to \$55.07 per mbf. The average price hit a low of under \$30 in the second quarter of FY 2014. The six-year trend line shows a moderately increasing price trend since the beginning of FY 2010. Given the magnitude of the 1st quarter price increase, it was assumed prices would be lower in coming quarters. The reverse is now true – that prices will likely rise in the coming quarter, given the sharp drop in the 2nd quarter.



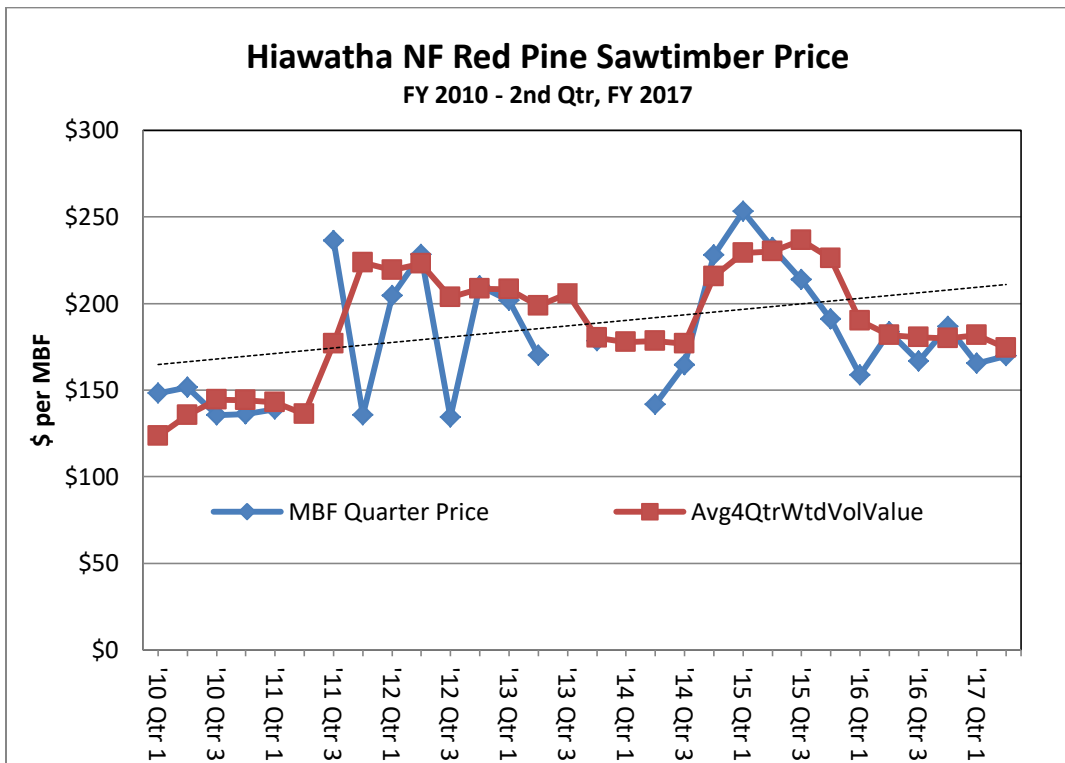
The steep downward sale volume trend for jack pine sawtimber on the Hiawatha continues unabated, although there was a negligible amount of it (42mbf) sold in the 2nd quarter. There were no Hiawatha sale volumes of jack pine sawtimber in the 1st quarter. This follows a quarterly average of only 50 mbf sold for the four quarters of FY 2016. Sale volumes have been negligible for over three years. The highest volume sold in the past six years (1.25mmbf) was in the 4th quarter of FY 2010; sales also exceeded 800mbf twice in 2012. As with jack pine pulpwood, there are almost as many quarters without sales (or only incidental sales less than 10mbf) as there are quarters with sales.



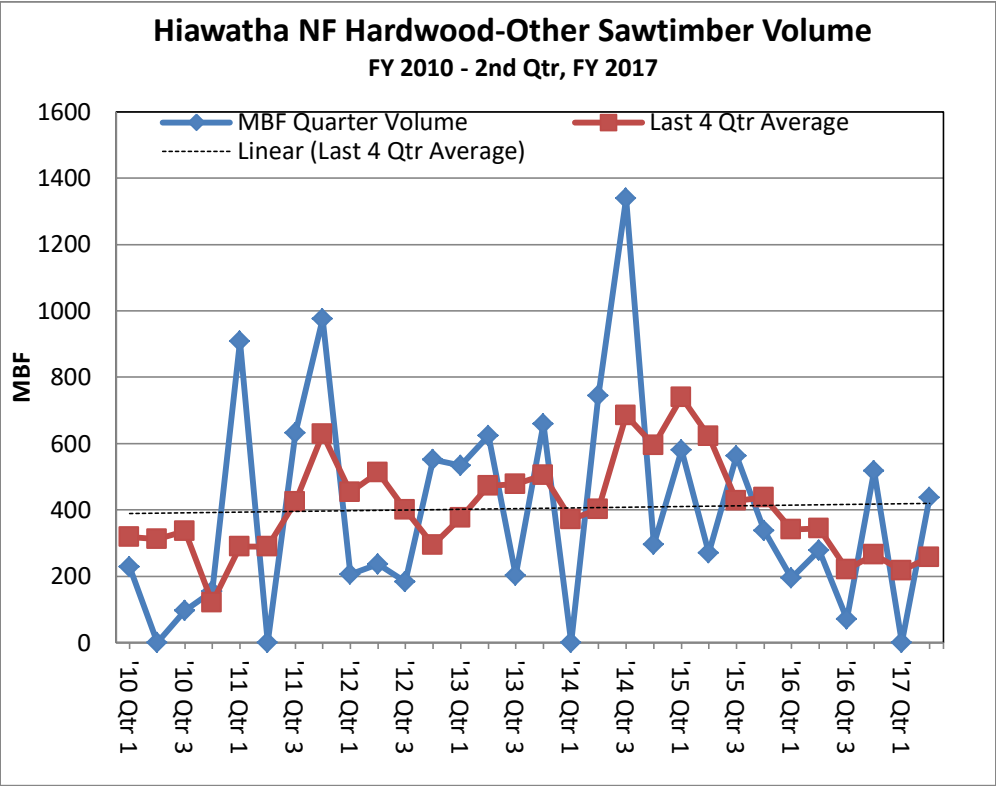
Hiawatha red pine sawtimber sale volume dipped again, from .97 to .73mmbf. It had hit a record level of 10.56mmbf in the 2nd quarter of FY 2016. The six-year sale average is 1.5mmbf. While there is an increasing sale trend, without the record volume of last year's 2nd quarter, the six-year trend would be flat. Over the past six years, three times as much red pine sawtimber as jack pine sawtimber has been sold on the Hiawatha.



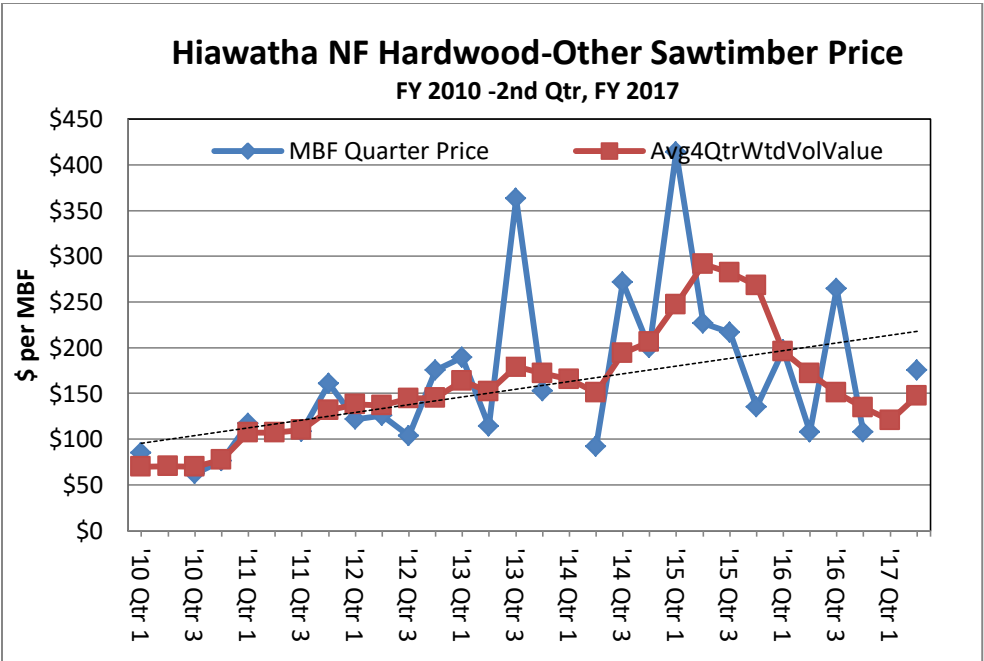
The 2nd quarter price for jack pine sawtimber was \$120.27 per mbf on very little (42mbf) volume. Prices have been based upon negligible volumes sold for the past three years. The price trend is essentially flat over the past six years, but this price trend is based upon many quarters with negligible or no sales.



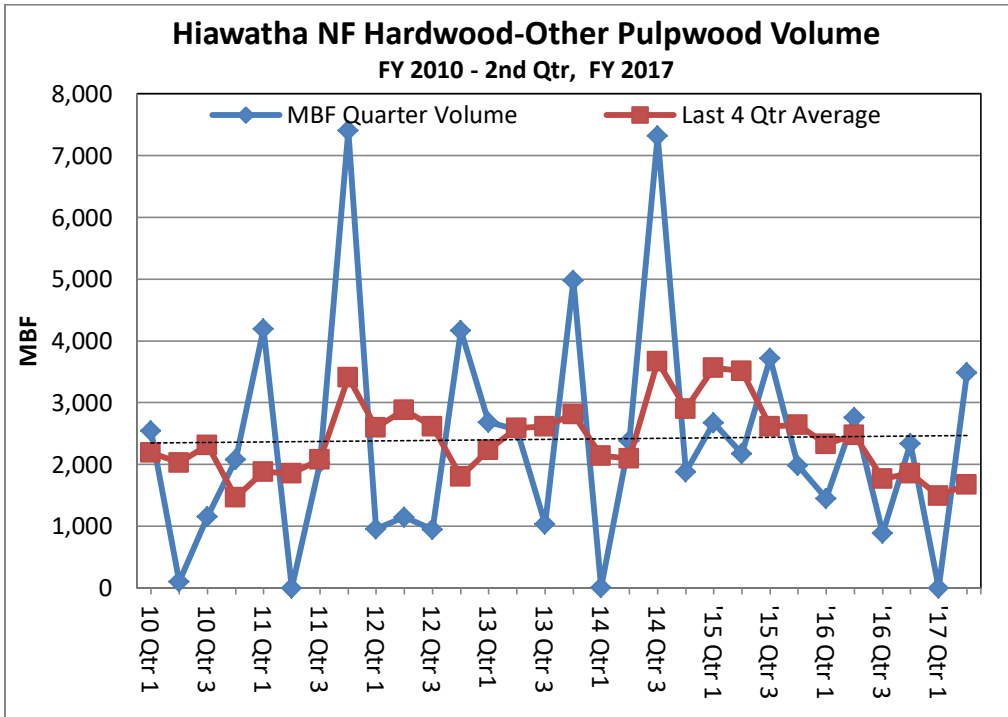
The red pine sawtimber price fell from \$186 to \$166 per mbf in the 1st quarter and then rose slightly to \$169.57 in the 2nd quarter. The price reached \$253 per mbf in the 1st quarter of FY 2015, its highest level in years. It then declined for four straight quarters before bouncing back and forth for the past six quarters over a fairly narrow range between \$158 and \$188. The overall six-year price trend has been moderately increasing.



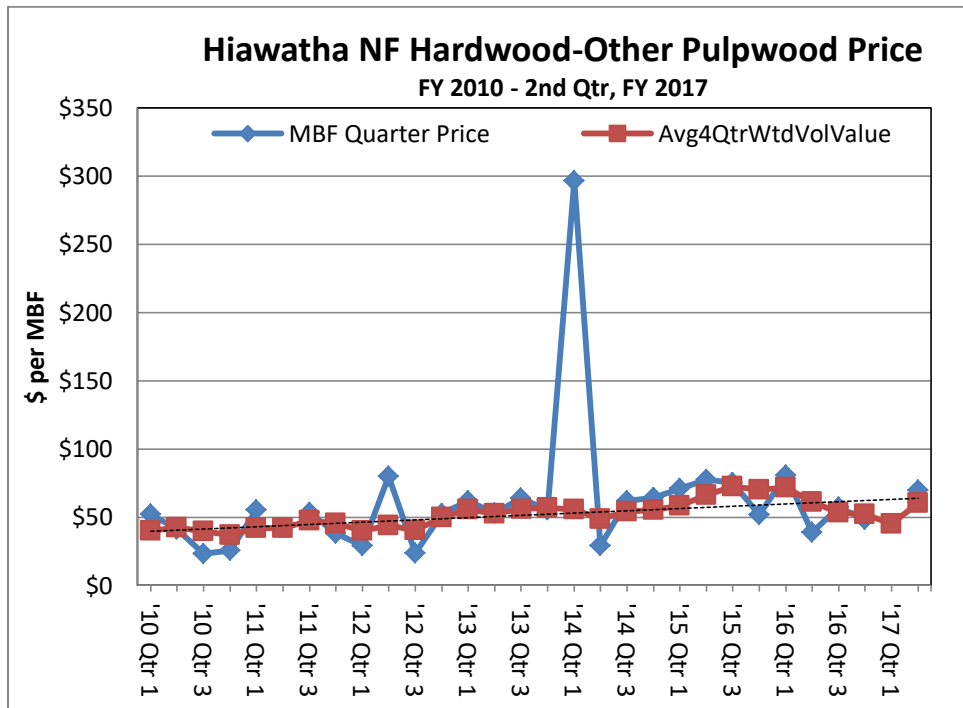
Following no sales of Hiawatha’s “hardwood-other” sawtimber in the 1st quarter, there was 438mbf sold in the 2nd quarter. Sale volume was at 518mbf in the previous 4th quarter of FY 2016. Quarterly sale volume reached a six-year record level of 1.3mmbf in the 3rd quarter of FY 2014, but no quarter has reached even 600mbf since then. There is a very slightly increasing six-year sale volume trend, but this is strongly influenced by the high 2nd and 3rd quarter sale volumes of FY 2014; without these the trend would be flat or declining.



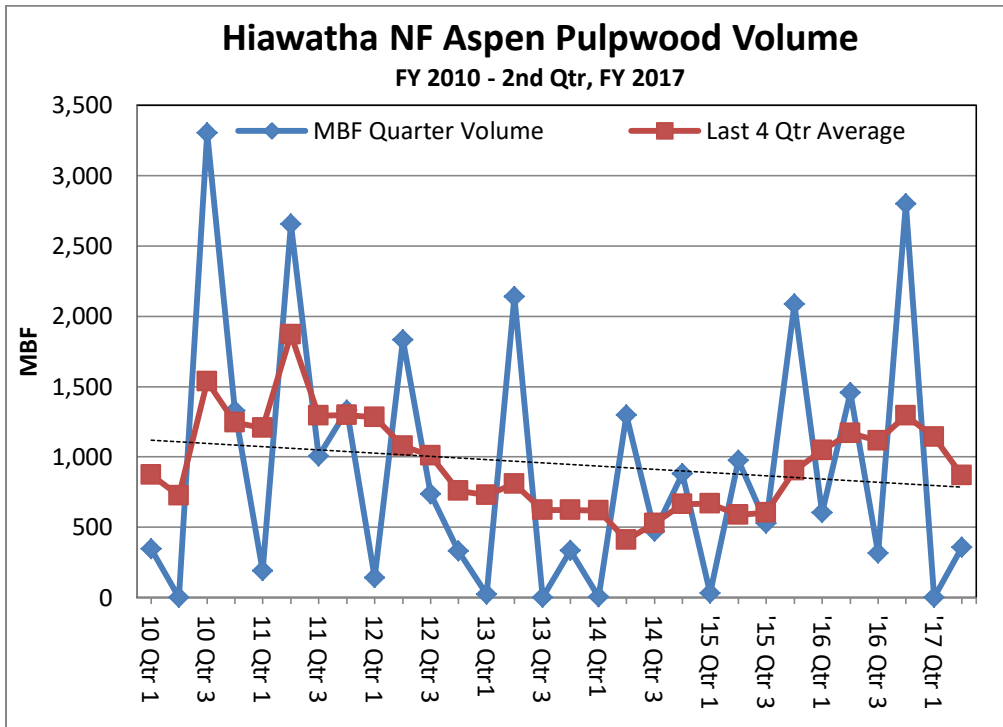
The 2nd quarter “hardwood-other” sawtimber price was at \$174.38 per mbf. Despite some relatively low prices in recent quarters, the quarterly price trend has risen fairly steeply over the past six years, from under \$70 to about \$225 per mbf. Recent quarterly prices have largely been below the six-year trend line; future quarters with sale volumes are expected to predominantly have price increases.



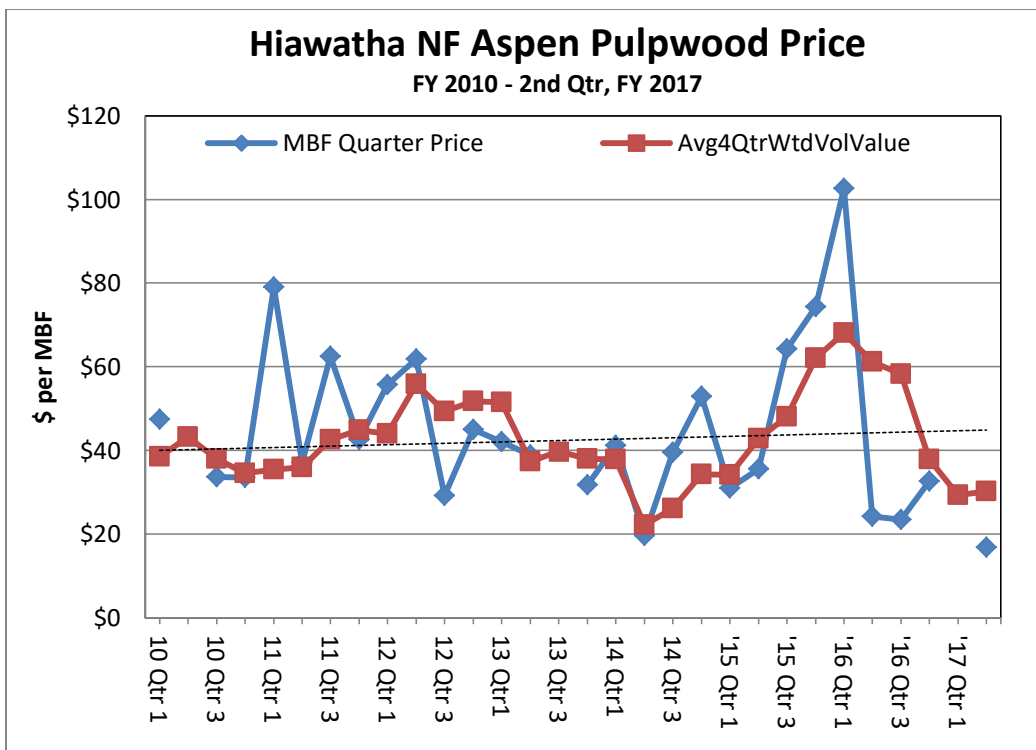
After having no hardwood-other pulpwood sale volume in the 1st quarter, sales reached 3.48mmbf in the 2nd quarter. Sale volumes have been close to 7.5mmbf twice in the last six years, but volumes have exceeded 3mmbf only one other time in the last ten quarters. There is a very slight increasing sale volume trend over the past six years. The erratic nature of earlier sale volumes from quarter-to-quarter appeared to be moderating, although the most recent drop off to no sales in the 1st quarter and rebound up to 3.48mmbf in the 2nd quarter were quite sharp.



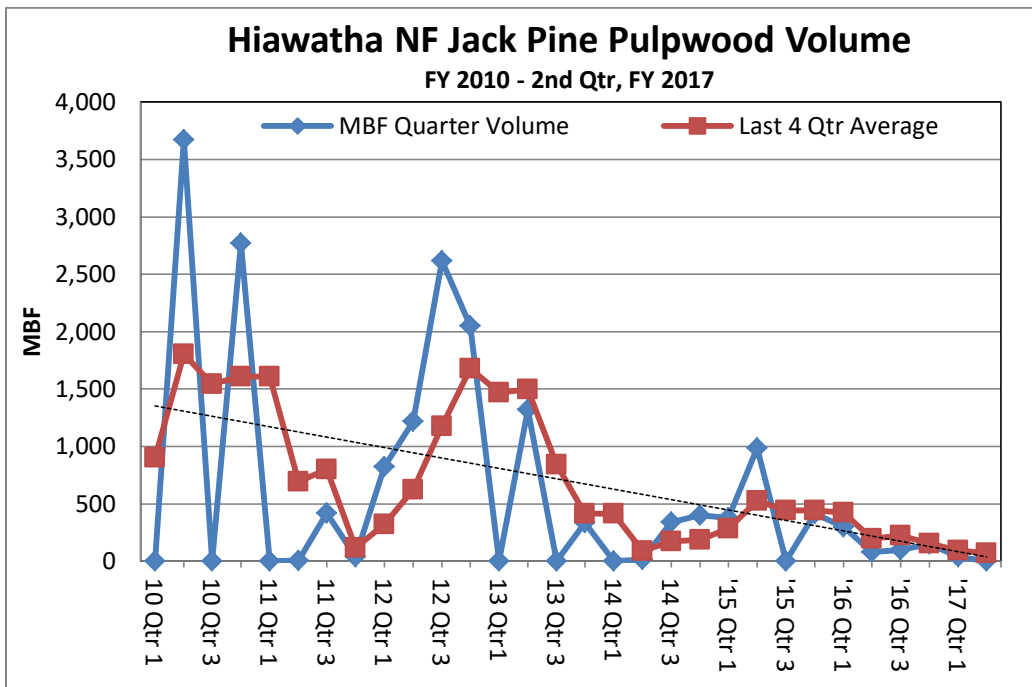
The price for “hardwood-other” pulpwood was \$69.65 per mbf in the 2nd quarter. Prices had fallen from \$57 to \$48 per mbf in the 4th quarter of FY 2016. Prices had risen gradually from \$29 in the 2nd quarter of FY 2014 before dropping back down to \$52 in the 4th quarter of FY 2015. The 1st quarter FY 2014 price is an anomaly or error. Other than this major exception and a few minor ones, the price has largely fluctuated in a fairly narrow range around \$50 over the past six years. There has been a very modest increasing price trend for the period.



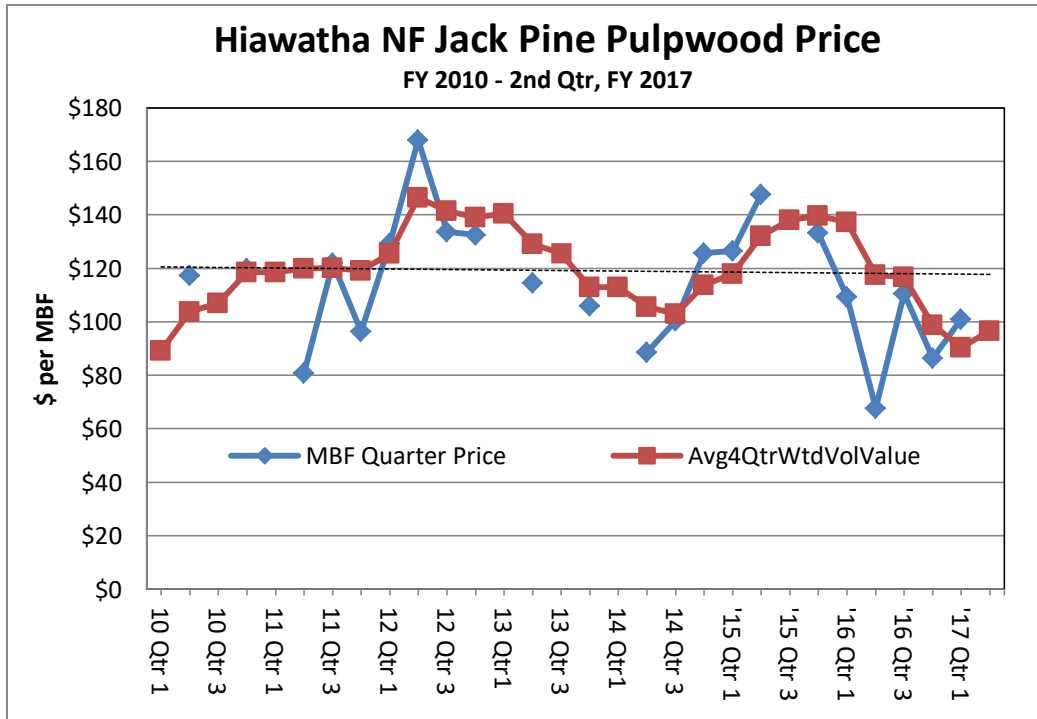
Aspen pulpwood sale volumes have been erratic; often there has been low or no sales in the 1st quarter of the fiscal year, followed by higher sales in the 2nd quarter. Sales of aspen pulpwood were only 357mbf in the 2nd quarter of FY 2017. This followed no sale volume in the 1st quarter. Sales had shot up to 2.8mmbf in the 4th quarter of FY 2016. Similarly, the sale volume was at 2.1mmbf in the 4th quarter of FY 2015 before dropping to 695mbf the next quarter. There has been a downward sale volume trend over the past six years.



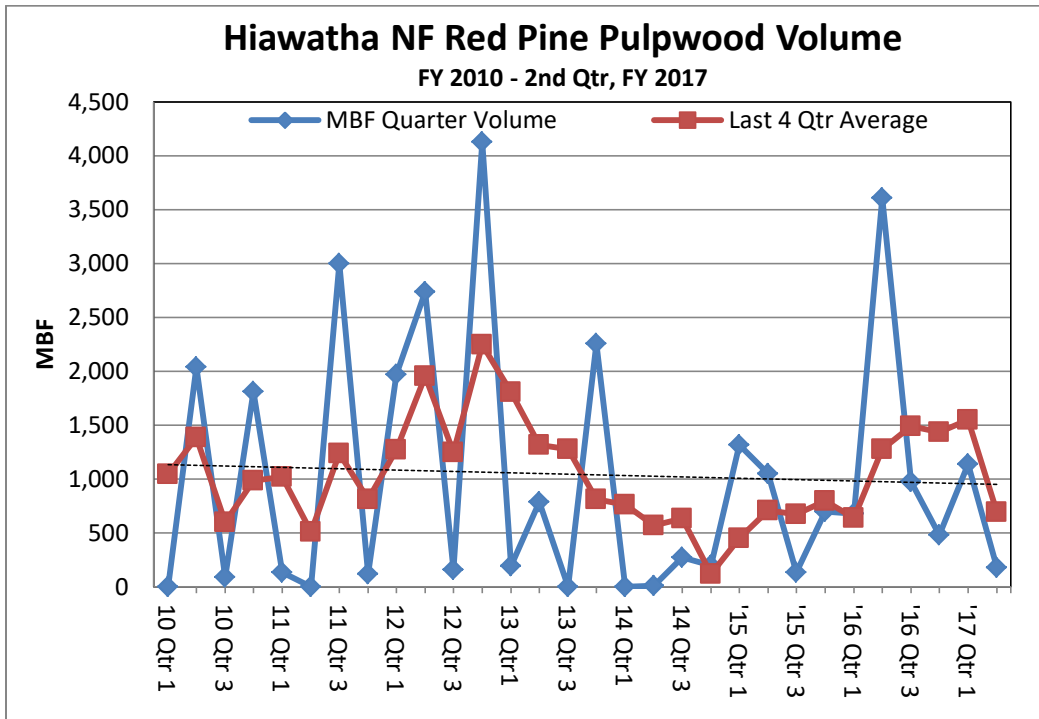
The 2nd quarter price for aspen pulpwood was a record low \$16.80 per mbf. There were no sales of aspen pulpwood in the 1st quarter, so there was no price then either. The 4th quarter, FY 2016 price blipped up to \$32.65 per mbf after being close to \$24 for two quarters. It had hit a record \$103 per mbf price in the 1st quarter of FY 2016. The subsequent drop in prices was not surprising, but was steeper than expected. Additional increases in coming quarters are expected, especially given how low the price fell in the most recent (2nd) quarter.



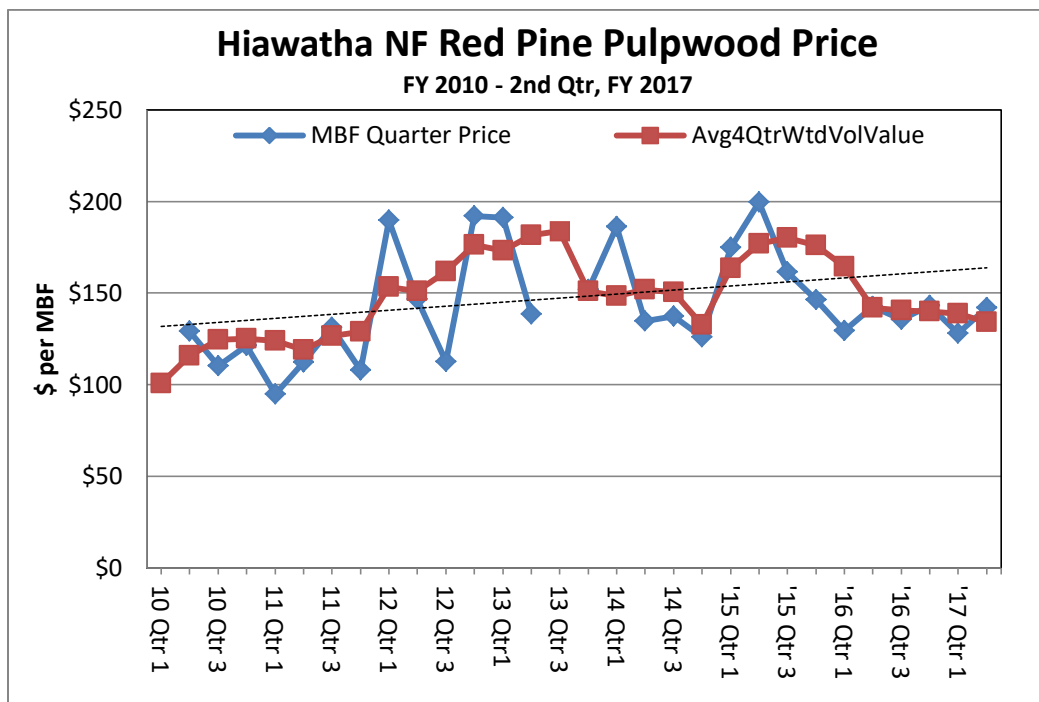
There were no sales of jack pine pulpwood in the 2nd quarter. Jack pine has had a diminishing - almost disappearing - presence in Hiawatha timber sales. Jack pine pulpwood sales have been consistently at a very low level throughout FY 2016 and the first two quarters of FY 2017. Quarterly sales have been below 500mbf for over three years except for the 2nd quarter of FY 2015 when they reached 985mbf. Sales in some upcoming quarter might exceed 1,000mbf; however, most quarters are likely to continue to have very negligible or no volumes.



There was no sale volume nor price for jack pine pulpwood in the 2nd quarter. The jack pine pulpwood price for the 1st quarter was \$101 per mbf, but like all the quarters in FY 2016, it is based upon very little volume. Two years ago, prices for several quarters exceeded \$120 per mbf, including the 2nd quarter FY 2015 jack pine pulpwood price which reached \$146 per mbf. The six-year price trend shown above (sitting on top of the \$120 price line) is essentially flat, but there really is not much of a basis for a trend line as there are about as many quarters without sales of jack pine as there have been quarters with sales over the past six years.



Red pine pulpwood sale volume rose from .5mmbf to over 1.1mmbf in the 1st quarter of FY 2017 and then fell in the 2nd quarter to only .176mmbf. It reached 3.6mmbf in the 2nd quarter last year, but that quarter's volume is an outlier in comparison to other quarterly sales in the past three years. The high FY 2016 2nd quarter volume did not reverse a slightly declining six-year volume trend. Although the declining sale volume trend is not nearly as steep as jack pine pulpwood's, it does portend limited volumes (under 1mmbf) are likely in most future quarters

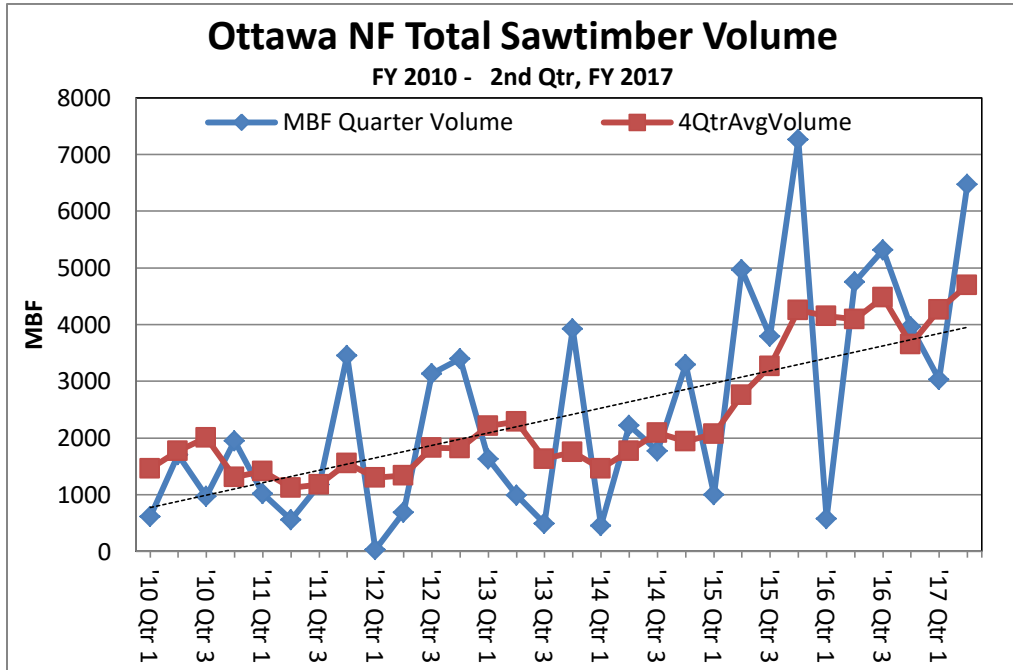


The 1st quarter red pine pulpwood mbf price mildly decreased from \$143 to \$128 and then rose back to \$142 in the 2nd quarter. The price has been relatively stable for seven quarters, fluctuating between \$128 and \$146. It had gone from \$175 to \$200 per mbf between the 1st and 2nd quarters of FY 2015 before beginning a descent. Overall, prices have been on an upward trend over the past six years. However, if FY 2010 and FY 2011 were dropped, the most recent four-year price trend would be flat or slightly declining. It also should be noted that there has been very low or no sale volumes in many quarters over the past six years, which undercuts the significance of the price trend.

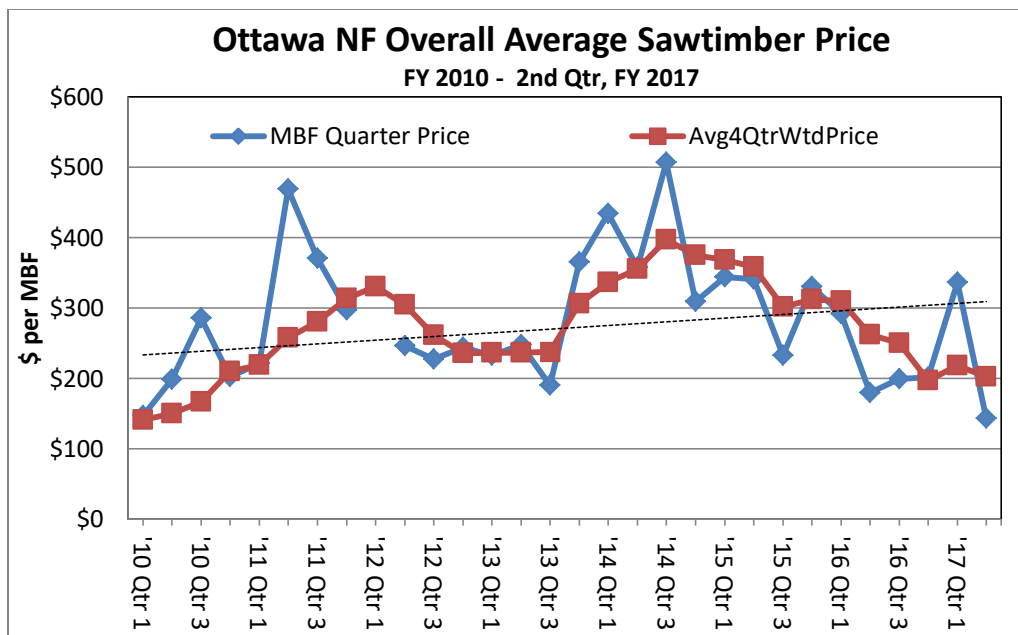
Ottawa National Forest Major Species/Product Timber Sales, FY 2010 – 2nd Qtr, 2017

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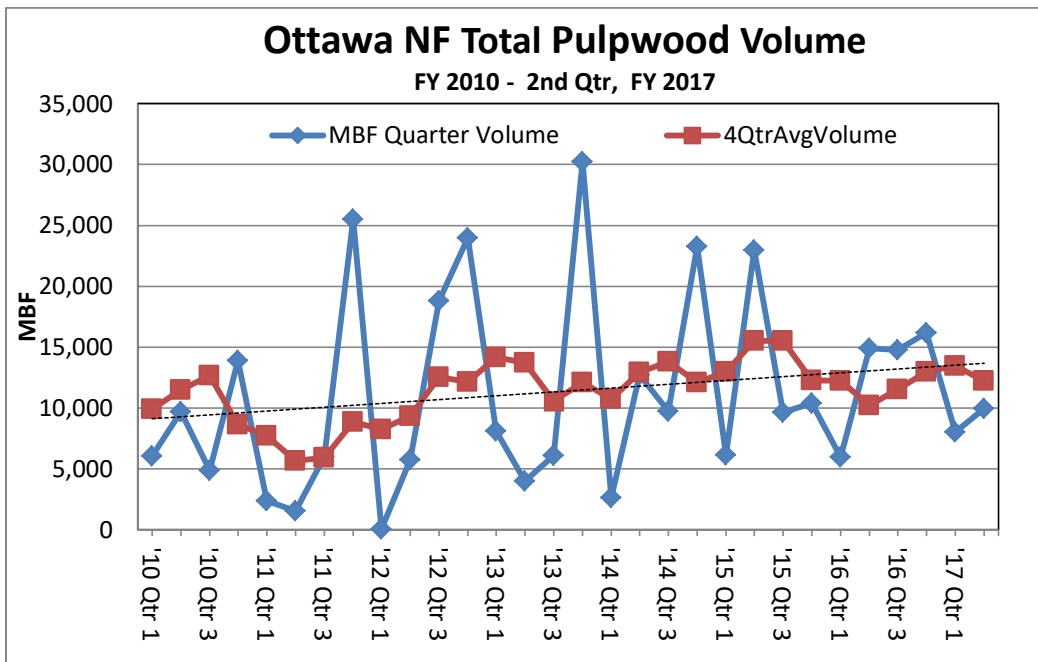
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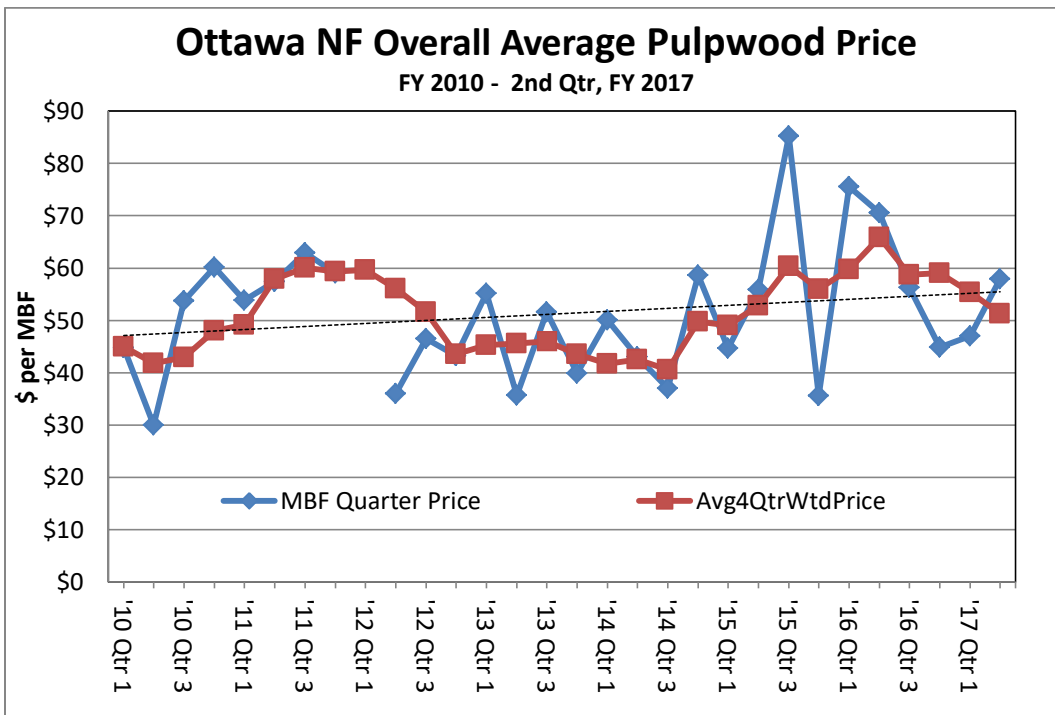
Total Ottawa sawtimber sale volume more than doubled in the 2nd quarter, from 3.0 to 6.5mmbf. After reaching a record 7.3mmbf in the 4th quarter of FY 2015, it dropped to only 577mbf in the 1st quarter of FY 2016 after which it rebounded to 4.75 and then 5.3mmbf in the 2nd and 3rd quarters. There is a sharply increasing six-year sale volume trend, although volumes from quarter-to-quarter are somewhat erratic.



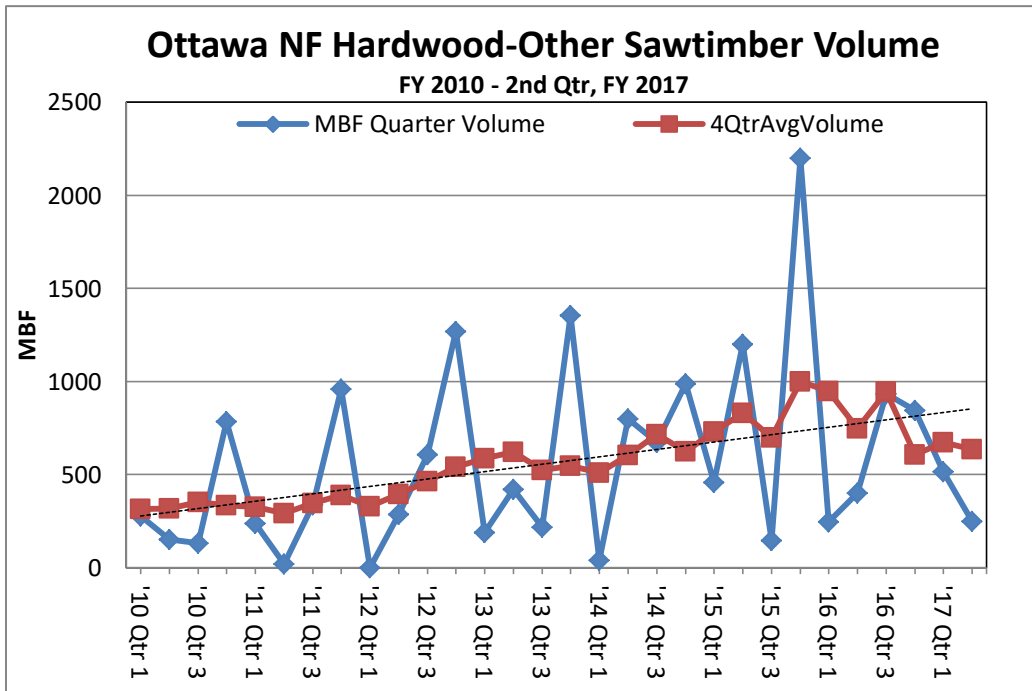
The 1st quarter overall average sawtimber price declined sharply from \$336 to \$143 per mbf, a record low for the past six years. It reached a peak at \$507 per mbf in the 3rd quarter of FY 2014. Since then, prices have been largely on a downhill trend; however, the six-year price trend is increasing. Average prices are impacted by the mix of sold species and products. The Ottawa sawtimber price trend is greatly influenced by sugar maple volumes and prices.



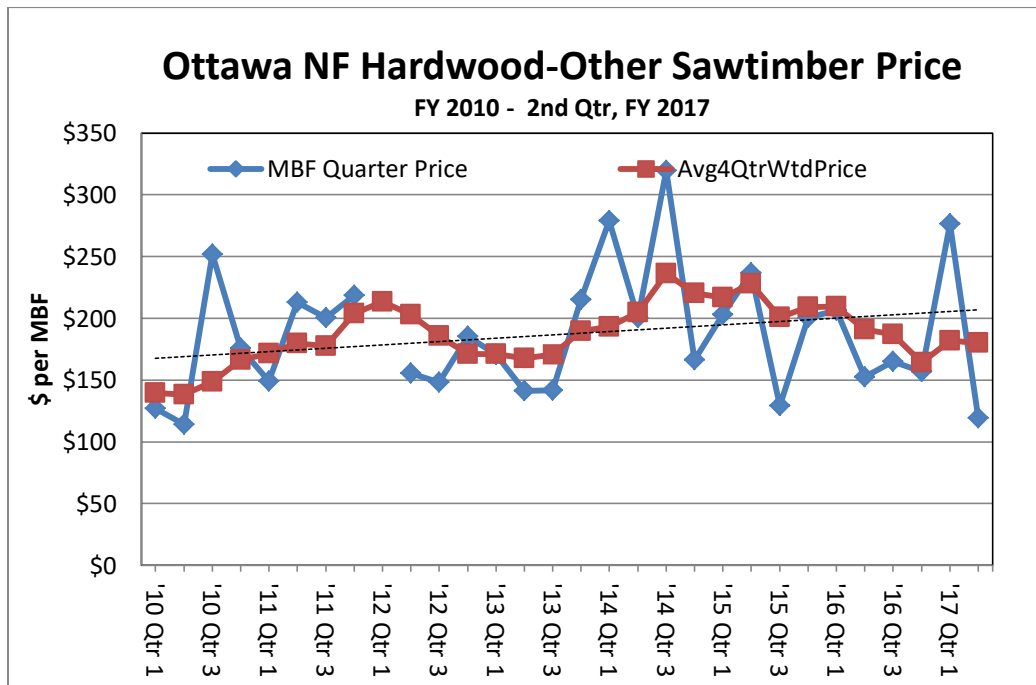
After hovering around 15 to 16mmbf for three quarters, the 1st quarter total pulpwood sale volume dropped in half to 8mmbf. It increased slightly in the 2nd quarter to almost 10mmbf. From FY 2011 through the beginning of FY 2015, Ottawa pulpwood sale volumes seesawed back and forth from one quarter to the next, going from 5mmbf or less one quarter to close to or above 25mmbf the next quarter. Sale volumes for the past two years have not been as erratic. The record high level for the past six years was over 30mmbf reached in the 4th quarter of FY 2013. The six-year sale volume trend has been on a modest incline. Ottawa sawtimber and pulpwood volumes have been generally highest in the 4th quarter and have often dropped sharply in the 1st quarter. Generally, the 2nd quarter of the fiscal year sees a modest increase over the 1st quarter - as happened this year.



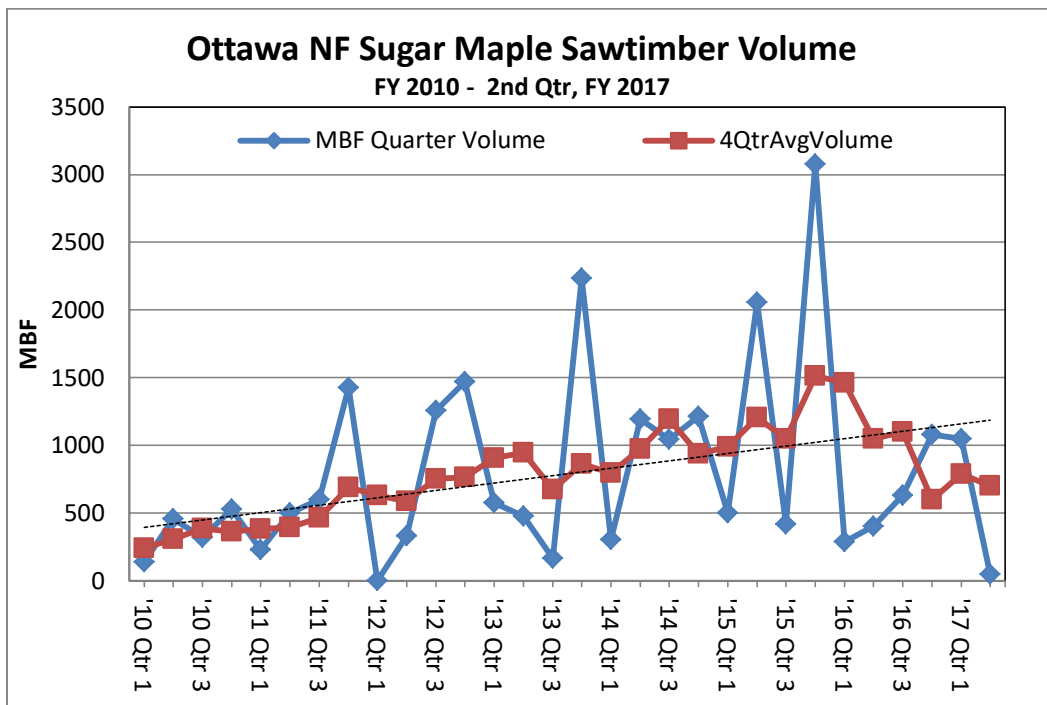
Following three quarters of falling prices, the 1st quarter saw a slight increase in the overall average pulpwood price, from \$44.83 to \$46.98 per mbf. As expected, the 2nd quarter added to this increase, bringing the price up to \$57.93 per mbf. Prices had plunged from a six-year peak of \$85.22 to \$35.56 per mbf between the 3rd and 4th quarters of FY 2015 before rebounding to \$75.52 in the 1st quarter of FY 2016. Barring major negative economic events, prices are likely to continue to swing back and forth a bit. (It is likely next quarter's price may dip following the modest increase this quarter.) There is a mildly increasing 6-year price trend.



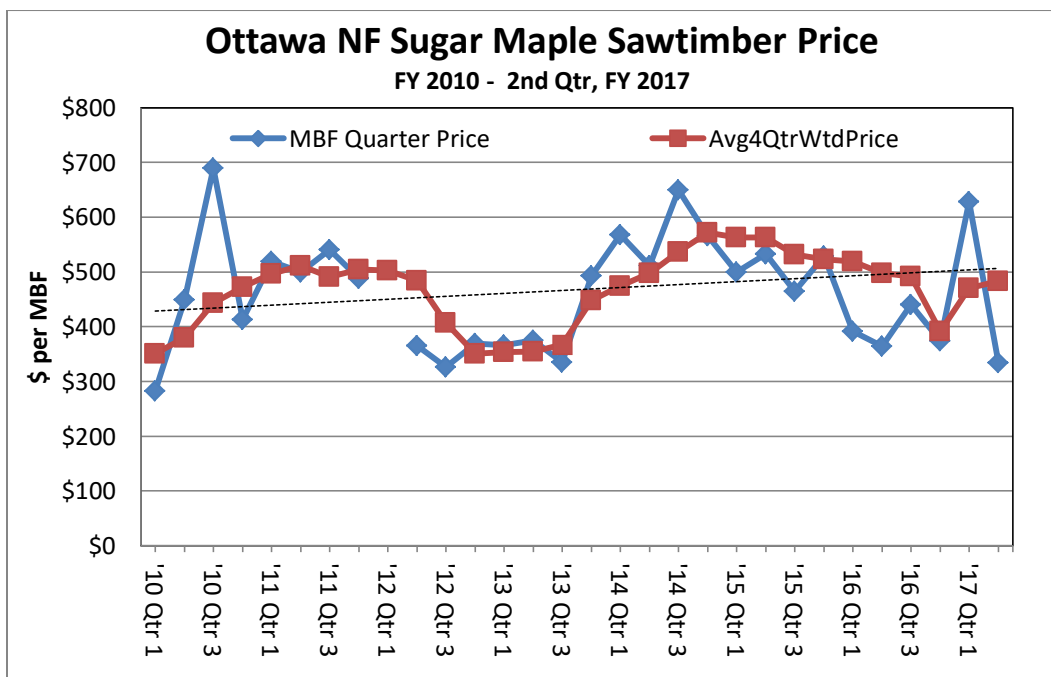
The hardwood-other sawtimber sale volume dropped from 846 to 514 mbf in the 1st quarter and then dropped almost an equal amount again to 250mbf in the 2nd quarter. It reached a record 2.2mmbf level in the 4th quarter of FY 2015. This level was achieved after being at only a 146mbf level in the previous quarter. The sale volume trend has been sharply increasing over the past six years, but sales have been erratic from one quarter to the next. While the sale volume declines were fairly sharp in the most recent two quarters, they were mild compared to several past declines.



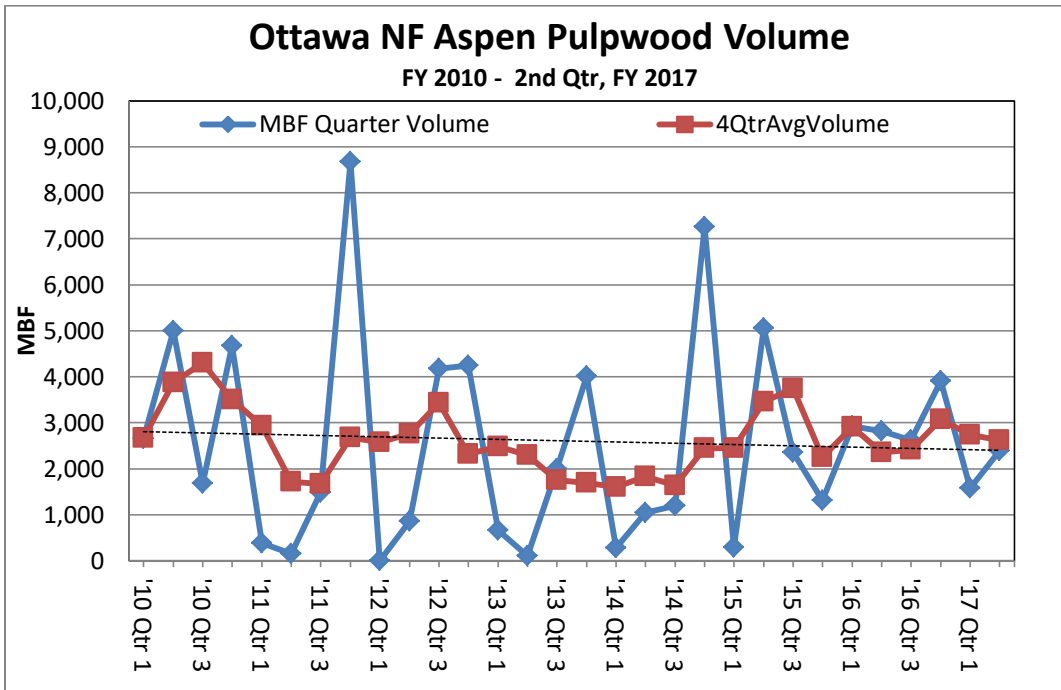
The hardwood-other mbf sawtimber prices shot up in the 1st quarter, from \$157 to \$276, they fell even sharper in the 2nd quarter, to \$119. They had been close to \$200 per mbf in late FY 2015. They were at a record high of almost \$320 mbf in the 3rd quarter of FY 2014 before dropping sharply to \$166 in the following quarter. Despite the most recent sharp decline, overall, there has been a modestly increasing price trend line for the past six years. This may become a flat or declining trend if prices remain low for one or two more quarters.



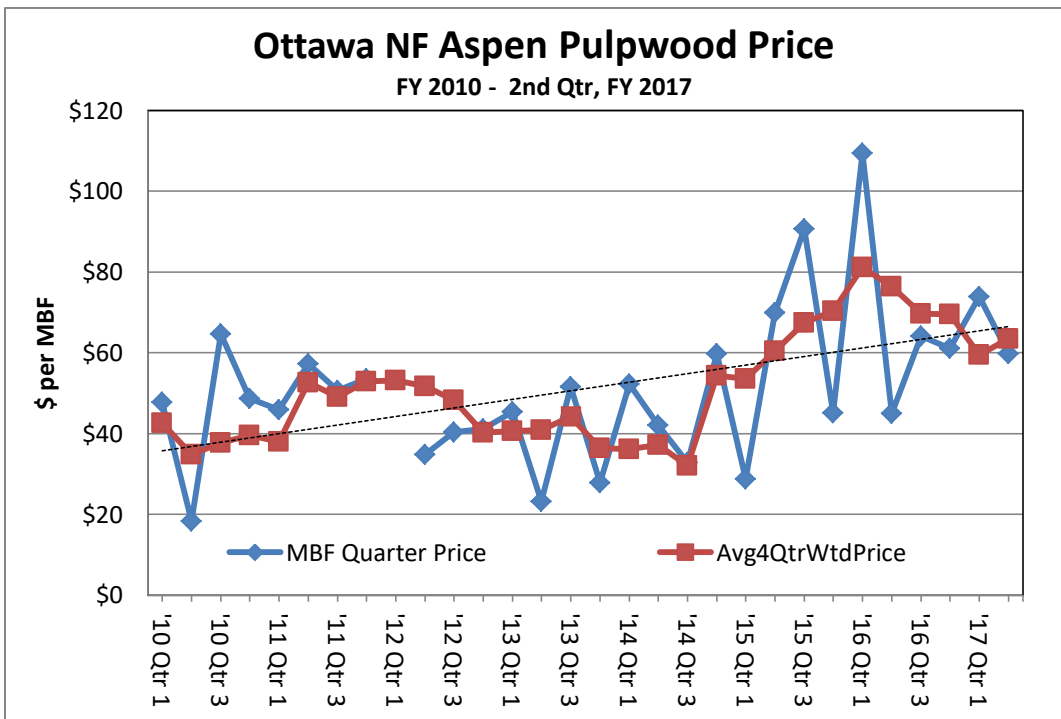
The 2nd quarter Ottawa sugar maple sawtimber sale volume was negligible, reported to be only 49mbf. This is after two quarters of sale volume slightly over 1000mbf. Sugar maple sawtimber sale volumes hit a six-year record of 3.1mmbf in the 4th quarter of FY 2015, before falling back to 290mbf in the 1st quarter of FY 2016. As with most Ottawa timber products, it is not unusual for the 1st quarter to have the lowest sale volume and the 4th quarter to have the highest volume. However, there were relatively low sale volumes throughout FY 2016 and the 1st quarter sale volume for FY 2017 did not sharply drop. The 6-year sales volume trend is increasing despite modest sale volumes for the past six quarters.



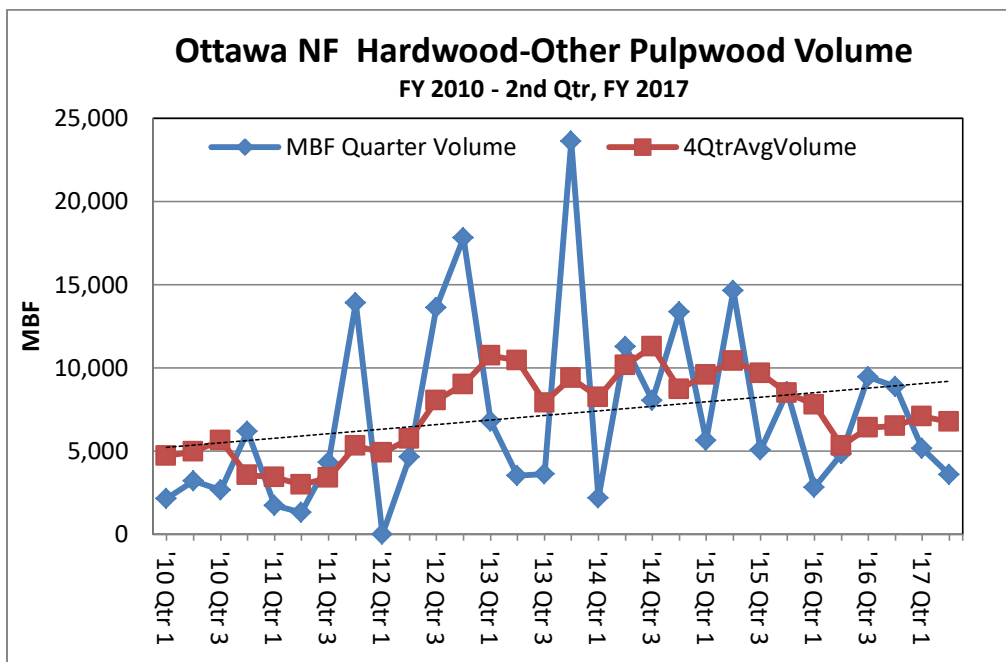
The average sugar maple sawtimber mbf price shot up from \$374 to \$628 in the 1st quarter and then plummeted back down again in the 2nd quarter to \$334. It was at \$690 back in the 3rd quarter of FY 2010 and at \$650 in the 3rd quarter of FY 2014. There is a moderately increasing price trend over the past six years. With such a sharp drop in price for the 2nd quarter, it is likely prices will rebound next quarter.



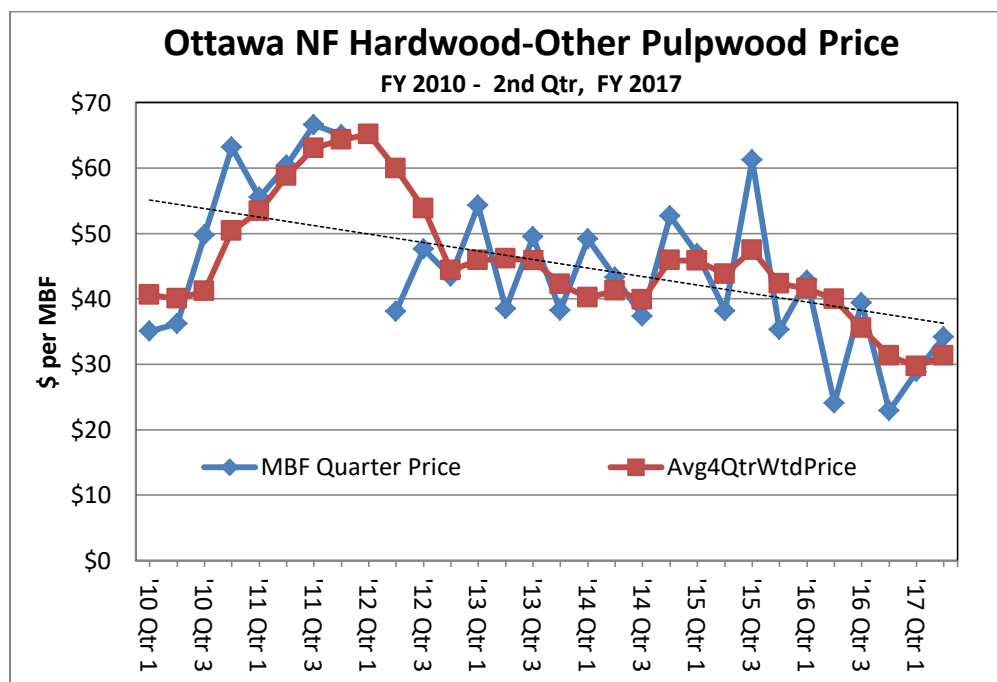
Aspen pulpwood sale volume rose a bit in the 2nd quarter, from 1.6 to 2.4mmbf. Sale levels were at slightly above average levels for all of FY 2016. Sale volumes have not changed much from quarter-to-quarter in the last two years. Previously, sale volumes had been quite erratic from quarter-to-quarter, with volumes at the extremes (under 1,000 mbf or over 4,000 mbf) more frequent than sales in the middle range. Sales have been as high as 8.7mmbf in the 4th quarter of FY 2011 and 7.3mmbf in the 4th quarter of FY 2014. There is a slight downward sale volume trend.



The 1st quarter aspen pulpwood price rose from \$61 to \$74 per mbf and then fell back to \$60 in the 2nd quarter. The 1st quarter FY 2016 aspen pulpwood price shot up to a record \$109 per mbf from a previous quarter price of \$45, but the price came right back down to \$45 again in the 2nd quarter of FY 2016 before rising again to \$64. With erratic sale volumes and many quarters with low or no volume as a backdrop, the overall price trend for the past six years has been increasing.



Hardwood-Other pulpwood 2nd quarter sale volume dropped again, from 5.1 to 3.6mmbf. It had been at 8.9mmbf in the 4th quarter of FY 2016. First quarter sale volumes generally are down substantially from 4th quarter volumes, but with smaller swings in sale volumes from quarter to quarter in recent years, the drop in volume for the 1st quarter was more moderate than in the past. Sale volume was only 2.8mmbf in the 1st quarter of FY 2016. It had been 8.6mmbf in the 4th quarter of FY 2015. Sale volume hit a record high 23.6mmbf in the 4th quarter of FY 2013. Volumes have trended upward in the past six years, but the trend for the past three years is slightly declining. If there are a few more quarters of moderately low sales, the six-year trend line could flip to being a declining trend.



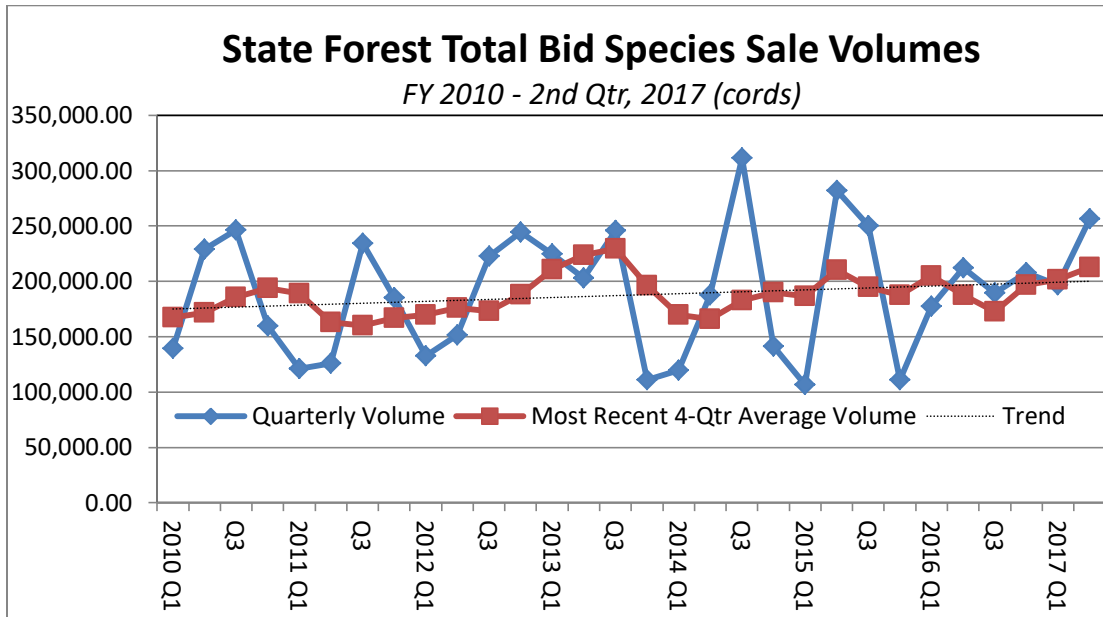
The 2nd quarter hardwood-other pulpwood mbf price rose to \$31. It had risen from \$23 to \$29 per mbf in the 1st quarter. In FY 2016, the price had decreased significantly from \$43 to \$24 per mbf in the 2nd quarter; then it increased to \$39 before falling to \$23. It was over \$61 per mbf before falling in the 4th quarter of FY 2015 to \$35. The product had been selling in a fairly narrow \$38 to \$55 range between FY 2012 and FY 2014. Prices peaked in FY 2011 at over \$65 per mbf. The six-year price trend is declining, particularly influenced by higher prices in FY 2010 and FY 2011 and the low prices in the 2nd and 4th quarters of FY 2016.

State Forest Quarterly Timber Sales for Major Species & Products

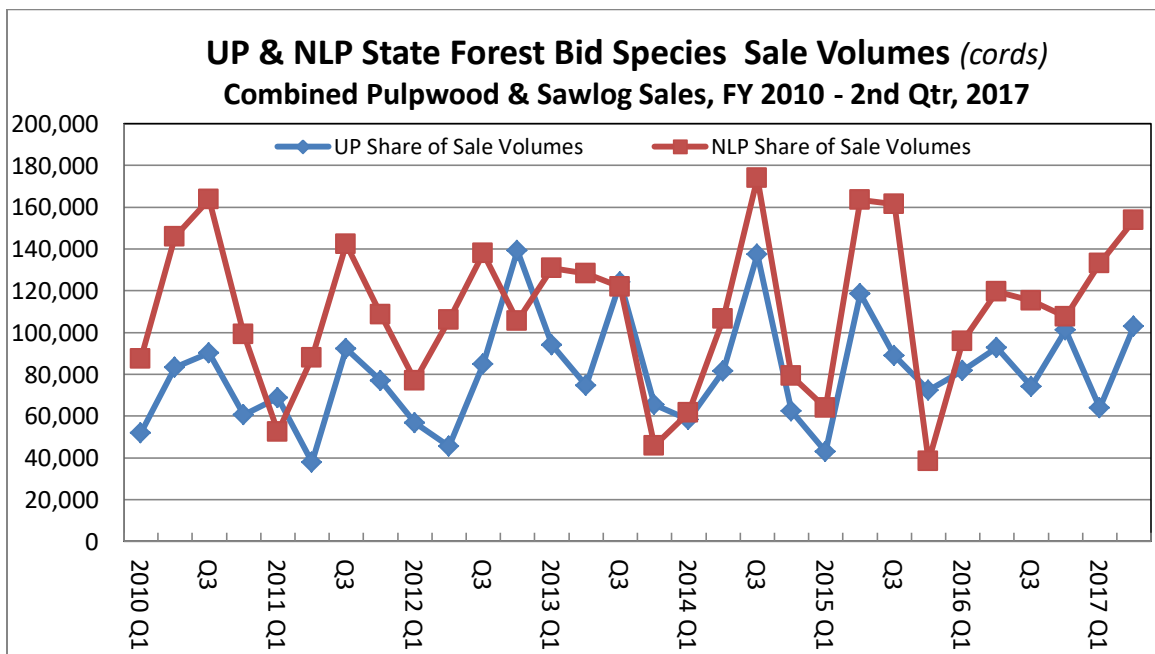
FY 2010 – 2nd Quarter, FY 2017

Source: Michigan DNR, Forest Resources Division

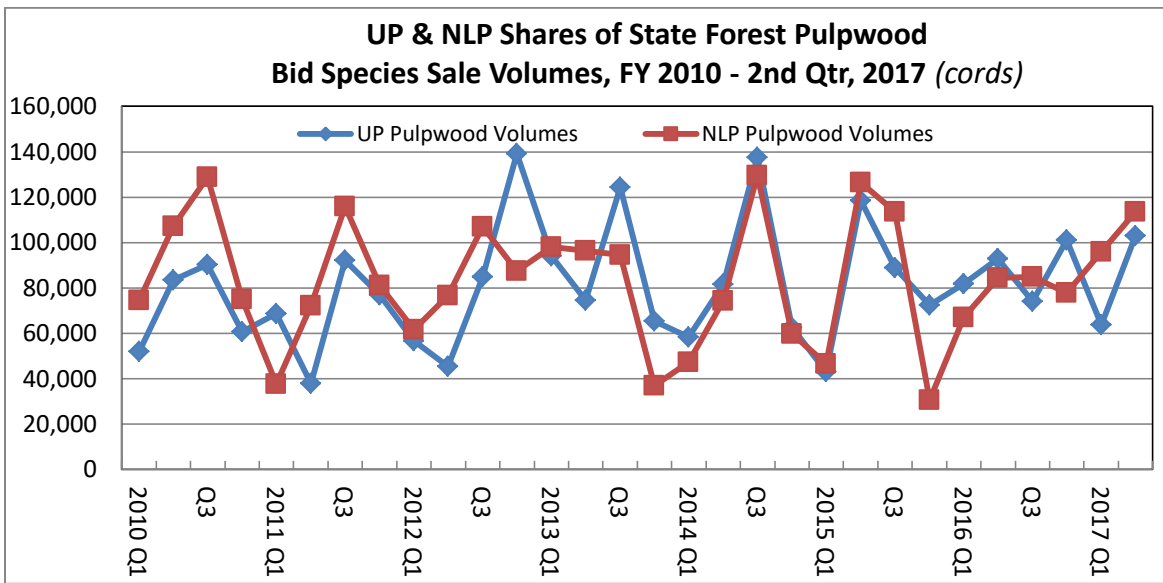
The State follows the federal fiscal year (October 1 through September 30). Graphs below show bid species sale volume and value data; total sale volumes and values are slightly more. The graphs often include a dotted trend line based upon data for the average of the most recent four quarters (labeled as "Avg4QtrVolWtdPrice"). This average eliminates variability in quarterly data due to seasonal issues and variation in quarterly sales. It takes volumes into account when averaging prices. It also may represent the values and volumes of stumpage that are available on the market better than the most recent quarter. Gaps in the blue line indicate no sales in the quarter.



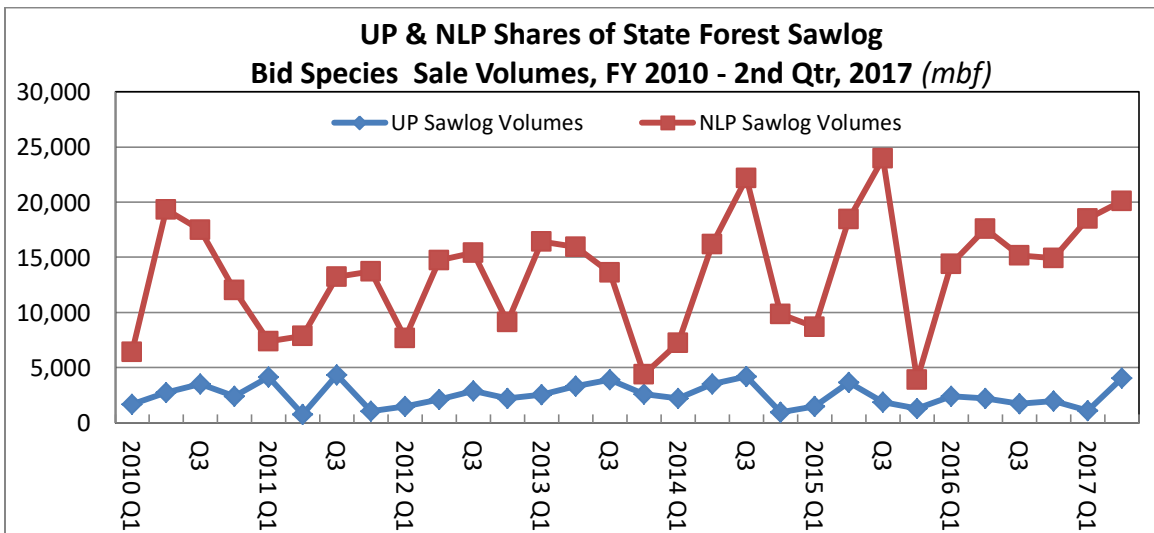
Total State Forest sale volume for bid species jumped almost 60,000 cords, from about 196,600 cords to over 256,300 cords in the 2nd quarter of FY 2017. The bid species sale volume had been quite stable at around 200,000 cords each quarter for the past five quarters. Total sale volume for bid and nonbid species was over 323,500 cords while total offered sales were at 310,320 cords. The 6-year sale volume trend has been slightly increasing.



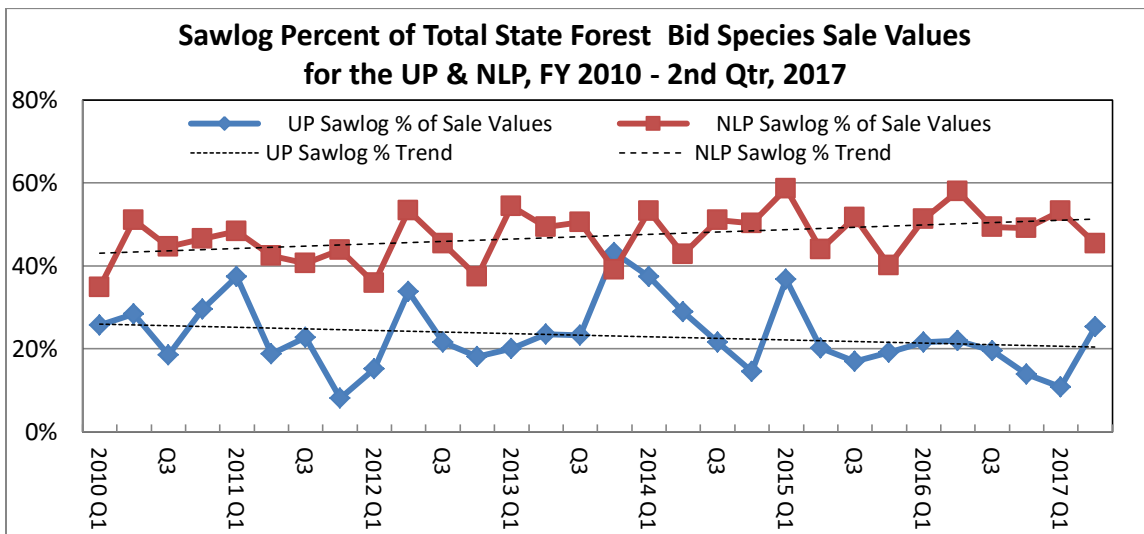
UP bid species sale volumes bounced back from 63,773 cords to almost 103,000 cords at the same time the NLP rose again from 133,000 to almost 154,000 cords. The NLP generally has had higher, but more extreme swings in its sale volumes. The 2nd quarter NLP bid species sale volume is not a record, but it is almost four times what was sold in the FY 2015 4th quarter.



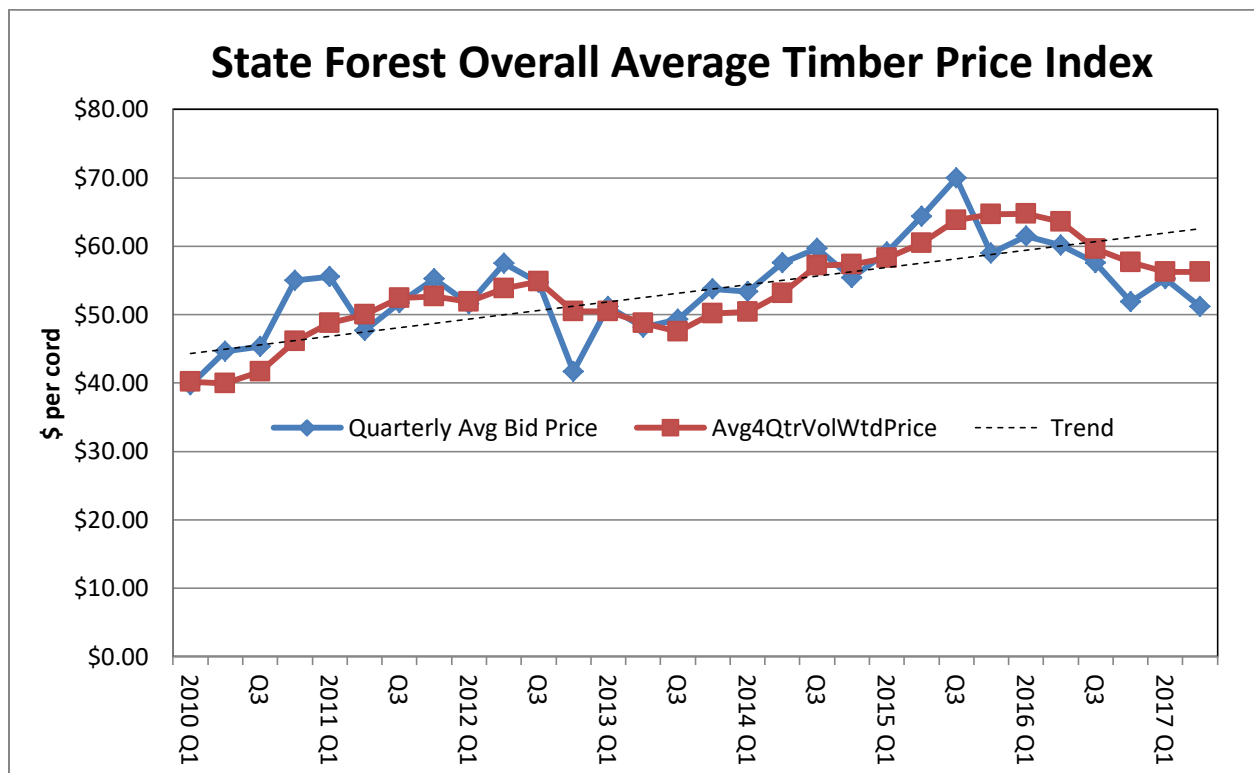
Pulpwood bid species sale volume accounts for about 80% of total State Forest sale volume. Both peninsula's pulpwood sale volumes rose in the 2nd quarter; from 61,585 to 97,195 cords in the UP and from 95,943 to 113,562 cords in the NLP.



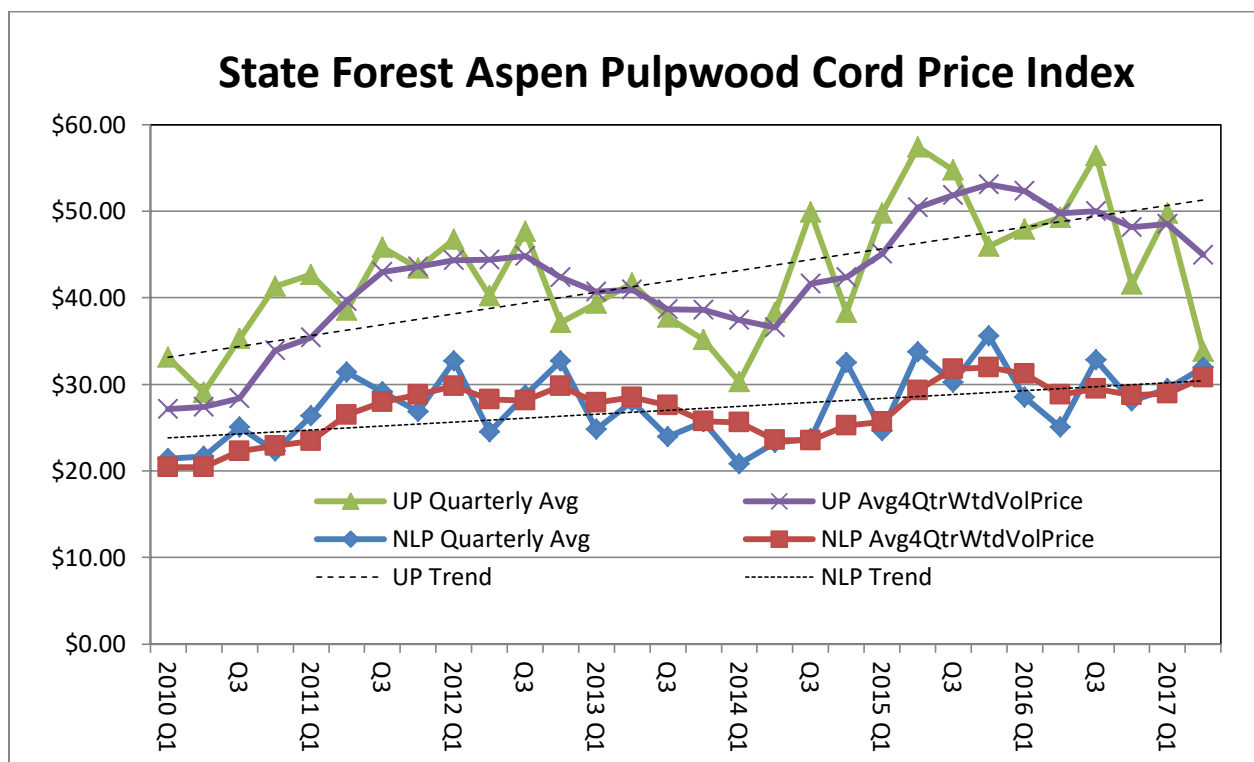
NLP sawlog volumes and values are generally much higher but more erratic than the UP's. The NLP sawlog volume rose again in the 2nd quarter from 18.5 to 20.1 mmbf. The much lower UP sawlog volume increased, from 1.1 to 4.1 mmbf.



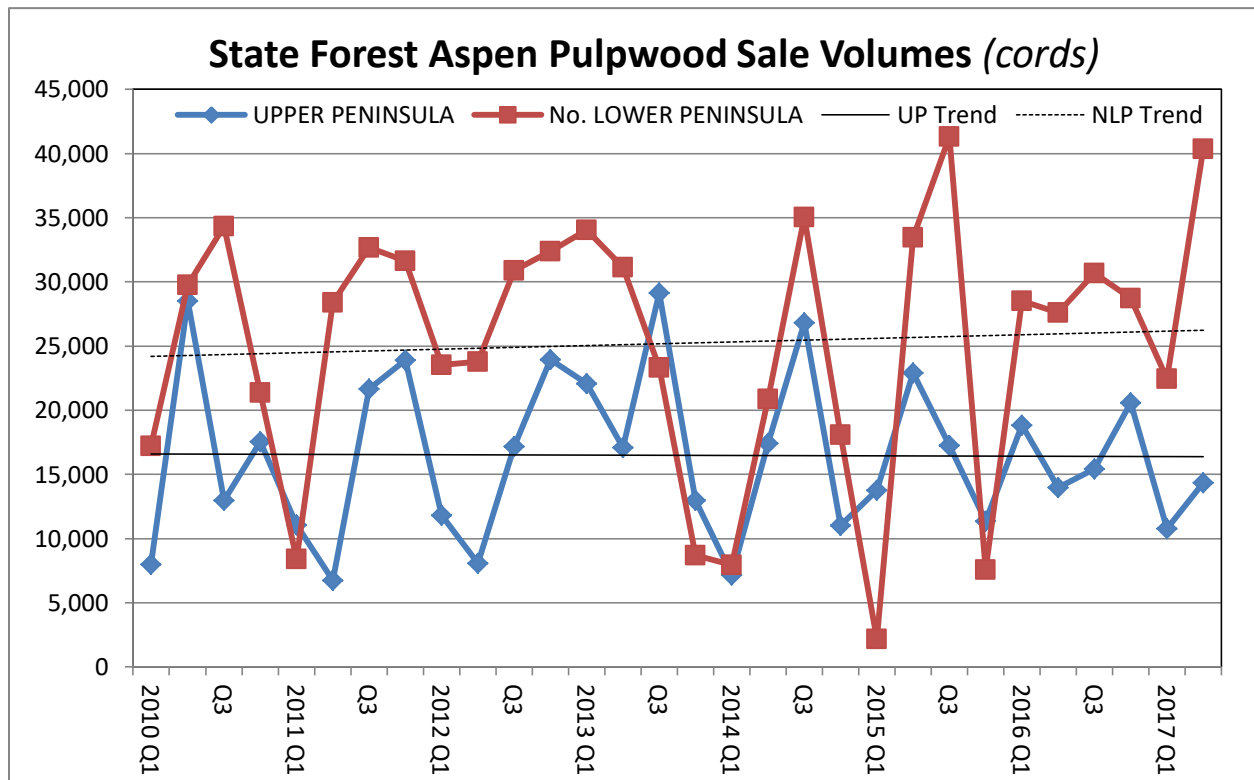
The sawlog percent of NLP bid species sale values dropped in the 2nd quarter from 53% to 45%. The UP sawlog percent of sale values jumped sharply from 11% to 25%; it had been declining for four quarters before this increase.



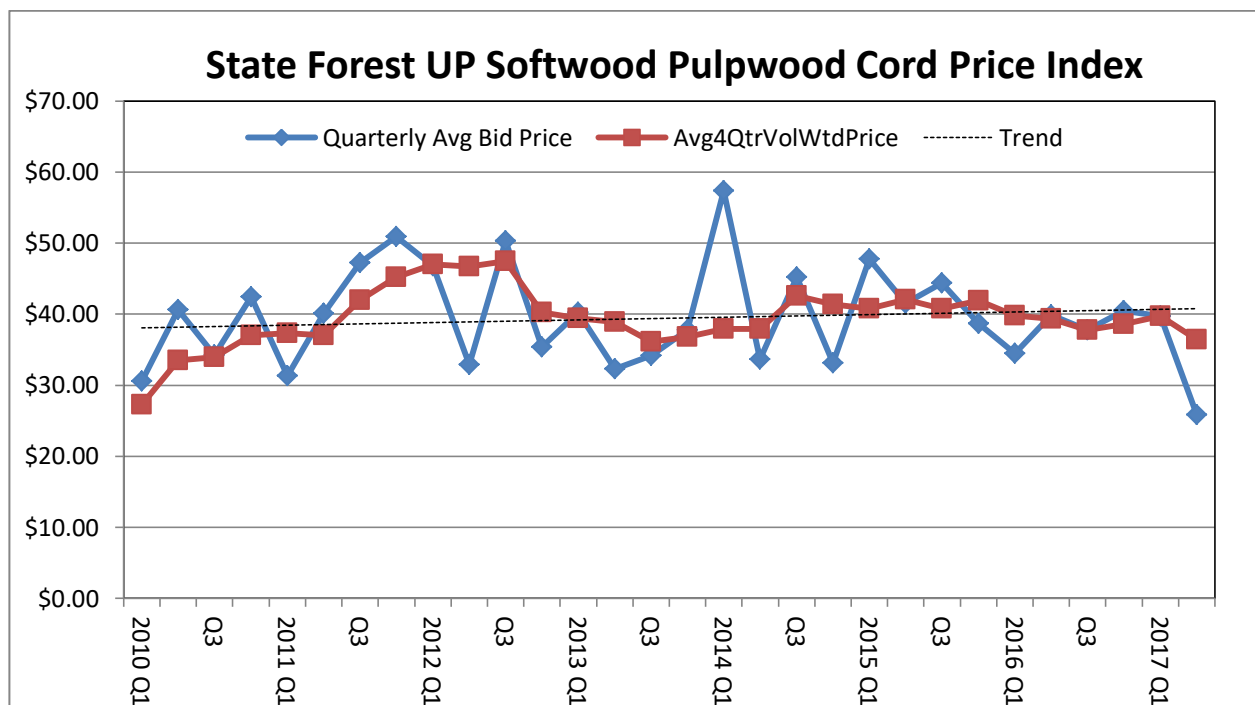
The 2nd quarter overall average timber cord price index dropped back to \$51.16 per cord. It had increased from a 3-year low of \$51.92 up to \$55.26 in the 1st quarter. The index was at a record level of \$69.99 per cord in the 3rd quarter of FY 2015, but has fallen fairly steadily since then. In contrast to this recent two-year declining trend, quarterly prices have been increasing overall during the past six years and a reversal of the recent declines – to rising prices again – may be expected. However, higher level of sales without bids and lower value product sales may temper increases.



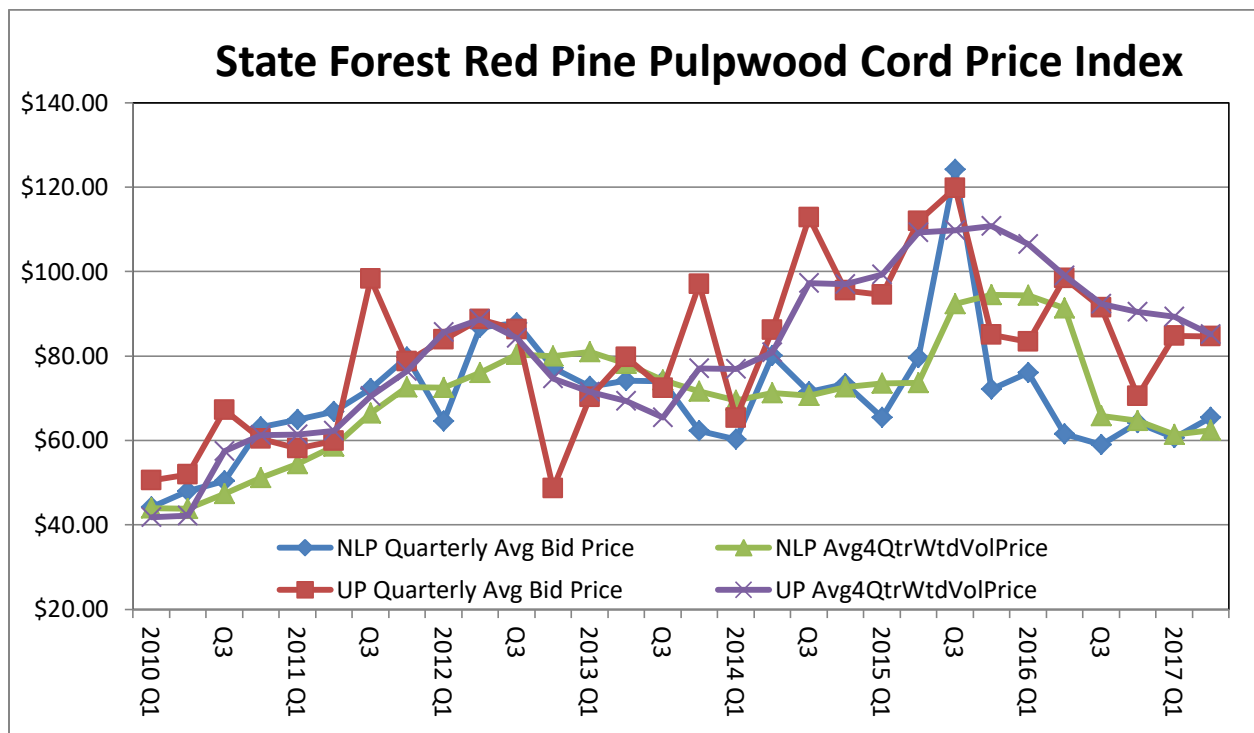
The UP average aspen pulpwood cord prices had another large price swing in the 2nd quarter. Prices plunged from \$56.38 in the 3rd quarter down to \$41.58 in the 4th quarter of FY 2016, but they bounced back to \$49.72 in the 1st quarter of FY 2017. They plunged again in the most recent 2nd quarter, down to \$33.80 per cord. The average NLP aspen pulpwood cord price increased again, from \$29.50 up to \$31.94 per cord. This is the closest in price the two peninsulas have been in over six years. Both peninsulas have had increasing price trends over the past 6 years, but the UP price trend is steeper relative to the NLP price trend.



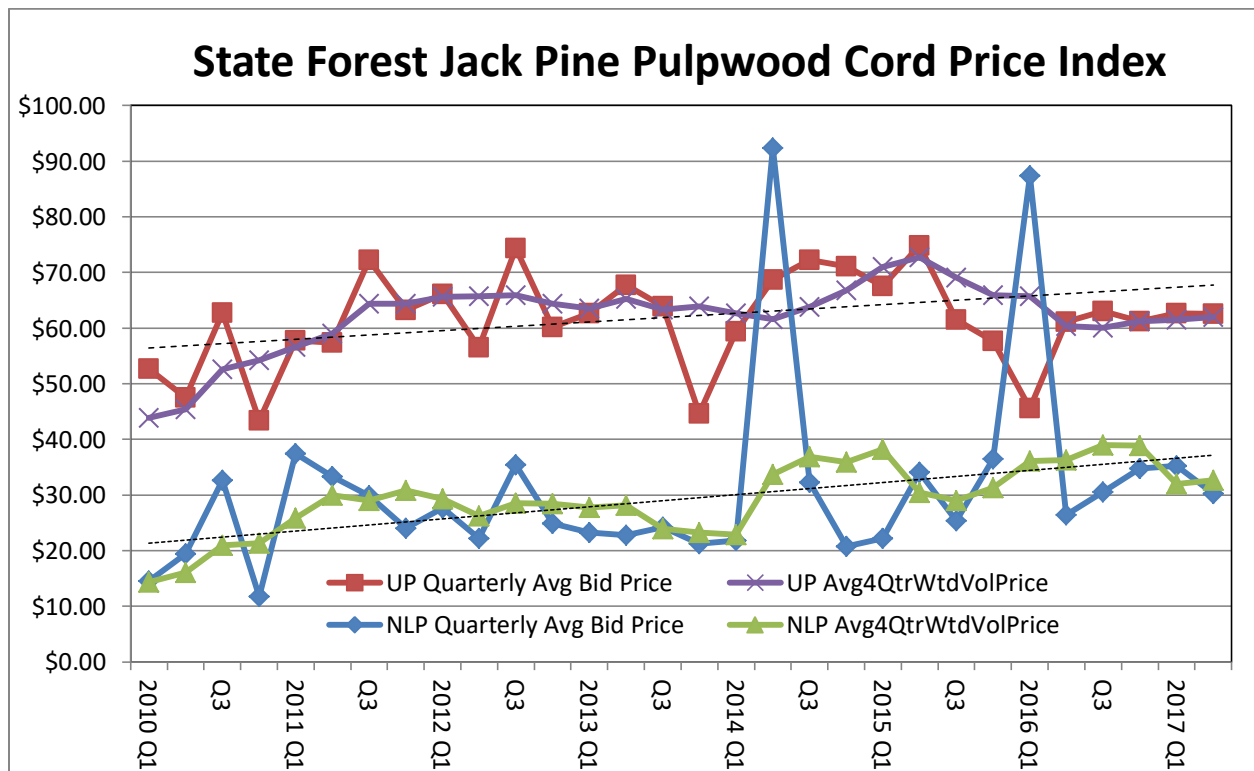
Aspen pulpwood sale volume rose in both peninsulas in the 2nd quarter. NLP aspen pulpwood bid sale volume shot up from 22,460 to 40,365 cords. This broke the relative stability in NLP sale volumes over the previous five quarters. Prior to that, they had several large swings in FY 2014 and FY 2015. UP 1st quarter sale volume dropped sharply from 20,572 to 10,781 cords and rose back up to 14,364 cords in the most recent 2nd quarter. The UP has a very flat six-year trend line while the NLP with the 2nd quarter now sports a very slightly increasing trend over the same period.



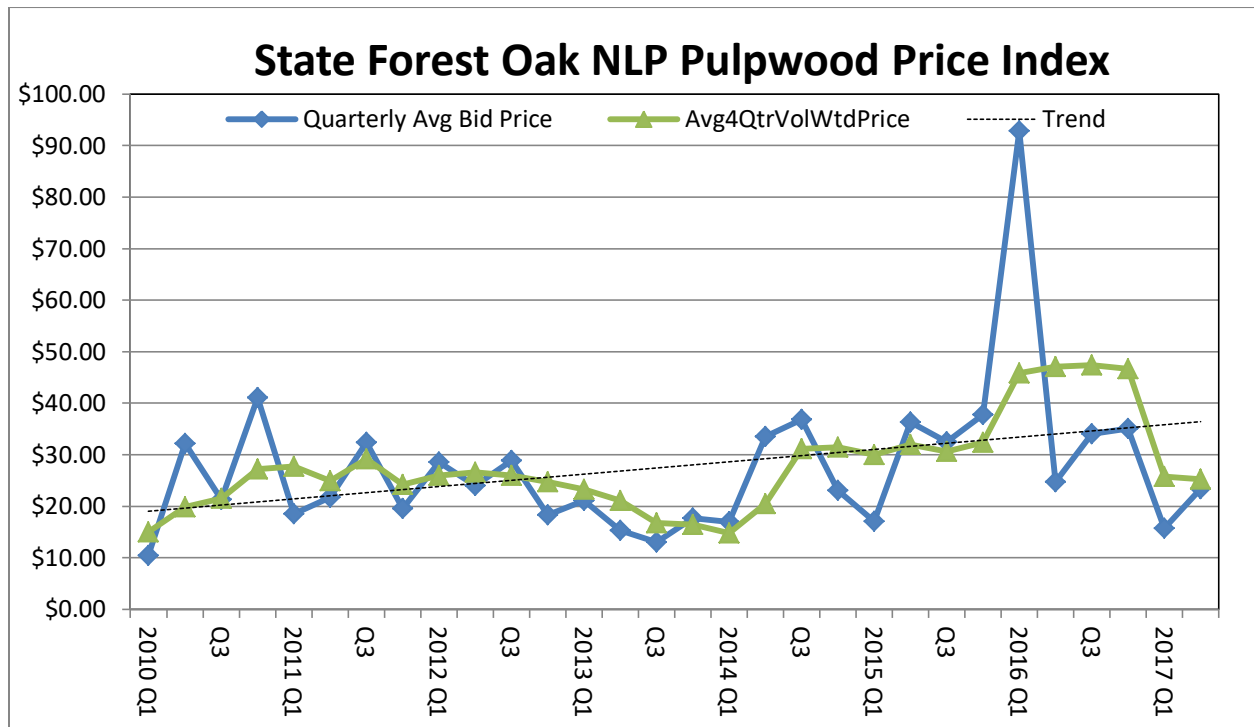
The UP accounts for close to 90% of what is sold as "softwood pulpwood." The 2nd quarter softwood pulpwood cord price dropped sharply from \$39.77 down to \$25.81 per cord as volume grew from a low 7,886 cords of sale volume up to 15,346 cords. Generally, prices do not fluctuate as much for UP softwood pulpwood as they do for most other timber products. The quarterly price has seldom gone outside of a \$30 to \$50 range over the past six years; the most recent quarterly price is a notable exception. Quarterly sale volumes often do fluctuate though, from under 10,000 cords to over 30,000 cords. There is a very slight upward price trend for the product.



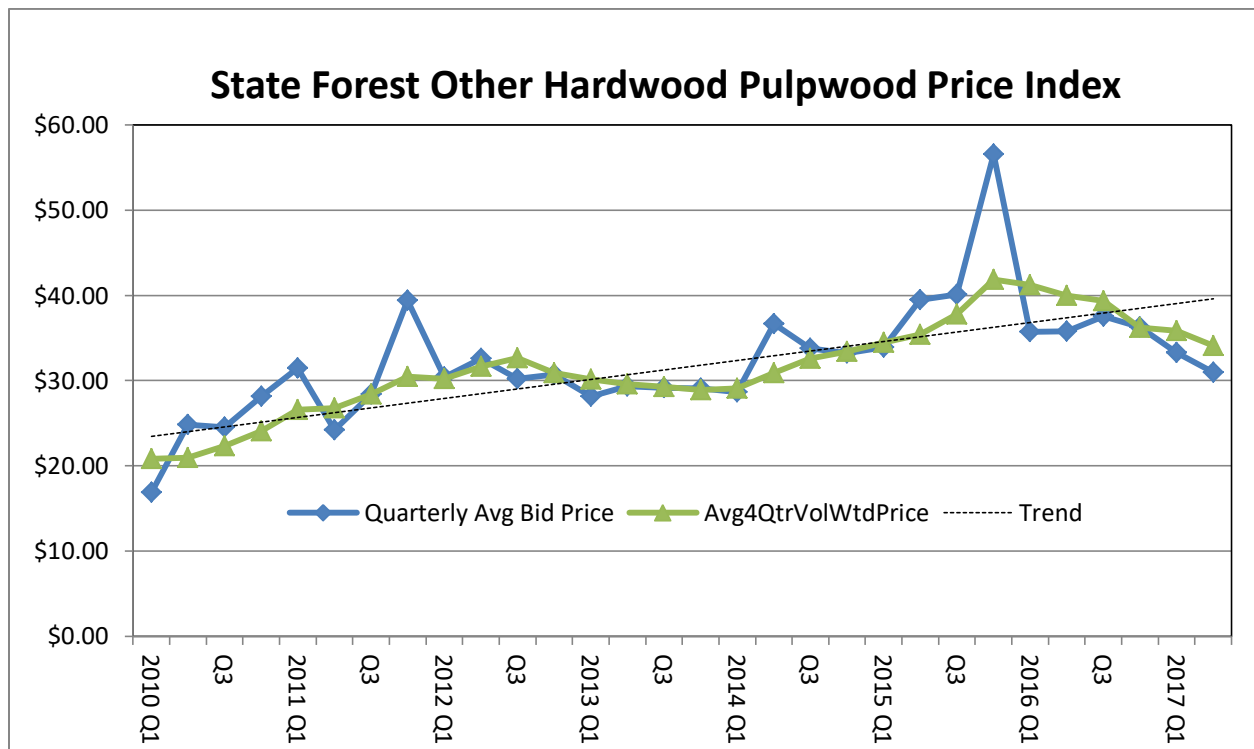
The FY 2017 2nd quarter NLP red pine pulpwood price rose from \$60.61 to \$65.43 per cord as sale volume dropped back from 20,486 to 15,663 cords. The price shot up in the 3rd quarter of FY 2015 to over \$124 per cord before dropping back even more sharply to a \$72 price. It has been in the \$58 to \$78 range since then. The UP generally has higher RP pulpwood prices than the NLP. The UP price dropped sharply in the 4th quarter of FY 2016, from \$91.48 to \$70.52 per cord, and then rose back up in the 1st quarter to \$84.81 and was virtually unchanged at \$84.59 for the 2nd quarter. It reached a high of \$119 per cord in the 3rd quarter of FY 2015. FY 2016 UP sale volume fell to only 3,097 in the 4th quarter, but it rose back to 16,460 cords in the 1st quarter of FY 2017 and fell slightly to 15,335 cords in the 2nd quarter.



Jack pine pulpwood 2nd quarter cord prices were unchanged in the UP, remaining close to \$62.60 per cord, while they decreased in the NLP, from \$35.24 to \$30.28. The UP price has often been two to three times the NLP price. Jack pine sale volumes are often highly volatile from quarter to quarter in both peninsulas. In the most recent 2nd quarter, they just declined from 5,327 to 4,417 cords in the UP while dropping from 9,773 to 6,878 cords in the NLP.

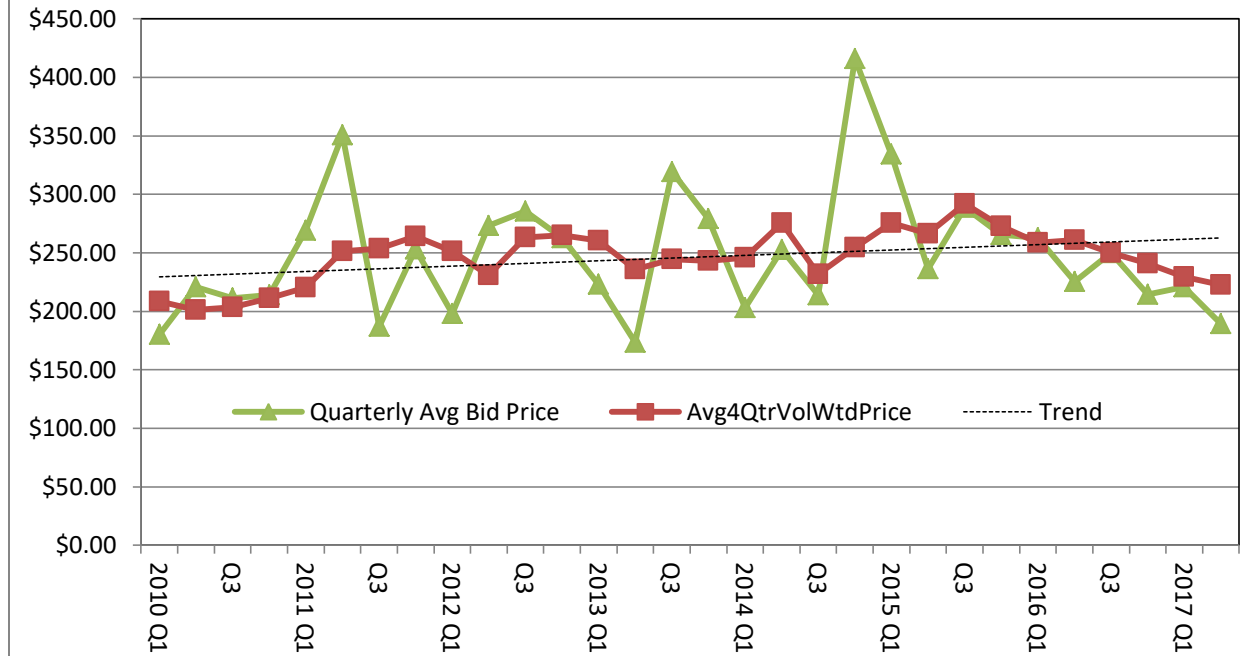


The 2nd quarter, FY 2017 NLP oak pulpwood price rose from a low 1st quarter FY 2017 price of \$15.69 up to \$23.32 per cord. At the same time, sale volume declined from 20,865 to 17,232 cords. The price hit a peak in the FY 2016 1st quarter at \$92.84 per cord, more than double any price achieved in the past six years, but then it dropped to \$24.67 in the 2nd quarter, rose to \$34.01 in the 3rd quarter, and was little changed at \$35.12 in the 4th quarter. The average price over the past six years has been under \$30.00 per cord. There is an increasing six-year price trend, in large part due to the price peak in the 1st quarter of FY 2016.



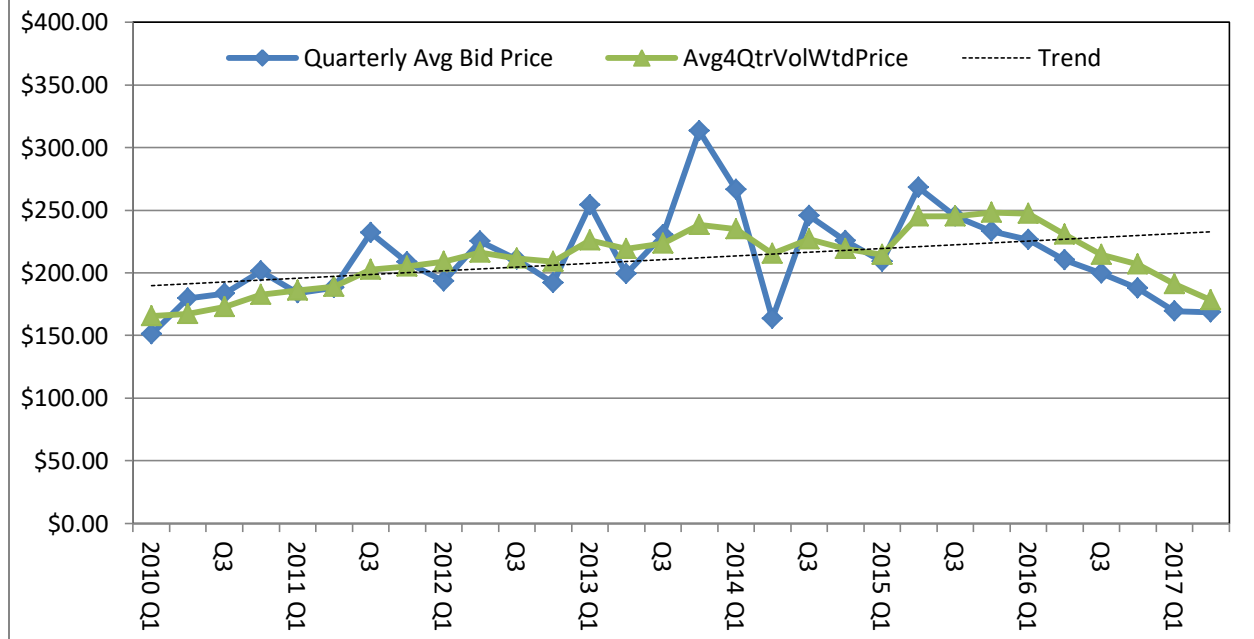
The "other hardwood pulpwood" cord price has declined for three quarters in a row. The decline in the most recent quarter was from \$33.29 to \$30.98 per cord. It was at a record high price of \$56.55 per cord in the 4th quarter of FY 2015. Bid species sale volume more than doubled - to almost a record high - from 28,537 to 61,933 cords. The average quarterly volume for the past six years is almost 40,000 cords. The product has an increasing price trend.

State Forest NLP Oak Sawtimber MBF Price Index

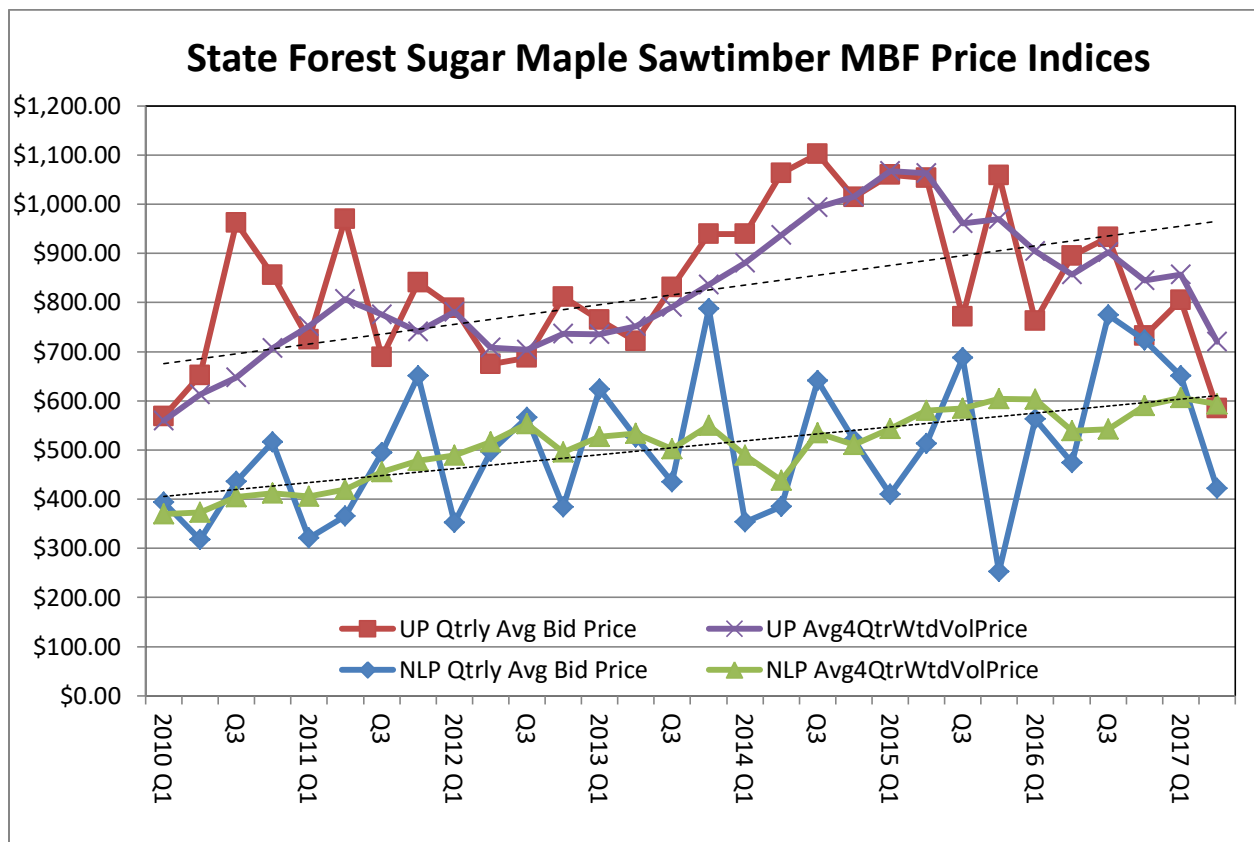


NLP oak sawtimber prices declined in the 2nd quarter, from \$220.96 to \$189.24 per mbf as sale volume went from 4.92 to 2.84mmbf. Overall, there has been a very modest increasing price trend for the past six years. However, prices have been trending downward since they reached a high of \$415 per mbf in the 4th quarter of FY 2014. Sale volumes over the past six years have averaged about 2.8mmbf per quarter.

State Forest Red Pine Sawtimber MBF Price Index



As the graph above shows, red pine sawtimber prices have been on a very steady, mild downward slide since the 2nd quarter of FY 2015. The price was little changed in the most recent 2nd quarter, remaining just below \$169 per mbf on 9.65mmbf sale volume. Prices had been moderately increasing over the past 6 years and have averaged over \$210 per mbf. Sale volume has exceeded 13mmbf several quarters, but the average for the past six years is under 7.5mmbf.



Both peninsulas experienced sharp declines in their sugar maple sawtimber prices in the 2nd quarter. NLP sugar maple sawtimber prices dropped for the third quarter in a row, from \$650.39 to \$421.31 per mbf as volume nearly doubled from 568 to 1,093mbf. At the same time, the UP price decreased from \$804.41 to \$584.87 per mbf as sale volumes more than tripled from 336 to 1,117mbf. Most quarters the UP sugar maple sawtimber price is significantly higher than the NLP's, but the difference has closed over the past year. The UP average price reached \$1058 per mbf in the 4th quarter of FY 2015 and had been above \$1000 per mbf for a string of five quarters before that. The NLP price reached a six-year peak of \$787 in the 4th quarter of FY 2013 and a price of \$774 per mbf more recently in the 3rd quarter of FY 2016. With the recent narrowing of price differences, the slope of the UP and NLP six-year increasing price trends look similar, with the UP price trend close to \$300 per mbf above the NLP. The UP's six-year average sale volume is close to 700mbf while the NLP's is close to 500mbf.