

Michigan Public Timber Markets, 3rd Quarter (April - June), FY 2017

State Forest data – Sale volume rose again in the 3rd quarter of FY 2017. Bid-species-only volume increased almost 40,000 cords, from 257,000 to 295,000 cords, while total sale (bid & non-bid species) volume increased 10,000 cords, from 323,500 to 333,000 cords. Offered sales leaped from 310,320 to 390,000 cords. The 2nd quarter sale volume was expected to increase due to spillover of sale contract information not being recorded before the end of the 1st quarter. With so much unsold offered volume, sales should also be well above average in the next (4th) quarter. NLP bid species 1st quarter sale volume increased to a record 182,000 cords. UP bid species sale volume also increased, from 103,000 to 113,000 cords. The 4th quarter overall State Forest average bid price increased from \$51.16 to \$54.50 per cord. This overall price index reached a record \$69.99 per cord in the 3rd quarter of FY 2015, but it has bounced between \$50 and \$62 for the eight quarters since then.

After averaging 20,000 cords per quarter in FY 2016, NLP aspen pulpwood bid species sale volumes dropped to 22,460 cords in the 1st quarter, shot up to 40,356 cords in the 2nd quarter, and then fell back to 31,272 cords in the most recent 3rd quarter. The 3rd quarter price fell sharply from \$31.94 to \$22.80 per cord. UP aspen pulpwood sale volume rose again in the 3rd quarter, from 14,364 to 17,290 cords, while prices – which had plummeted from \$49.72 to \$33.80 per cord in the 2nd quarter – increased to \$38.08 per cord. UP red pine pulpwood bid species sale volumes went from 15,335 to 18,473 cords while the NLP volume jumped from 15,663 to 22,082 cords. The NLP red pine pulpwood price fell back from \$65.43 to \$62.15 per cord while the UP price rose to \$91.71 per cord. NLP jack pine pulpwood bid species volume shot up from 6,878 to 22,702 cords; while this is high, it reached 29,292 cords in the 2nd quarter of last year. UP jack pine pulpwood sale volume also rose, from 5,327 to 8,603 cords. As volume increased, jack pine pulpwood cord prices dropped; in the UP from \$62.58 to \$56.46 per cord and in the NLP from \$30.28 to \$23.00 per cord. UP softwood pulpwood sale volume dipped from 15,346 to 14,506 cords while its price rebounded sharply from \$25.81 to \$37.52 per cord. NLP Oak pulpwood sale volume declined further, from 17,232 to 13,700 cords while its average price rose again from \$23.32 to \$29.98 per cord. Other hardwood pulpwood volume leaped from 28,537 to 61,933 cords in the 2nd quarter and then rose again to a record 69,233-cord level in the 3rd quarter. Its price declined for the 4th quarter in a row, down to \$29.15 per cord. Reversing an eight quarter trend, statewide red pine sawtimber prices inched upward to \$171.78 per mbf while volumes dipped from 9.65 to 9.35mmbf. UP sugar maple sawtimber prices dropped a bit further, from \$584.87 to \$561.41 per mbf as volume almost quadrupled to 3.95mmbf. The NLP sugar maple sawtimber price also continued to drop, from \$421.31 to \$393.67 per mbf as volume almost doubled from 1.1 to 1.95mmbf. NLP oak sawtimber volume rose from 2.84 to 4.4mmbf while its price increased from \$189.24 to \$231.65 per mbf.

National Forest data – Ottawa sawtimber sale volumes dipped from 6.5 to 5.6mmbf while its pulpwood volume went from 10 to 12.3mmbf. Hiawatha sawtimber sale volume went from 3.8 to 1.44mmbf while its pulpwood volume also dropped sharply from 7.7 to 2.3mmbf. Huron-Manistee (H-M) sawtimber volume went up sharply from only .85 to 5.1mmbf while its pulpwood volume shot up even more sharply, from 1.0 to 15.3mmbf.

The Ottawa's overall average sawtimber mbf price rose from \$143 to \$169 per mbf while its overall pulpwood mbf price dipped from \$57.93 to \$51.88 per mbf. Ottawa sugar maple sawtimber sale volume rose from a low 49 to 466mbf as its price also rose from \$334 to \$357 per mbf. Its aspen pulpwood sale volume was unchanged at 2.4mmbf, but its price continued to drop \$60 to \$52 per mbf. The "hardwood-other" pulpwood volume rebounded from 3.6 to 8mmbf as its price increased again, from \$34.14 to \$44.42 per mbf.

The Hiawatha's overall average sawtimber price plummeted from \$187 to \$109 per mbf as its red pine sawtimber price dipped from \$170 to \$152 per mbf. As has been the case for over two years, very little jack pine sawtimber was sold. "Hardwood-other" sawtimber sale volume dropped from 438 to 236mbf as its price also plummeted from \$174 to \$117 per mbf. "Hardwood-other" pulpwood volume was dropped from 3.48 to 1.88mmbf at an average price of \$50.64 per mbf. Aspen pulpwood sale volume more than doubled, from 347 to 790mbf as its price went from \$17 to \$19 per mbf. Virtually no jack pine pulpwood was sold. Red pine pulpwood sale volume also was negligible, falling from 177 down to 84mbf; it sold at an average of \$130 per mbf.

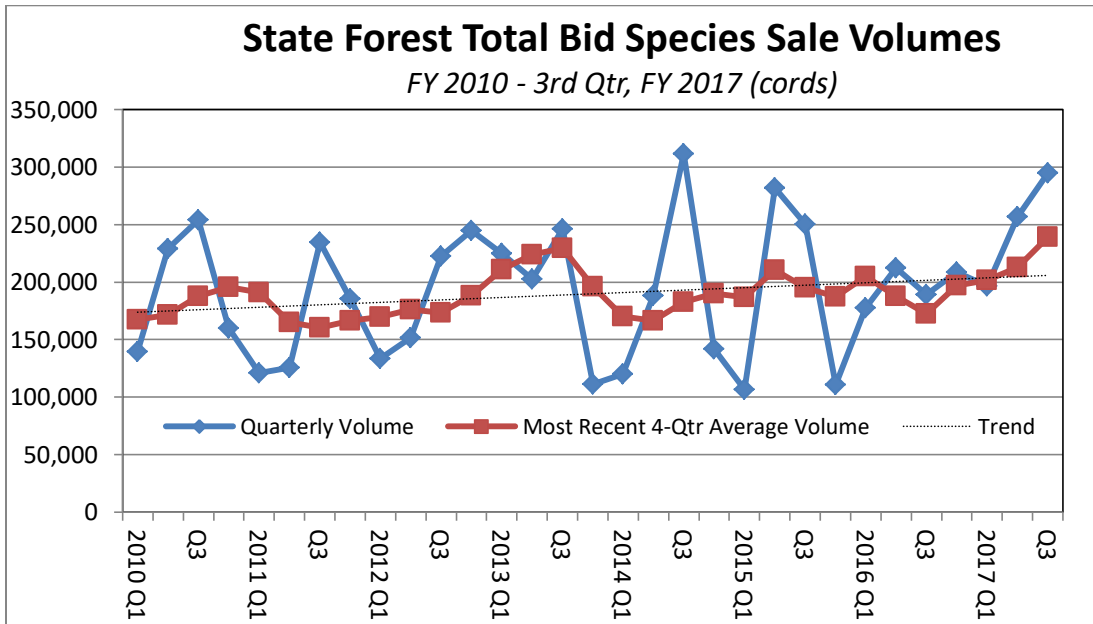
H-M average mbf sawtimber prices rose slightly, from \$106 to \$109 per mbf while average pulpwood prices dipped from \$48.27 to \$46.56 mbf. After no sales of aspen sawtimber in the prior two quarters, 1.06mmbf was sold in the 3rd quarter at an average price of \$35.36 per mbf. Red pine sawtimber sale volume increased from .7 to 2.84mmbf as the price fell from continued to rise, from \$118 to \$157 per mbf. Jack pine pulpwood sale volume rose from only .2 to 1.4mmbf as the price dipped from \$45 to \$31 per mbf. H-M red pine pulpwood sale volume rebounded sharply from .7 to 7.2mmbf as its price dipped from \$56.87 to \$53.21 per mbf.

State Forest Quarterly Timber Sales for Major Species & Products

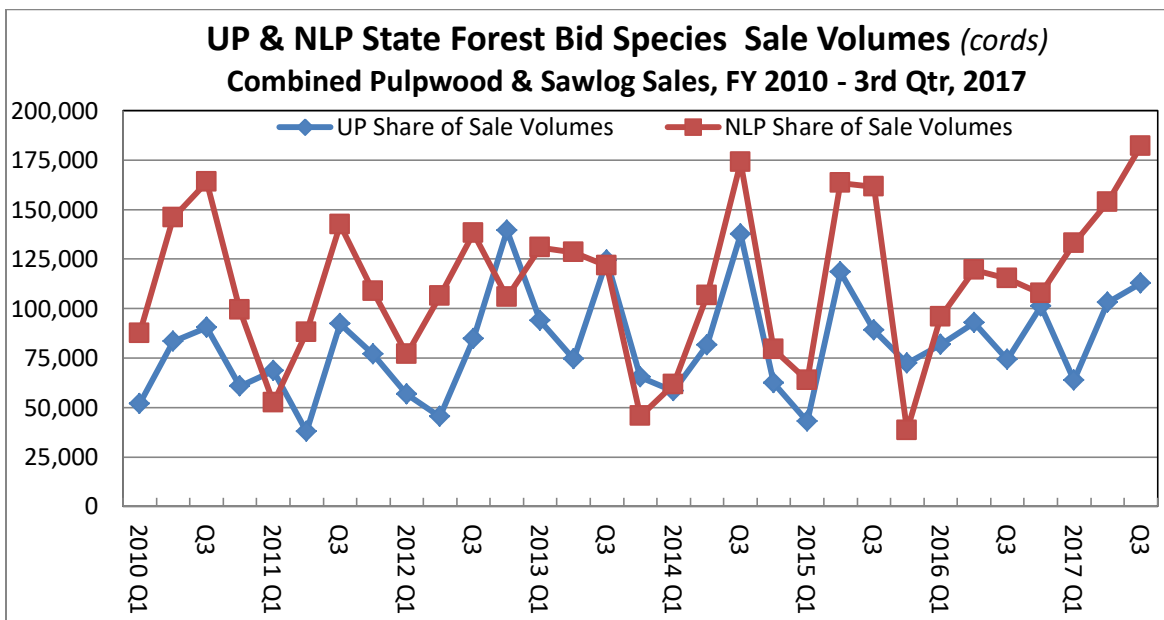
FY 2010 – 3rd Quarter, FY 2017

Source: Michigan DNR, Forest Resources Division

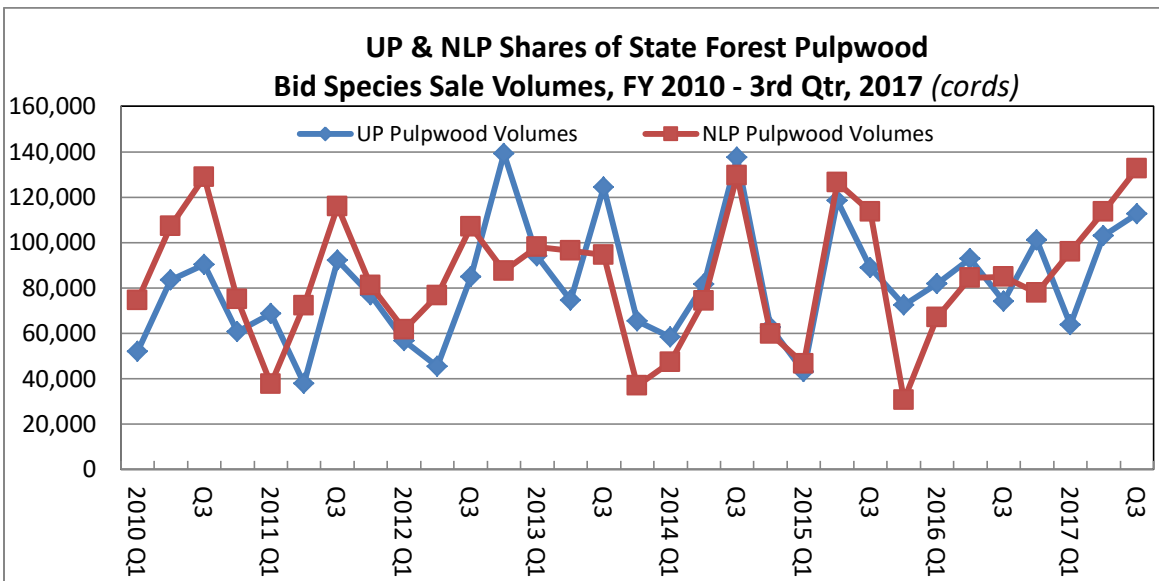
The State follows the federal fiscal year (October 1 through September 30). Graphs below show bid species sale volume and value data; total sale volumes and values are slightly more. The graphs often include a dotted trend line based upon data for the average of the most recent four quarters (labeled 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.



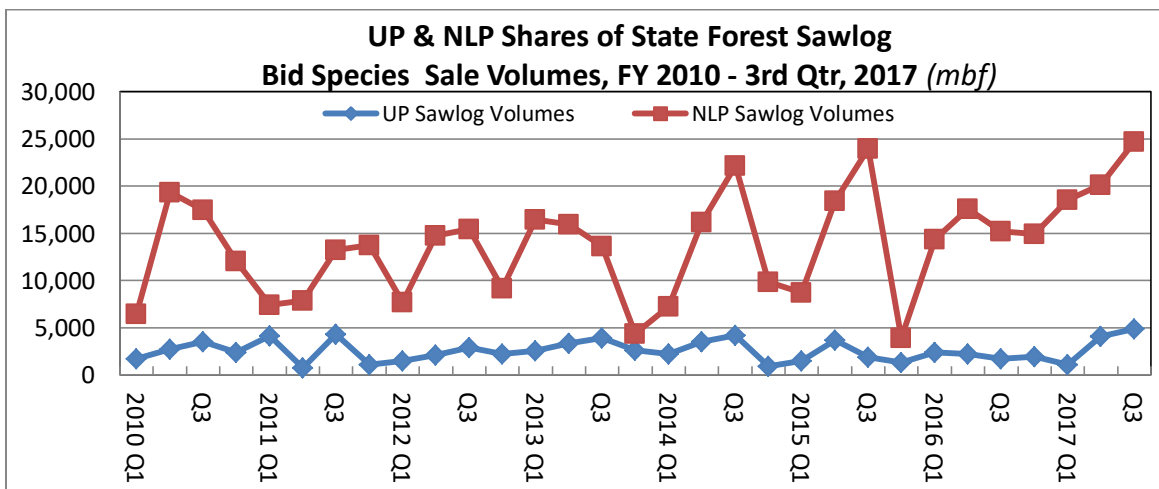
Total State Forest sale volume for bid species went from 197,000 cords to over 257,000 cords in the 2nd quarter and then climbed to 295,000 cords in the 3rd quarter of fiscal year (FY) 2017. The bid species sale volume had been stable at about 200,000 cords for five quarters before the 2nd quarter. Total sale volume for all bid and nonbid species was over 333,000 cords while total offered sales were at 390,000 cords. The 6-year sale volume trend has been slightly increasing.



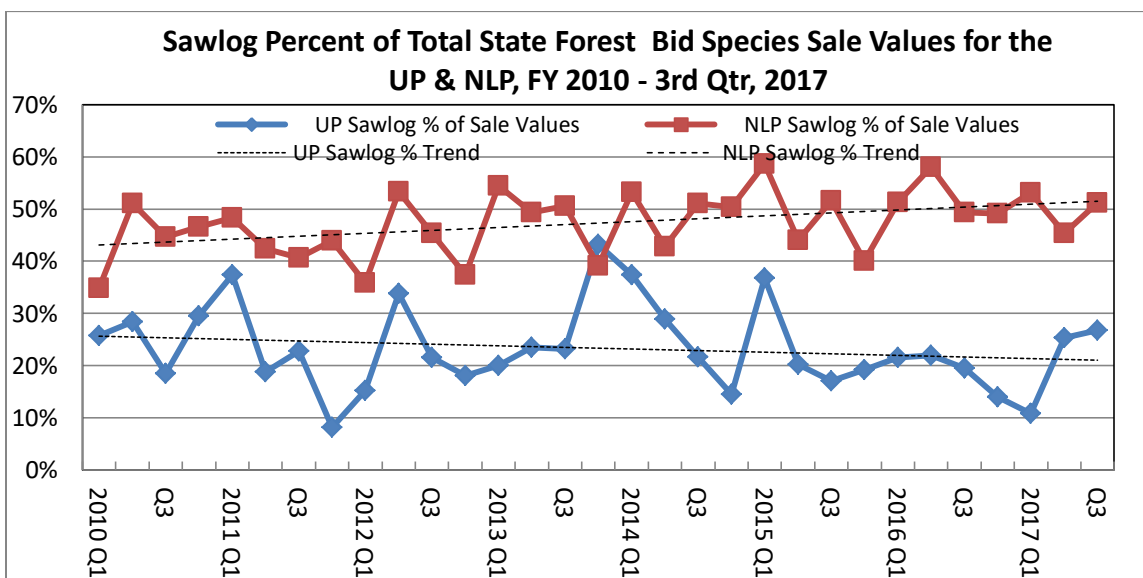
UP bid species sale volumes rose again, from 102,909 to 112,690 cords. The NLP rose for the third quarter in a row - **to a record quarterly level** - from 153,804 to 182,101 cords. The NLP generally has had higher but more variability in its sale volumes from quarter to quarter. Its 3rd quarter level exceeds the combined amount which both peninsulas sold in many past quarters. The amount of offered sales in excess of total sale volume (390,000 vs. 333,000 cords) implies there will likely be fairly high sales in the coming 4th quarter also as all of these offered sales get sold in addition to new sales.



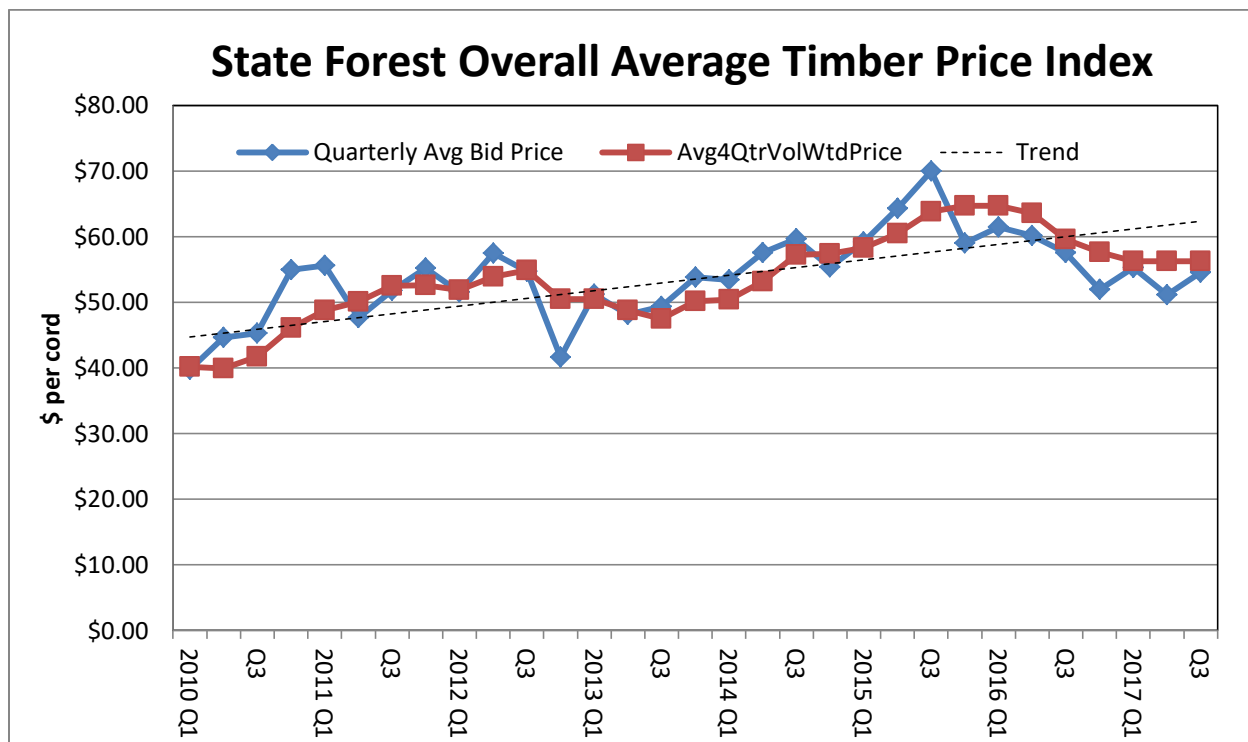
Pulpwood bid species sale volume accounts for about 80% of total State Forest sale volume. Both peninsula's pulpwood sale volumes rose again in the 3rd quarter; to 103,000 cords in the UP and to 133,000 cords in the NLP.



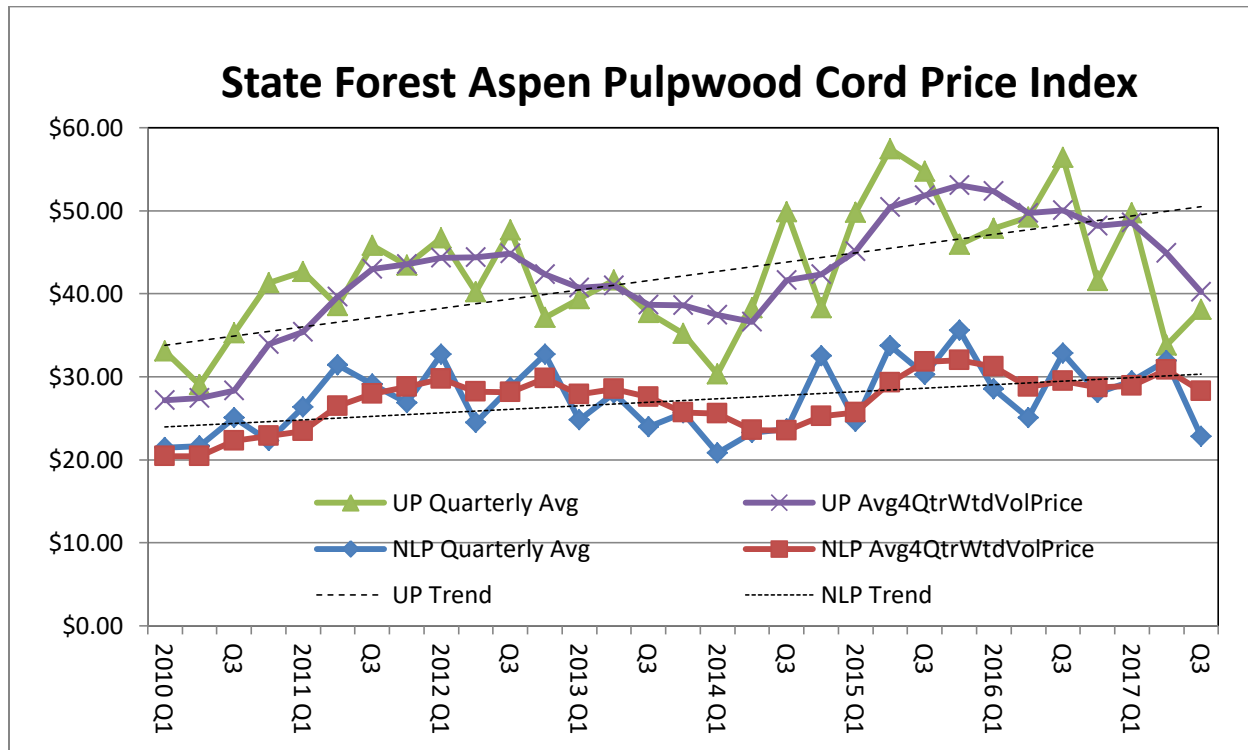
NLP sawlog volumes and values are generally much higher but more erratic than the UP's. The NLP sawlog volume rose again in the 3rd quarter to a record 24.7mmbf. UP sawlog sales also increased, to almost 5mmbf, a high level for the UP.



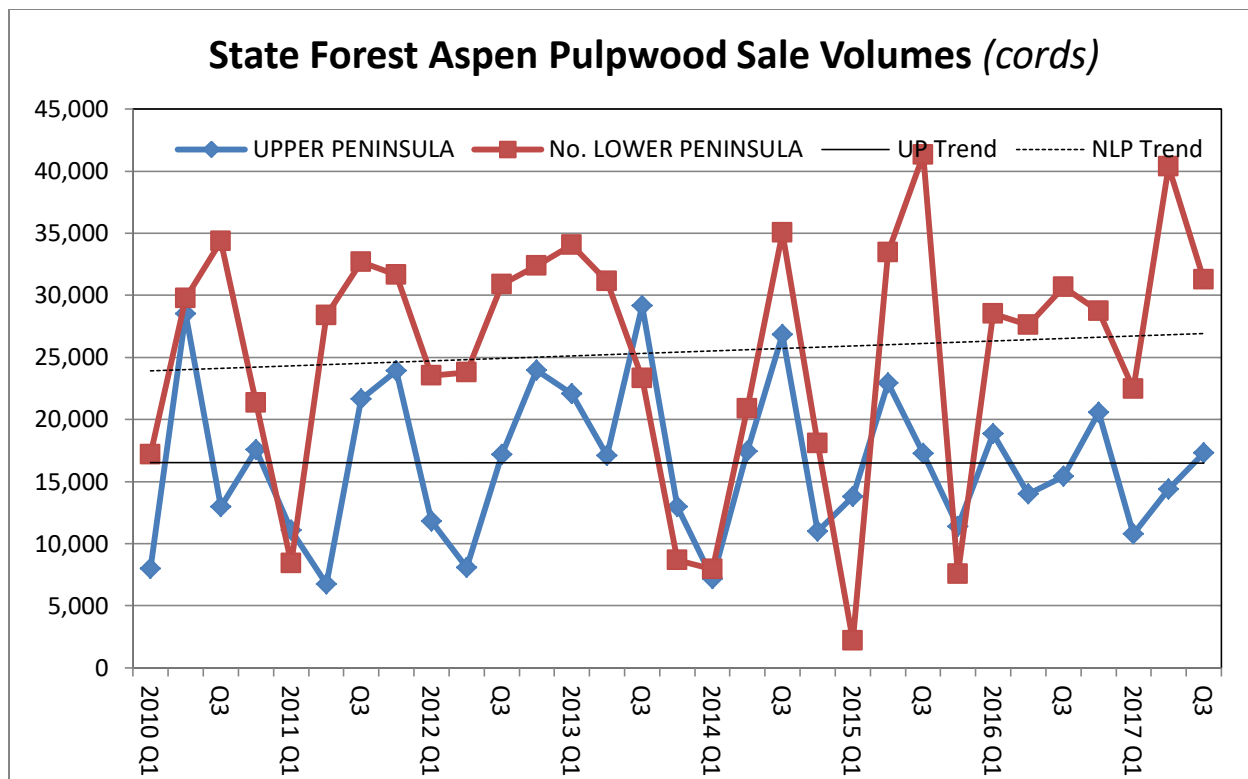
The sawlog percent of NLP bid species sale values rose above 50% again in the 3rd quarter. The UP sawlog percent of sale values also rose to 27%; it was only 11% two quarters ago in the 1st quarter.



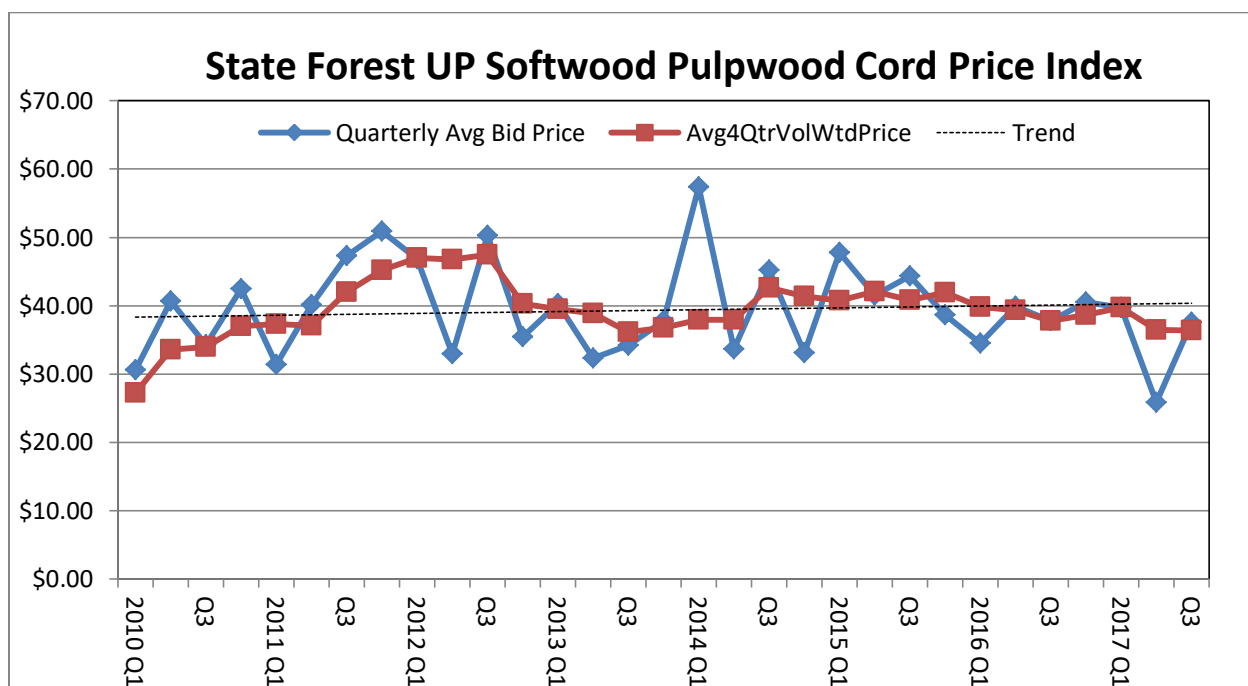
The 3rd quarter overall average timber cord price index bounced up from \$51.16 to \$54.50 per cord. It had increased from a 3-year low of \$51.92 up to \$55.26 in the 1st quarter. The index was at a record level of \$69.99 per cord in the 3rd quarter of FY 2015. Quarterly prices have been increasing overall during the past six years. It appears that the price has a \$50 floor below which it will not go and it may be just a matter of time (or one or two quarters) before the \$60 price level is exceeded again. However, higher level of sales without bids and lower value product sales may temper increases.



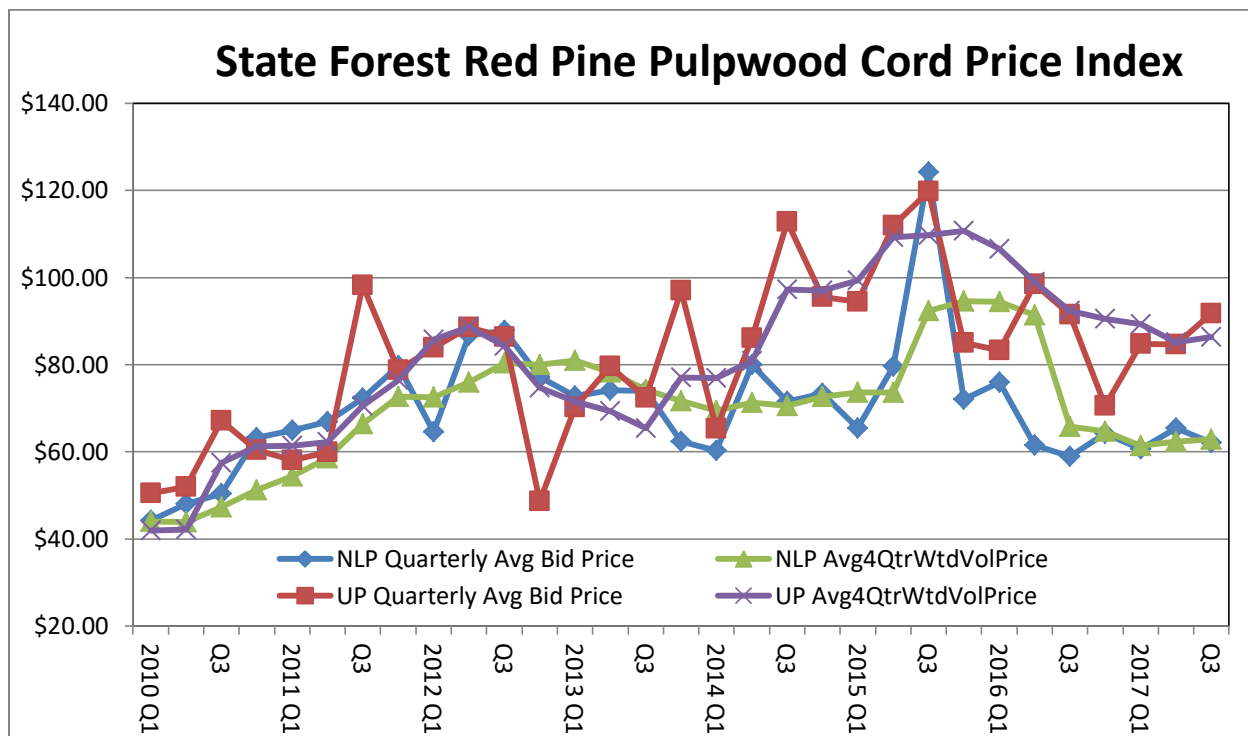
The UP average aspen pulpwood cord prices plunged from \$56.38 in the 3rd quarter of FY 2016 down to \$41.58 in the 4th quarter, but they bounced back to \$49.72 in the 1st quarter of FY 2017. They plunged again in the next quarter, down to \$33.80 per cord and then rose to \$38.08 in the most recent (3rd) quarter. The average NLP aspen pulpwood cord price fell from \$31.94 to \$22.80 per cord in the 3rd quarter. The 2nd quarter saw very close prices across the two peninsulas, but the 3rd quarter saw the gap come back by the UP price going up while the NLP price went down. 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.



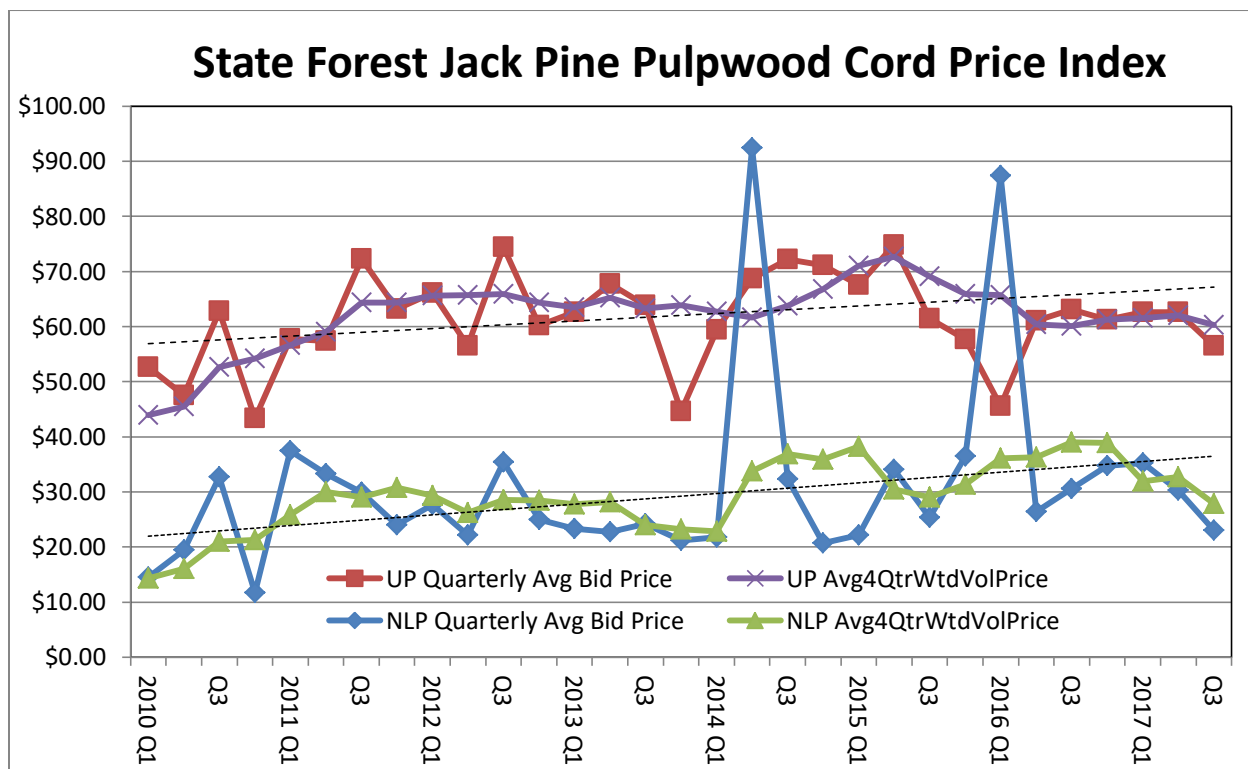
The NLP has had some wide swings in quarterly volumes over the past 6-plus years. NLP aspen pulpwood bid sale volume dropped back from 40,365 to 31,272 cords in the 3rd quarter. This new level is still above average; six of the past most recent seven quarters have been above the six-year average and trend line. It would not be surprising to see the volume drop sharply in an upcoming quarter. UP 3rd quarter sale volume rose again, from 14,364 to 17,290 cords. The UP has a very flat six-year trend line while the NLP has a slightly increasing trend over the same period.



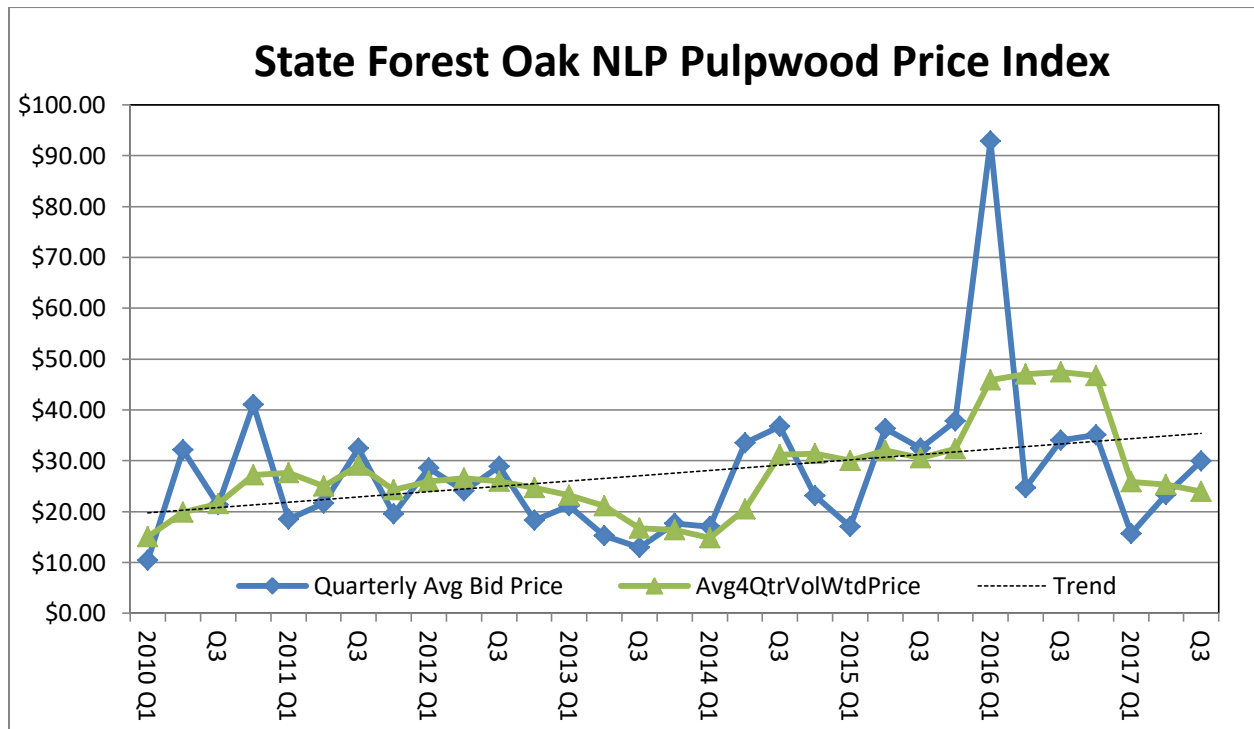
The UP accounts for close to 90% of what is sold as “softwood pulpwood.” The 3rd quarter softwood pulpwood cord price bounced back from a low 2nd quarter value of \$25.81 up to \$37.52 per cord as volume dipped from 15,346 to 14,506 cords. Generally, prices do not fluctuate as much for UP softwood pulpwood 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 2nd quarter price is a rare exception to this range. Quarterly sale volumes often do fluctuate though, from under 10,000 cords to over 30,000 cords. There is a negligible upward price trend for the product.



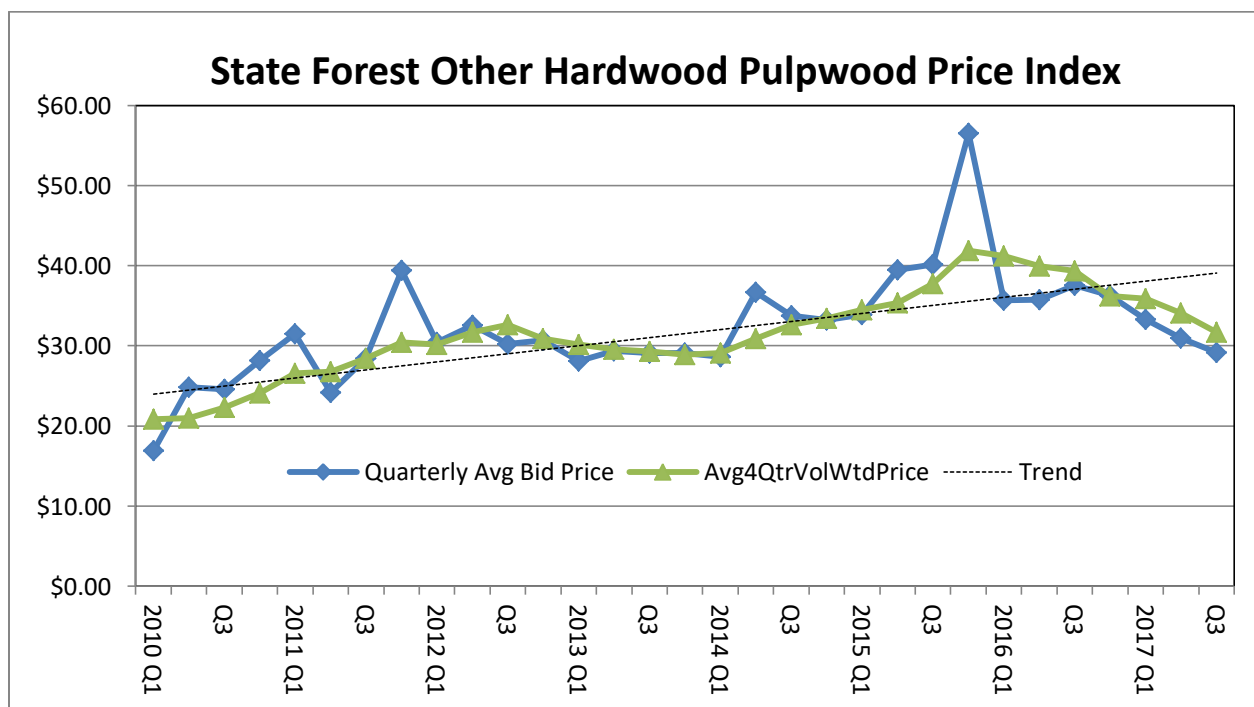
The FY 2017 3rd quarter NLP red pine pulpwood price fell back from \$65.43 to \$62.15 per cord as sale volume jumped from 15,663 to 22,082 cords. The price shot up in the 3rd quarter of FY 2015 to over \$124 per cord before dropping back even more sharply to a \$72 price. It has been quite stable since then, remaining in a \$58 to \$78 range. The UP generally has higher RP pulpwood prices than the NLP. The UP rose from \$70.52 to \$84.81 per cord in the 1st quarter of FY 2017, was virtually unchanged at \$84.59 for the 2nd quarter and then rose to \$91.71 in the most recent 3rd quarter on a high sale volume of 18,473 cords. The UP may achieve an annual volume record based on the first three quarters of FY 2017.



Jack pine pulpwood 3rd quarter cord prices went from \$62.60 to \$56.46 per cord in the UP, while they decreased further from \$30.28 to \$23.00 per cord in the NLP. 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 3rd quarter, they jumped from 4,417 to 8,603 cords in the UP while shooting up from 6,878 to 22,702 cords in the NLP.

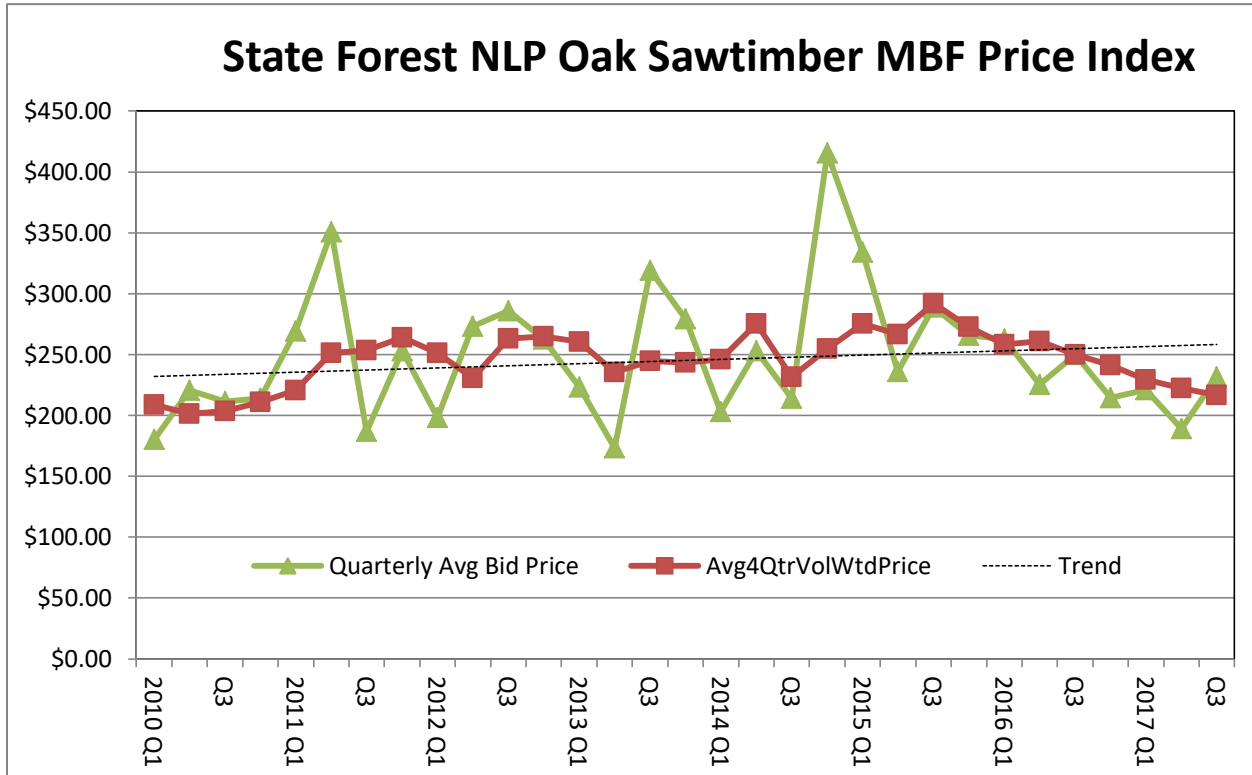


The NLP oak pulpwood price rose again in the 3rd quarter of FY 2017, from \$23.32 to \$29.98 per cord on a volume of 13,700 cords. It was at a low \$15.69 per cord in the 1st quarter. The price hit a peak in the FY 2016 1st quarter at \$92.84 per cord, more than double any price achieved in the past six years, but then it dropped to \$24.67 in the next 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.



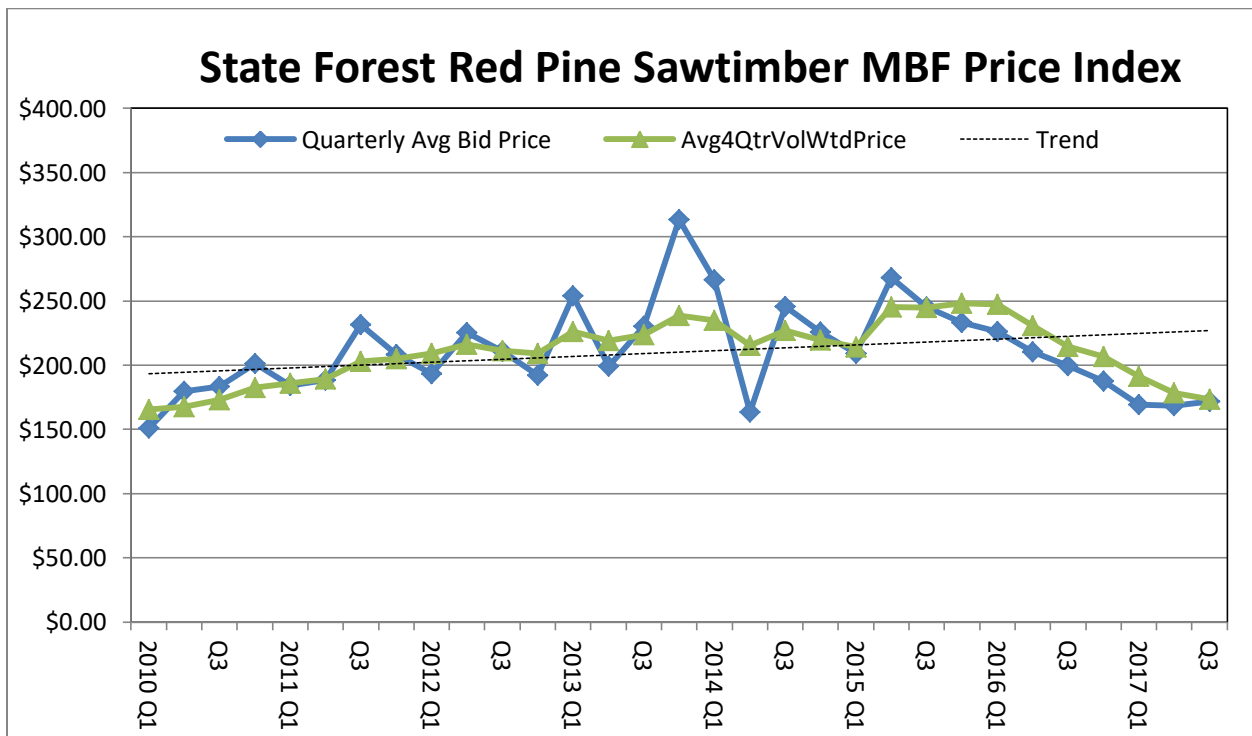
The “other hardwood pulpwood” cord price modestly declined for the fourth quarter in a row, from \$30.98 down to \$29.15 per cord. It hit a record high price of \$56.55 per cord in the 4th quarter of FY 2015. Bid species sale volume more than doubled - to almost a record high - from 28,537 to 61,933 cords in the 2nd quarter. A 69,233 cord record volume was reached in the 3rd quarter. The average quarterly volume for the past six years is 40,000 cords. The product has an increasing price trend (along with an increasing volume trend not shown).

State Forest NLP Oak Sawtimber MBF Price Index

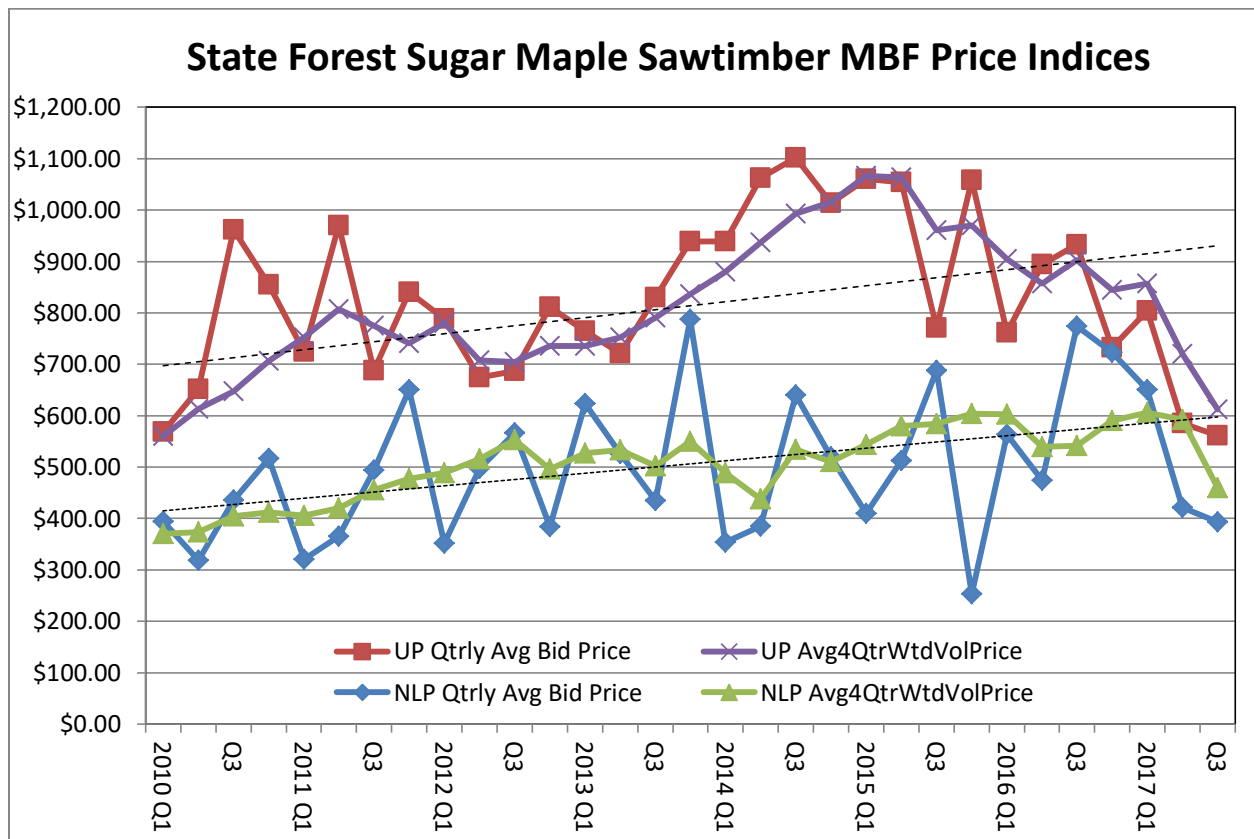


NLP oak sawtimber prices bounced back in the 3rd quarter, from \$189.24 to \$231.65 per mbf as sale volume went from 2.84 back to 4.4mmbf. Overall, there has been a very modest increasing price trend for the past six years. However, prices have been mostly trending downward since they reached a high of \$415 per mbf in the 4th quarter of FY 2014. Sale volumes over the past six years have averaged about 2.85mmbf per quarter.

State Forest Red Pine Sawtimber MBF Price Index



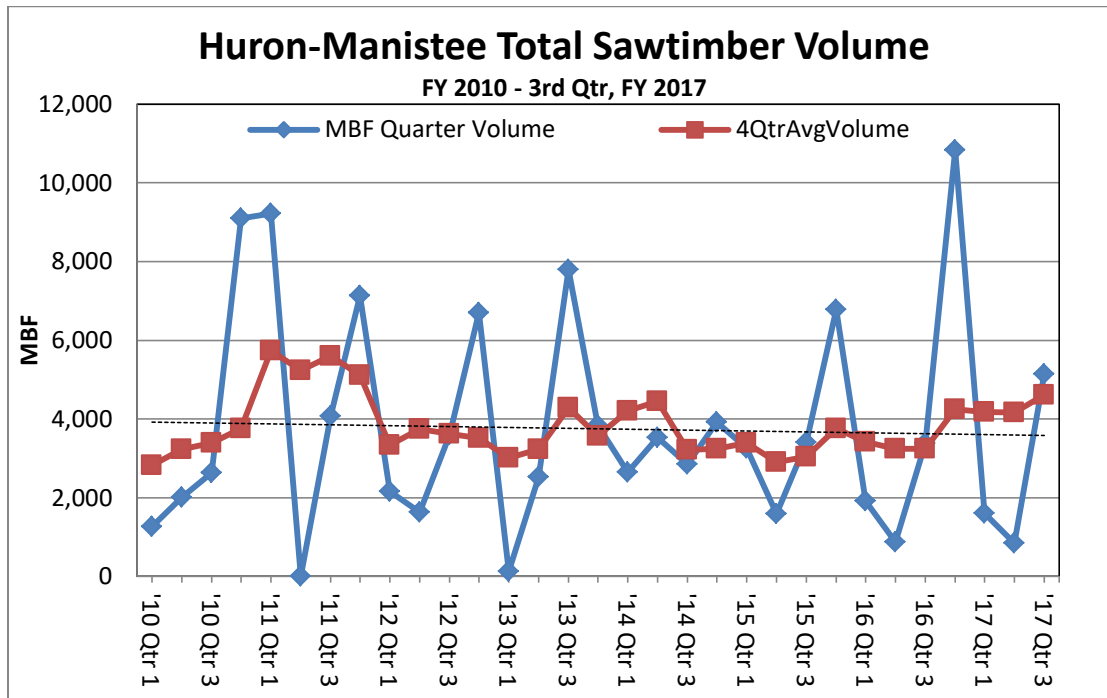
State Forest red pine sawtimber prices have been largely unchanged - hovering around \$170 per mbf - for the past three quarters. Before that, red pine sawtimber prices were on a very steady, mild downward slide since the 2nd quarter of FY 2015. Prices had been moderately increasing over the past 6 years and have averaged about \$210 per mbf. Sale volume dropped slightly from 9.7 to 9.4mmbf in the 3rd quarter. The average for the past six years is under 7.5mmbf.



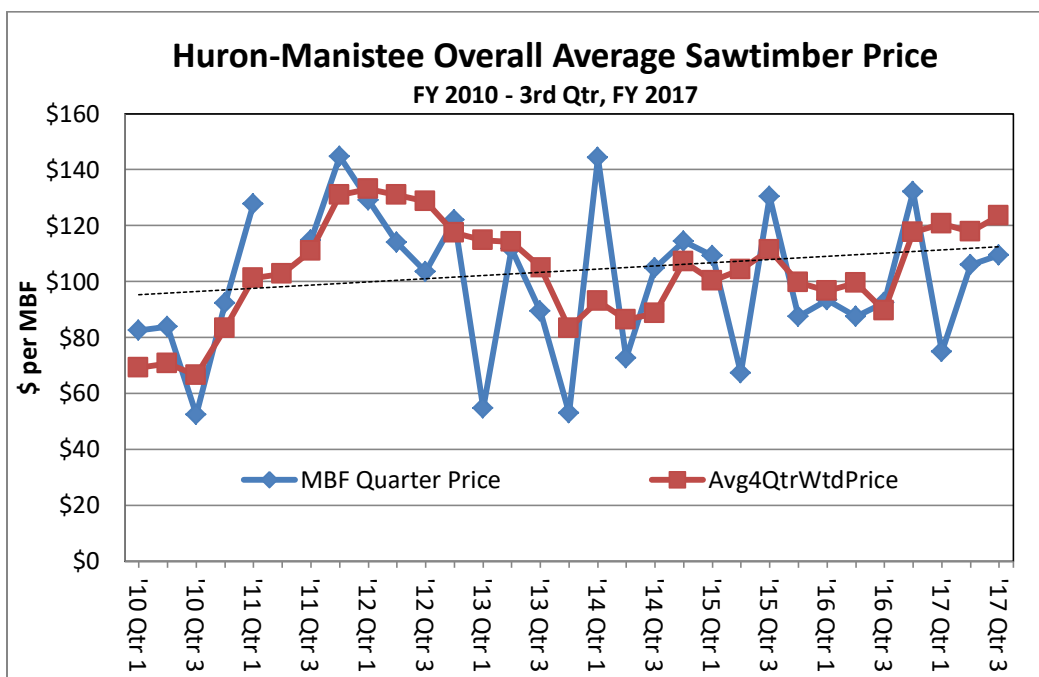
Both peninsulas experienced sharp declines in their sugar maple sawtimber prices in the 2nd quarter and both had slight price declines in the 3rd quarter. NLP sugar maple sawtimber prices dropped for the fourth quarter in a row, from \$421.31 to \$393.67 per mbf as volume nearly quadrupled from 1.1 to 3.95mmbf. The UP price decreased from \$584.87 to \$561.41 per mbf as sale volumes almost doubled from 1.1 to 1.95mmbf. Most quarters the UP sugar maple sawtimber price is significantly higher than the NLP's, but the quarterly differences have been smaller during 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 750mmbf while the NLP's is close to 600mmbf; the most recent quarterly volumes (3.95mmbf in the NLP and 1.95mmbf in the UP) are significantly higher than these averages.

Huron-Manistee National Forest Major Species Product Timber Sales, FY 2010 –3rd Qtr, 2017

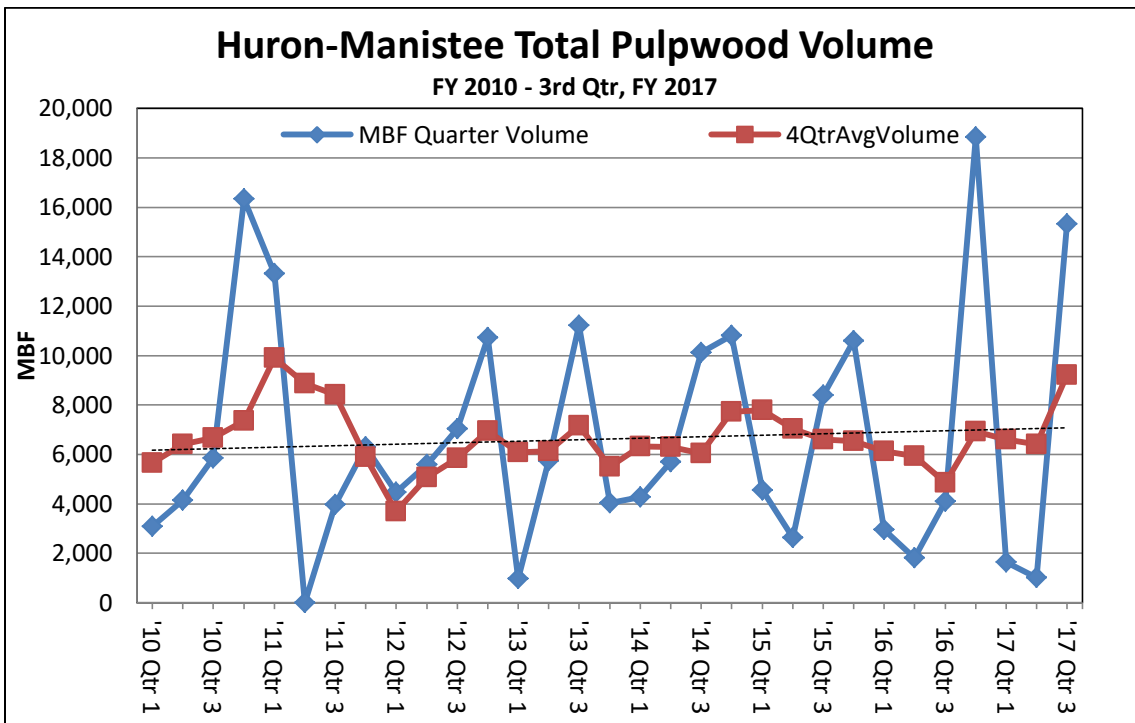
Graphs include a dotted trend line based upon the data set for the average of gthe last four quarters. Gaps in the blue quarter line indicate no sales in the quarter. The National Forests follow the federal fiscal year from October 1 through September 30. The most recent data included here is for the 3rd quarter of FY 2017 (April through June, 2017). 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>



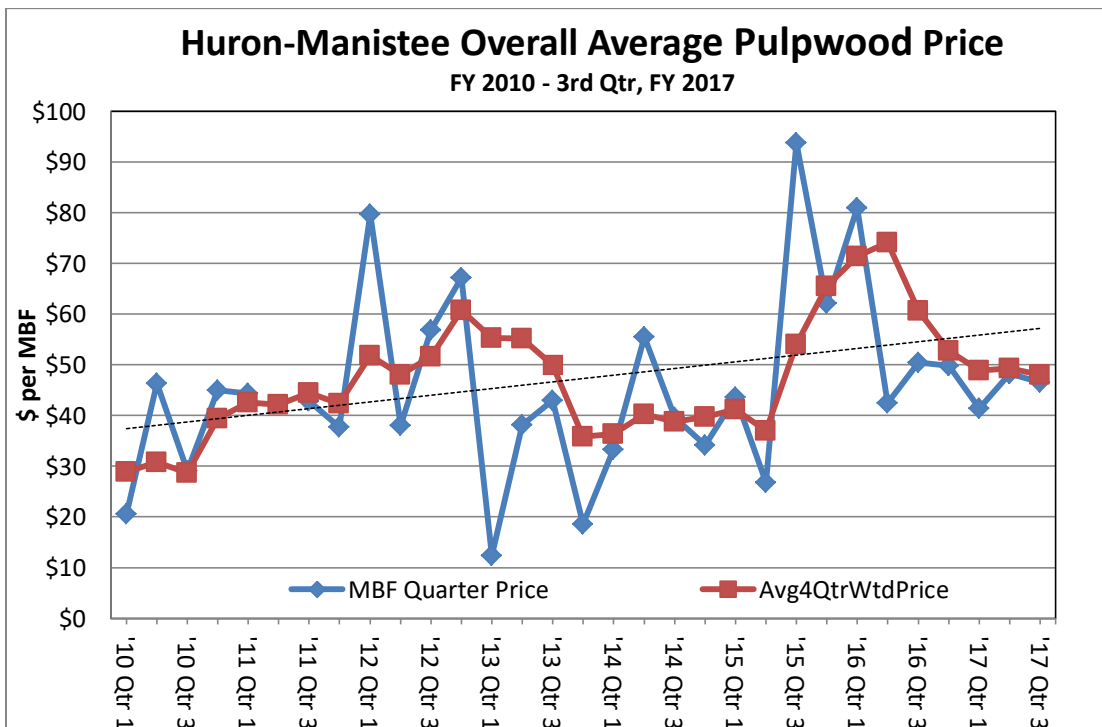
The Huron-Manistee (H-M) sawtimber sale volume rebounded to 5.14mmbf in the 3rd quarter. It hit a record 10.8mmbf in the 4th quarter of FY 2016 and then fell sharply to 1.6mmbf in the 1st quarter of FY 2017, followed by .85mmbf in the 2nd quarter. The six-year volume trend is virtually flat. H-M sawtimber sale volume often peaks in the fourth quarter and then is lower in the 1st and 2nd quarters. If this pattern holds, the upcoming (4th) quarter volume should see another increase.



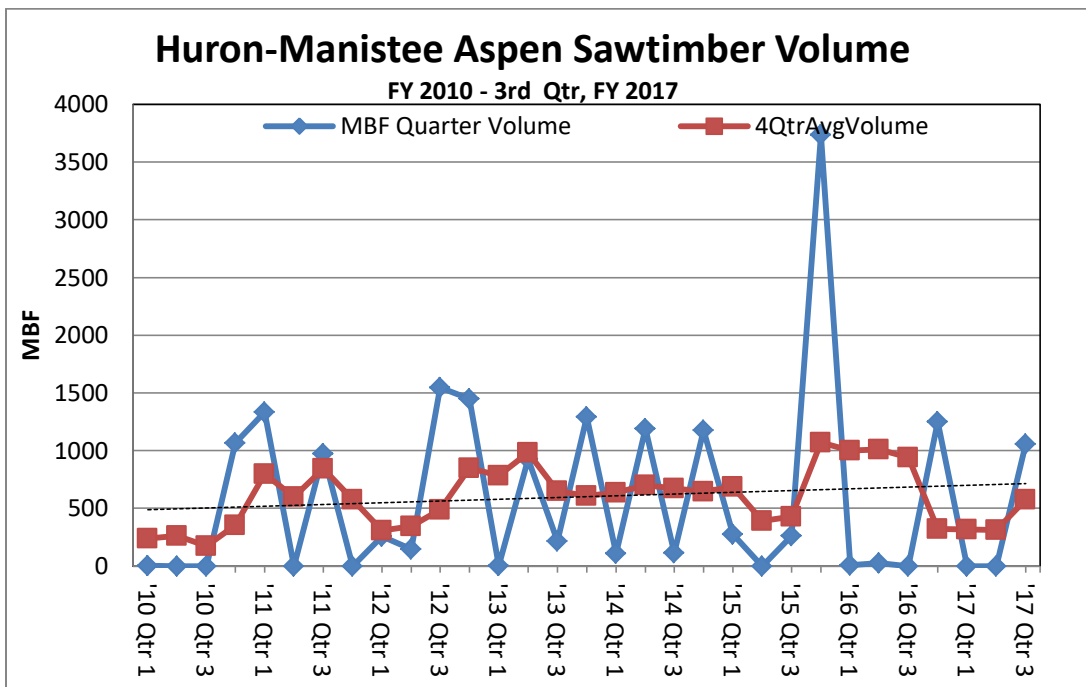
The 3rd quarter overall average sawtimber price rose slightly, from \$106 to \$109 per mbf. Generally, red pine accounts for over half of the H-M sawtimber sale volume and it is the major influence on the overall average sawtimber price.



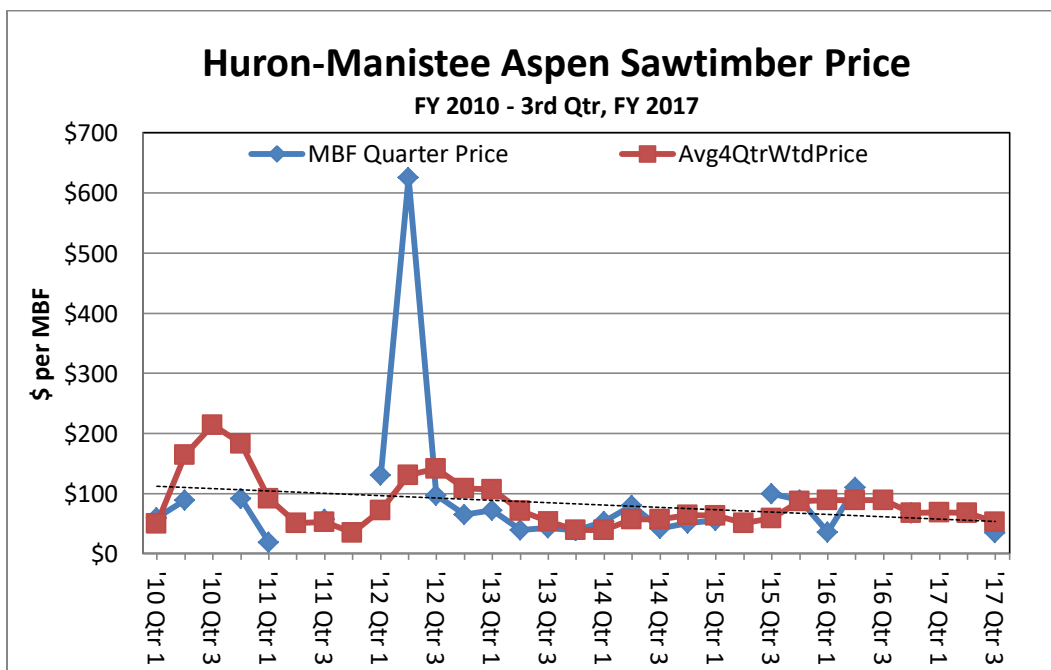
H-M quarterly pulpwood sale volume has recently seesawed dramatically from almost 19mmbf in the 4th quarter of last year to under 2mmbf in the first two quarters of this year and now to over 15mmbf in the 3rd quarter. A sharp increase in the FY 2016 4th quarter was expected due to the relatively low sales in the prior three quarters and a pattern of higher 4th quarter sales. A “dramatic drop” in sales for the 1st quarter was expected, but it was the largest absolute drop seen with H-M sales in the past decade and it was followed by a further drop in the 2nd quarter. Despite a strong pattern of higher 4th quarter sale volumes, it would be surprising if the coming (4th) quarter tops the high 3rd quarter sale volume level.



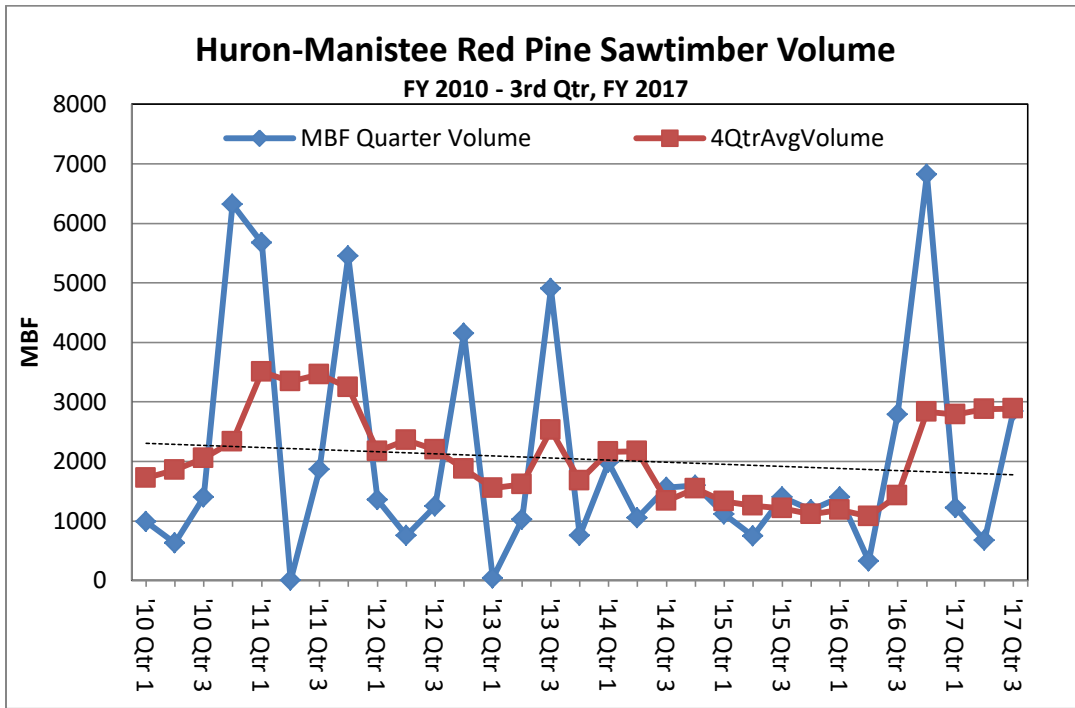
H-M pulpwood prices have remained stable and below the six-year trend for six quarters, bouncing back and forth between \$40 and \$50 per mbf. The overall average pulpwood price dipped in the 3rd quarter, from \$48.27 to \$46.56 per mbf. H-M pulpwood prices do not have as distinctive of quarterly patterns and are not as seasonally predictable as H-M pulpwood sale volumes or forest products of other National Forests.



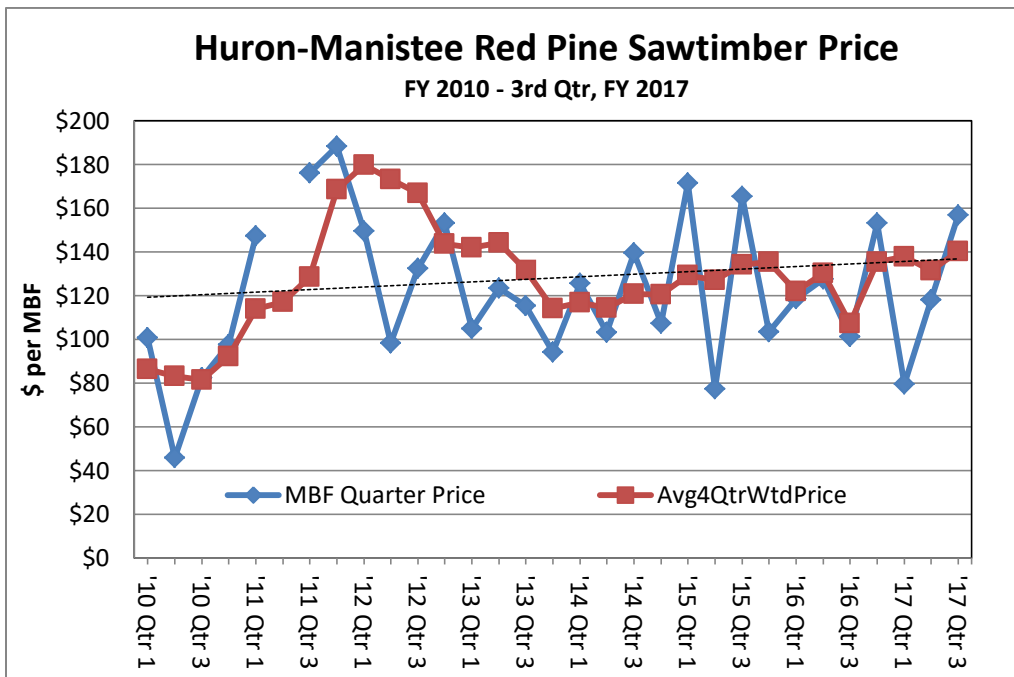
H-M 3rd quarter sawtimber sale volume was 1.06mmbf. This followed no aspen sawtimber sales in the 1st or 2nd quarters of FY 2017. Low or no aspen sawtimber volume in the first two quarters of the fiscal year has been typical for the H-M. FY 2016 aspen sawtimber sales were only 8mbf in the 1st quarter, 27mbf in the 2nd quarter, zero in the 3rd quarter, and then 1.25mmbf in the 4th quarter. FY 2015 saw three quarters of below average sales and then a record 3.74mmbf sale volume in the 4th quarter. The slightly increasing sale trend over the past six years was reinforced by sale volumes in the 4th quarters of FY 2015 and FY 2016. Upcoming 4th quarter sales may dip a bit, but not much and they may well increase given the pattern of higher 4th quarter volumes,



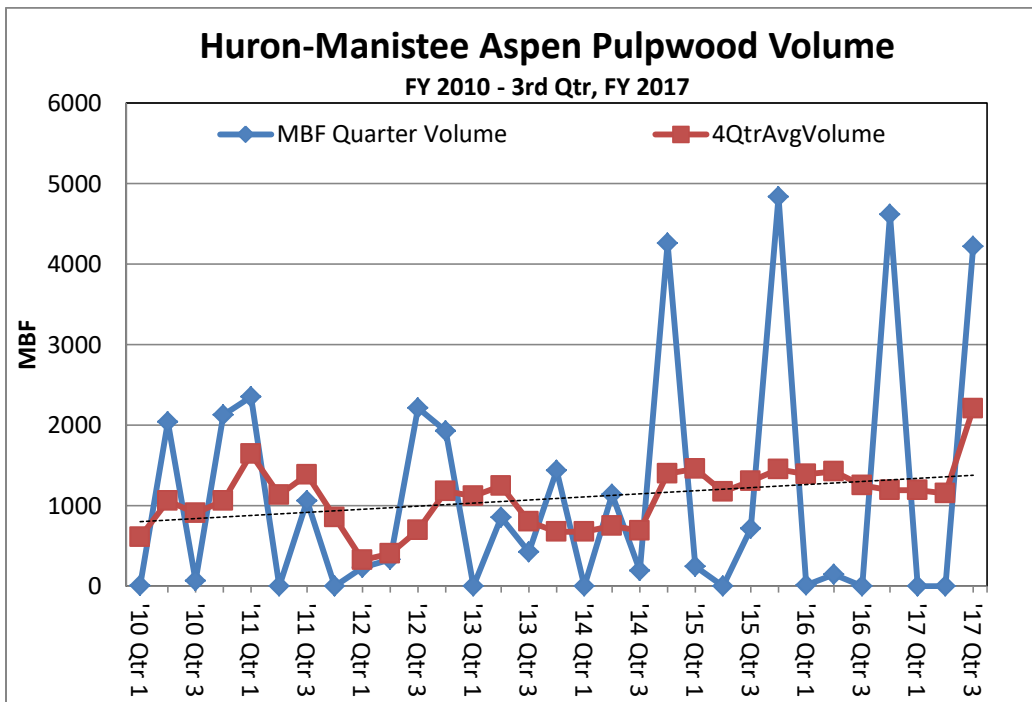
The 3rd quarter aspen sawtimber price was \$35.36 per mbf. There was no aspen sawtimber price in the 1st or 2nd quarters of FY 2017 as there were no sales. The 4th quarter aspen sawtimber price was \$67.59 per mbf (it is hidden by the red "Avg4QtrWtdPrice" in the above graph). The last time there was appreciable sale volume was in the 4th quarter of FY 2015 when the volume was over 3.7mmbf and the price averaged close to \$89 per mbf.



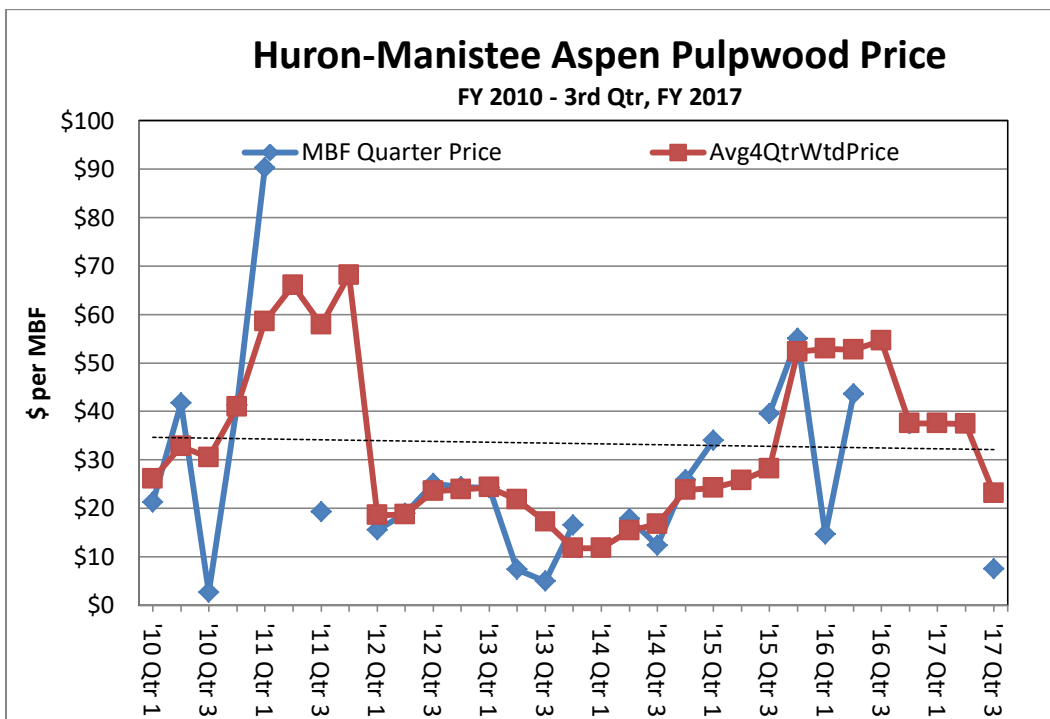
Red pine sawtimber volume hit 2.84mmbf in the 3rd quarter. Sale volumes had been fairly stable for almost three years before increasing to 2.8mmbf in the 3rd quarter of FY 2016 and then jumped even more to a record 6.8mmbf the next quarter. It fell to only 1.2mmbf in the 1st quarter and then to .7mmbf in the 2nd quarter of FY 2017 before rebounding in the 3rd quarter. There is a slight six-year downward sale volume trend. Given the moderate 3rd quarter increase, it would not be surprising to see upcoming 4th quarter volumes remain at roughly the same level or possibly even increase further.



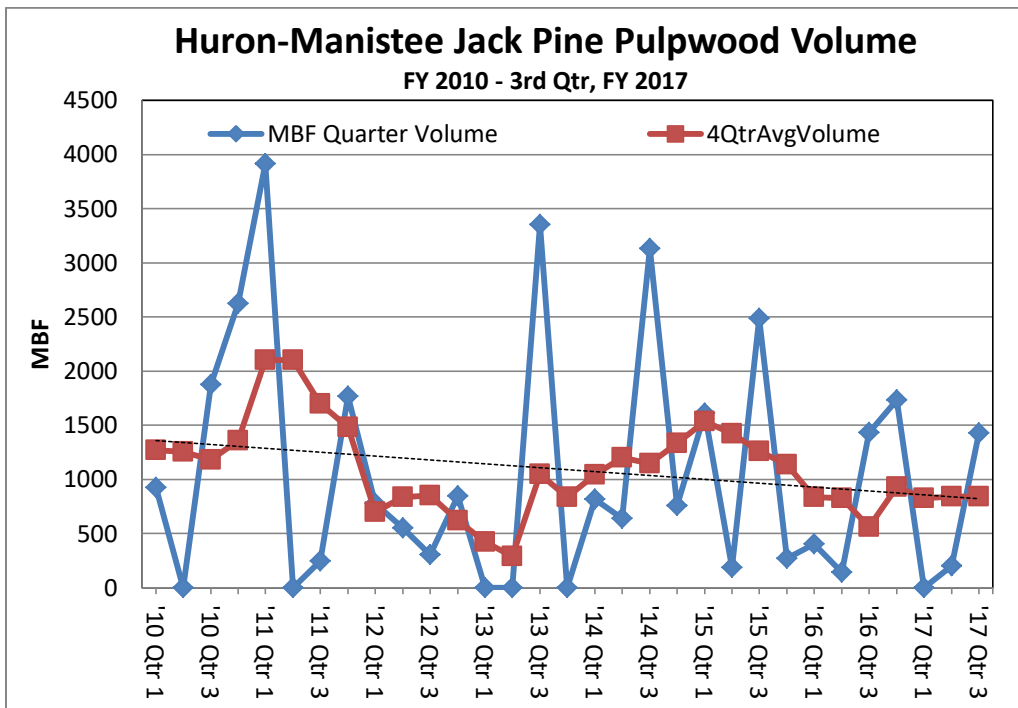
Red pine sawtimber prices rose back in the most recent 2nd quarter from just below \$80 to \$118 per mbf and then increased again in the 3rd quarter to \$157 per mbf. In FY 2015, they went from \$171 in the 1st quarter to \$77 in the 2nd quarter, back to \$165 in the 3rd quarter and then down to \$103 in the 4th quarter. There is a slight increasing price trend over the past six years. The 3rd quarter price is above the trend line; prices are likely to dip in the upcoming (4th) quarter.



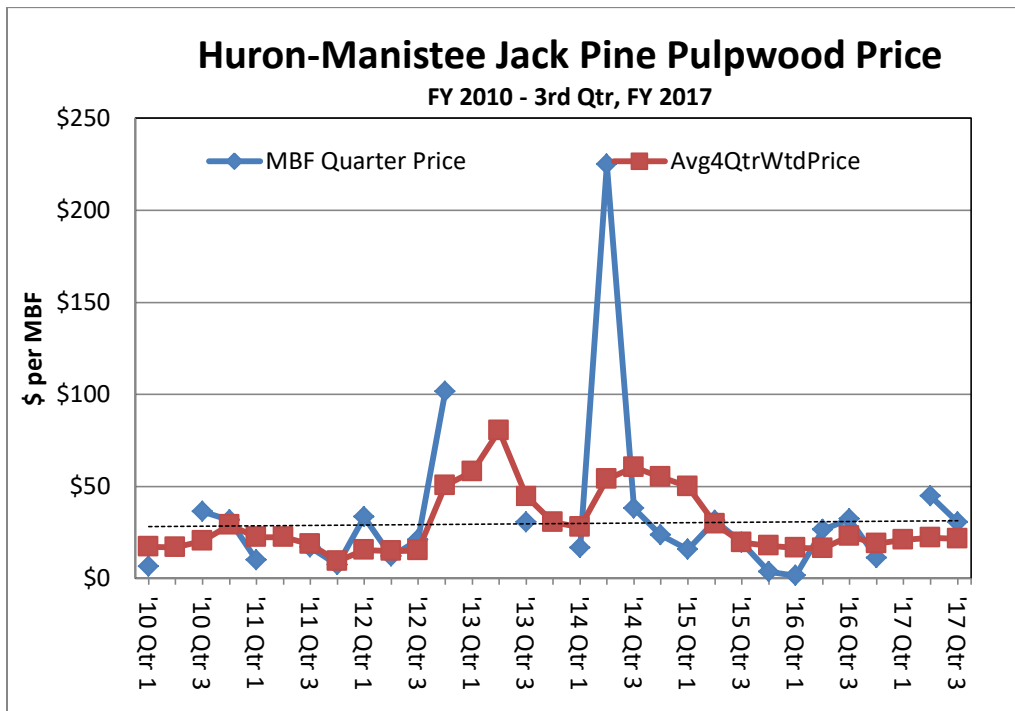
The pattern for quarterly aspen pulpwood volumes is similar to that for aspen sawtimber volumes, except there are bigger swings in the pulpwood volumes. Following three quarters of no or low aspen pulpwood sale volume, the FY 2016 4th quarter level jumped to 4.6mmbf. It dropped back to zero in the 1st and 2nd quarters of FY 2017 before jumping to 4.2mmbf. FY 2017 broke a pattern. The prior three fiscal years saw high sales in the 4th quarter and negligible or no sales the other three quarters, but high sales took place in the 3rd quarter of FY 2017. It is likely that the upcoming 4th quarter sales will be down from what they have been the last three years, but not below 2mmbf.



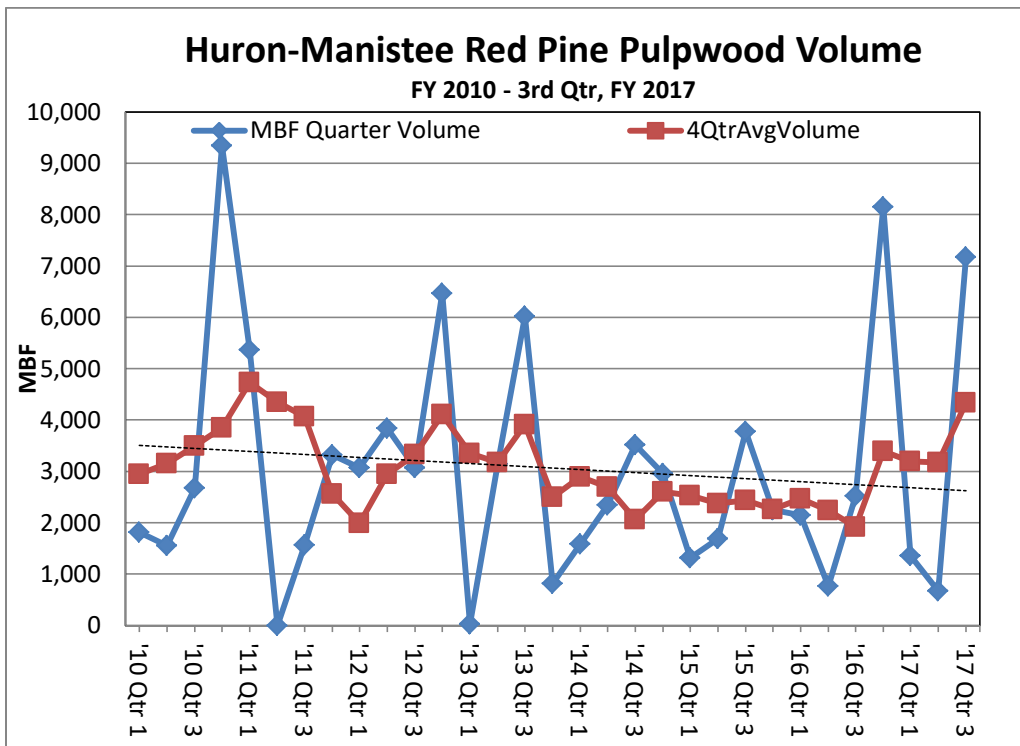
The 3rd quarter aspen pulpwood price was only \$7.49 per mbf based upon reported data (including substantial sale volumes). There are no 1st or 2nd quarter aspen pulpwood prices as there were no sale volumes. The 4th quarter, FY 2016 aspen pulpwood price was \$37.35 per mbf (it is hidden by the red "Avg4QtrWtdPrice" value in the above graph). It was at \$55 in the 4th quarter of FY 2015 on high volume, up from about \$40 per mbf in the 3rd quarter. The six-year price trend is slightly declining; however, prices for many quarters are based on low or no sale volumes.



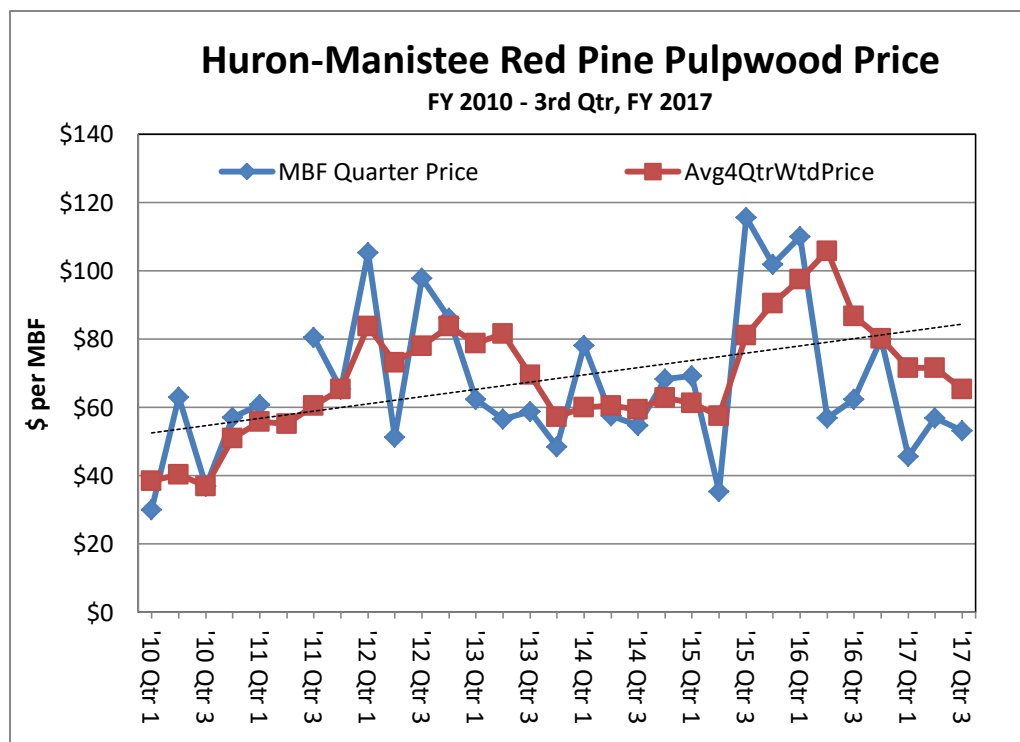
Jack pine pulpwood volume was over 1.4mmbf in the 3rd quarter. There was no jack pine pulpwood sale volume in the 1st quarter of FY 2017 and only 203mbf in the 2nd quarter. Overall, jack pine pulpwood sale volume has been on a downward trend and a majority of quarters have sale volume below 1mmbf. Also, as can be seen in the graph above, each successive year's peak tends to be lower than prior years. Unlike many other sale volumes which peak in the 4th quarter, most of the quarterly peaks for jack pine sale volume have occurred in the 3rd quarter. Part of the jack pine sale volume decline in recent years may be due to more jack pine being reported in a combined sale category with red and white pine.



The 3rd quarter jack pine pulpwood price dipped from \$45 to \$31 per mbf. There was no sale volume or price in the 1st quarter. The last (4th) quarter jack pine pulpwood price fell from \$32 to only \$11 per mbf. The price for the FY 2014 2nd quarter is a mistake or an anomaly and should not be considered a reliable price for the product. The six-year price line is relatively flat, but there are many quarters with low or no sales and a few quarters with price anomalies which inhibit establishing a reliable price trend line.



Quarterly red pine pulpwood sale volumes experience some of the same large swings seen with red pine sawtimber. The volumes went from 8.14mmbf in the 4th quarter of FY 2016 down to 1.4mmbf in the 1st quarter of FY 2017, followed by a further decline to .7mmbf in the 2nd quarter and now a rise to 7.2mmbf in the 3rd quarter. This swing in sale volume is similar to large swings in volumes in FY 2010 and 2013. Until the most recent quarters, sale volume swings from quarter to quarter had appeared to have abated. There has been a slight declining sale volume trend over the past six years.

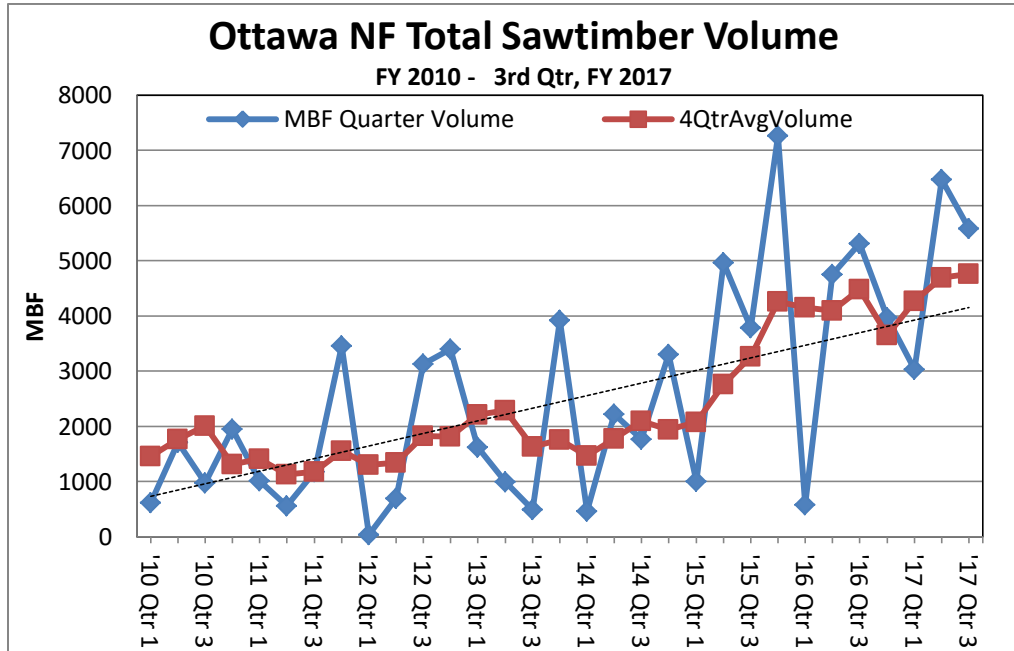


The 3rd quarter FY 2017 red pine pulpwood price dipped from \$56.87 to \$53.21 per mbf. The price had been at record levels over \$100 per mbf for three quarters before falling to \$57 in the 2nd quarter of FY 2016. Overall, prices for the past six years have seen a fairly steep increasing trend. Upcoming quarters should see some modest price increases.

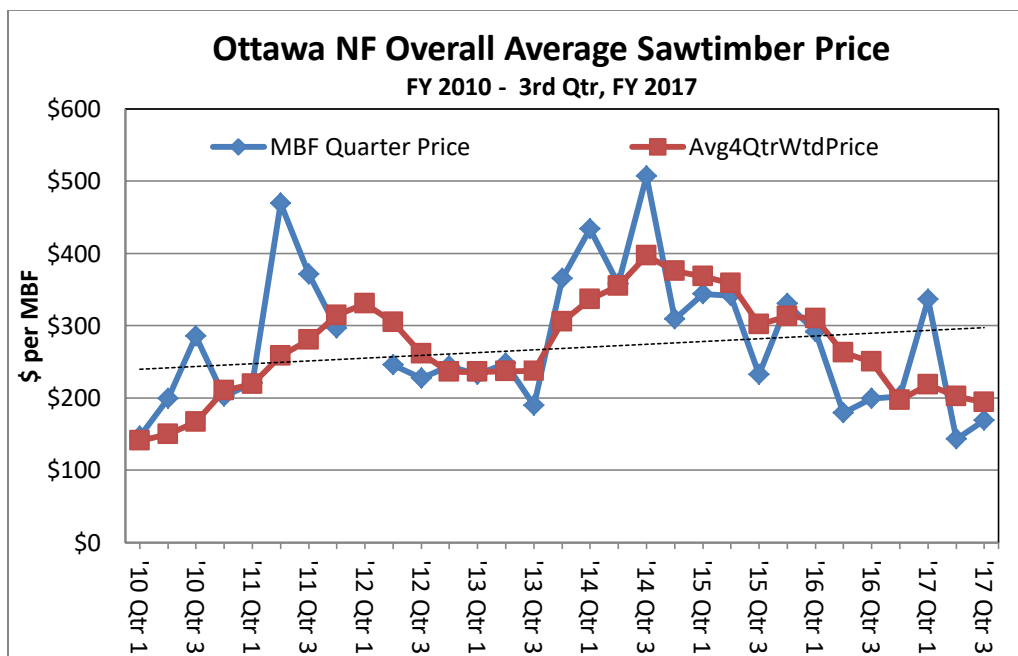
Ottawa National Forest Major Species/Product Timber Sales, FY 2010 – 3rd Qtr, 2017

All graphs include a dotted trend line based upon the data set for the average of the last 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 from October 1 through September 30. The sale data included here goes through the third quarter of FY 2017 (April - June, 2016). 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:

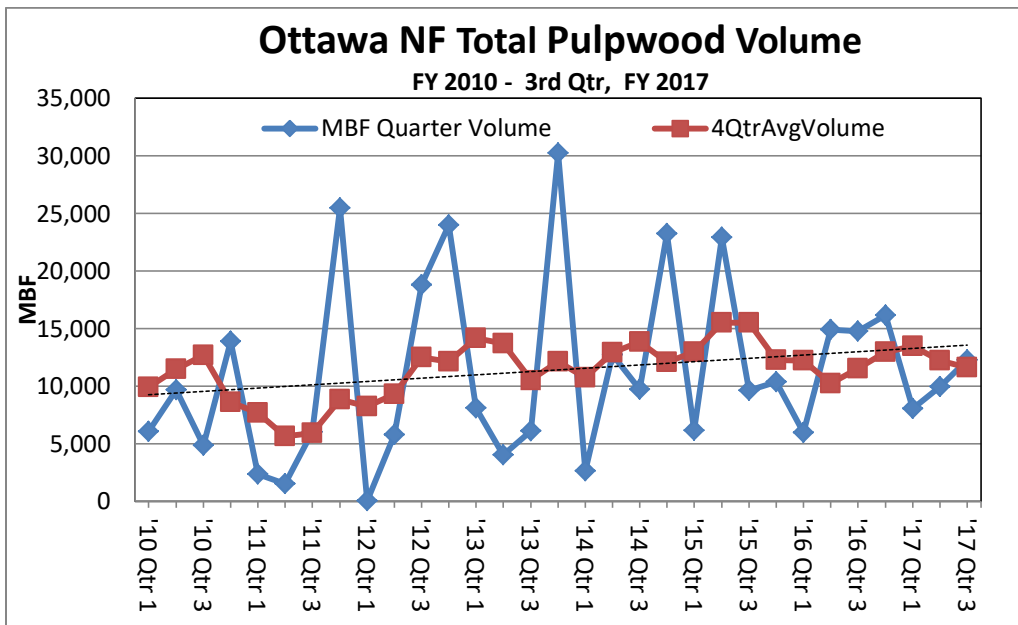
<http://www.fs.fed.us/forestmanagement/products/cut-sold/index.shtml>



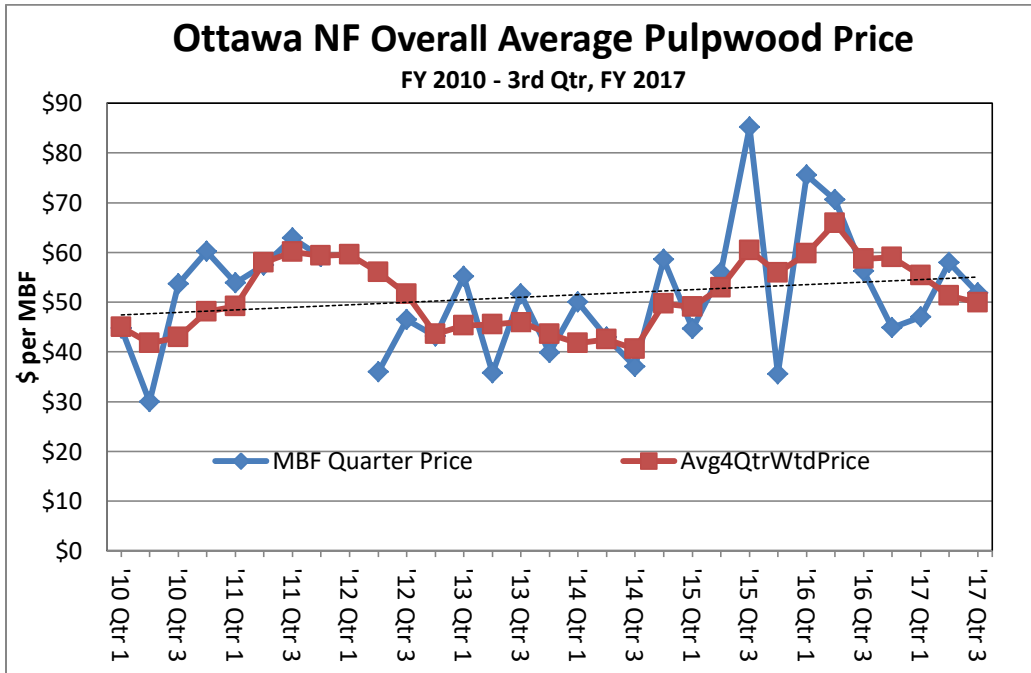
Total Ottawa sawtimber sale volume dipped to 5.6mmbf in the 3rd quarter after more than doubling in the 2nd quarter to 6.5mmbf. Following a record 7.3mmbf in the 4th quarter of FY 2015, it dropped to only 577mbf in the 1st quarter of FY 2016, but it has rebounded and higher since then. The Ottawa's sawtimber six-year sale volume trend is increasing much more than the Hiawatha's or Huron-Manistee's, although Ottawa volumes from quarter-to-quarter are somewhat erratic.



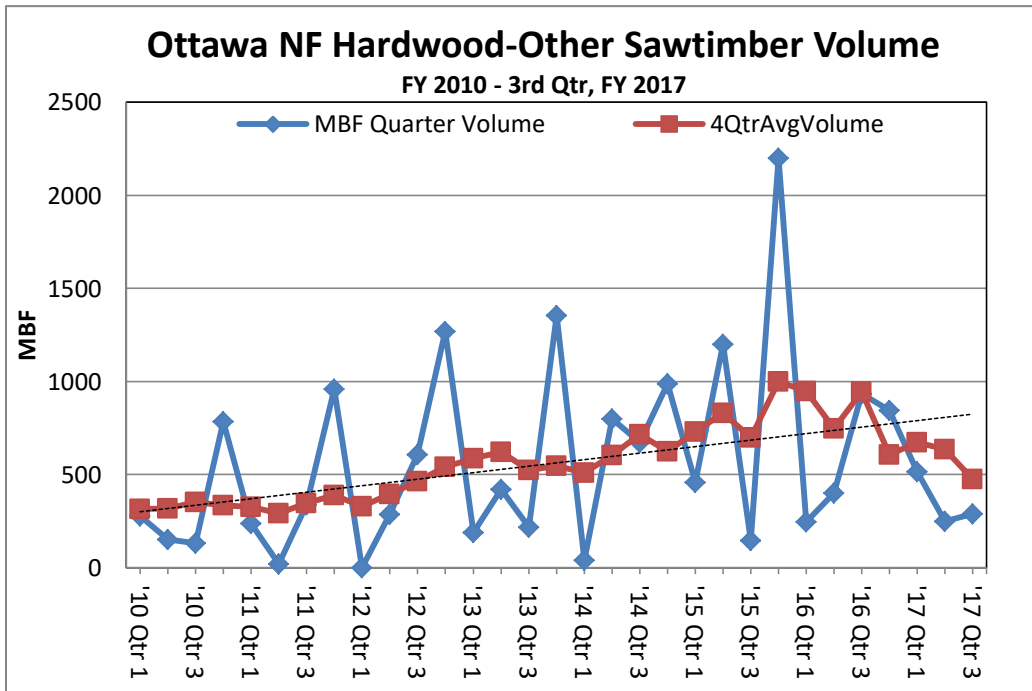
Between the 1st and 2nd quarters of FY 2017, the overall average sawtimber price declined sharply from \$336 to \$143 per mbf. It inched back up to \$169 per mbf in the 3rd quarter. The increasing six-year price trend is not nearly as steep as the volume trend line. The Ottawa sawtimber price trend is greatly influenced by sugar maple volumes and prices.



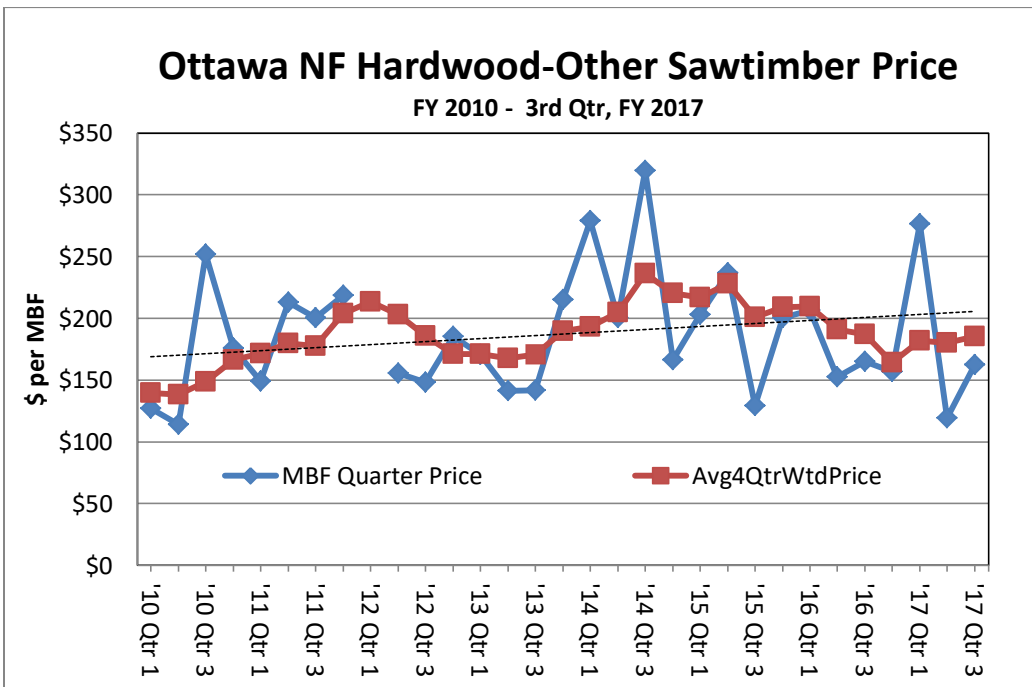
After hovering around 15 to 16mmmbf for three quarters, the 1st quarter total pulpwood sale volume dropped in half to 8mmmbf. It increased slightly in the 2nd quarter to almost 10mmmbf and increased about an equal amount again in the 3rd quarter to 12.3mmmbf. From FY 2011 through the beginning of FY 2015, Ottawa pulpwood sale volumes seesawed back and forth from one quarter to the next, going from 5mmmbf or less one quarter to close to or above 25mmmbf 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 30mmmbf 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. Pulpwood sale volumes for the 2nd and 3rd quarters often fall between the other two quarters' volumes.



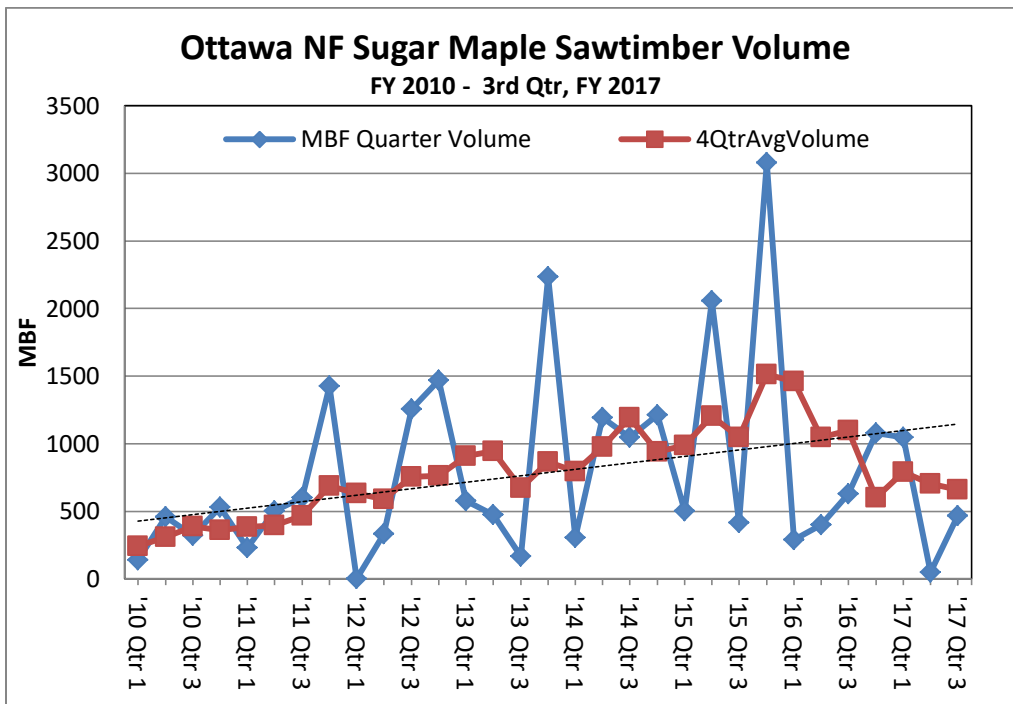
As predicted, the 3rd quarter overall average pulpwood price dipped from \$57.93 to \$51.88 per mbf. Prices had plunged from a six-year peak of \$85.22 to \$35.56 per mbf between the 3rd and 4th quarters of FY 2015 before rebounding to \$75.52 in the 1st quarter of FY 2016. But these fairly large swings in pulpwood prices are the exception, not the rule, for the past six years (in contrast to the wide swings in pulpwood volumes). There is a mildly increasing 6-year price trend. Barring major economic events, prices are not likely to change much next quarter, but they are a bit more likely to increase than decrease.



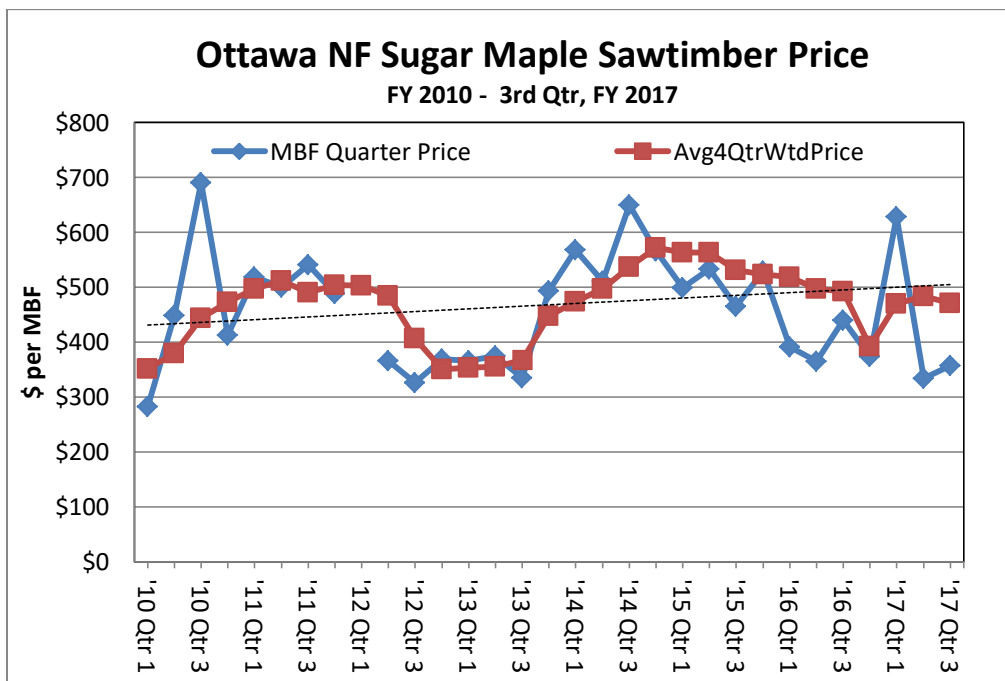
The hardwood-other sawtimber sale volume dropped from 846 to 514 mbf in the 1st quarter, then to 250mbf in the 2nd quarter, before rising slightly to 290mbf in the 3rd quarter. It reached a record 2.2mmbf level in the 4th quarter of FY 2015. In contrast to recent declines and lower volume levels, the sale volume trend has been increasing over the past six years. While sales have been below the trend line in recent quarters, they have also been less erratic than what they were a few years ago. It would be surprising if volumes did not increase fairly sharply in the coming (4th) quarter.



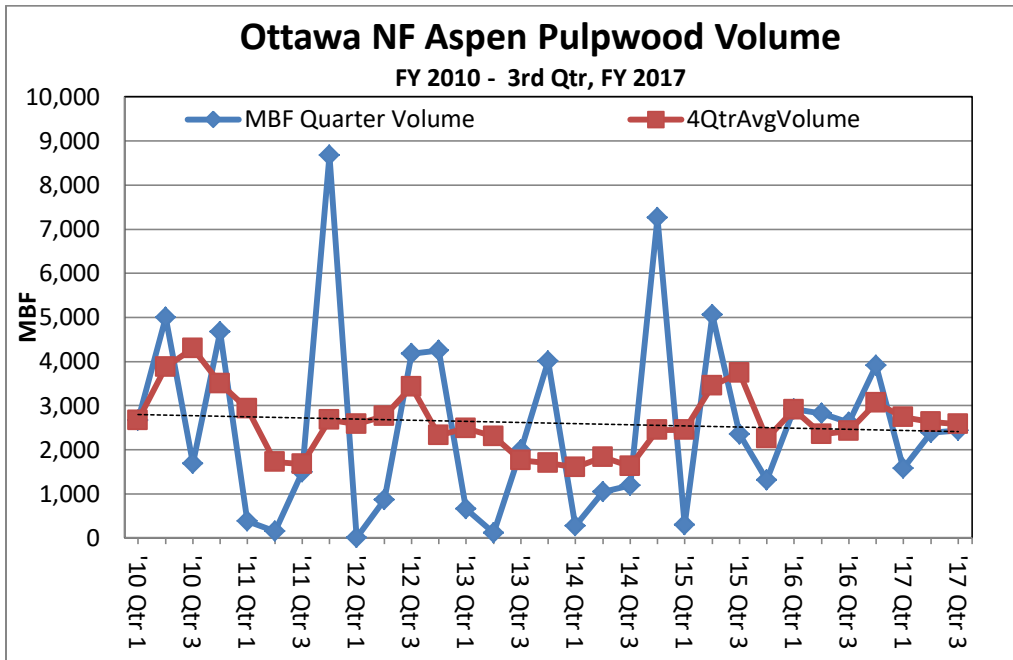
The hardwood-other mbf sawtimber prices fell from \$276 per mbf in the 1st quarter to \$119 per mbf in the 2nd quarter and rebounded to \$163 per mbf in the 3rd quarter. They were at a record high of almost \$320 mbf in the 3rd quarter of FY 2014 before dropping sharply to \$166 the following quarter. Overall, there is a modestly increasing price trend line for the past six years. This line will continue to flatten if, as expected, prices remain below the \$200 level for several more quarters.



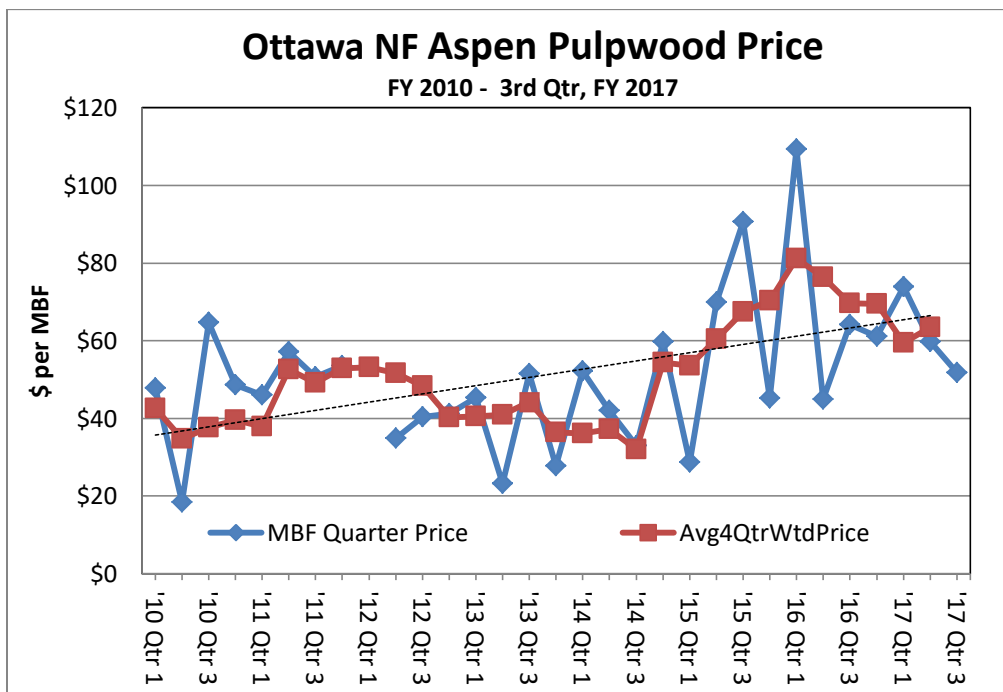
The 3rd quarter Ottawa sugar maple sawtimber sale volume rose to 466 mbf, up from a negligible 2nd quarter volume of only 49mbf. The prior two quarters were slightly over 1000mbf. Sugar maple sawtimber sale volumes hit a six-year record of 3.1mmbf in the 4th quarter of FY 2015, before falling back to 290mbf in the 1st quarter of FY 2016. The 6-year sales volume trend is increasing. 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. FY 2016 and 2017 quarters have not followed this pattern. However, the upcoming (4th) quarterly volume should see another increase towards the trend line level.



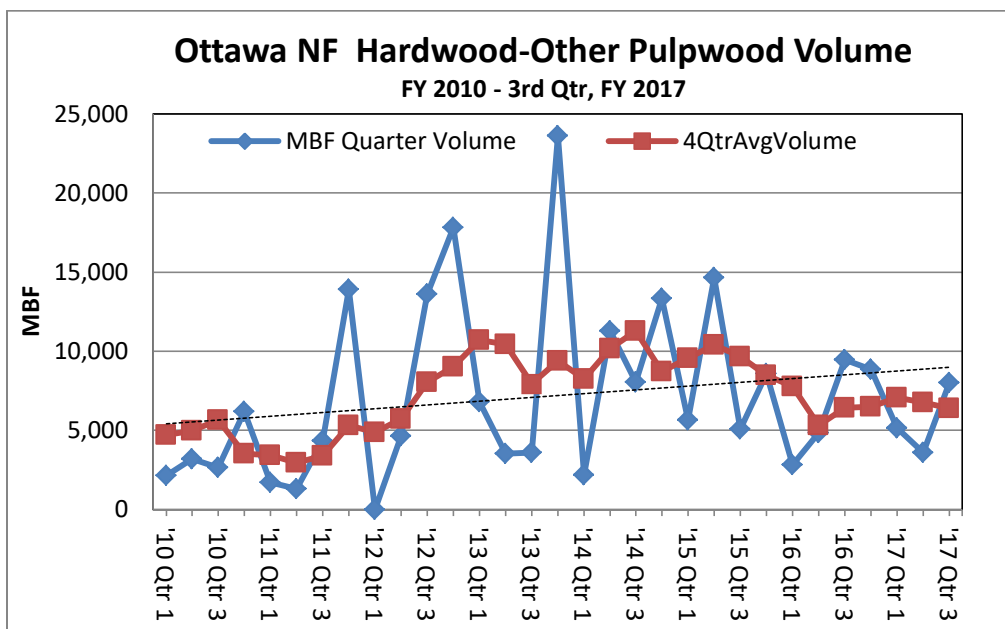
The average sugar maple sawtimber mbf price shot up from \$374 to \$628 in the 1st quarter of FY 2017 and then plummeted back down again in the 2nd quarter to \$334 and modestly rose to \$357 per mbf in the 3rd quarter. It was at \$690 back in the 3rd quarter of FY 2010 and at \$650 in the 3rd quarter of FY 2014. There is a moderately increasing price trend over the past six years. It is likely prices will continue to increase in the coming (4th) quarter.



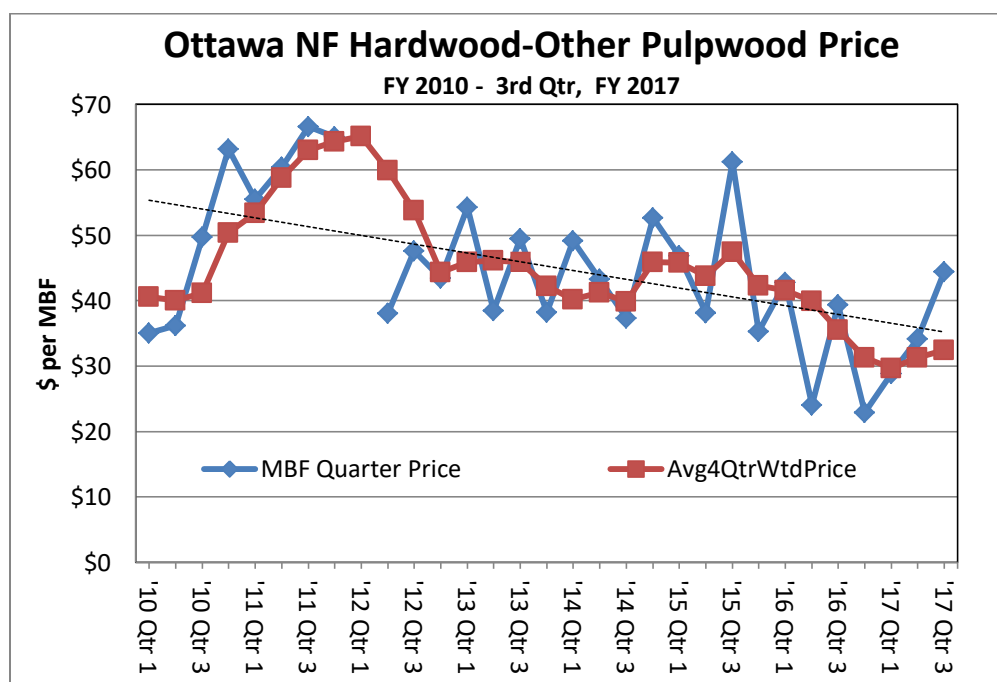
Aspen pulpwood sale volume was largely unchanged in the 3rd quarter at 2.4mmbf. It had risen from 1.6 to almost 2.4mmbf in the 2nd quarter. Sale levels were at slightly above average levels for all of FY 2016. Sale volumes have not changed much from quarter-to-quarter in the last two years. Previously, 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 3rd quarter aspen pulpwood price continued its slide from \$60 to \$52 per mbf. 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. Since then - for the past six quarters - the price has fluctuated within a \$50 to \$75 range. 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.



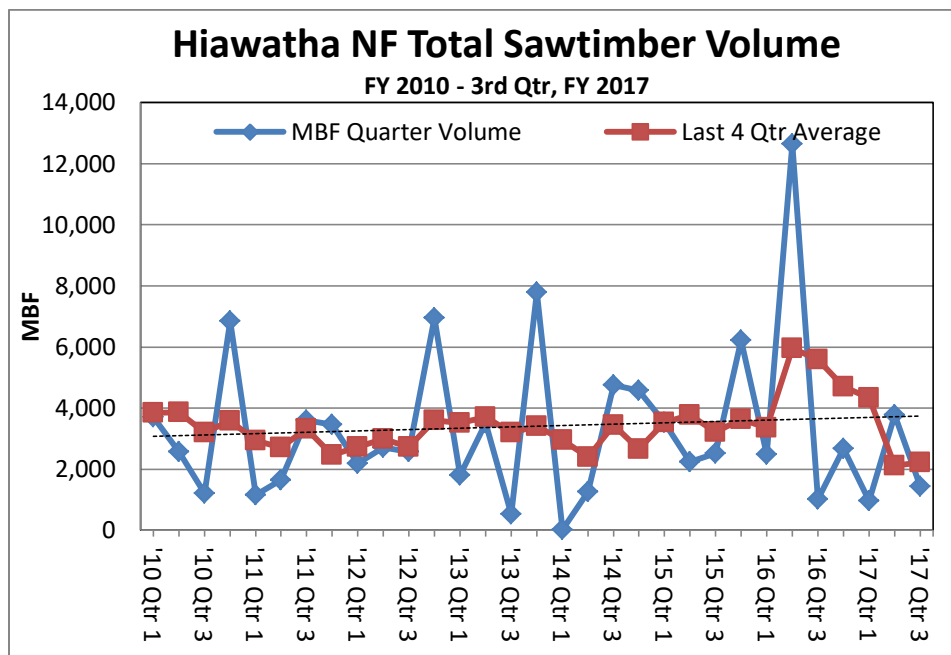
Hardwood-Other pulpwood 3rd quarter sale volume rose from 3.6 to 8mmbf. It had been at 8.9mmbf in the 4th quarter of FY 2016. Sale volume hit a record high 23.6mmbf in the 4th quarter of FY 2013. Volume changes from quarter-to-quarter have moderated in recent years compared to what they were in FY 2011 through 2013. Volumes have trended upward in the past six years, but the trend for the past three years is slightly declining.



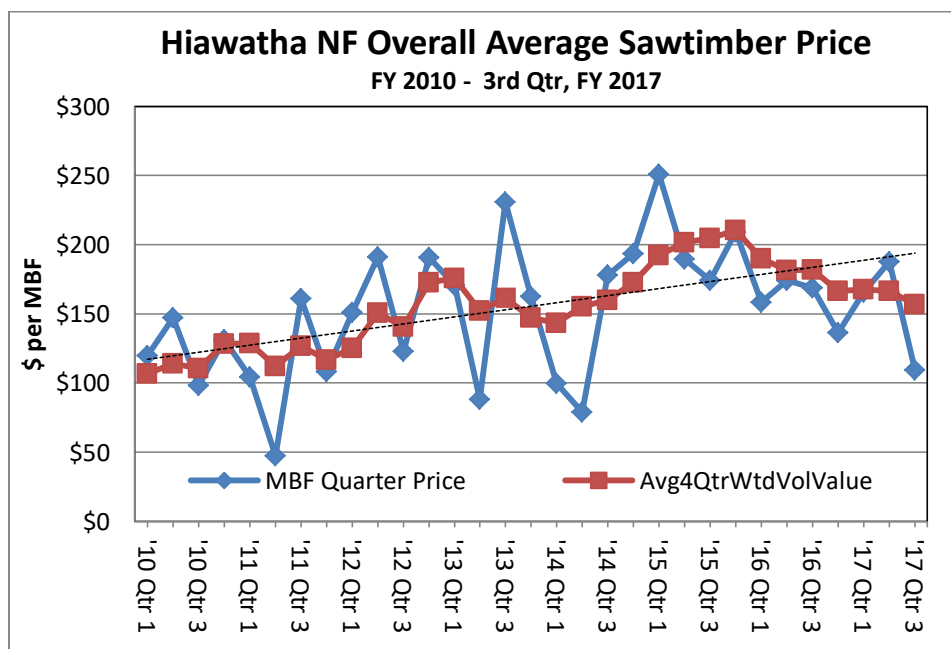
The 3rd quarter FY 2017 hardwood-other pulpwood mbf price rose significantly, from \$34.14 to \$44.42 per mbf. It had risen from \$23 to \$29 per mbf in the 1st quarter. In FY 2016, the price had decreased significantly from \$43 to \$24 per mbf in the 2nd quarter; then it increased to \$39 before falling 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. The current (3rd) quarter \$44.42 price is well above the price trend line; this - along with the recent three quarters of successive price increases - should lead to a reversal and lower prices in upcoming quarter.

Hiawatha National Forest Major Species Product Timber Sales, FY 2010 – 3rd Qtr, 2017

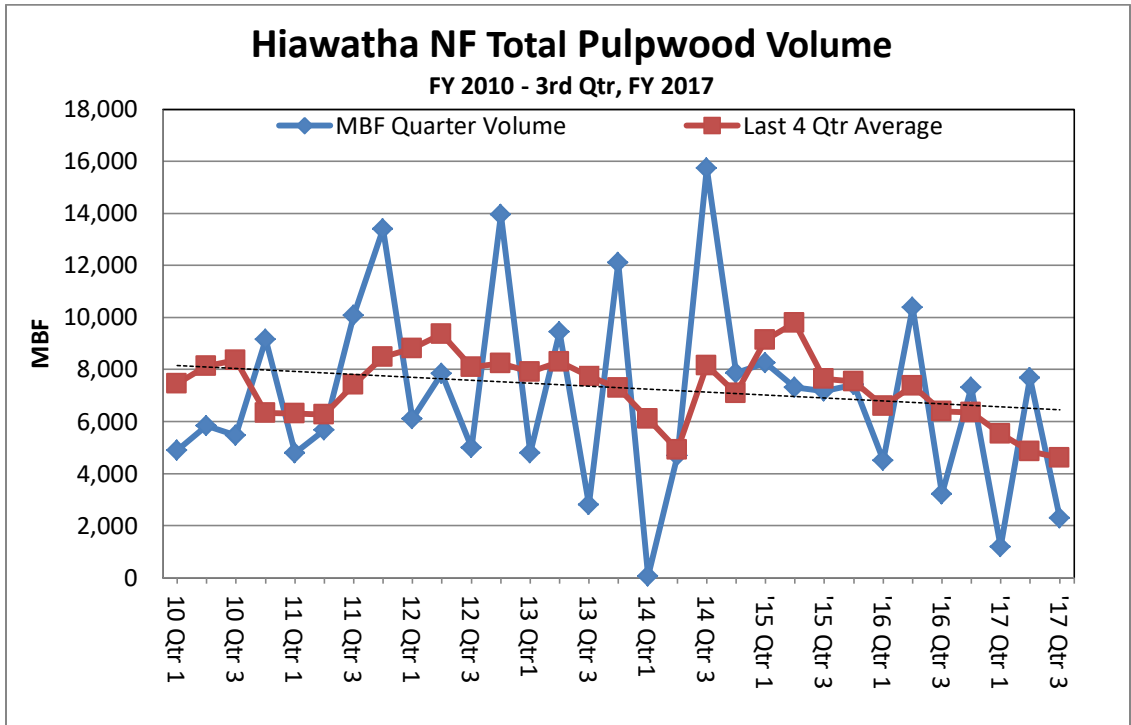
All graphs include a dotted trend line based upon the data set for the average of the most recent four quarters. Gaps in the blue quarter line indicate no sales in the quarter where the gap occurs. The National Forests follow the federal fiscal year (FY) from October 1 through September 30 (as does the MI DNR). The most recent data included here is for the 3rd quarter of FY 2017, covering April through June 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>



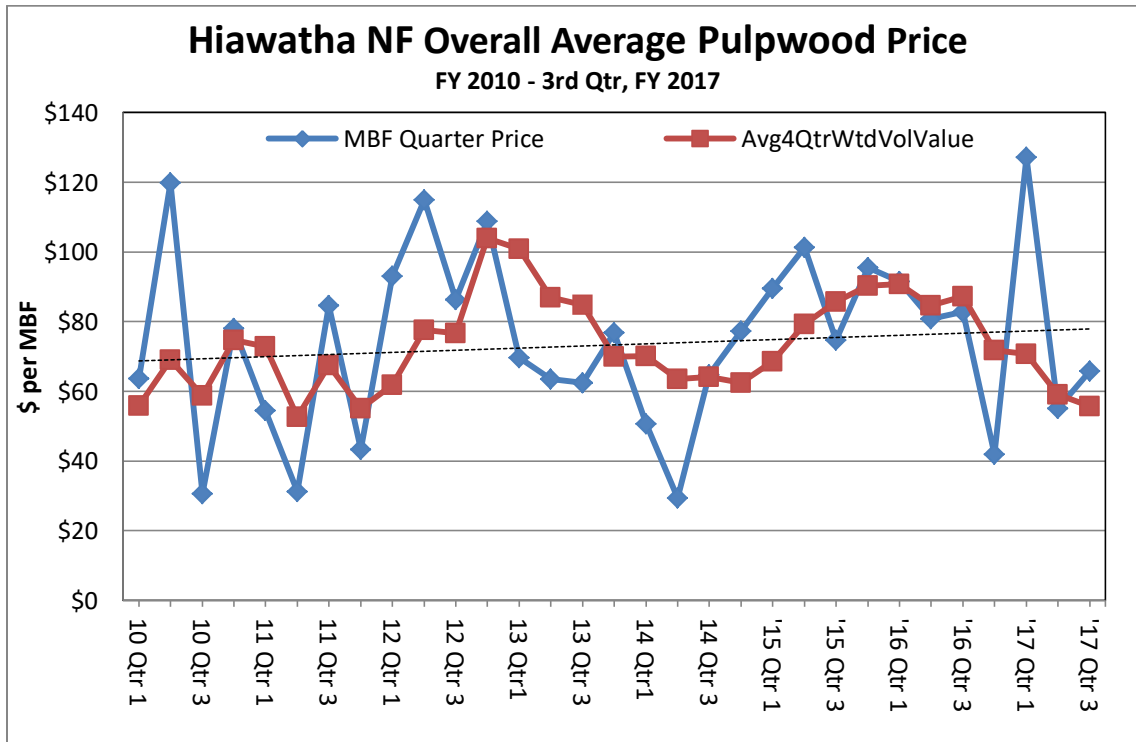
Hiawatha sawtimber sale volume fell from 3.8 to 1.44mmbf in the 3rd quarter. This low volume was somewhat of a surprise, given that sales were at a record 12.6mmbf volume in the 2nd quarter of last fiscal year and then there were four quarters of sale volumes under 4mmbf. The 6-year trend of sawtimber sale volume is slightly increasing, in large part due to that record 2nd quarter record volume last year. Sale volumes are often highest in the 4th quarter and that should hold true in this fiscal year.



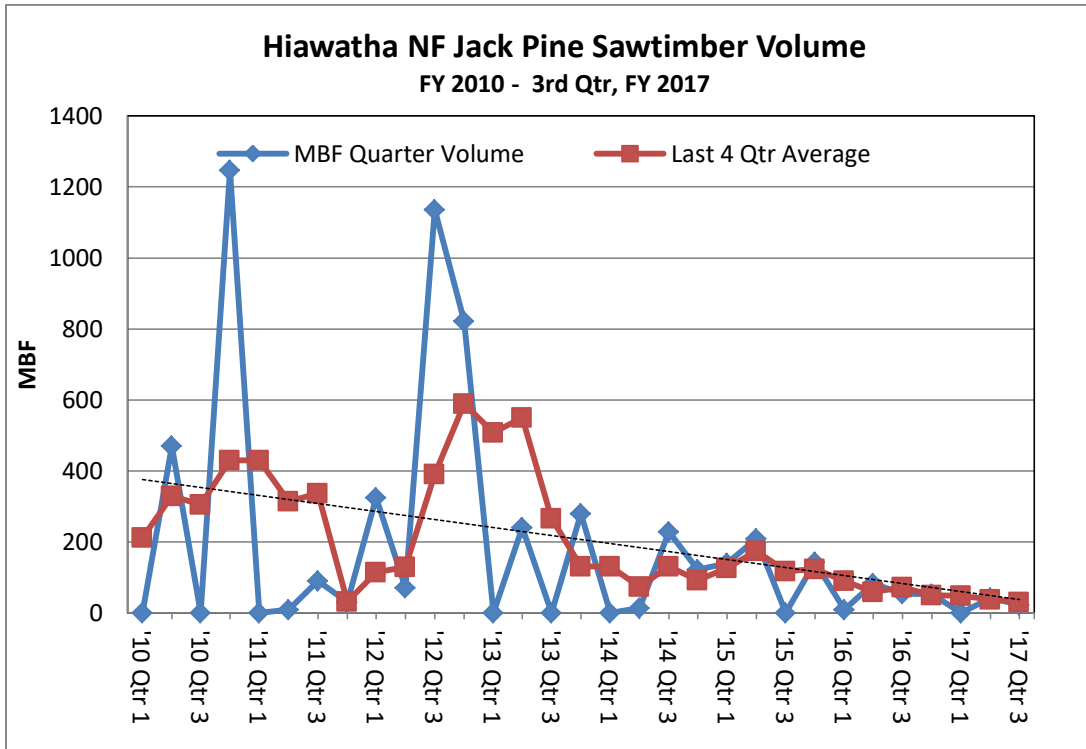
Average Hiawatha sawtimber prices fell sharply from \$187.48 to \$109.24 per mbf in the 3rd quarter. The average peaked at \$250 in the 1st quarter of FY 2015. The average sawtimber price is strongly influenced by the mix of species and products offered. The price is expected to rebound in coming quarters to be more in line with the increasing trend of the 4-quarter (weighted volume) value.



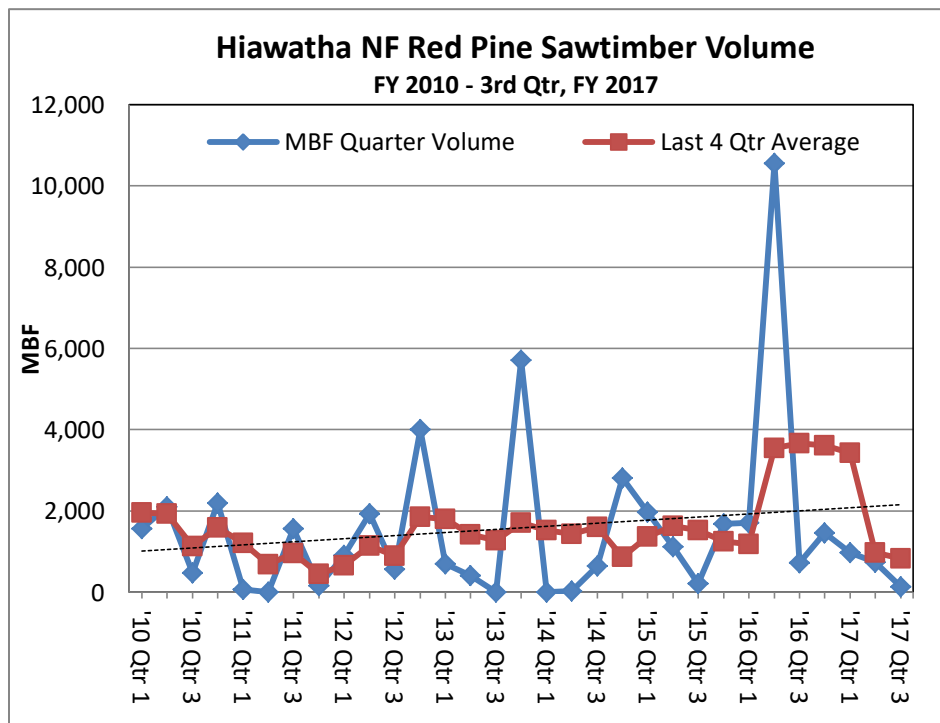
For the last six quarters, the Hiawatha pulpwood sale volume has been zigging and zagging. It zagged again in the 3rd quarter, falling sharply from 7.7 to 2.3mmbf. The swings in pulpwood volumes the last six quarters have been similar to but slightly smaller than what was frequently seen from 2011 through 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. It would be very surprising if sale volumes don't jump back up towards or even above 8mmbf in the coming 4th quarter.



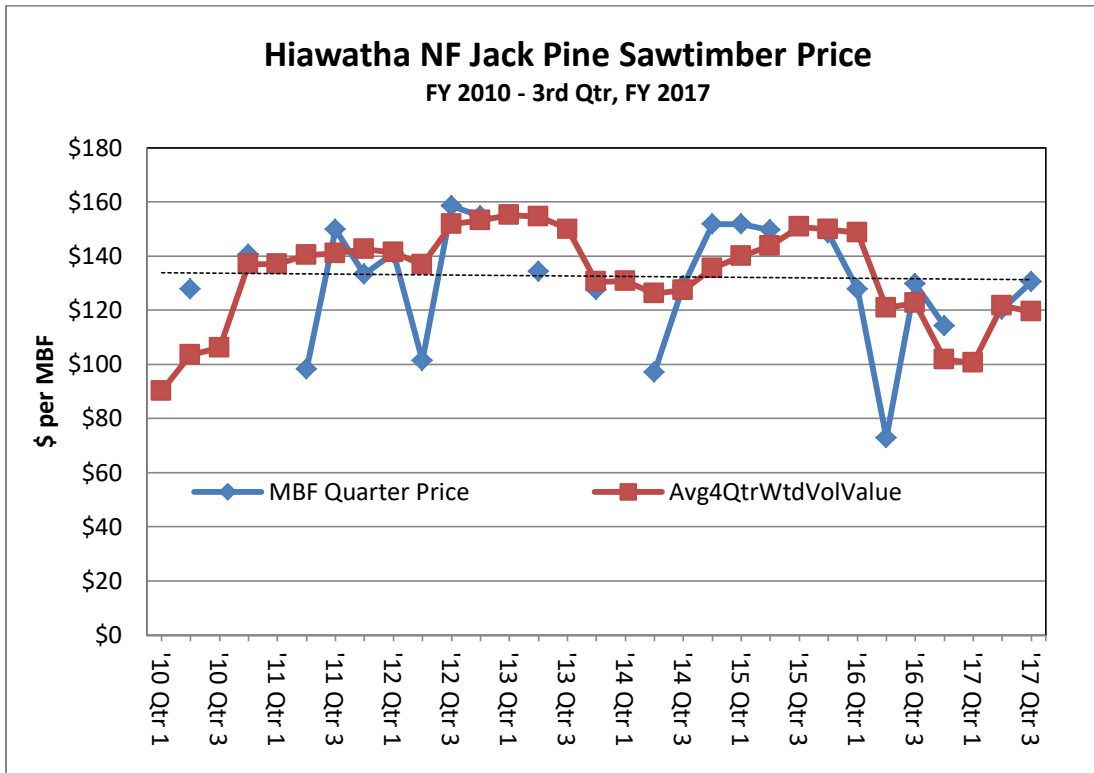
The sharp rise in the 1st quarter FY 2017 average pulpwood price to \$127 per mbf was followed by almost as sharp of a decline in the 2nd quarter to \$55.07 per mbf. It rose modestly from that level in the 3rd quarter, to \$65.85 per mbf. The six-year trend line shows a moderately increasing price trend since the beginning of FY 2010. Last year the price fell off sharply in the 4th quarter, but this year the price is not expected to change dramatically in the 4th quarter and an increase is considered as likely as a decline.



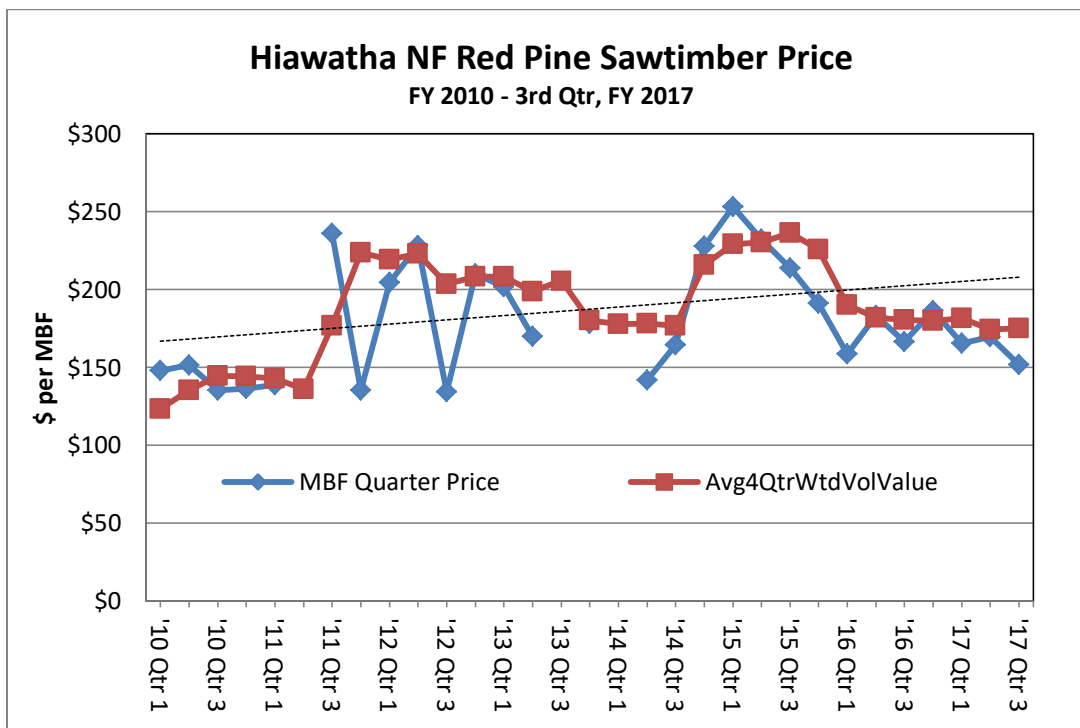
The 3rd quarter is the seventh quarter in a row that less than 100mbf has been sold of jack pine sawtimber on the Hiawatha. Sale volumes have been negligible for over three years. The highest volume sold in the past six years (1.25mmbf) was in the 4th quarter of FY 2010; sales also exceeded 800mbf twice in 2012. Quarterly sales have not reached even 300mbf since 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. Projected out, the declining six-year trend line looks like it would touch the x-axis in two to three quarters



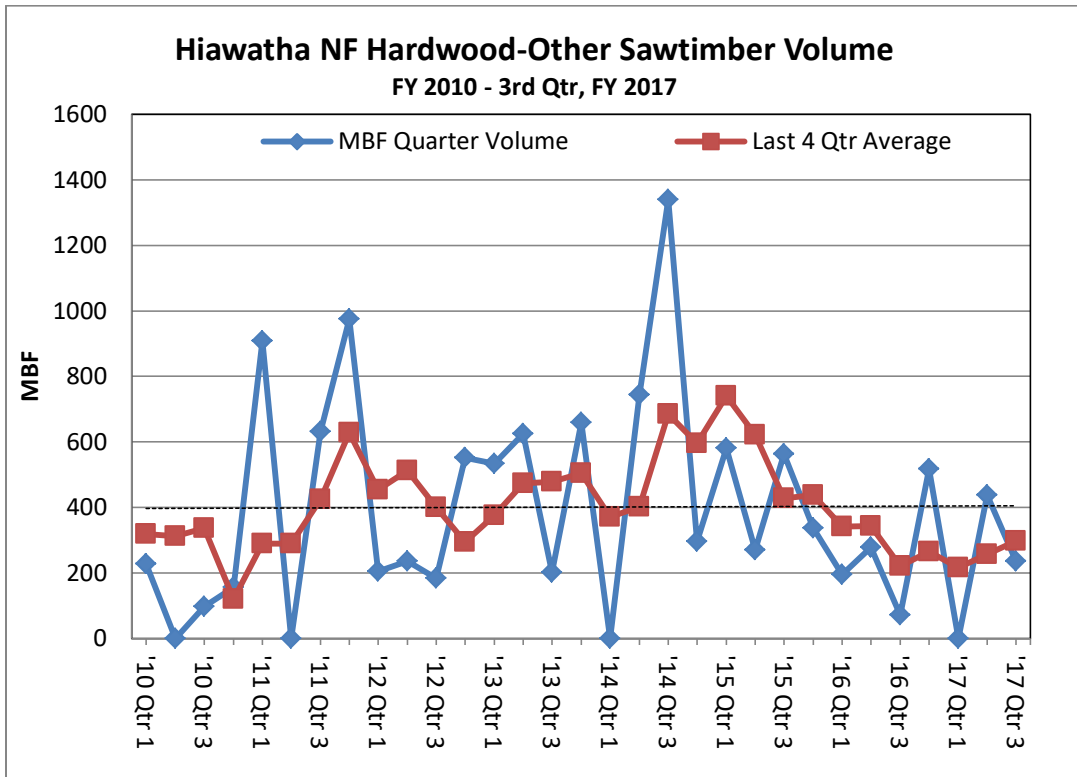
Hiawatha red pine sawtimber sale volume dropped again, from .730mmbf to .135mmbf. It had hit a record level of 10.56mmbf in the 2nd quarter of FY 2016, but has had five quarters under 2mmbf since then. While there is an increasing sale trend since FY 2010, without the record volume of last year's 2nd quarter, the six-year trend would be flat. While eight times as much red pine sawtimber as jack pine sawtimber has been sold on the Hiawatha since FY 2010, almost twenty times as much has been sold since FY 2013.



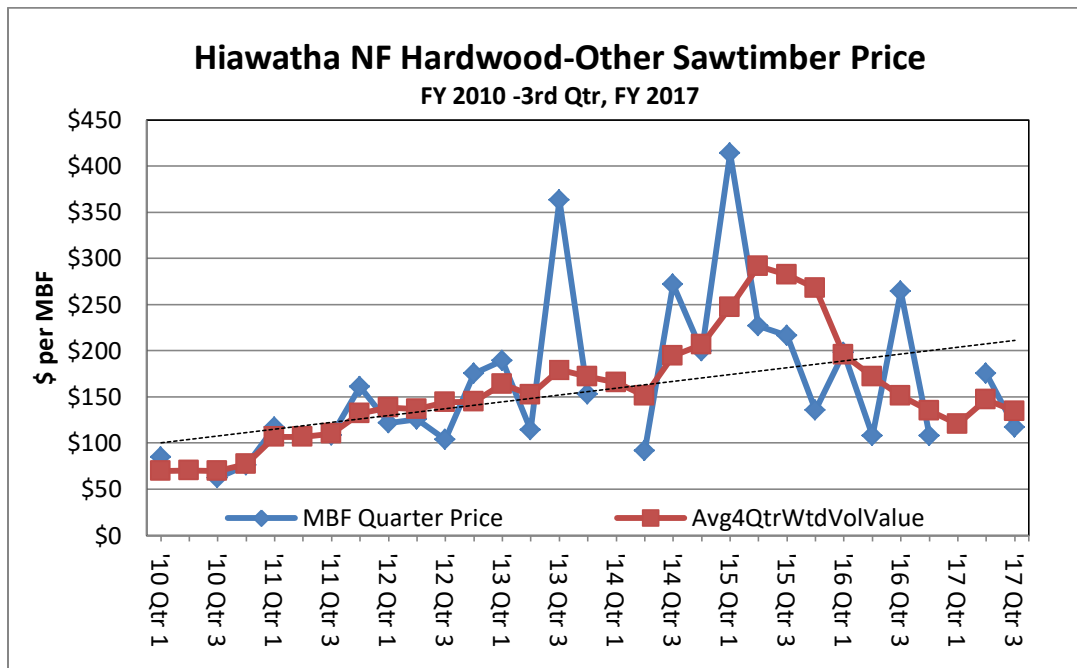
The 3rd quarter price for jack pine sawtimber rose slightly from \$120.27 to \$130.49 per mbf on very little volume (42mbf in the 2nd quarter and 22mbf in the 3rd quarter). Prices have been relatively stable, but they and the flat price trend is based upon many quarters with negligible or no sales.



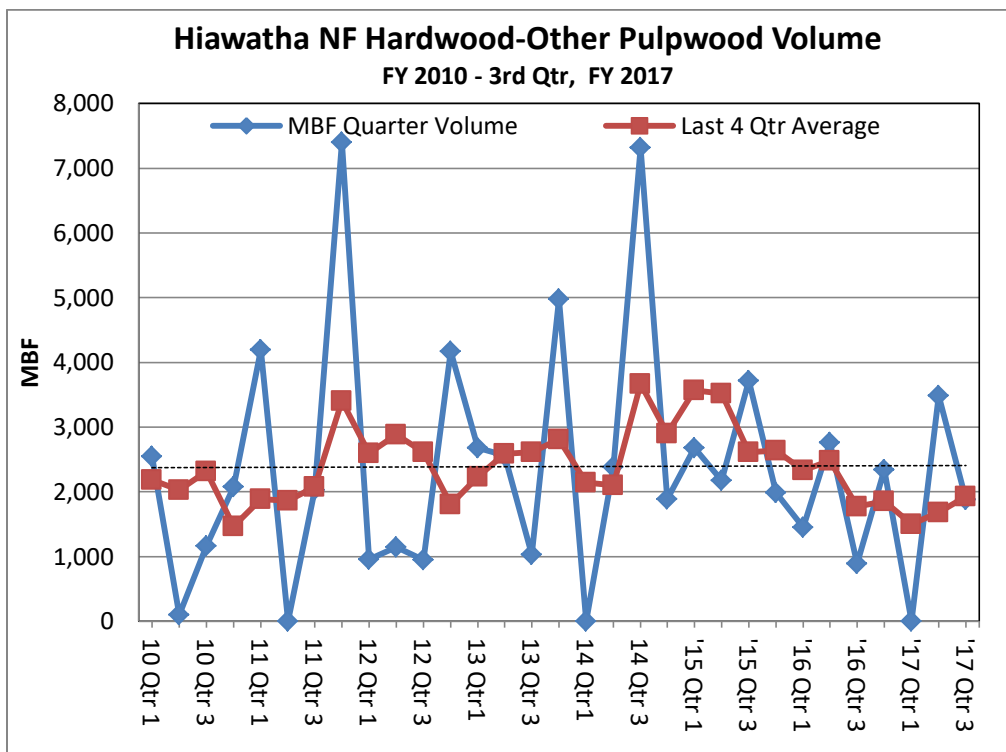
The red pine sawtimber price fell from \$169.57 to \$151.72 per mbf in the 3rd quarter. The price reached \$253 per mbf in the 1st quarter of FY 2015, its highest level in years. It then declined for four straight quarters before ranging between \$150 and \$190 for the past seven quarters. The overall six-year price trend has been moderately increasing and may point toward the price rebounding towards a \$200 per mbf level in an upcoming quarter.



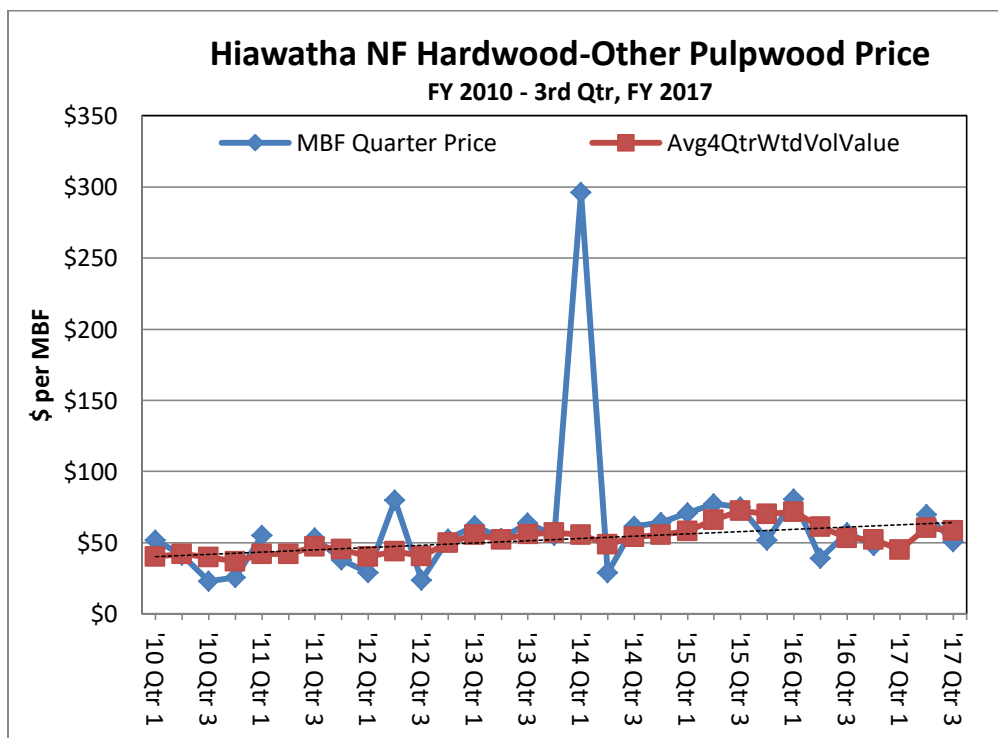
Hiawatha's "hardwood-other" sawtimber sale volume fell from 438 to 236 mbf in the 2nd quarter. Sale volume was at 518mbf in the 4th quarter of FY 2016 before falling to zero sales in the 1st quarter of this fiscal year. Quarterly sale volume reached a six-year record level of 1.3mmbf in the 3rd quarter of FY 2014, but no quarter has reached even 600mbf during the twelve quarters since then. The six-year sale volume trend has gone flat as each new quarter brings in sale volumes below 600mbf and often below 300mbf.



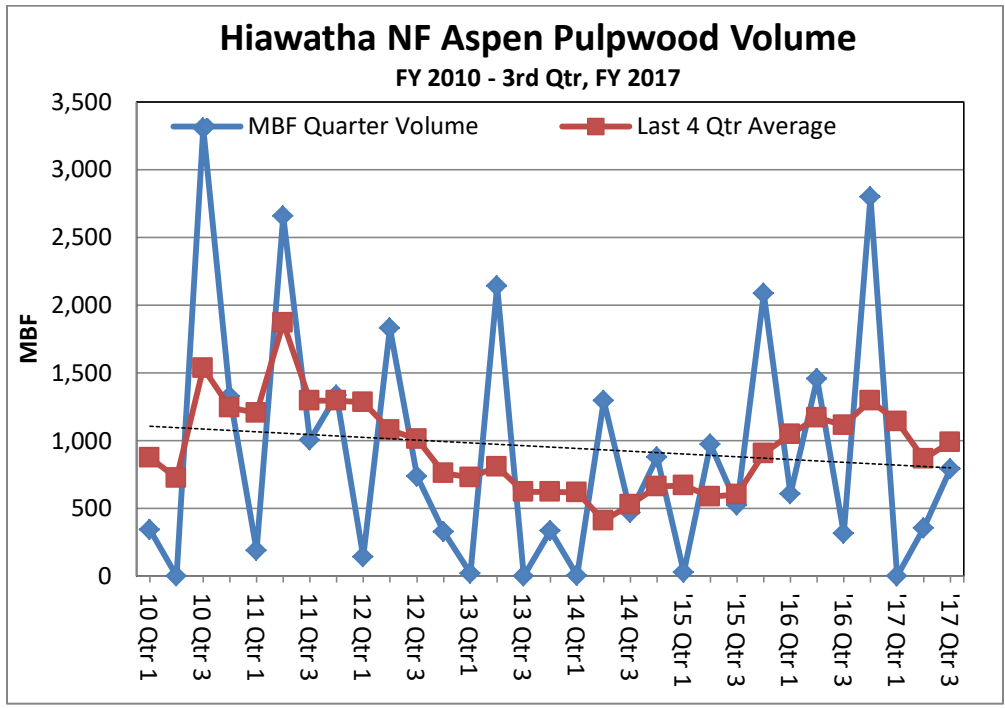
The 3rd quarter "hardwood-other" sawtimber price fell from \$175.42 to \$116.97 per mbf. Despite some relatively low prices in recent quarters, the quarterly price trend has risen fairly steeply over the past six years. Recent quarterly prices have largely been below the six-year trend line; it would be surprising if future quarters with sale volumes did not predominantly have price increases back towards \$200 per mbf.



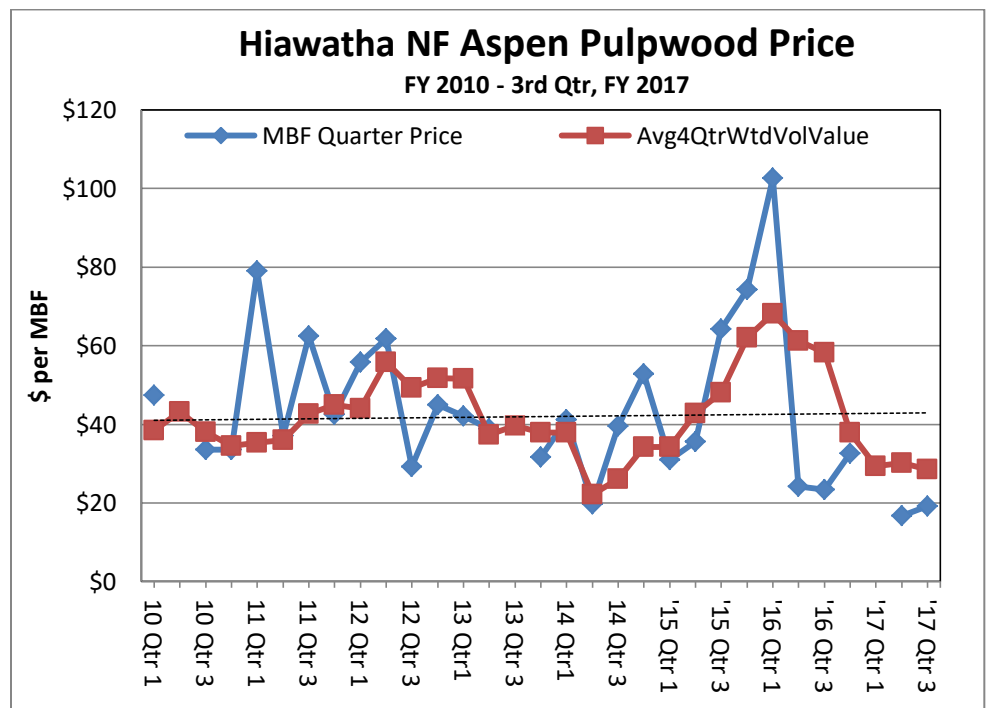
Hardwood-other pulpwood sale volume dropped back from 3.48 to 1.88mmbf in the 3rd quarter. Sale volumes have been close to 7.5mmbf twice in the last six years. The six-year sale volume trend has flattened out due to lower volumes in the past three years. The erratic nature of earlier sale volumes from 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.



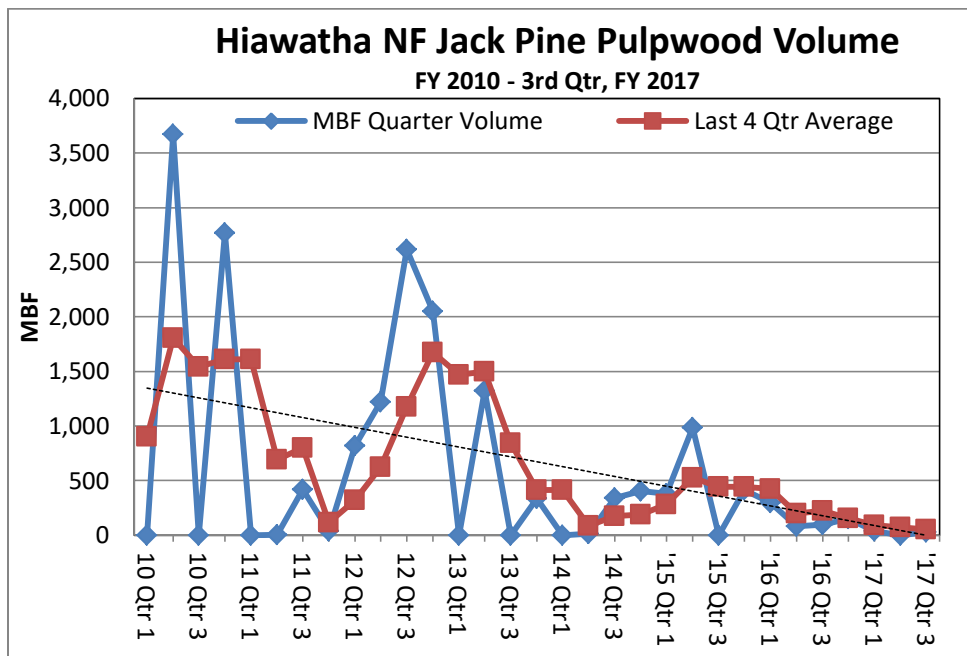
The price for "hardwood-other" pulpwood dropped back from \$69.65 to \$50.64 per mbf in the 3rd quarter. The 1st quarter FY 2014 price is an anomaly or error. Other than this major exception and a few minor ones, the price has largely fluctuated in a fairly narrow range around \$50 over the past six years, dropping as low as \$30 and rising as high as \$80. There has been a very modest increasing price trend for the period.



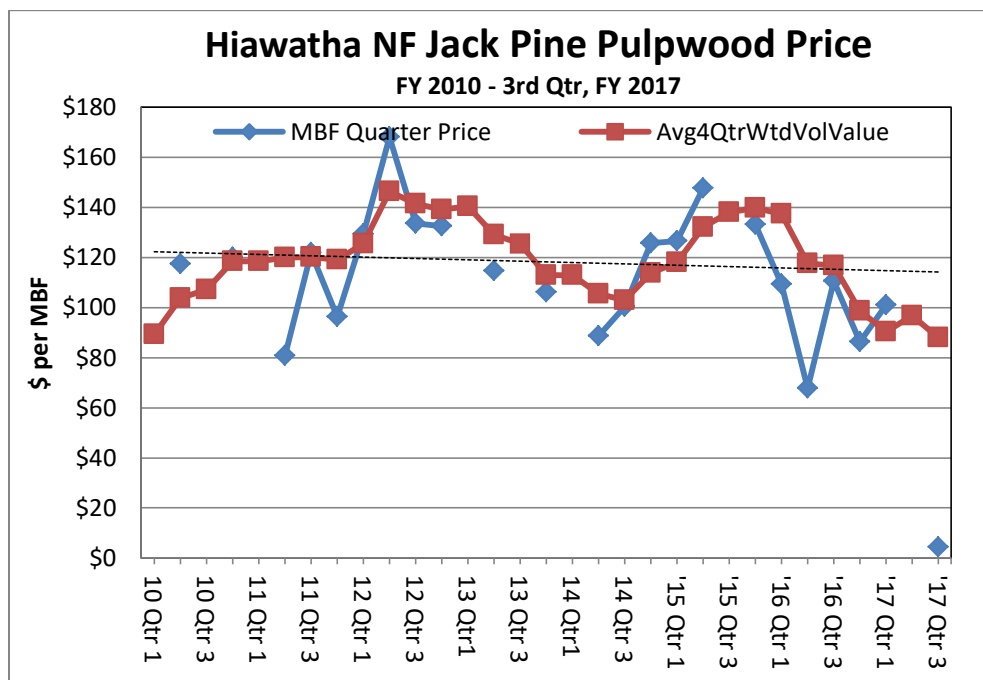
Sales of aspen pulpwood rose from only 357 to 790mbf in the 3rd quarter of FY 2017. This places the quarter's volume right on the six-year trend line. There was no sale volume in the 1st quarter after being at 2.8mmbf in the 4th quarter of FY 2016. Aspen pulpwood sale volumes have been erratic. There has been a slight downward sale volume trend over the past six years.



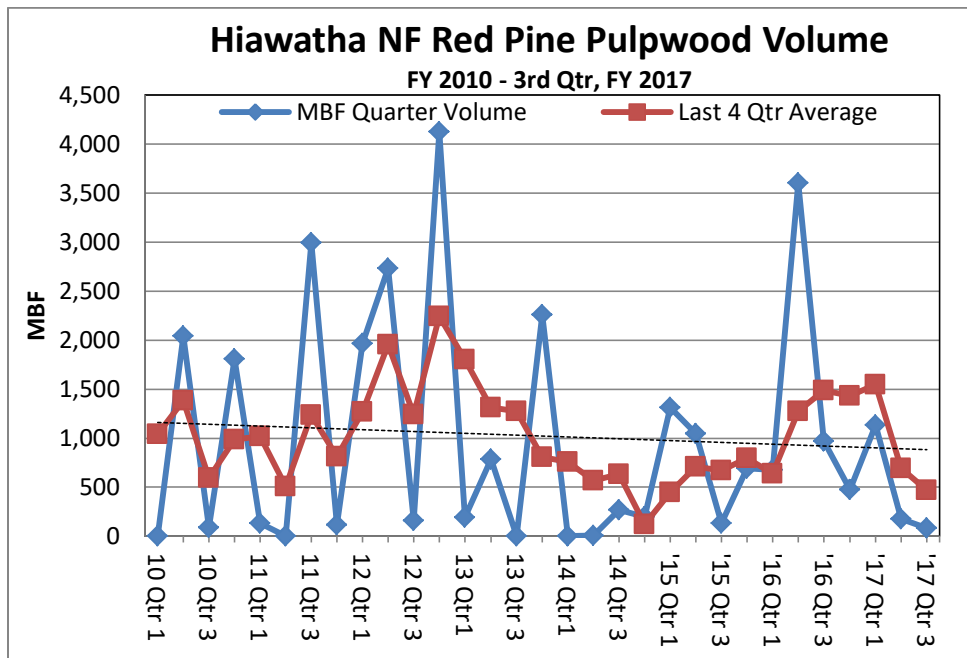
The 2nd quarter price for aspen pulpwood was a record low \$16.80 per mbf; it rose to \$19.19 in the 3rd quarter. There were no sales of aspen pulpwood in the 1st quarter, so there was no price then either. The 4th quarter, FY 2016 price blipped up to \$32.65 per mbf after being close to \$24 for two 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 has fallen.



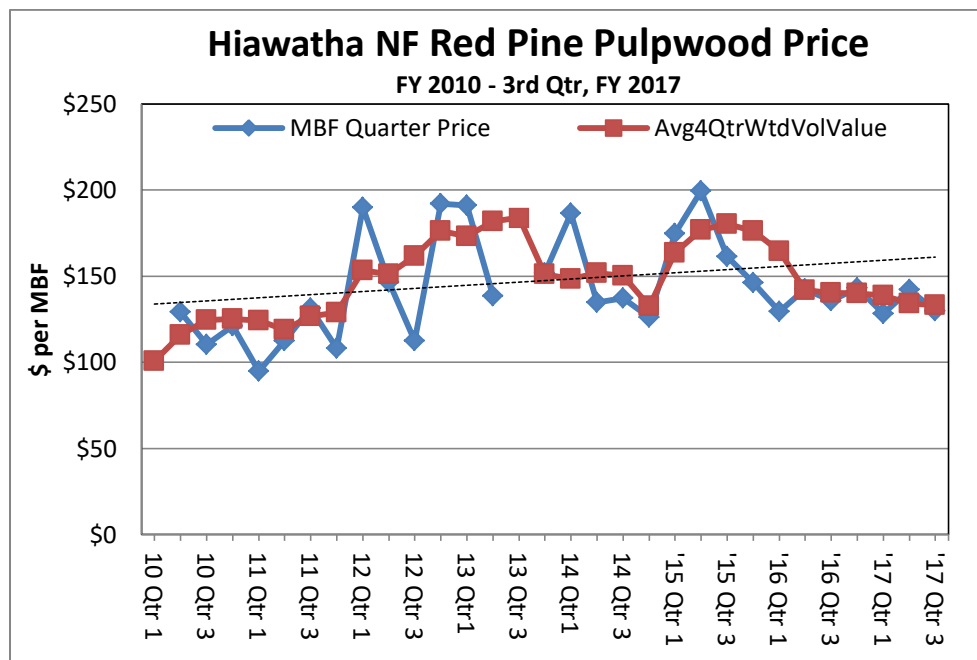
The jack pine pulpwood volume graph is very similar to the jack pine sawtimber graph. Jack pine has had a diminishing - almost disappearing - presence in both sawtimber and pulpwood Hiawatha timber sales. Jack pine pulpwood sales have been consistently at a very low level throughout FY 2016 and the first three 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 reach or exceed that level; however, most quarters are likely to continue to have very negligible or no volumes.



The jack pine sale volume has been so low for so many quarters that any associated prices are quite suspect. The six-year trend line is essentially flat, but there really is not much of a basis for a trend line as there are as many quarters with no or negligible sales of jack pine as there have been quarters with credible levels of sales over the past six years.



Red pine pulpwood sale volume fell further in the 3rd quarter, from 176 down to 84mbf. It was over 1mmbf in the 1st quarter of FY 2017. 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 or severe as jack pine pulpwood's, it does portend limited volumes (under 1mmbf) are likely in most future quarters



The 3rd quarter red pine pulpwood mbf price decreased from \$142 to \$130 per mbf. The price has been relatively stable for two years. 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 a slight upward trend over the past six years. However, if FY 2010 and FY 2011 were dropped, the most recent four to five 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.