

Michigan Public Timber Markets, 2nd Quarter (January - March), FY 2016

State Forest data – Total sale volume increased again in the 2nd quarter of FY 2016. It had dropped sharply in the 4th quarter of FY 2015 after two quarters of relatively high volumes. Bid-species-only volume was 212,100 cords. NLP bid species sale volume rose from 95,780 to 119,464; it was at a record low in the 4th quarter at less than 40,000 cords. The UP volume rose from 81,700 to 92,861 cords. Quarterly sale patterns of the past few years have involved lower than average 4th and 1st quarter volumes and higher volumes in the subsequent 2nd and 3rd quarters. In this light, volumes are likely to be as high or possibly increase in the coming 3rd quarter.

The 2nd quarter overall average bid price decreased modestly from \$61.48 to \$60.14 per cord. It had climbed to \$64.32 and then a record \$69.99 per cord in the FY 2015 2nd and 3rd quarters. While there may continue to be a few quarters of relatively stable prices, the long-term trend is expected to include moderate price increases.

NLP aspen pulpwood bid species sale volumes have been yo-yoing from one quarter to the next, but they only changed slightly between the 1st and 2nd quarters. They went from a record 41,330 cords to 7,550 cords in the last quarters of FY 2015, then to 28,529 cords in the 1st quarter of FY 2016 and now to 27,599 cords in the 2nd quarter. UP aspen pulpwood sale volume dropped from 18,850 to 13,988 cords in the most recent (2nd) quarter while prices went from \$47.87 to \$49.23 per cord. The NLP price went from \$28.50 down to \$25.07 per cord. Red pine pulpwood bid species sale volumes also continued to increase in both peninsulas with the UP sale volume almost doubling from 6,335 to 12,394 cords while the NLP volume went from 9,817 to 12,114 cords. The NLP red pine pulpwood price fell from \$76 to \$61.48 per cord while the UP price rebounded to \$98.45 per cord after falling from almost \$120 down to \$83 per cord in the 1st quarter. NLP jack pine pulpwood bid species volume went from 29,292 cords in the 2nd quarter of last year, down to 8,818 cords, then to 4,586 cords, and bottomed out at 2,933 cords in the 1st quarter before hitting 5,628 cords in the most recent quarter. UP jack pine pulpwood sale volume was over 12,000 cords several quarters last year before plummeting to only 221 cords in the 1st quarter; it rebounded to 13,087 cords in the most recent quarter. UP jack pine pulpwood cord prices rose from \$45.60 to \$61.08 in the 2nd quarter. NLP jack pine prices went in the opposite direction as they decreased from \$87.42 all the way down to \$26.42. UP softwood pulpwood sale volume dropped from 24,800 to 15,090 cords in the 1st quarter then dipped further in the 2nd quarter to 13,628 cords. The price rose in the 2nd quarter from \$34.47 to \$39.92 per cord. NLP Oak pulpwood sale volume fell back from 10,904 to 8,526 cords while the price plummeted back down to \$24.67. Other hardwood pulpwood volume rose further from 44,085 to 55,652 cords while its price remained stable at just under \$36 per cord. Statewide red pine sawtimber prices continued their gradual decline, down to \$210 per mbf while volumes increased from 7mmbf to over 8.3mmbf. UP sugar maple sawtimber prices rose from \$762 to \$895 per mbf as volume more than doubled from 534mbf to 1,125 mbf. The NLP sugar maple sawtimber price dropped back from \$563 to \$474 per mbf as the volume also more than doubled from 482mbf to 1,252mbf. NLP oak sawtimber volume fell from 3.77mmbf to 2.74mmbf while its price declined from \$263 to \$225 per mbf.

National Forest data – Total UP National Forest sawtimber sale volumes increased sharply (from .6 to 5mmbf on the Ottawa and 2.5 to 12.6mmbf on the Hiawatha) while Huron-Manistee (H-M) sawtimber volume fell from 1.9 to .9mmbf. Total pulpwood volumes changed similarly with the Ottawa increasing from 6 to 15mmbf and the Hiawatha increasing from 4.5 to 10.4mmbf while the H-M fell from 3 to 1.8mmbf.

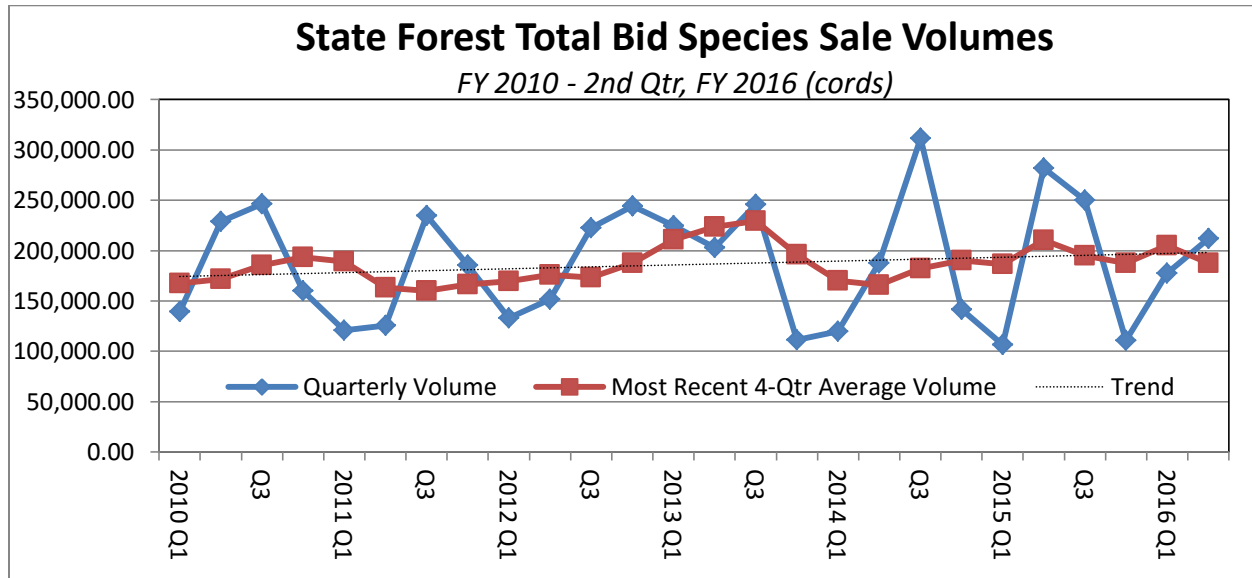
Ottawa's overall average sawtimber price fell sharply from \$291 to \$179 per mbf while its overall pulpwood price dropped from \$75.52 to \$70.60 per mbf. Ottawa sugar maple sawtimber sale volume fell from a record of 3.1mmbf to only 290mbf in the 1st quarter and inched up to 402mbf in the 2nd quarter while its price dropped from \$529 to \$391 and then to \$365 per mbf during the same period. Its aspen pulpwood sale volume was virtually unchanged as it went from 2.9 to 2.8mmbf in the 2nd quarter and the price dropped sharply from \$109 to \$45 per mbf. The "hardwood-other" pulpwood volume rebounded a bit from 2.8 to 4.8mmbf while its average price dropped from \$43 to only \$24 per mbf. The Hiawatha's overall average sawtimber price increased from \$158 to \$174 per mbf as its red pine price fell bounced back up from \$159 to \$183. Its "hardwood-other" sawtimber price dropped very sharply from \$198 down to \$108. Hiawatha aspen pulpwood sale volumes increased from .6 to 1.5mmbf while the price fell by more than 75% from \$103 to \$24 per mbf. Jack pine pulpwood sale volume fell further as it went from 297 to only 80mbf as its average price sharply dropped from \$74 to \$25 per mbf. Red pine pulpwood volume shot up from .7 to 3.6mmbf with the average price rising from \$129 to \$143 per mbf. H-M average mbf sawtimber prices dipped from \$93 to \$87 per mbf while average pulpwood prices fell sharply from \$81 to \$42.50 per mbf. For the second quarter in a row, there was virtually no H-M aspen sawtimber sold (a record 3.74mmbf was sold in the 4th quarter of FY 2015). Similarly, the 4th quarter's aspen pulpwood 4.8mmbf record sale level has been followed by two quarters of virtually no aspen sales. Red pine sawtimber sale volume decreased from 1.4mmbf down to .3mmbf as its average price increased again from \$118 to \$127 per mbf. Jack pine pulpwood volume fell from 403 to 143mbf while its average reported price shot up from under \$2 to over \$26 per mbf. H-M red pine pulpwood sale volume dropped sharply from 2.15 to .77mmbf as its price also dropped sharply from \$110 to \$57 per mbf.

State Forest Quarterly Timber Sales for Major Species & Products

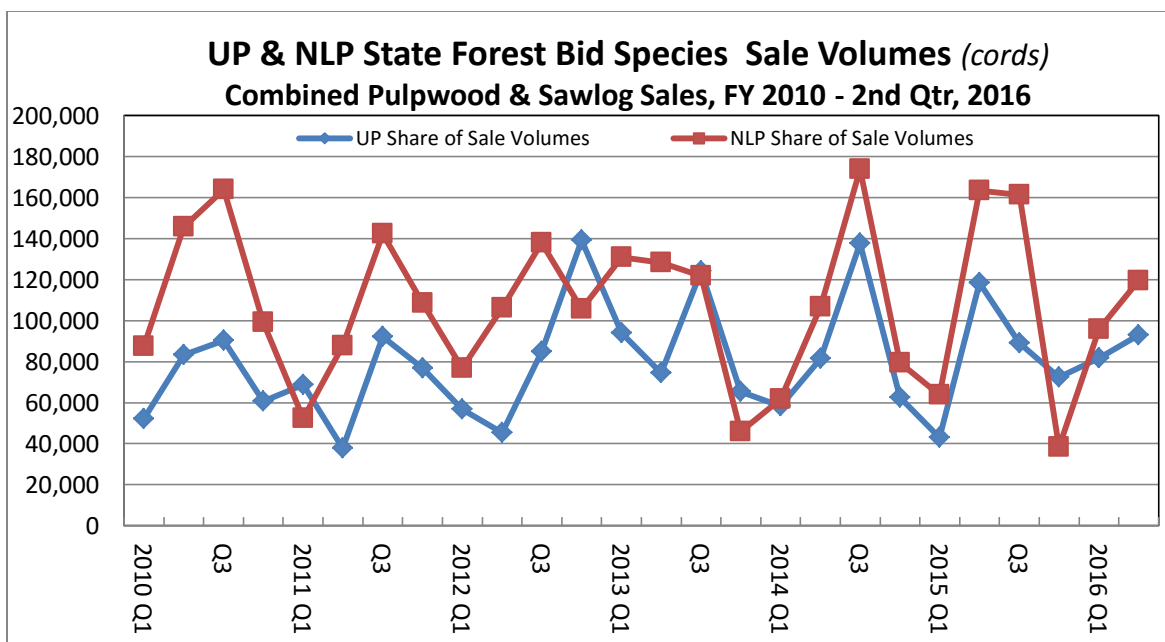
FY 2010 – 2nd Quarter, FY 2016

Source: Michigan DNR, Forest Resources Division

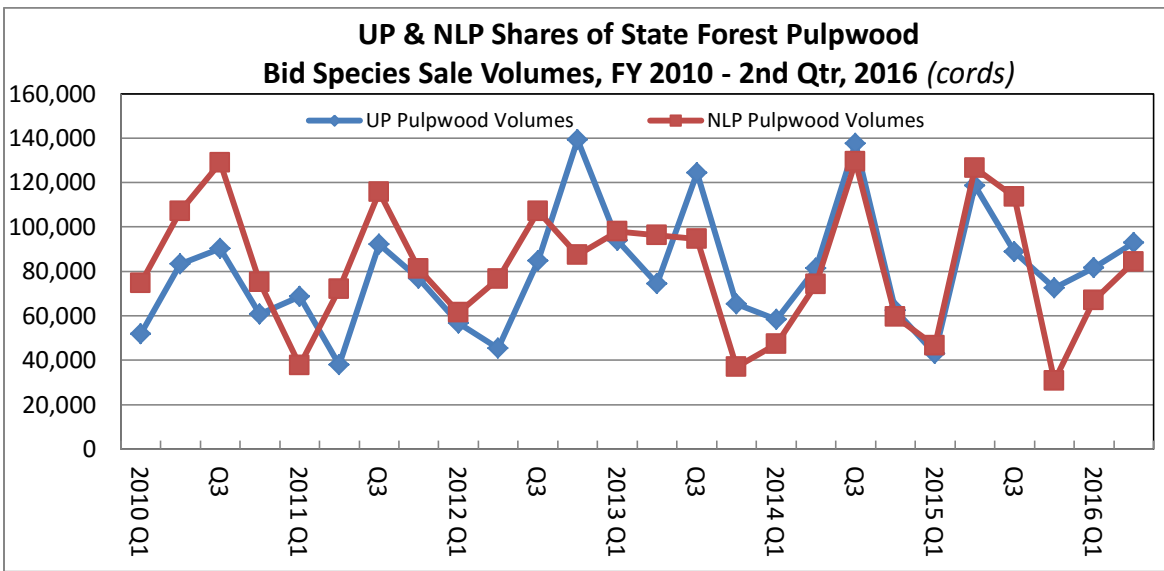
The State follows the federal fiscal year (October 1 through September 30). Graphs below use bid species sale volume and value data; total sale volumes and values are slightly more. The graphs often include a dotted trend line based upon data for the average of the most recent four quarters (labeled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



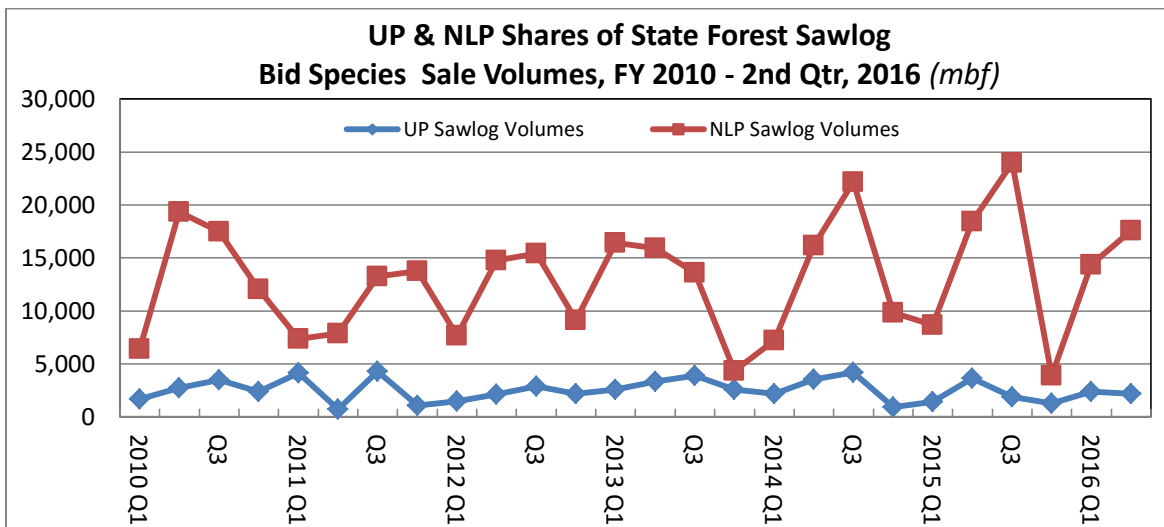
Sale Volume for bid species rose from 177,500 to 212,100 cords in the 2nd quarter of FY 2016. The volume had dropped sharply in the 4th quarter of FY 2015 to 111,000 cords after being at 282,000 and 250,000 cords in the previous two quarters. The record sale volume of 311,000 in the 3rd quarter of FY 2014 was partly due to a large number of rebid sales. The 4th and 1st quarters of every fiscal year have tended to have lower sales than the 2nd and 3rd quarters and this pattern has been more pronounced in recent years. Next (3rd) quarter's volume may rise further given the quarterly sale pattern.



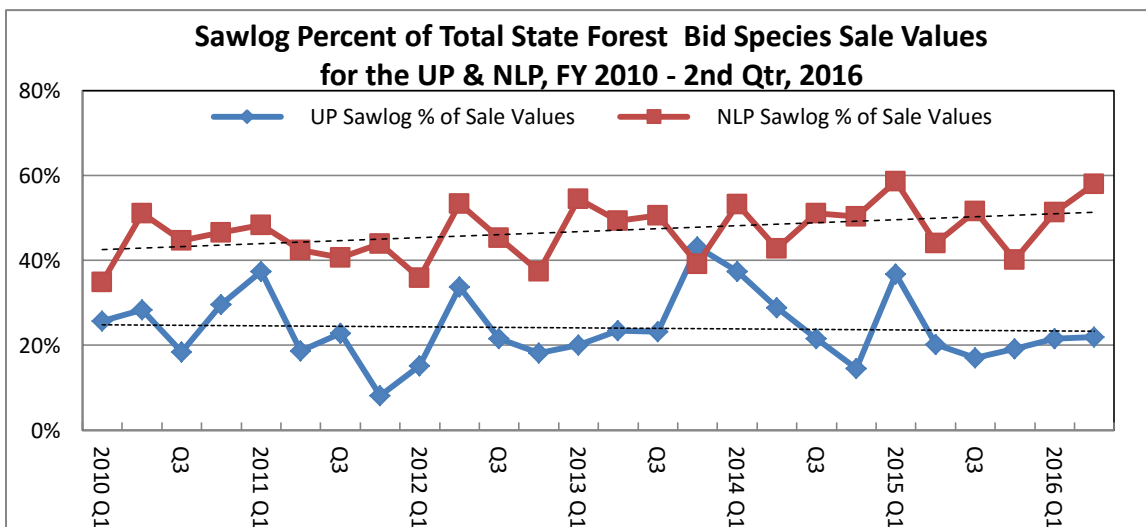
Both the UP and NLP increased their bid species sale volumes in the 2nd quarter of FY 2016, to 92,861 cords and 119,464 cords respectively. Both peninsulas had increased their sale volumes in the 1st quarter too, following lows in the 4th quarter of FY 2015. The 4th quarter NLP volume was the lowest in the past six years; however, it followed back-to-back high sale volumes in the prior two quarters. The NLP generally has higher, but more erratic sale volumes than the UP.



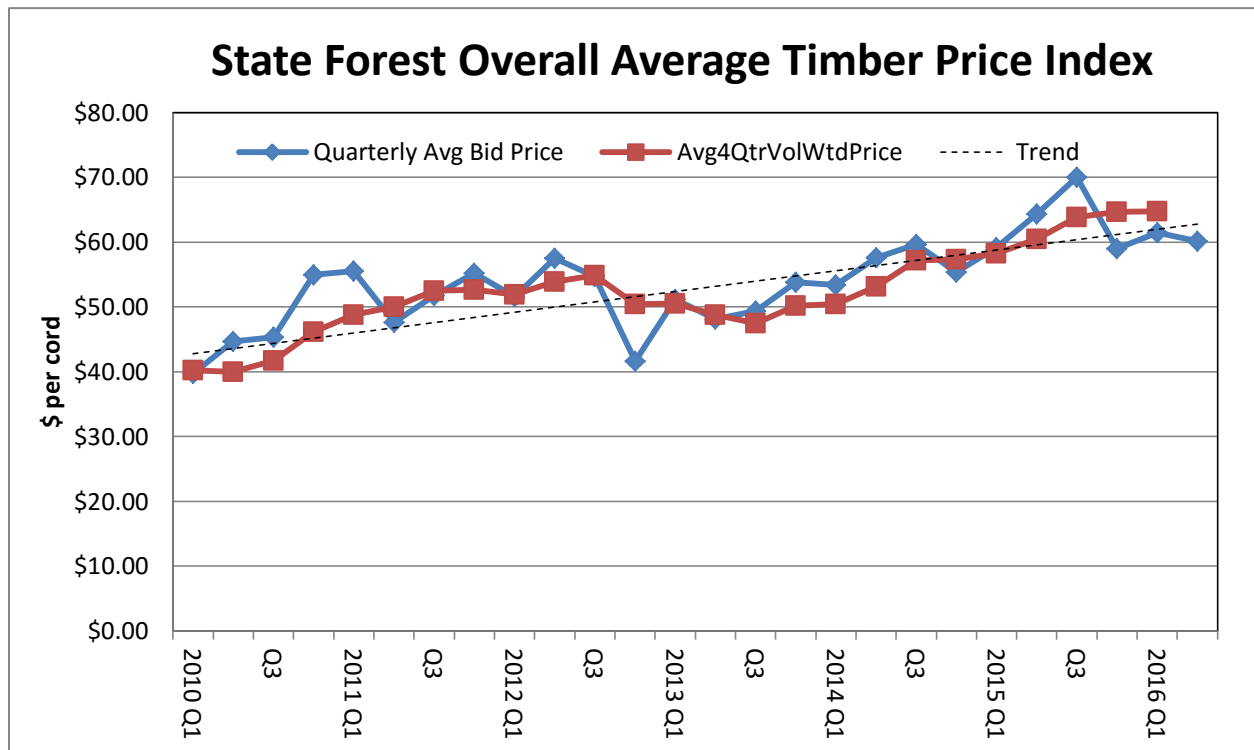
Pulpwood sale volume accounts for about 80% of total State Forest sale volume. Sale volumes increased further in the 2nd quarter. The NLP increase was larger than the UP's as its sales continued to recover from a low two quarters ago.



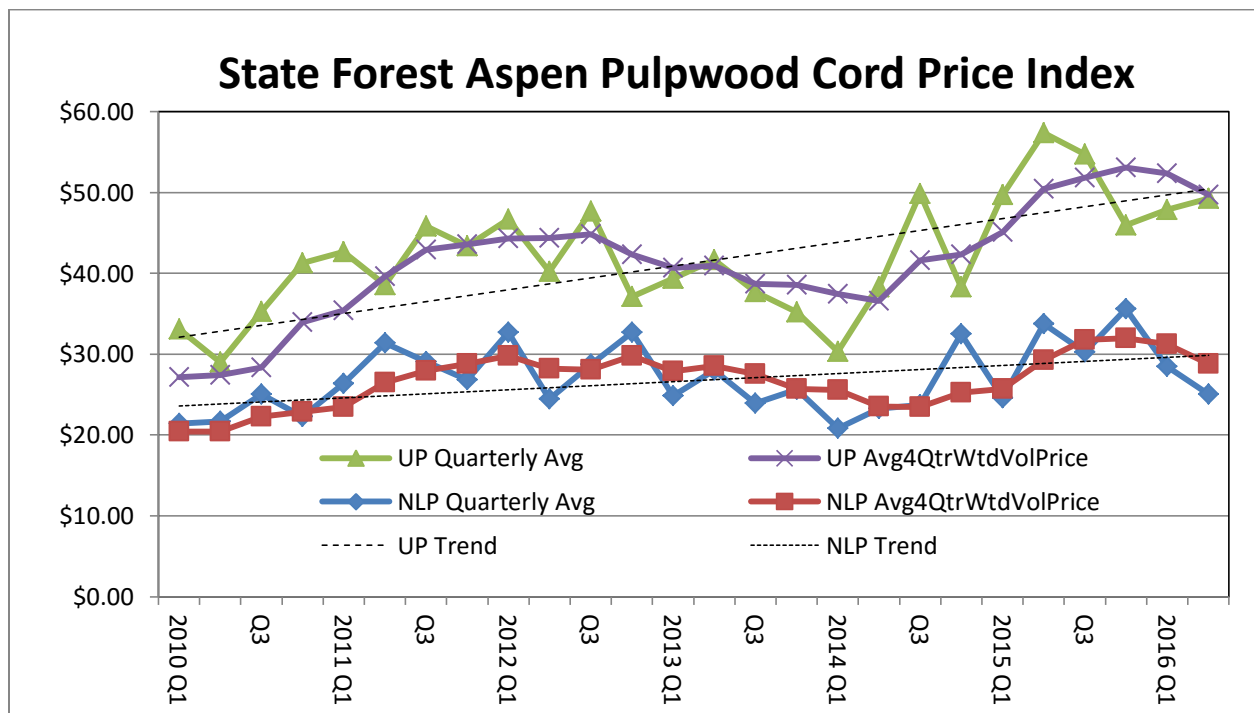
1st quarter NLP sawlog volume rebounded after hitting a record low in the 4th quarter of last fiscal year. UP sawlog volume increased slightly. NLP sawlog volumes and values are generally much higher but more erratic than the UP's.



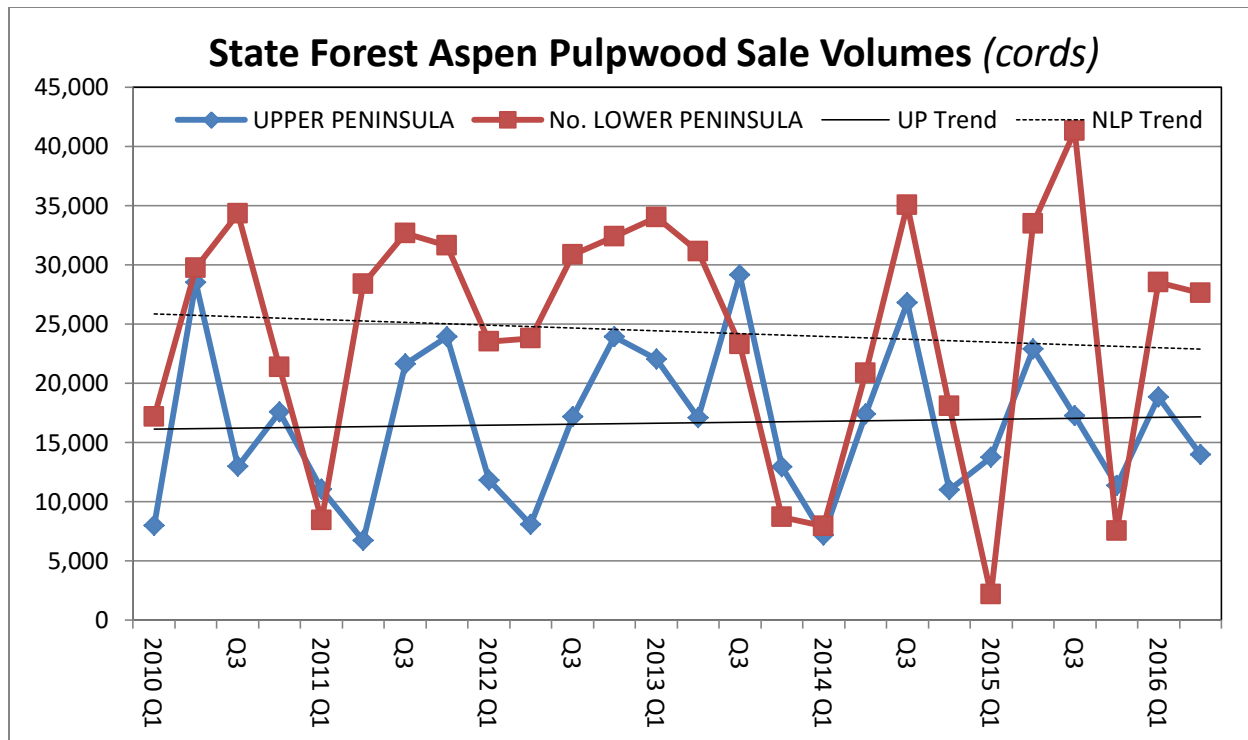
NLP and UP sawlog percent of bid species sale values increased again in the 2nd quarter. The UP six-year trend line is flat while the NLP's trend line is slightly increasing.



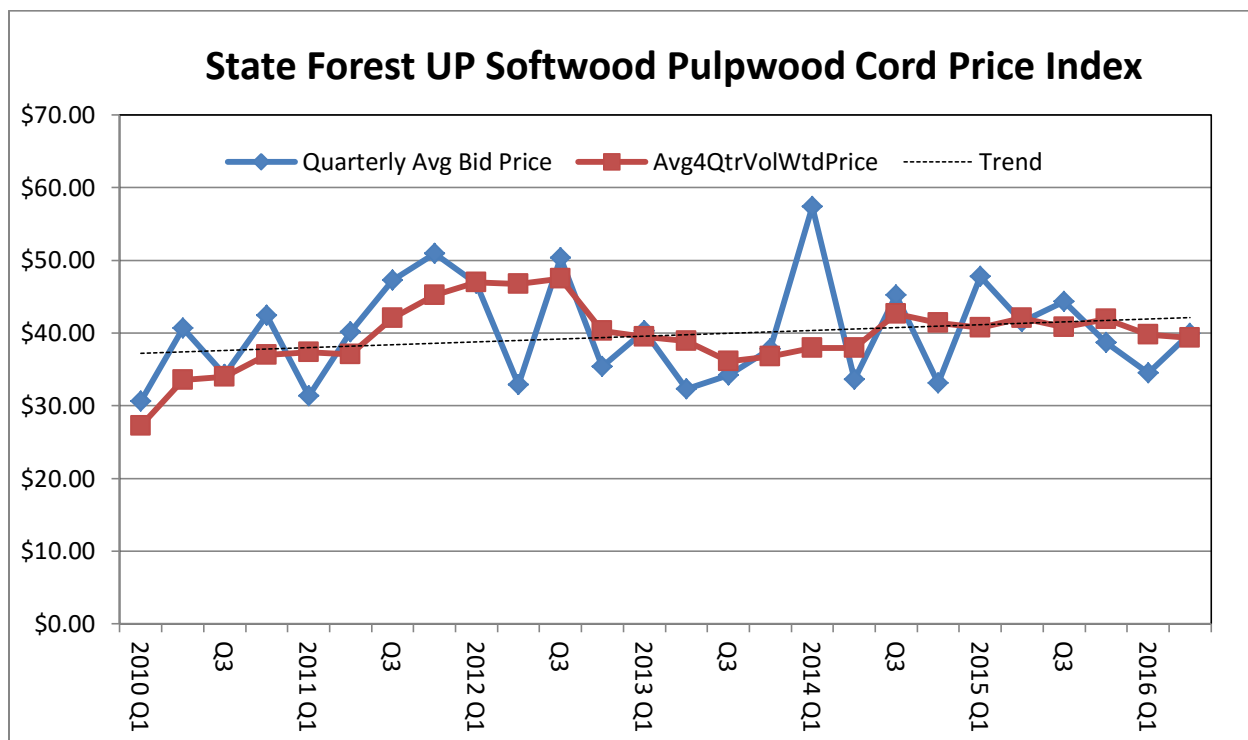
The 2nd quarter overall average timber price index declined slightly, from \$61.48 to \$60.14 per cord. Before falling in the 4th quarter of FY 2015 to \$59.00, it had jumped to a record level of \$69.99 in the previous (3rd) quarter. With a few notable exceptions (e.g. the 4th quarters of FY 2012 and FY 2014 and the most recent quarter), prices have been increasing fairly steadily for the past five years. The “Avg4QtrVolWtdPrice” (red) line shows how a moving four-quarter average price - weighted by volume - has increased from under \$50 per cord to \$65 per cord in the past two years, although it appears to have stabilized at that level for the most recent three quarters.



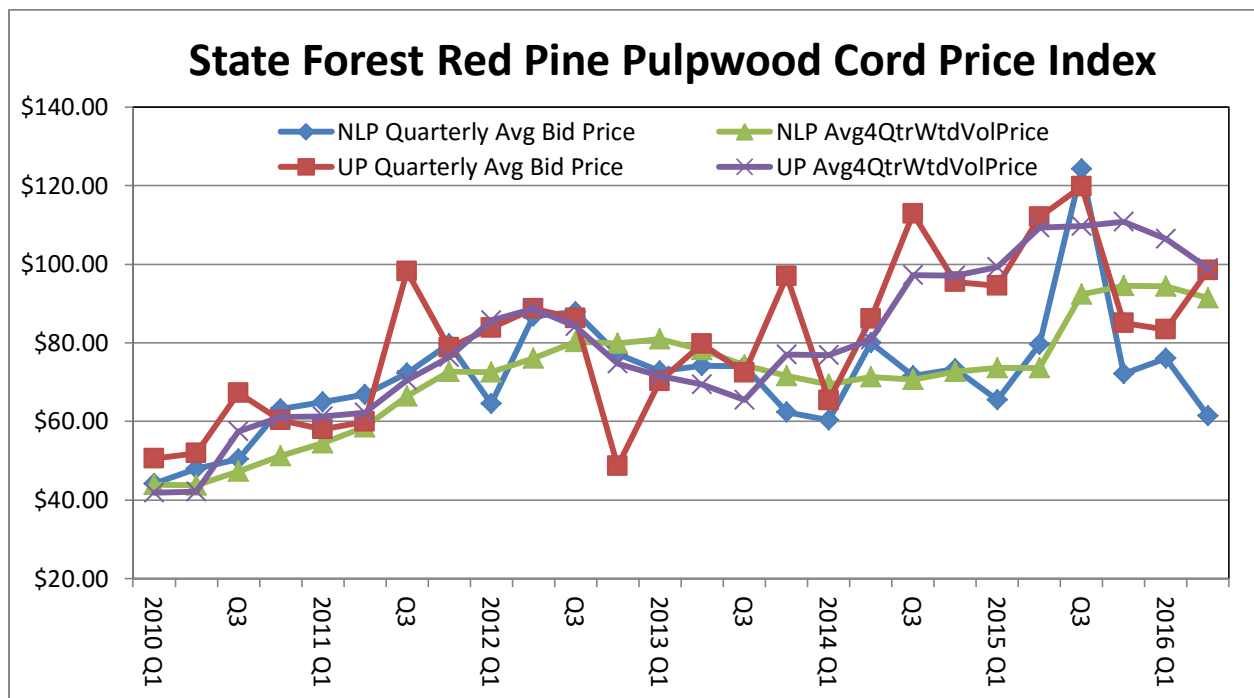
UP average Aspen pulpwood cord prices rose again, from \$47.87 in the 1st quarter to \$49.23 in the 2nd quarter. In FY 2015, they had reached a record level of \$57.39 per cord in the second quarter before falling all the way to \$45.93 in the 4th quarter. In contrast to the UP, the NLP aspen cord price decreased again in the 2nd quarter, from \$28.50 to \$25.07. The average per cord price gap between the peninsulas widened to over \$24 per cord as a consequence of the divergent peninsula price directions. The UP price trend also is steeper relative to the NLP price trend.



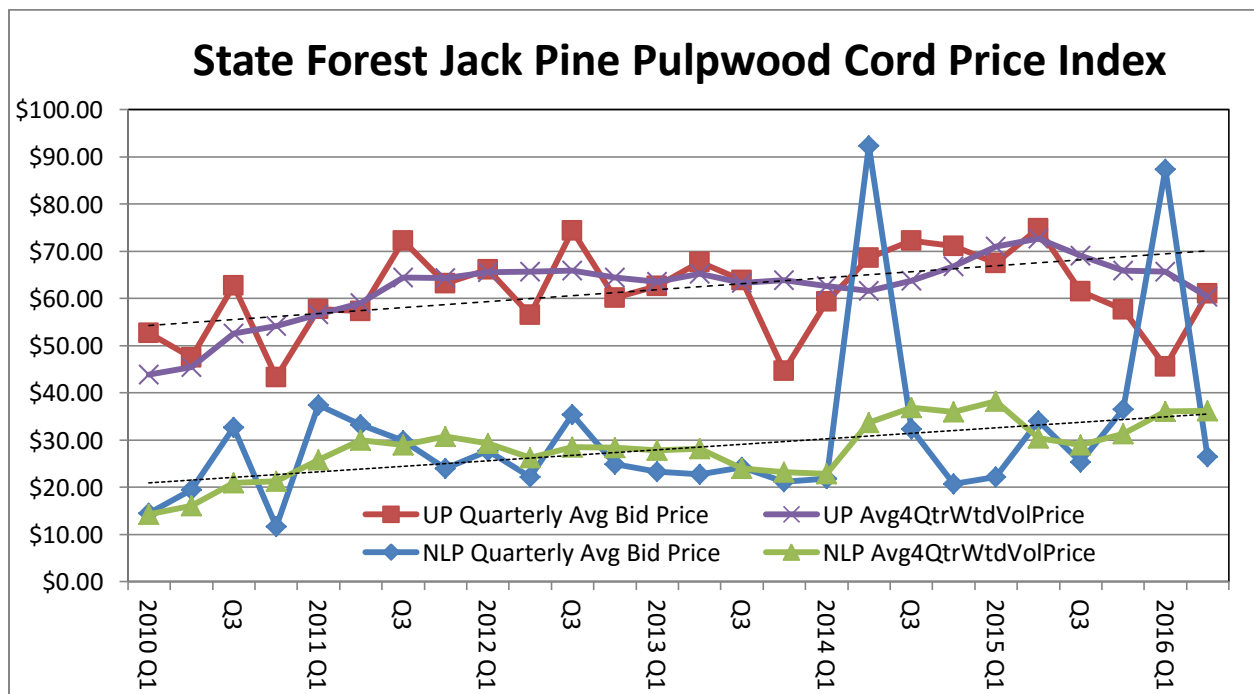
NLP aspen pulpwood sale volume dipped from 28,529 to 27,599 cords in the 2nd quarter. It had plummeted from a record high of 41,328 cords down to only 7,553 cords in the 3rd and 4th quarters of FY 2015. The above graph shows how there have been extreme swings in quarterly sale volumes for NLP aspen in recent years, with highs in the 3rd quarter. UP aspen sale volume swings have been more mild. UP Sale volume decreased in the 2nd quarter from 18,850 to 13,988 cords. The UP has a slightly increasing sale volume trend line while the NLP has had a slightly declining trend.



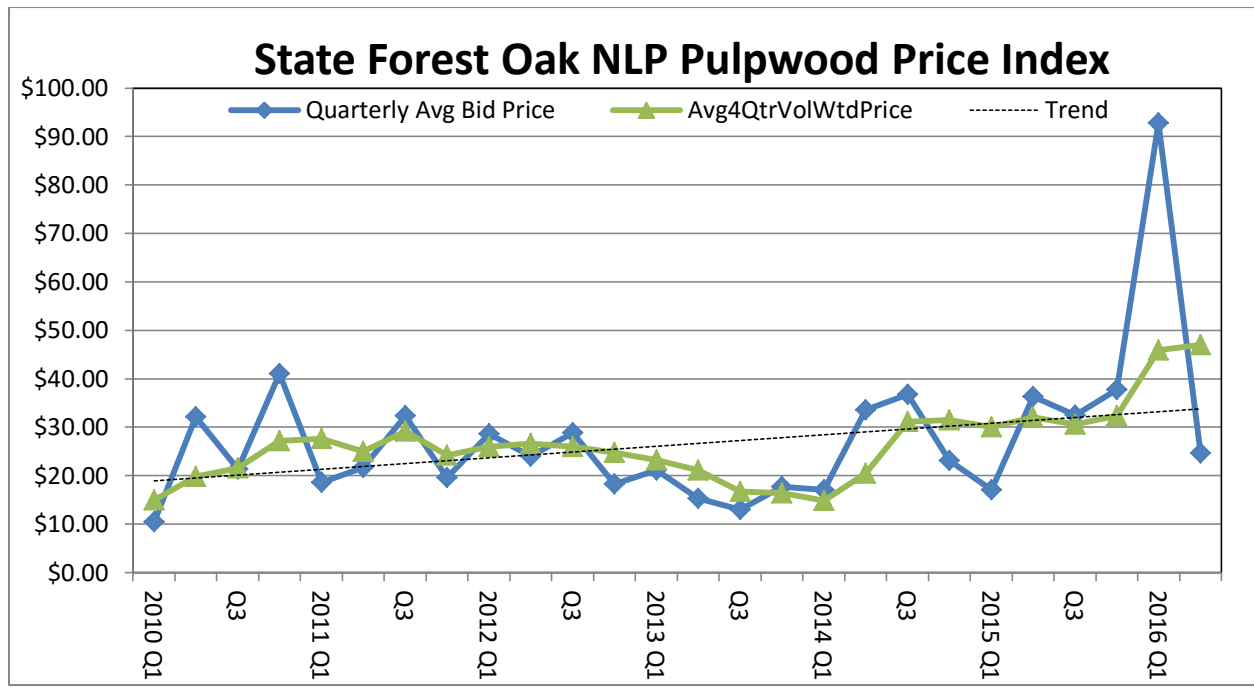
The UP accounts for close to 90% of what is sold as "softwood pulpwood." Following two quarters of price declines, the 2nd quarter softwood pulpwood cord price rose from \$34.47 to \$39.92 per cord on 16,057 cords of sale volume. In FY 2015, it had fallen down from \$47.79 per cord in the 1st quarter to \$41.54 in the 2nd quarter, rose back to \$44.36 in the third quarter, and finished at \$38.66 in the 4th quarter. A record level of 35,100 cords was sold in the 3rd quarter of FY 2014. There is a slight upward price trend for the product.



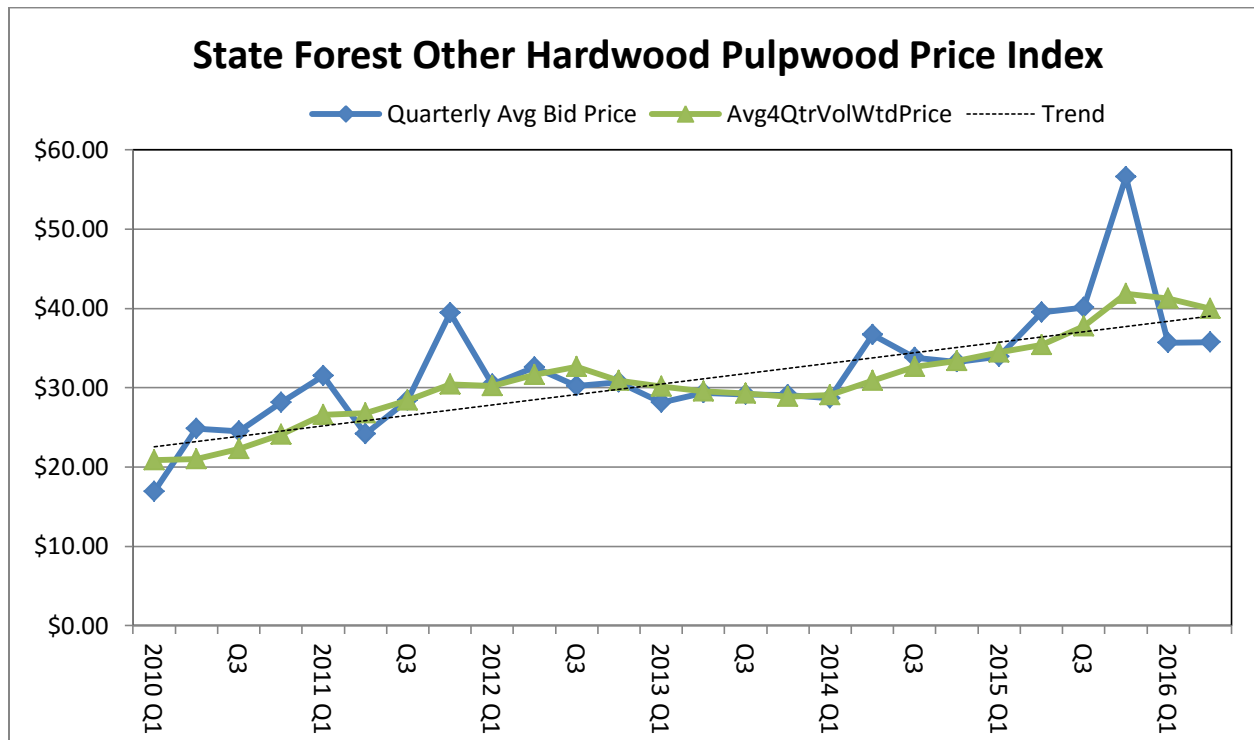
The FY 2016 2nd quarter NLP red pine pulpwood price fell from \$76.01 to \$61.48 per cord. The price had shot up in the 3rd quarter of FY 2015 to over \$124 per cord before dropping back even more sharply in the 4th quarter to a \$72 price. The UP generally has higher RP pulpwood prices than the NLP. The UP price rose in the 2nd quarter from \$83.34 to \$98.45 per cord. It had reached \$119 per cord in the 3rd quarter of last year before falling to \$85 in the 4th quarter. UP sale volume rebounded from a low 1,630 cords in the 4th quarter to 6,335 cords in the 1st quarter and grew again in the 2nd quarter to 12,394 cords. NLP volume was 18,304 cords in the 3rd quarter last year, dropped to 4,602 cords in the 4th quarter, grew to 9,817 cords in the 1st quarter and reached 12,114 cords in the most recent 2nd quarter.



The NLP jack pine pulpwood cord price shot up in the 1st quarter from \$36.50 to \$87.42, but then dropped even sharper in the 2nd quarter to \$26.42. The UP price rose from \$45.60 to \$61.08 per cord in the 2nd quarter. The UP price has generally been two to three times the NLP price, although there are a few exceptions like last quarter. Jack pine sale volumes are highly volatile from quarter to quarter. UP 1st quarter sale volume was only 221 cords, after being 12,837, 12,424, and 7,522 cords in the previous three quarters and 13,087 cords in the most recent 2nd quarter. NLP sale volume fell from 29,292 cords in the 2nd quarter of FY 2015 to 8,818 cords and 4,586 cords in the 3rd and 4th quarters and then to 2,933 in the 1st quarter of this fiscal year, before rebounding somewhat to 5,628 cords in the most recent quarter.

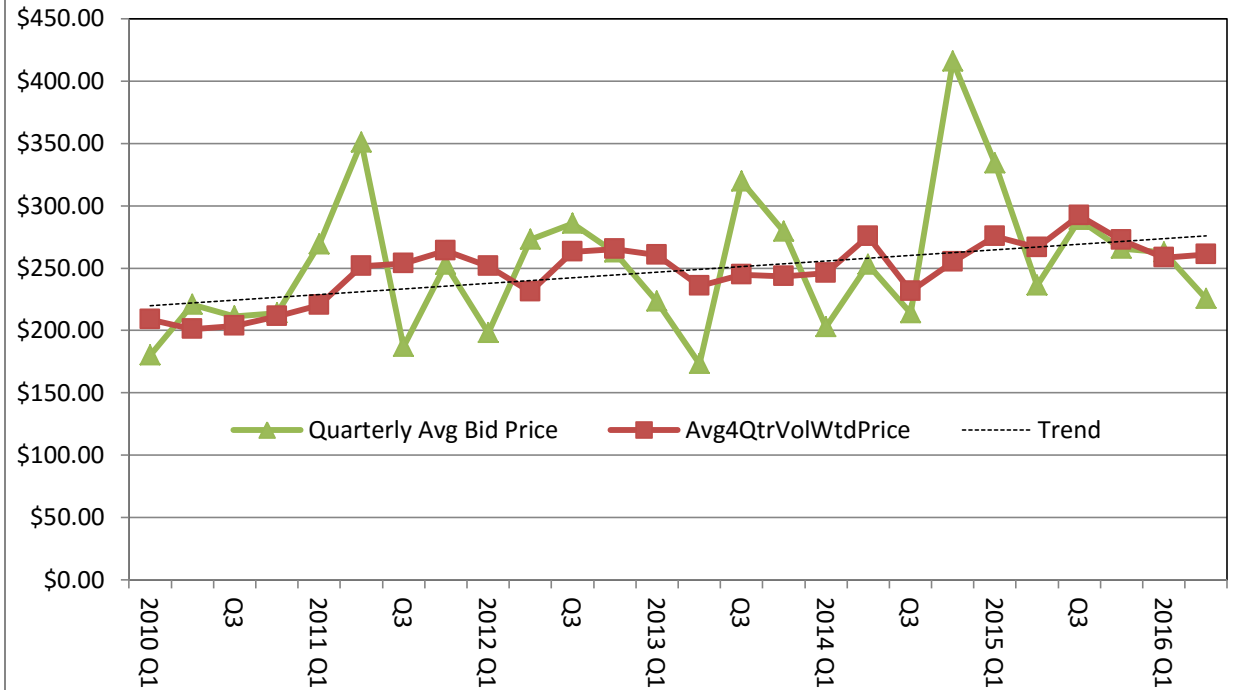


The 1st quarter NLP oak pulpwood price shot up to a record \$92.84 per cord, more than double any price achieved in the past six years, but then it dropped more than it had risen in the 2nd quarter to \$24.67. The average price over the past six years was under \$30.00 per cord; the price was \$17.03 per cord in the 1st quarter of FY 2015. Sale volume was a respectable 10,904 cords in the 1st quarter and declined to 8,526 cords in the 2nd quarter. FY 2015 volume reached a high 24,182 cords in the 2nd quarter, dropped to 16,034 cords in the 3rd quarter, then fell to 4,602 cords in the 4th quarter. Spikes in prices may be caused by sudden changes in demand, sudden constraints on supply in the presence of high demand, a classification or coding complication or error, or a reporting error. In subsequent quarters, the price level is seldom maintained and the decline in price is usually just as sharp as the spike in price - as was just seen here.



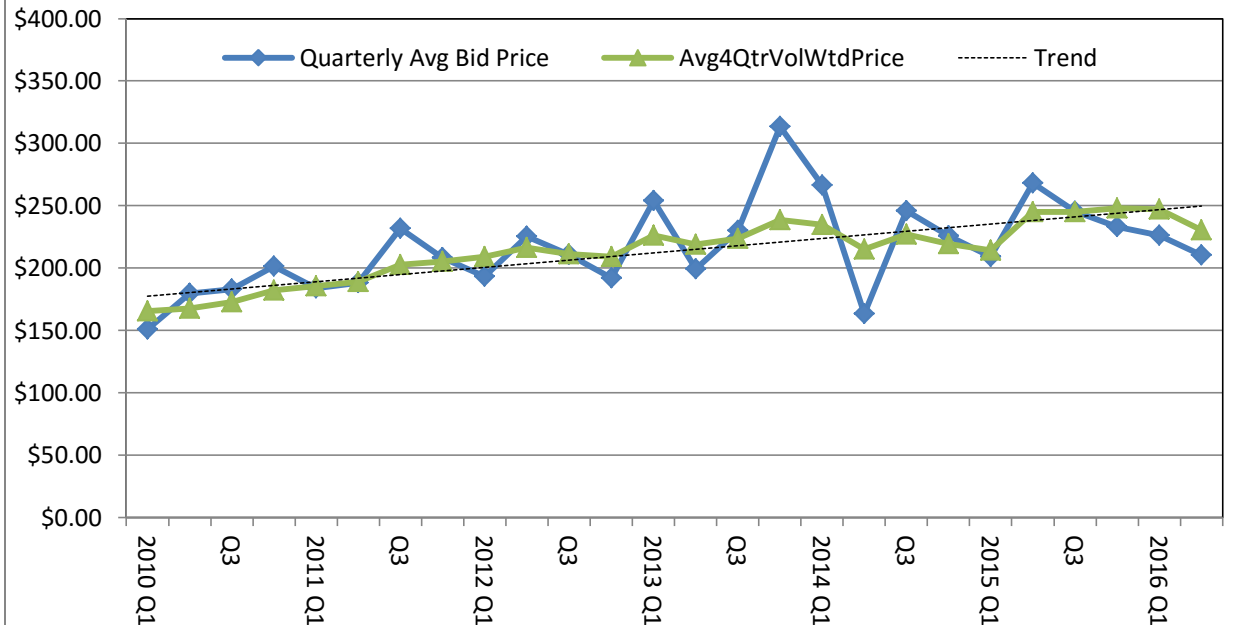
The 2nd quarter "other hardwood pulpwood" cord price was unchanged as it went from \$35.70 to \$35.76 per cord. It had reached a record high price of \$56.55 per cord in the 4th quarter. Bid species sale volume in the 2nd quarter was up from 44,085 to 55,652 cords; it had been only 24,989 cords in the 4th quarter of FY 2015. Average quarterly volume for the past six years is just shy of 40,000 cords. There has been an increasing price trend for the product.

State Forest NLP Oak Sawtimber MBF Price Index

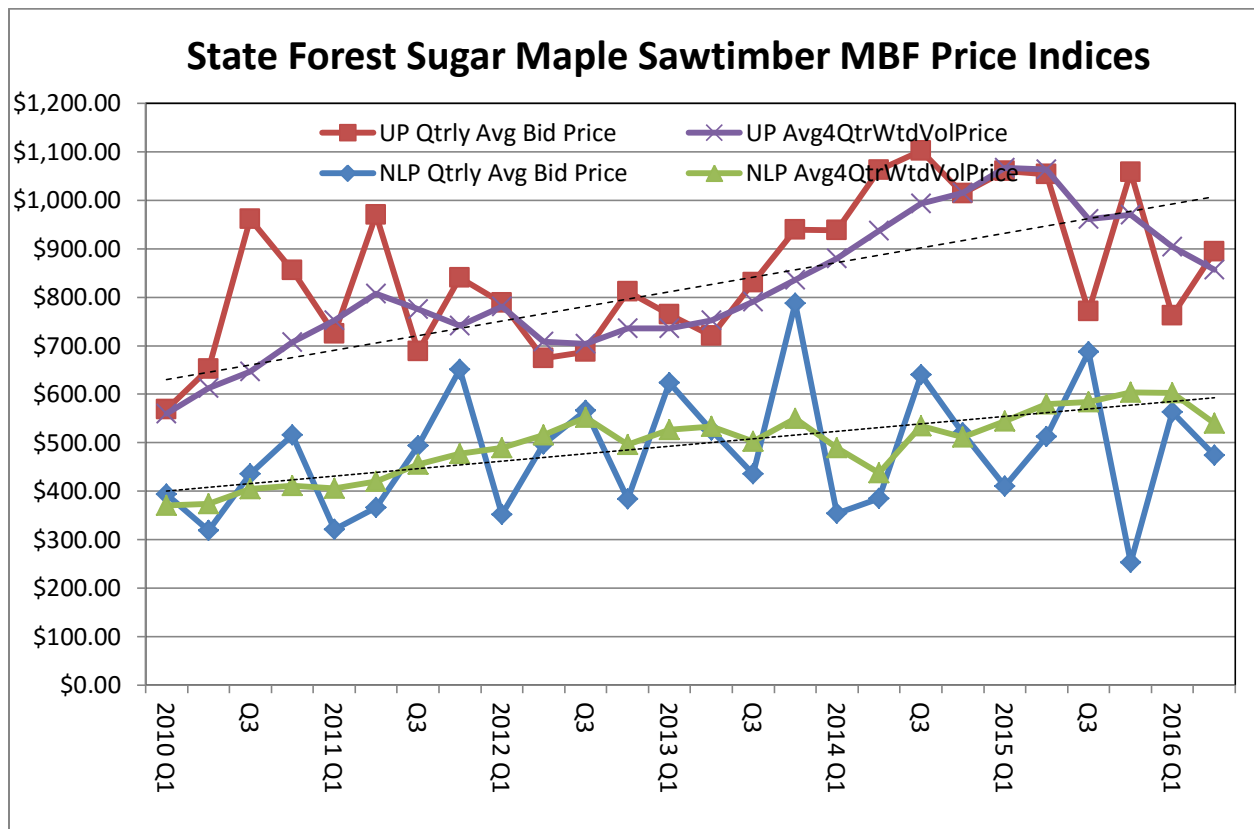


NLP oak sawtimber prices declined further in the 2nd quarter, from \$263 to \$225 per mbf. Prices were at a low of \$173 in the 2nd quarter of FY 2013. They spiked upward to \$415 in the 4th quarter of FY 2014 before falling back to \$334 and then to \$236 in the 2nd quarter of FY 2015. Overall, there has been a moderately increasing price trend for the past six years. Sale volume dropped from 3.77mmbf to 2.74mmbf in the 2nd quarter; the volume was only 1.28mmbf in the 4th quarter of FY 2015. A sale volume record of 5.3mmbf was reached in the 2nd quarter of FY 2015.

State Forest Red Pine Sawtimber MBF Price Index



1st quarter red pine sawtimber prices declined again for the fourth quarter in a row, from \$226 to \$210 per mbf. For the past six-year period, prices have been moderately increasing and have averaged over \$215 per mbf. Sale volume rose from a low 1.79mmbf in the 4th quarter to 6.97mmbf in the 1st quarter and reached 8.354mmbf in the 2nd quarter. Volume reached 13.14mmbf in the 3rd quarter of FY 2015; the average for the six years is slightly over 7mmbf.

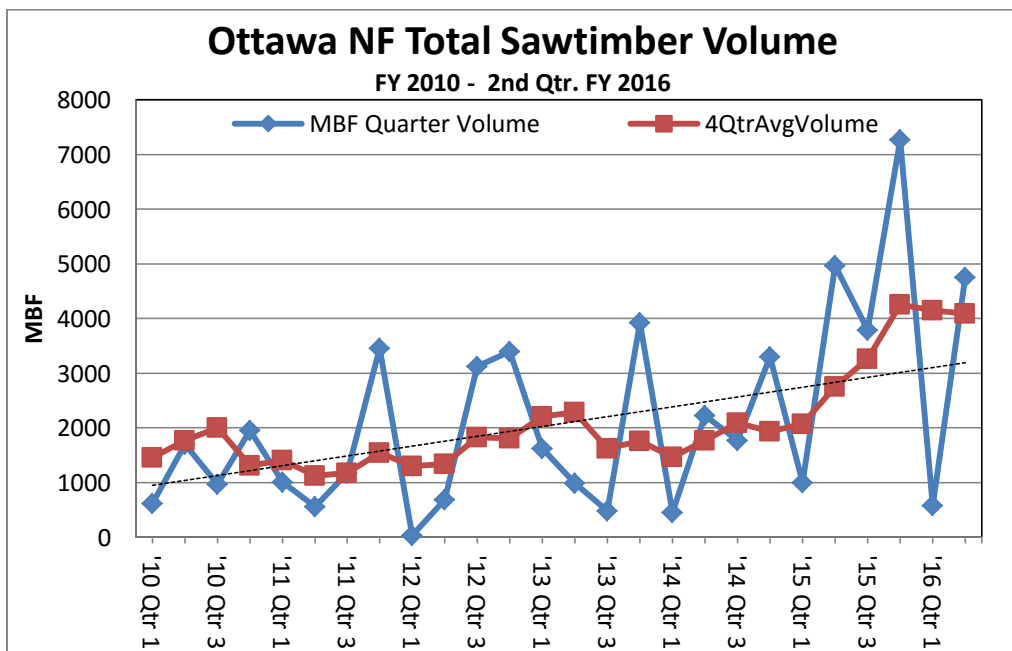


For the fourth quarter in a row, the sugar maple sawtimber peninsula prices went in opposite directions in the 2nd quarter. The UP price rose from \$762 to \$895 per mbf; it had been \$1058 in the 4th quarter of FY 2015. Sale volume increased from 534mbf to 1,125mbf. The NLP 2nd quarter price dipped from \$563 to \$474 per mbf as its sale volume rose from 482mbf to 1,252mbf. The UP price has a fairly steep six-year trend; the NLP's price trend is not as steep as the UP's. Most quarters the UP sells more sugar maple sawtimber sale volume than the NLP; the UP's six-year quarterly average is just over 700mbf while the NLP's average is 470mbf.

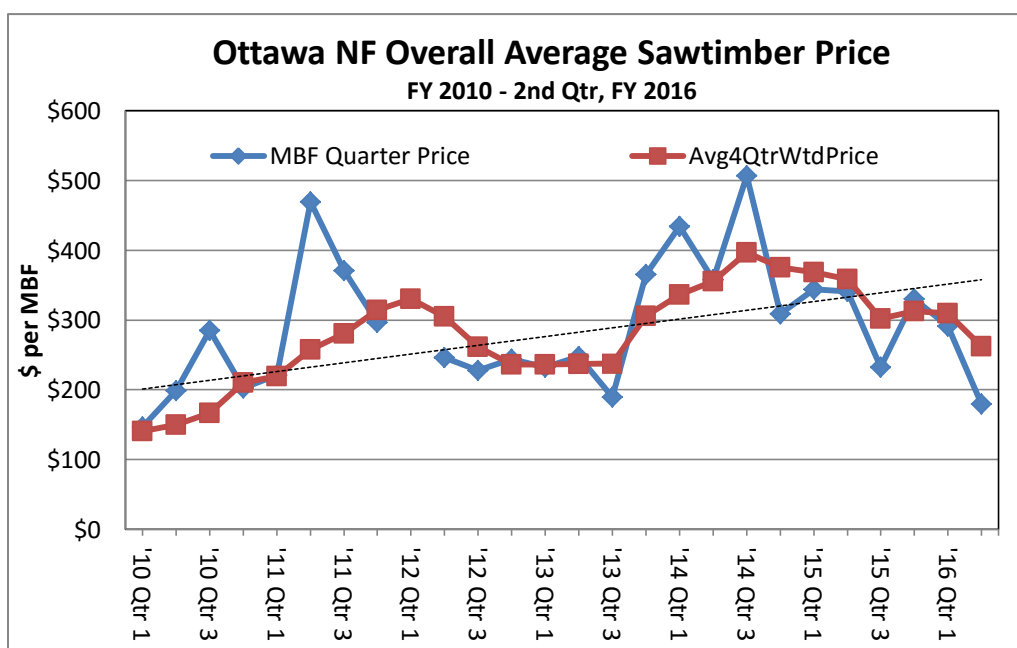
Ottawa National Forest Major Species/Product Timber Sales, FY 2010 – 2nd Qtr, FY 2016

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 second quarter of FY 2016 (January - March, 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:

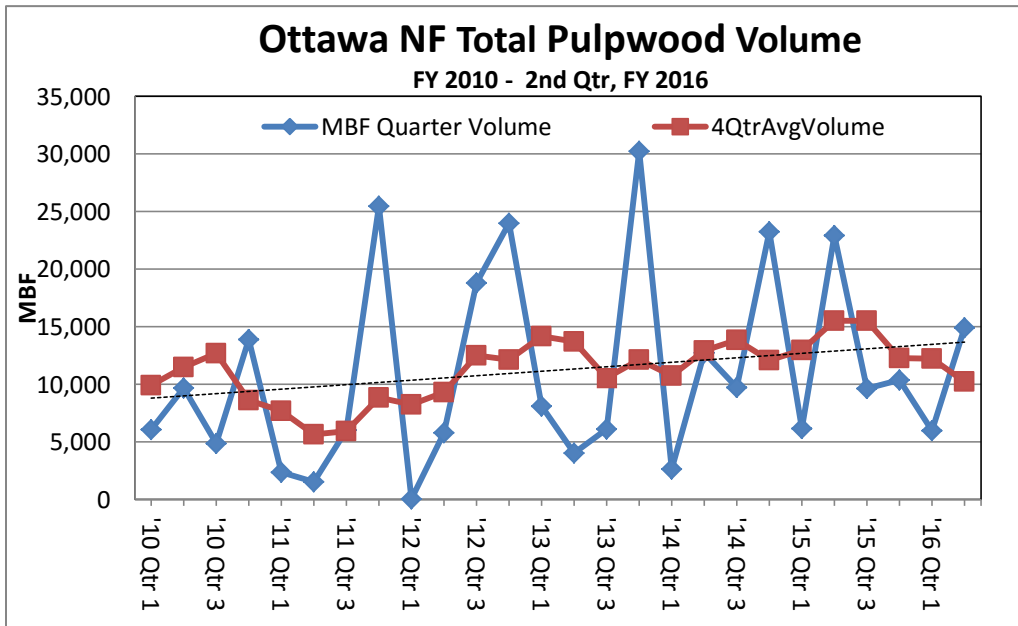
<http://www.fs.fed.us/forestmanagement/products/sold-harvest/cut-sold.shtml>



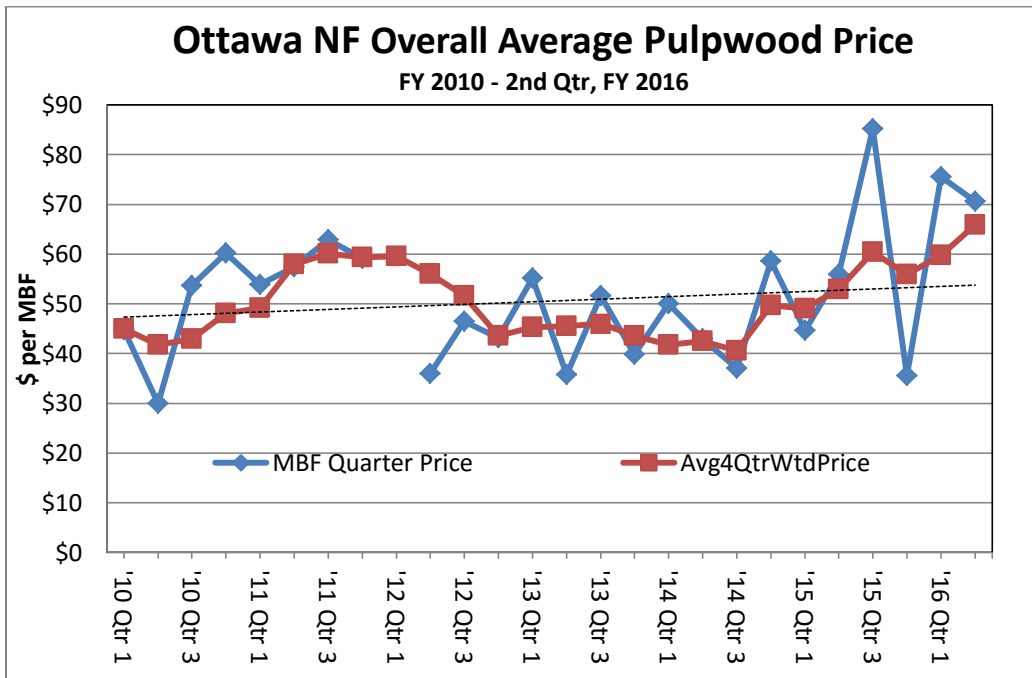
Total Ottawa sawtimber sale volume fell sharply from a six-year record of almost 7.3mmbf in the 4th quarter of FY 2015 to only 577mbf in the 1st quarter of FY 2016 and then rebounded in the 2nd quarter to 4.75mmbf. Sale volume for all of FY 2015 was more than twice the volume of any recent year. There has been an increasing six-year sale volume trend although volumes from quarter-to-quarter are somewhat erratic. 3rd quarter volume is likely to drop down towards 2mmbf.



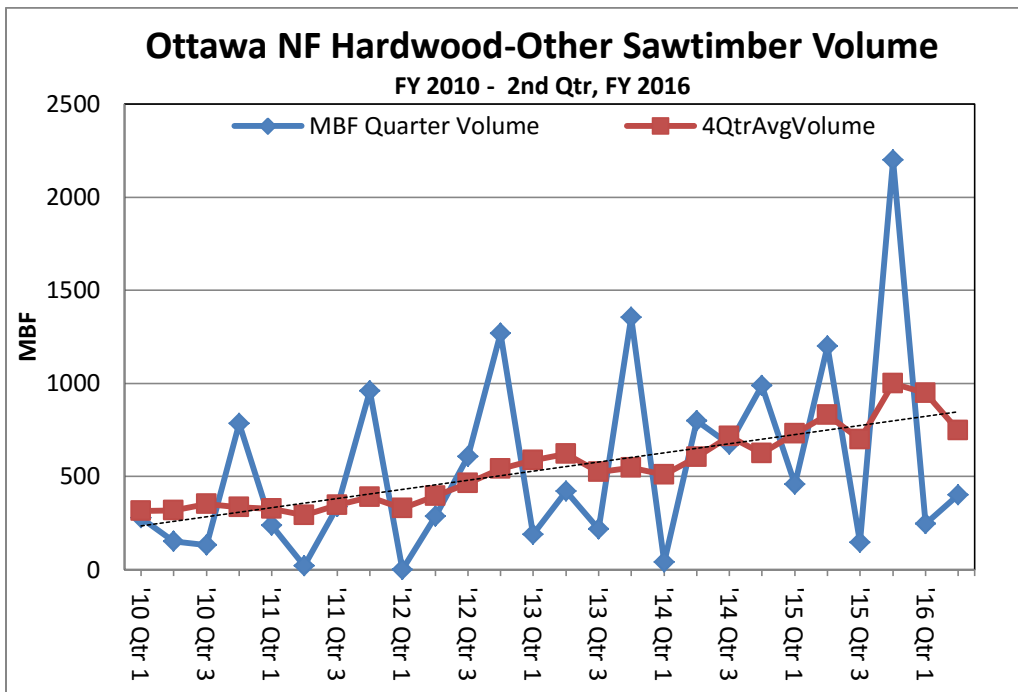
The 2nd quarter overall average sawtimber price dropped sharply from \$291 to \$179 per mbf. It peaked at \$507 per mbf in the 3rd quarter of FY 2014. There is an increasing six-year price trend despite several recent price declines. Average prices are impacted by the mix of sold species and products. The Ottawa sawtimber price trend is greatly influenced by sugar maple volumes and prices.



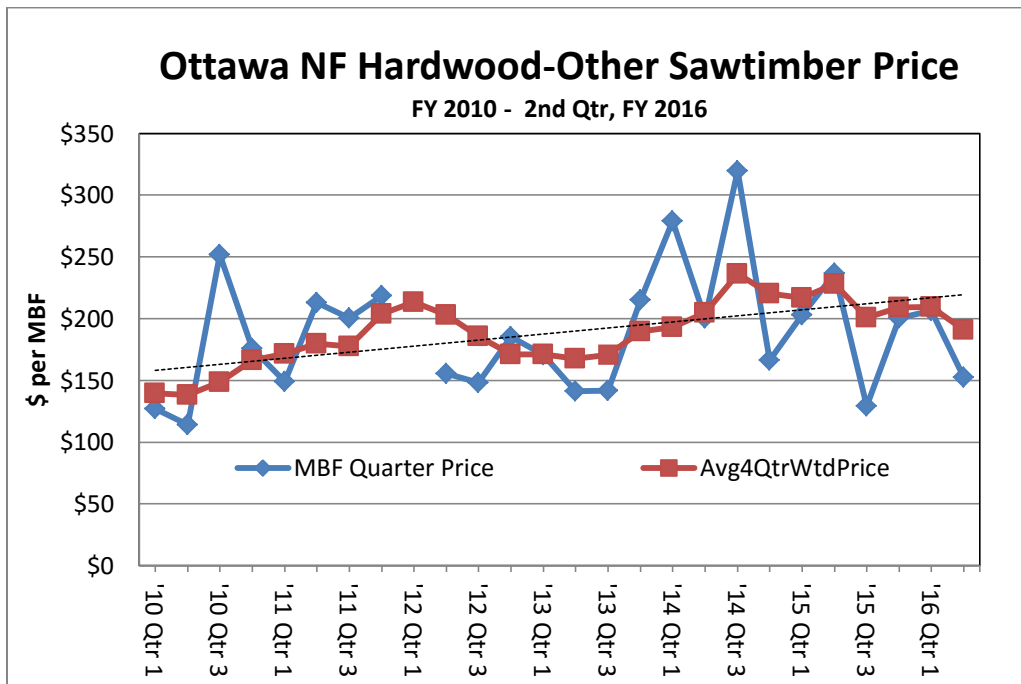
The 2nd quarter total pulpwood sale volume increased appreciably from 5.97 to 14.9mmbf. Ottawa pulpwood volumes have been seesawing back and forth from one quarter to the next, from as low as 5mmbf or lower and close to or above 25mmbf. The record high level for the past six years was over 30mmbf reached in the 4th quarter of FY 2013. Overall, there has been an increasing sale volume trend during the past six years. Ottawa sawtimber and pulpwood volumes have been generally highest in the 4th quarter after which they often fall sharply. The 2nd quarter volume was expected to exceed 10mmbf given the moderate sale volumes in the three prior quarters and an increasing sale volume trend. It would be surprising if the sale volume does not drop off in the coming 3rd quarter given the respectable 2nd quarter volume.



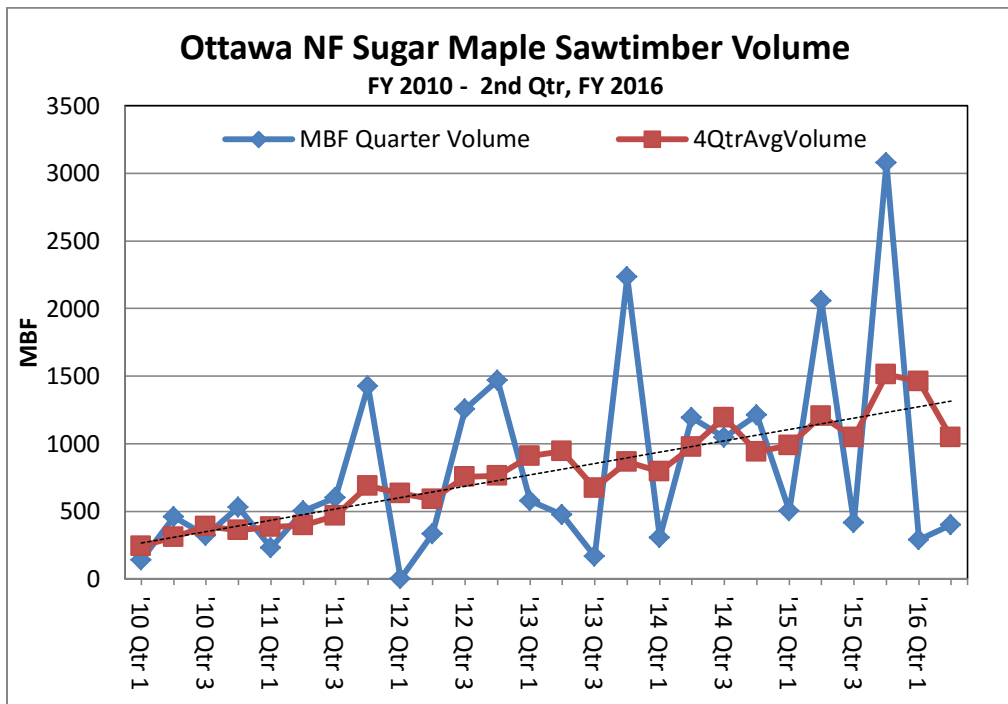
The 2nd quarter overall average pulpwood price dipped from \$75.52 to \$70.60 per mbf. The price had fallen from \$85.22 to \$35.56 per mbf in the 4th quarter of FY 2015. Prior to the 3rd quarter of FY 2015, prices had been bouncing back and forth mostly in a \$35 to \$55 range for three years. The increase in the 3rd quarter price reversed what had been a slightly declining price trend over the past five years; the FY 2016 1st and 2nd quarter prices reinforce the increasing price trend.



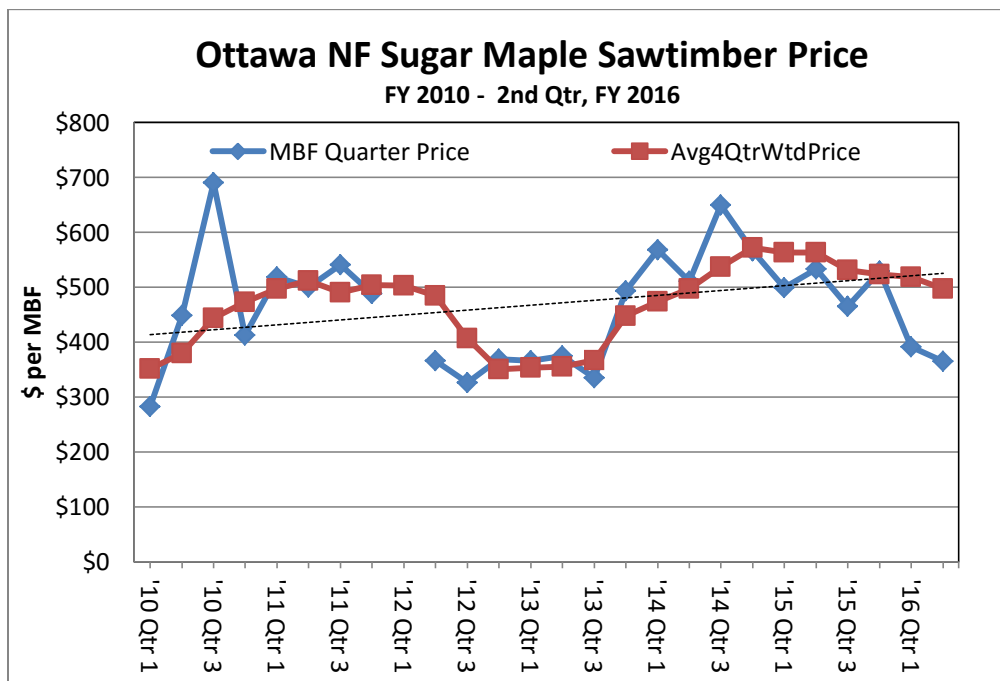
The FY 2016 2nd quarter hardwood-other sawtimber sale volume edged up from 247 to 401mbf. It had increased in the previous 4th quarter to 2.2mmbf. This six-year record level of 2.2mmbf was hit after being at only 146mbf in the 3rd quarter. The sale volume trend has been sharply increasing over the past six years, but sales are erratic from one quarter to the next. There has been a fairly consistent seasonal pattern with distinctive, higher-volume peaks in the 4th quarter (July-September) of most years and lower volumes otherwise. It is expected that sale volumes will rebound somewhat in coming quarters - possibly in the 3rd quarter, but certainly by the 4th quarter.



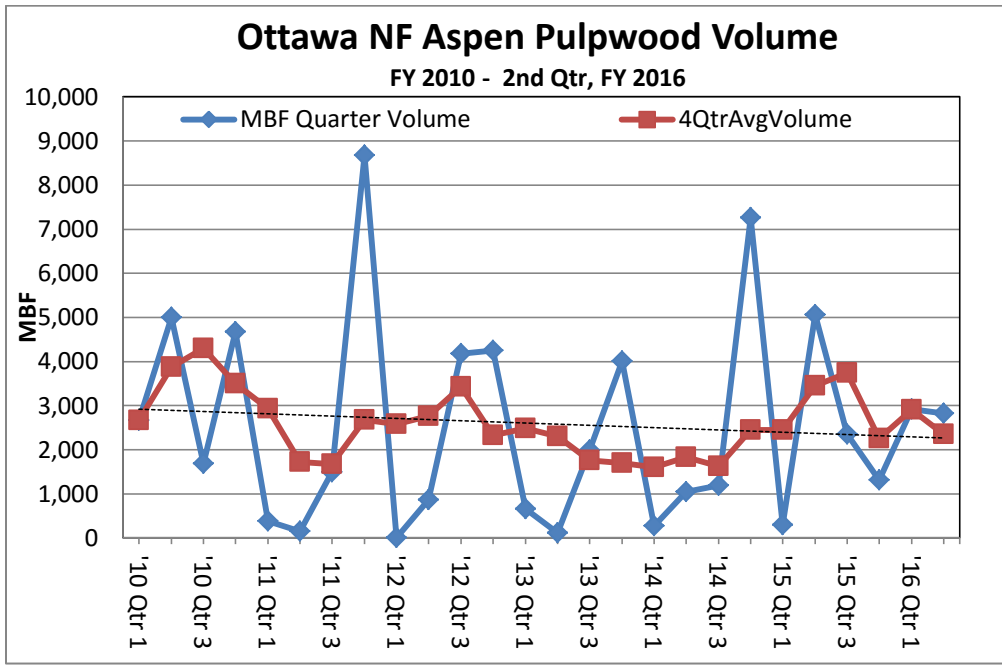
Hardwood-other sawtimber prices dropped in the 2nd quarter from \$206.50 to \$152.50 per mbf after being fairly steady in the prior two quarters. They were at a record high of almost \$320 mbf in the 3rd quarter of FY 2014 before dropping sharply to \$166 in the 4th quarter of FY 2014. Overall, there is an increasing price trend line for the past six years.



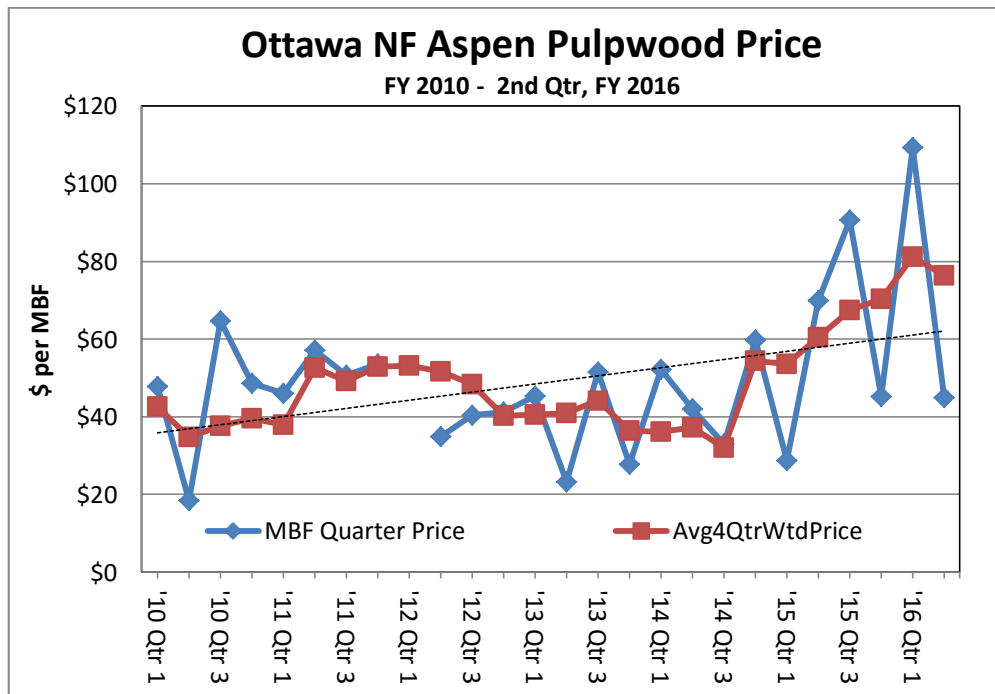
The 2nd quarter Ottawa sugar maple sawtimber volume rose slightly, from 290 to 402 mbf. in the 4th quarter of FY 2015, sugar maple sawtimber sale volumes hit a six-year record, going from 417mbf in the 3rd quarter to 3.1mmbf. As with most Ottawa timber products, it is not unusual for the 1st quarter to have the lowest sale volume and the 4th quarter to have the highest volume. Despite the low sale volume of the last two quarter, there is a sharply increasing sales volume trend for the past six years. It is expected that next (3rd) quarter's sale volume will rebound somewhat (as will the 4th quarter sale volume).



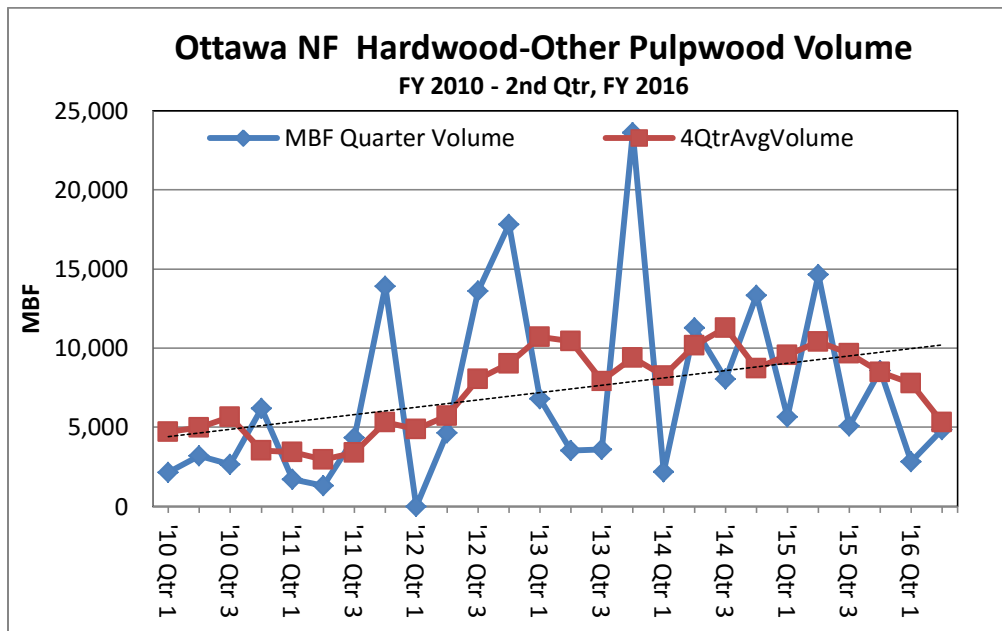
The average sugar maple sawtimber price fell further from \$391 to \$365 per mbf in the 2nd quarter. It had risen from \$465 per mbf in the 3rd quarter of FY 2015 to \$529 in the 4th quarter before falling to the 1st quarter \$391 per mbf level. It had previously peaked at \$650 per mbf in the 3rd quarter of FY 2014. Until the most recent two quarters, prices had fluctuated in a range between \$465 and \$650 per mbf for nine quarters. There is an increasing price trend over the past six years despite the most recent drops in price.



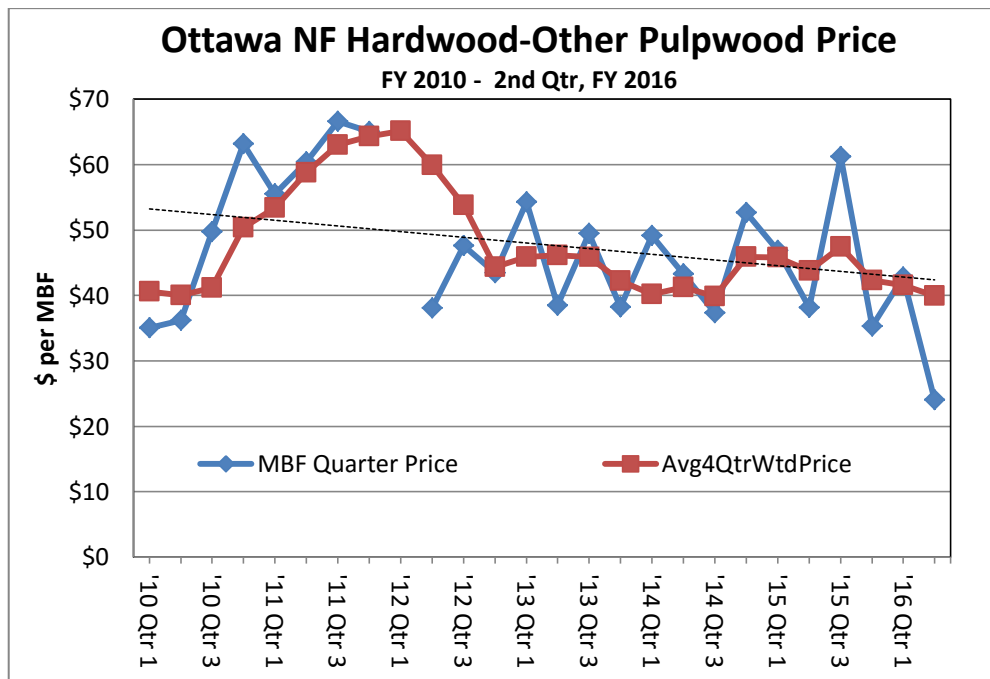
Aspen pulpwood sale volume dipped in the 2nd quarter, from 2.9 to 2.8mmbf. This is in contrast to a pattern for FY 2010 through FY 2014 of back-to-back low sale volumes in the 1st and 2nd quarters. This pattern was broken in FY 2015 when sales reached 5.1mmbf in the 2nd quarter. Sale volume has been quite erratic from quarter to quarter over the past four years with sale volumes at the extremes (under 1,000 mbf or over 4,000 mbf) more frequent than sales in the middle range. There is a downward sale volume trend.



The 1st quarter aspen pulpwood price shot up to a record \$109 per mbf from a 4th quarter price of \$45, but the price came right back down to \$45 again in the 2nd quarter. The price had been at what was then a record high of \$91 per mbf in the 3rd quarter of FY 2015. Before then, there had been a seesaw pattern of price swings for two and a half years. 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.



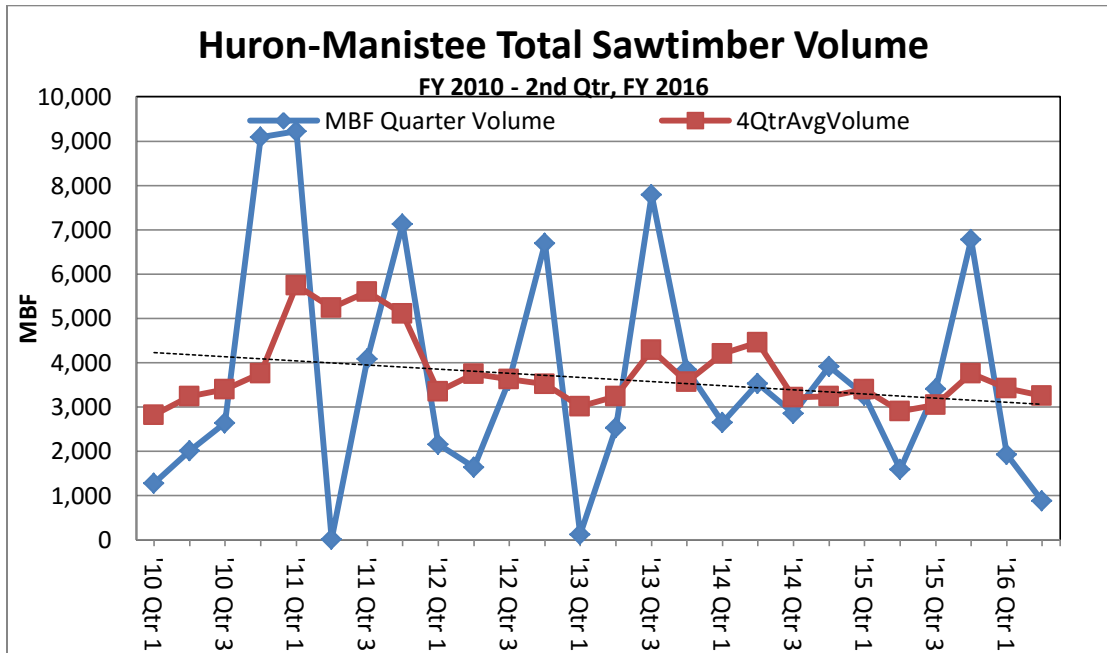
Hardwood-Other pulpwood 2nd quarter sale volume rose from 2.8mmbf to 4.8mmbf. It had been 8.6mmbf in the 4th quarter of FY 2015, but it had reached 14.6mmbf two quarters earlier. Sale volume hit a record high 23.6mmbf in the 4th quarter of FY 2013. Sale volume swings have moderated over the past two years; however there has been a seesaw pattern of volumes bouncing back and forth every quarter since the 3rd quarter of FY 2014. Volumes have trended upward and have more than doubled in the past six years, but that might be moderating given the past four quarters. The 2nd quarter volume did not increase as much as was expected; perhaps the 3rd quarter will make up for the tepid 2nd quarter increase.



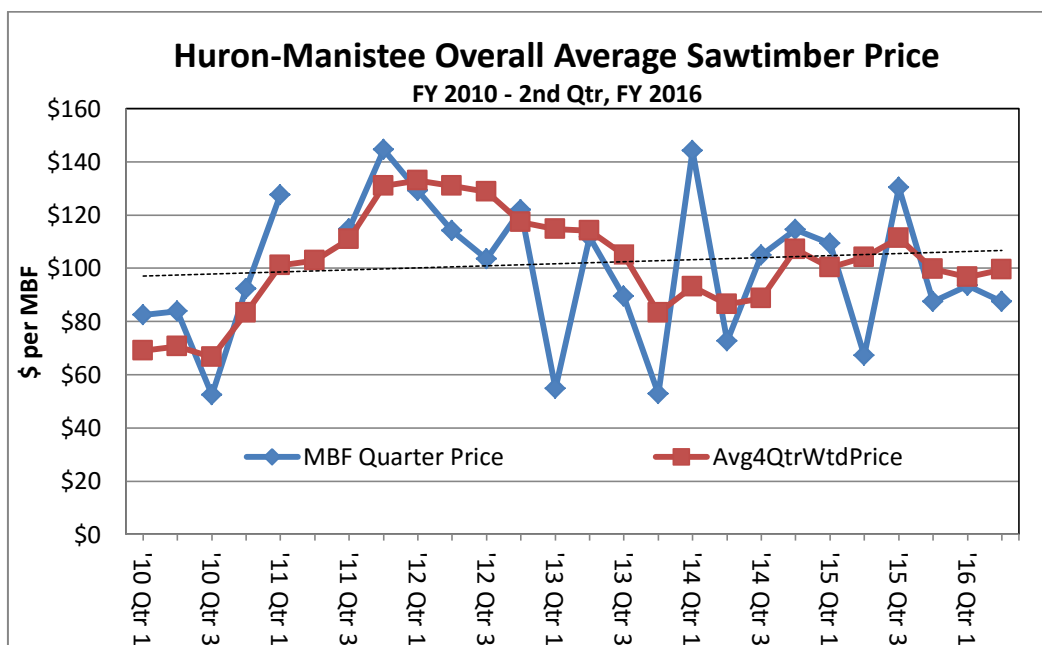
The 2nd quarter hardwood-other pulpwood price decreased significantly from \$43 to \$24 per mbf, its lowest level in six years. It had risen sharply in the 3rd quarter of FY 2015 to over \$61 per mbf before falling in the 4th quarter to \$35. The product had been selling in a fairly narrow \$38 to \$55 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.

Huron-Manistee National Forest Major Species Product Timber Sales, FY 2010 – 2nd Qtr, 2016

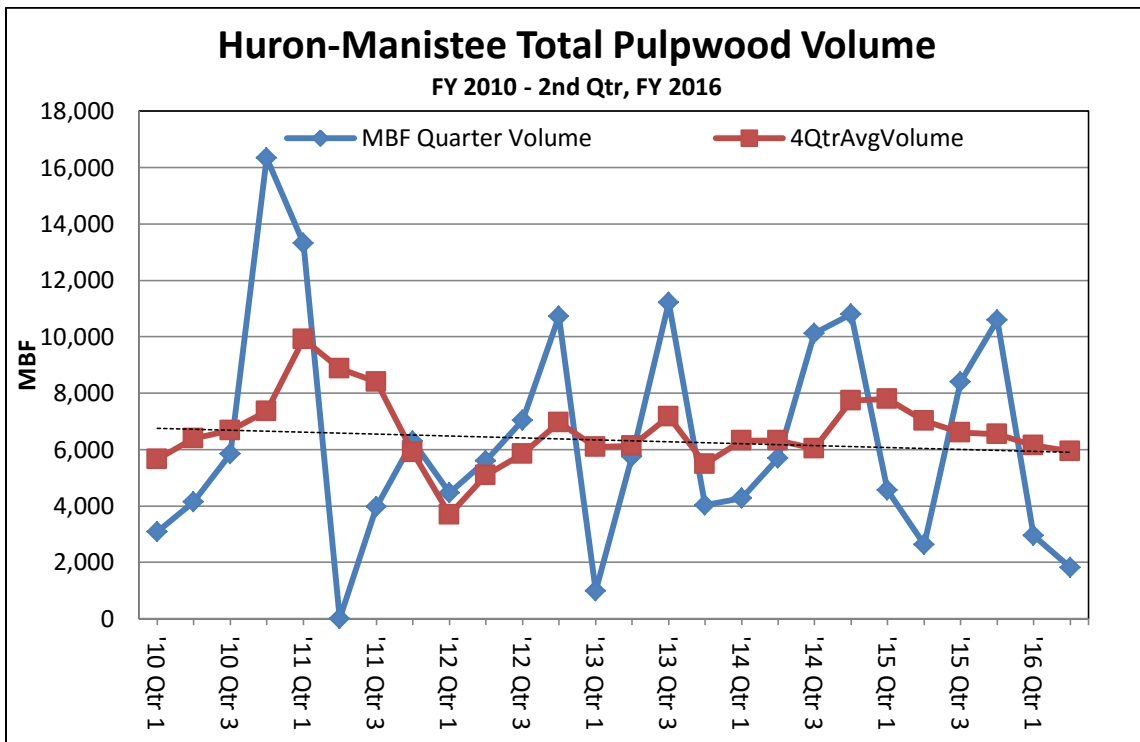
All graphs include a dotted trend line based upon the data set for the average of the last four quarters. Gaps in the blue quarter line indicate no sales in the quarter. The National Forests follow the federal fiscal year from October 1 through September 30. The most recent data included here is for the 2nd quarter of FY 2016 (January through March, 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/sold-harvest/cut-sold.shtml>



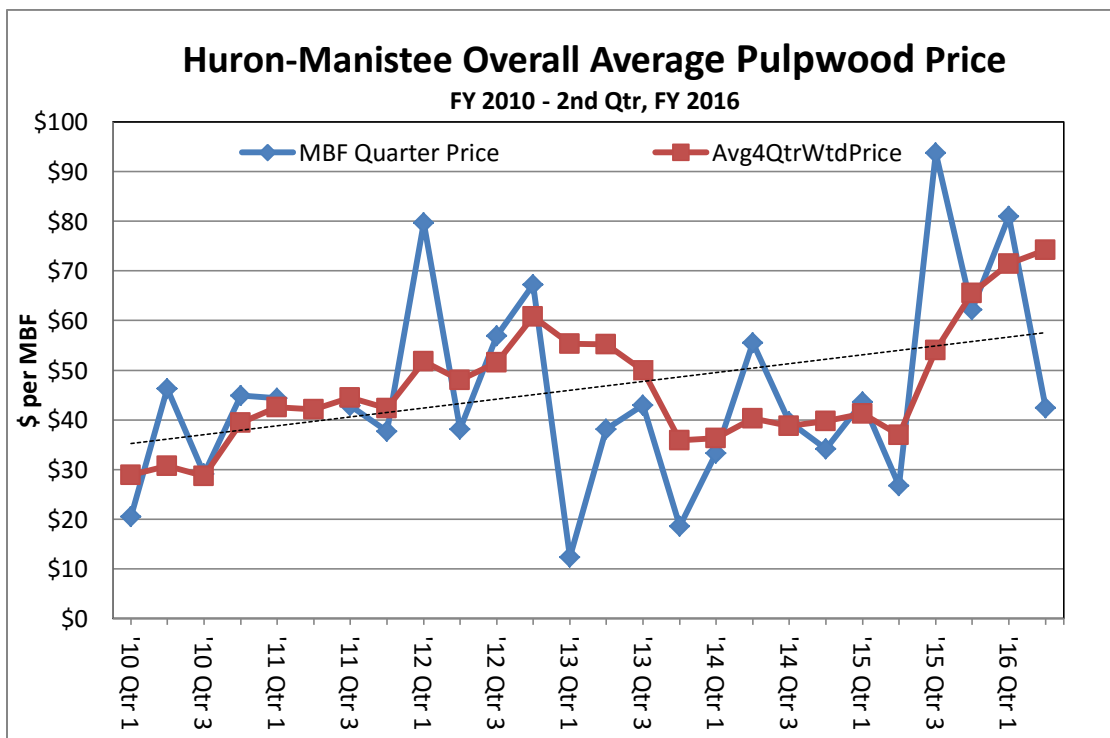
The Huron-Manistee (H-M) sawtimber sale volume fell further in the 2nd quarter of FY 2016 to 874mbf. H-M sawtimber sale volume tends to peak in the fourth quarter and be lower in the 1st quarter; this year the decline was substantial. As the above graph indicates, sale volumes quarter-to-quarter have been erratic sometimes although they were less so in FY 2014 and 2015. There is a slight downward volume trend over the past six years.



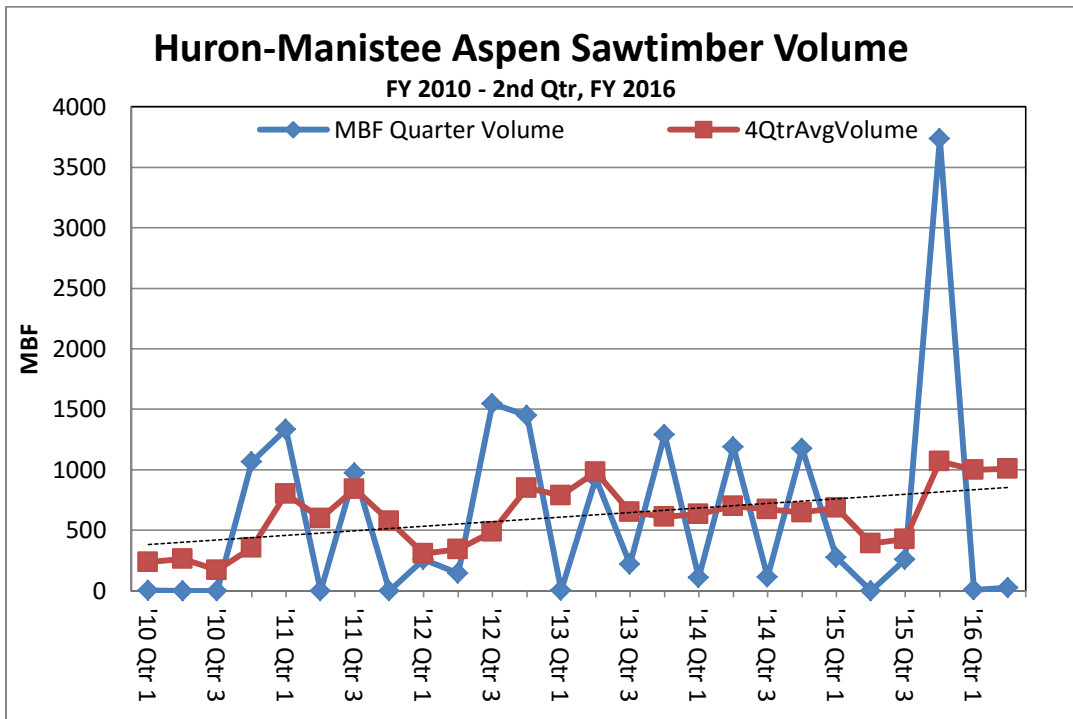
The overall average sawtimber price for the 2nd quarter decreased slightly from \$93 to 87 to per mbf, which is slightly below the average price for the past six years. Sawtimber prices are greatly influenced by the mix of species and quality of products sold. Generally, red pine accounts for close to half or more of the H-M sawtimber sale volume and it has the greatest influence on the overall average sawtimber price. It was only 322mbf of the 874mbf sold in the 2nd quarter.



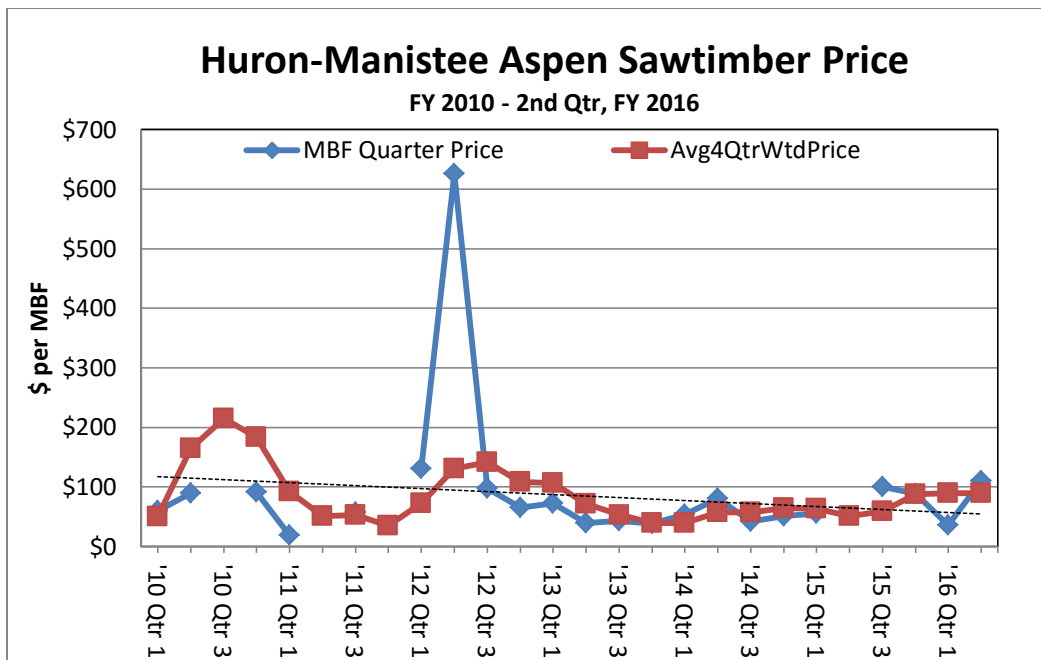
Total pulpwood sale volume fell again in the 2nd quarter, from 2.95 to 1.82mmbf. It was at 10.6mmbf in the 4th quarter of FY 2015. With the latest two quarters, the six-year sale volume trend has gone from flat to slightly declining. The sale pattern is somewhat erratic and there are fewer clear quarterly patterns as there are for many products on the other two National Forests in Michigan. H-M sale volumes are expected to increase in coming quarters given the low sale levels in the two most recent quarters.



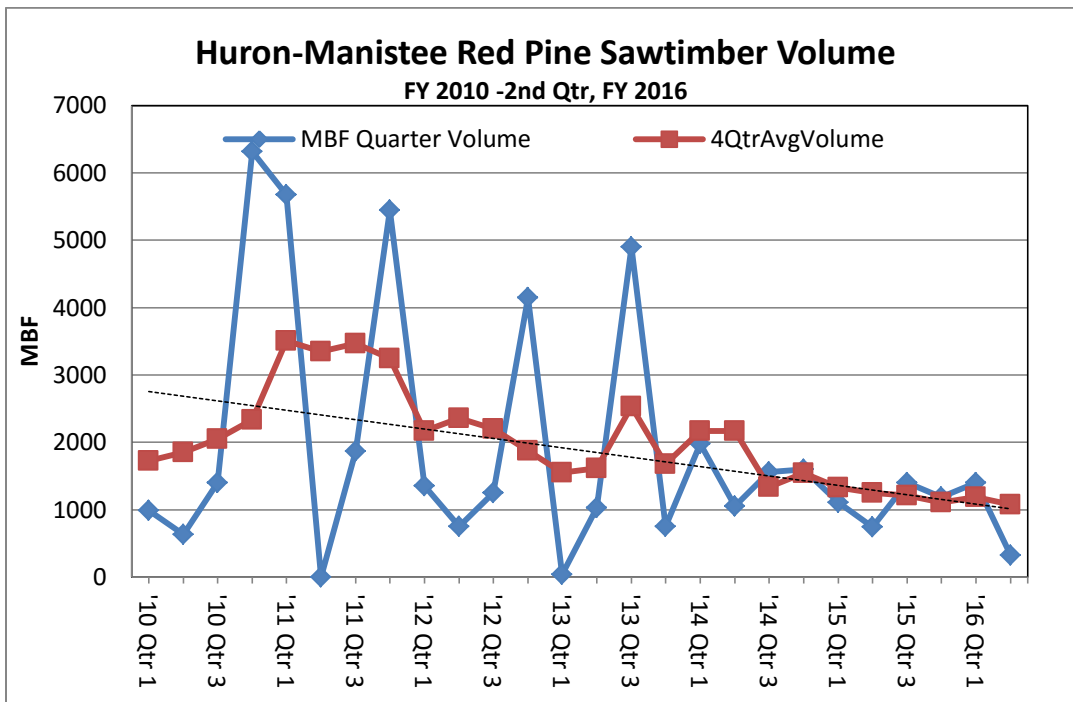
The overall average pulpwood price fell sharply in the 2nd quarter from \$81 to \$42.50 per mbf. The 3rd quarter FY 2015 average over \$93 was largely a result of skewed bids on one large oak sale and was not viewed as being truly indicative of overall prices and trends. However, the most recent 4th and 1st quarter prices reinforce a clear upward trend in average H-M pulpwood prices. It is expected that the coming 3rd quarter prices will rebound somewhat rather than fall further.



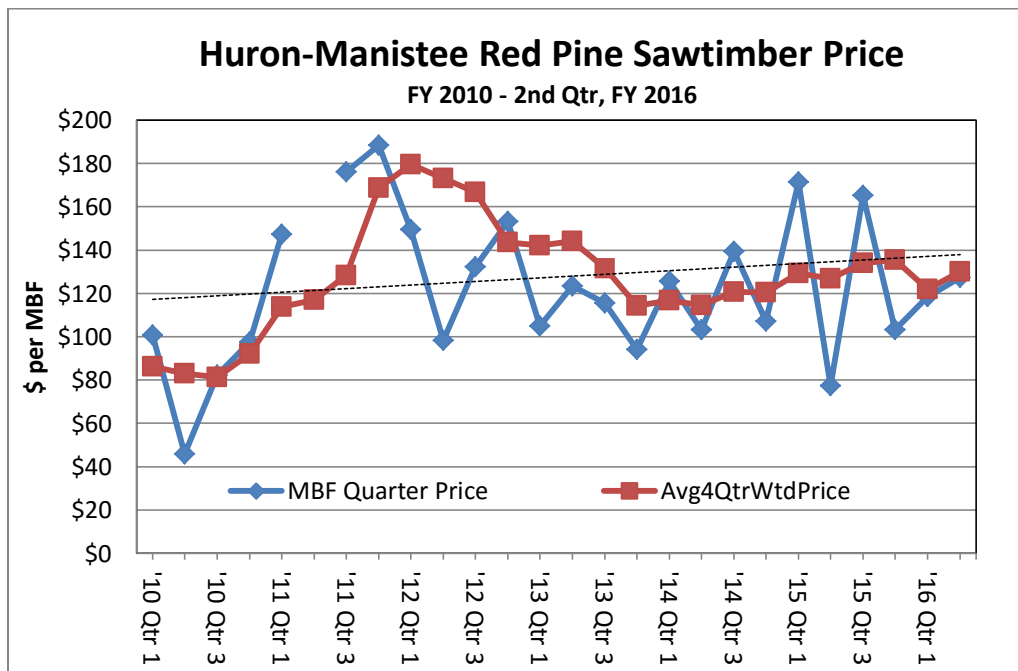
Aspen sawtimber sales were only 8mbf in the 1st quarter and only managed to creep up to 27mbf in the 2nd quarter. FY 2015 saw three quarters of below average sales and then a record 3.74mmbf sale volume in the 4th quarter. Volume for this product has often seesawed from quarter to quarter, from above 1mmbf to or near zero mbf in the next quarter. The average quarterly volume is in the neighborhood of 500mbf. There is an increasing sale trend over the past six years, greatly reinforced by the 4th quarter FY 2015 sale volume. Next (3^d) quarter sales should be at or above 500mbf.



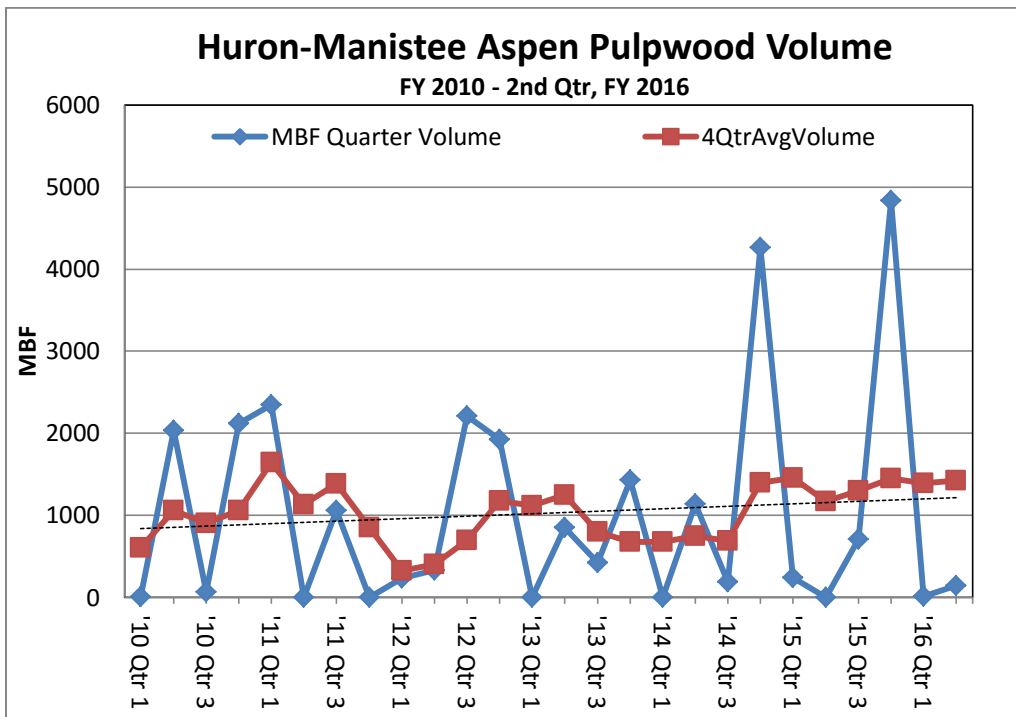
The 2nd quarter aspen sawtimber price of \$110 per mbf is not very reliable as it is based on negligible volume. The price has held relatively steady between \$40 and \$100 for over three years, despite the erratic sale volumes each quarter. The record volume of the FY 2015 4th quarter averaged close to \$89 per mbf.



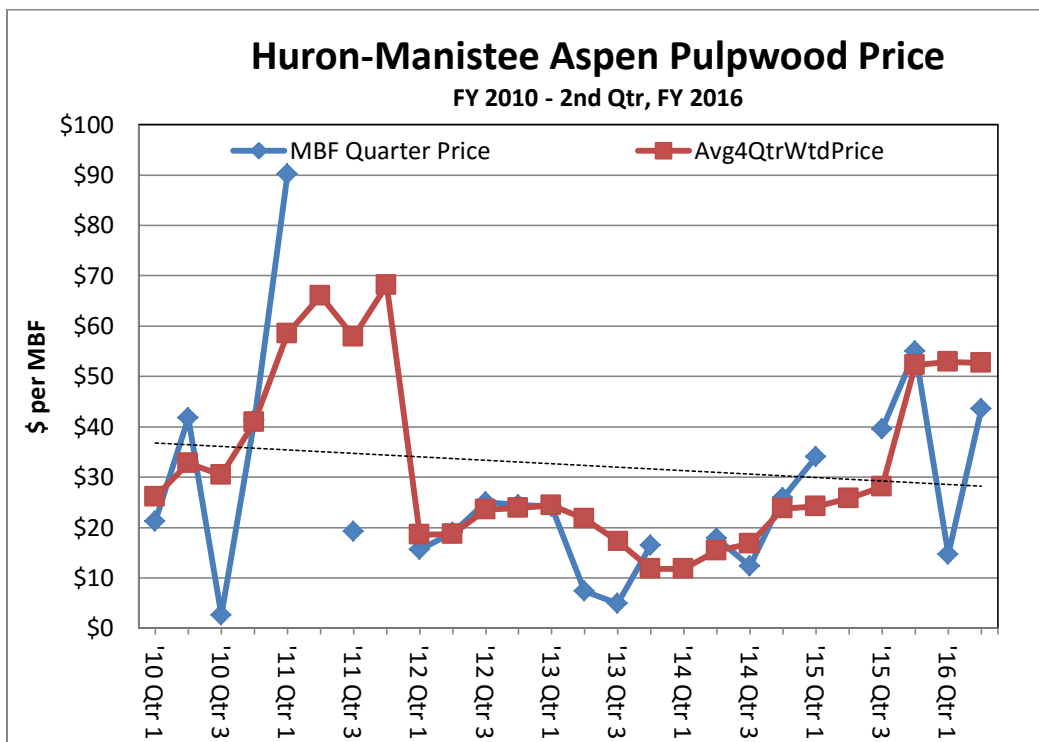
Red pine often accounts for the majority of the sawtimber volume sold on the Huron-Manistee. Red pine sawtimber volume dipped from 1.4mmbf to 1.2mmbf in the 4th quarter of FY 2015 and rose back to 1.4mmbf in the 1st quarter of FY 2016. It then fell steeply to 322mbf in the 2nd quarter. The most recent 10 quarters have much lower, but more stable volume than in previous quarters when sales would exceed 4mmbf in one quarter and then drop back to below 1mmbf in the next quarter. This has helped shape a fairly sharp declining sales trend. This lower, stable volume trend over the past 10 quarters is so pronounced and such a contrast to the previous pattern that it is expected there will be an exception to it in a coming quarter involving much higher sales.



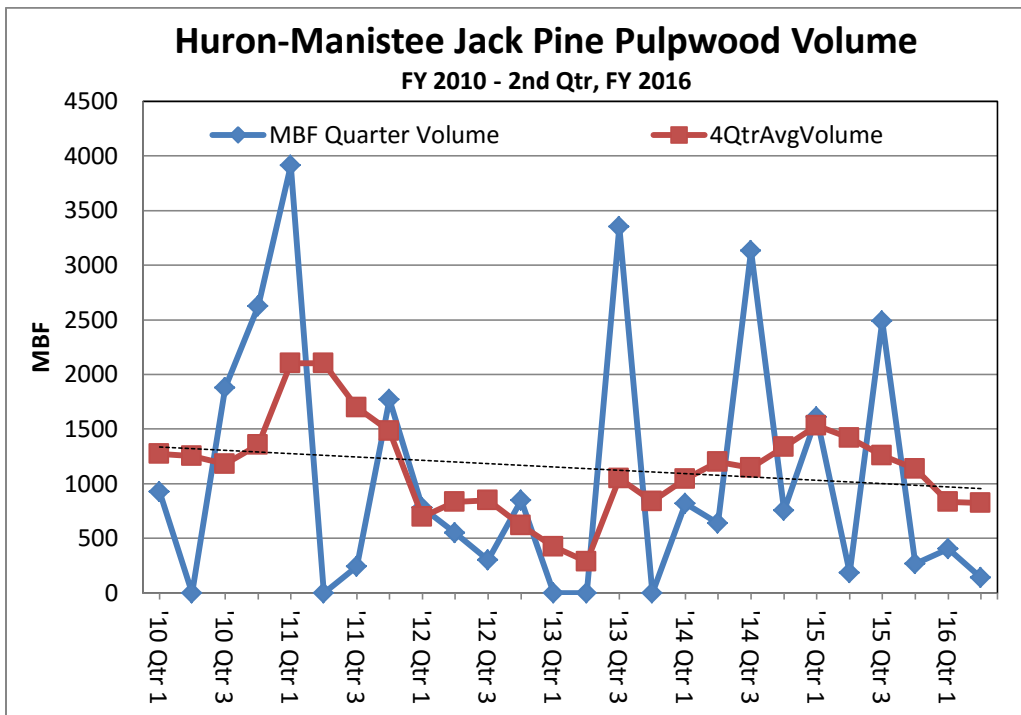
Red pine prices rose from \$118 to \$127 per mbf in the 2nd quarter. They had seesawed in FY 2015, from \$171 in the 1st quarter to \$77 in the 2nd quarter, back to \$165 in the 3rd quarter and then down to \$103 in the 4th quarter. There is a slight increasing price trend over the past six years. Moderately higher prices were predicted last quarter; now that that has occurred, prices are not expected to change much in the coming 3rd quarter.



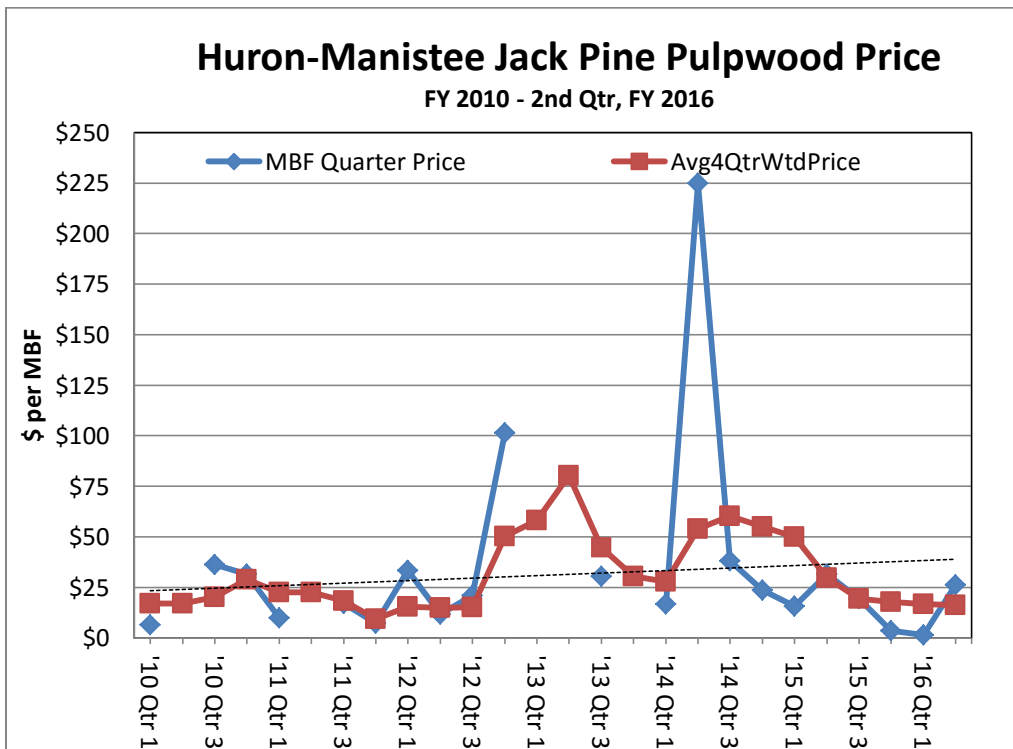
Aspen pulpwood sale volume inched upward in the 2nd quarter to 147mbf. It rose steeply from 713mbf in the 3rd quarter of FY 2015 to a record level over 4.8mmbf in the 4th quarter and fell just as sharply to only 13mbf in the 1st quarter of 2016. The 4th quarter of FY 2014 also had a record level of sales (4.3mmbf), but often quarterly sale volumes are or at or below 1mmbf. There does not appear to be a well-established quarterly pattern to the data and the most recent two sets of 4th quarter sales add greater uncertainty to quarterly projections. It is safe to predict that there will be more sale volume in coming quarters, but not how much more or which quarters will have a substantial amount more. Most quarters are likely to continue to have sale volumes under 1mmbf.



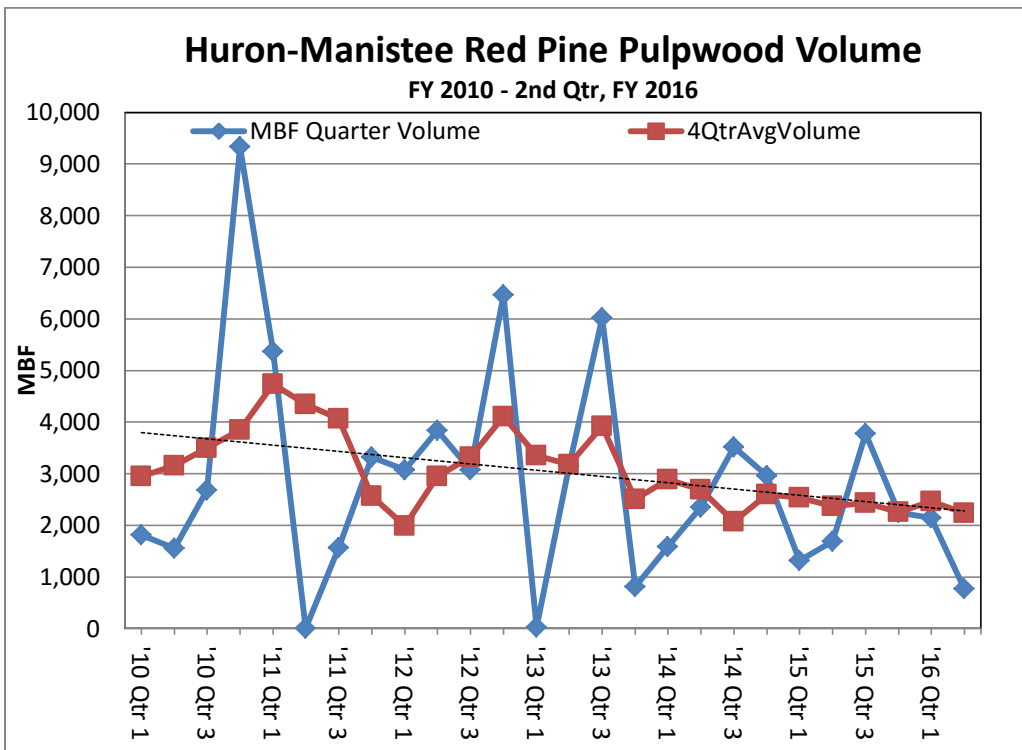
The 2nd quarter aspen pulpwood price rebounded to \$43.57 on low (147mbf) volume. It was at \$55 in the 4th quarter on high volume, up from about \$40 per mbf in the 3rd quarter. Prices have been increasing since the 3rd quarter of FY 2014 when they were only \$12 per mbf, but the 6-year price trend is declining; however, prices for many quarters are based on low or no sale volumes.



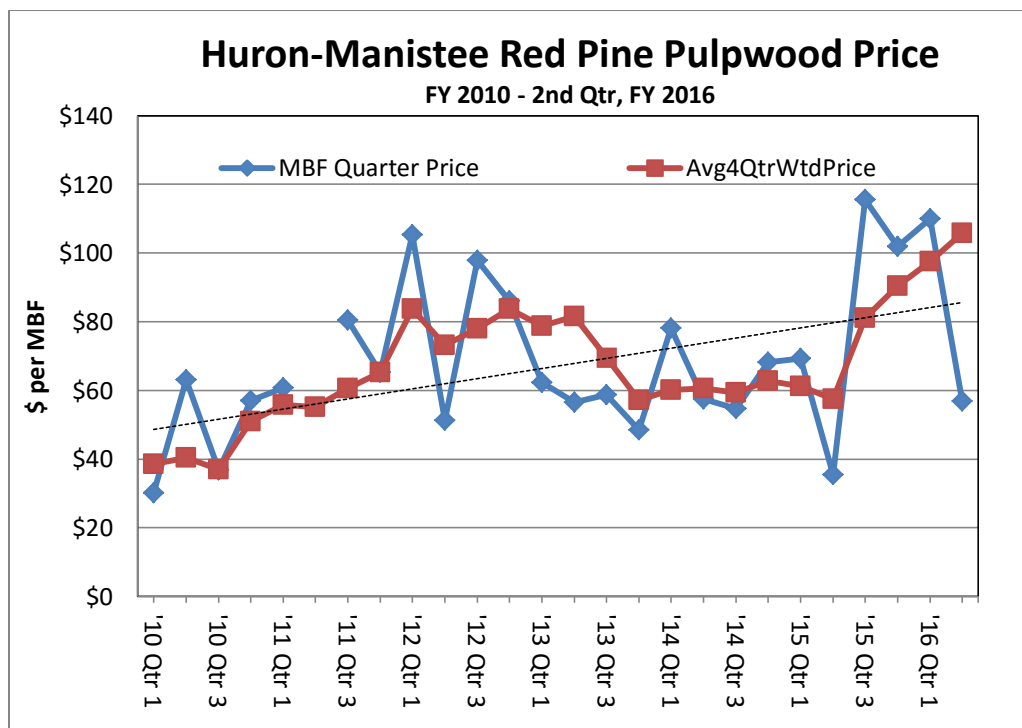
Jack pine pulpwood sale volume declined from 403 to 143mbf in the 2nd quarter. It had dropped back to 268mbf in the 4th quarter of FY 2015 from 2.5mmbf in the 3rd quarter. Overall, jack pine pulpwood sale volume has been on a downward trend over the past six years and many quarters the sale volume is well below 1mmbf or there are no sales. Even the exceptions to the low sale volume quarters (the 3rd quarters in recent years) have had less and less volume associated with them (see above graph). Part of the jack pine sale volume decline in recent years may be due to more jack pine being included in a combined sale category with red and white pine. Following three very low sale quarters, it is likely that sales will go up rather substantially in the coming 3rd quarter, especially given the pattern of higher 3rd quarter sales.



The 2nd quarter jack pine pulpwood price rose from under \$2 to \$26 per mbf. In FY 2015, the price was \$15.80 in the 1st quarter, \$31.50 in the 2nd quarter, \$19.47 in the 3rd quarter, and \$3.50 in the 4th quarter. 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. There are too many quarters without sales and a few quarters with price anomalies which inhibit establishing a credible price trend line.



Red pine pulpwood sale volume dropped again from 2.15mmbf to under 800mbf in the 2nd quarter. In FY 2015, it had dropped from 3.78mmbf in the 3rd quarter to 2.25mmbf in the 4th quarter. The six-year sale volume pattern has large swings in volumes, from quarters with over 6mmbf to subsequent quarters with no or negligible sale volume. Price swings have moderated in the past two years with lower highs and higher lows. Overall, there has been a declining volume trend over the past six years. Sales should increase in the coming 3rd and 4th quarters.

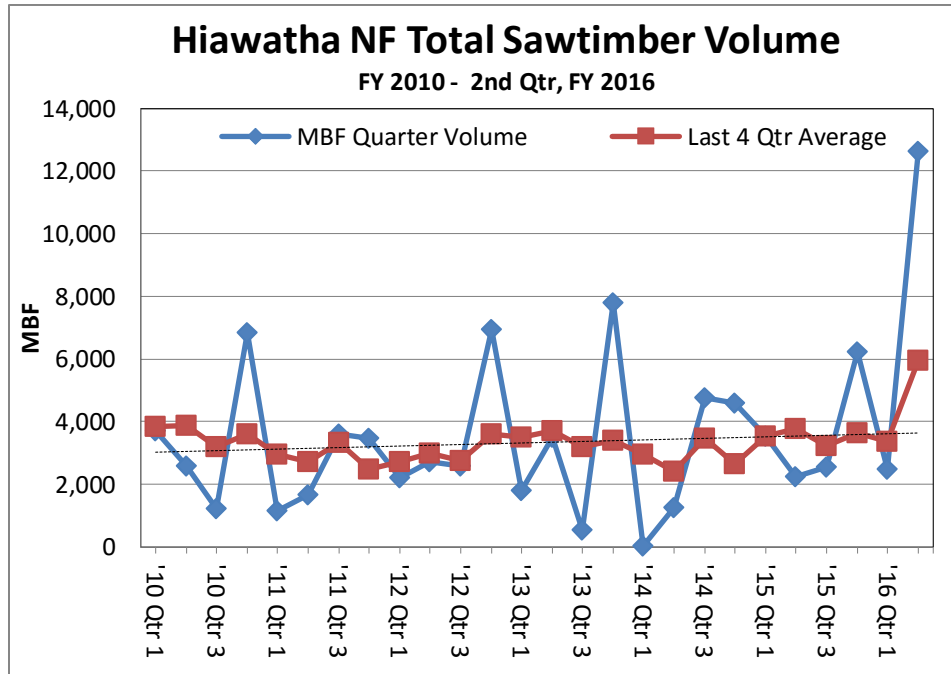


The 1st quarter price rose to almost \$110 per mbf but then the price fell to under \$57 in the most recent 2nd quarter. It had dipped to \$101.88 per mbf in the 4th quarter of FY 2015 from a record 3rd quarter price of \$115.56 per mbf. The 2nd quarter price had declined sharply, from a 1st quarter price of \$69.28 per mbf to \$35.40, the lowest price since FY 2010. Overall, prices for the past six years have seen an increasing trend. Prices are likely to rebound somewhat following the sharp drop in the recently completed 2nd quarter.

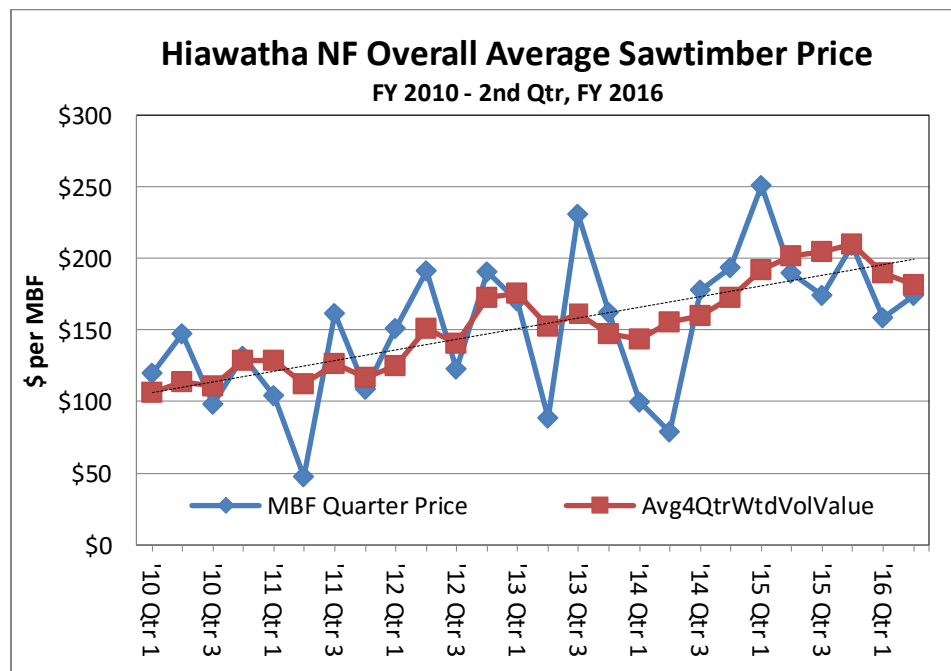
Hiawatha National Forest Major Species Product Timber Sales, FY 2010 – 2nd Qtr, 2016

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 2016, covering January through March, 2016 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:

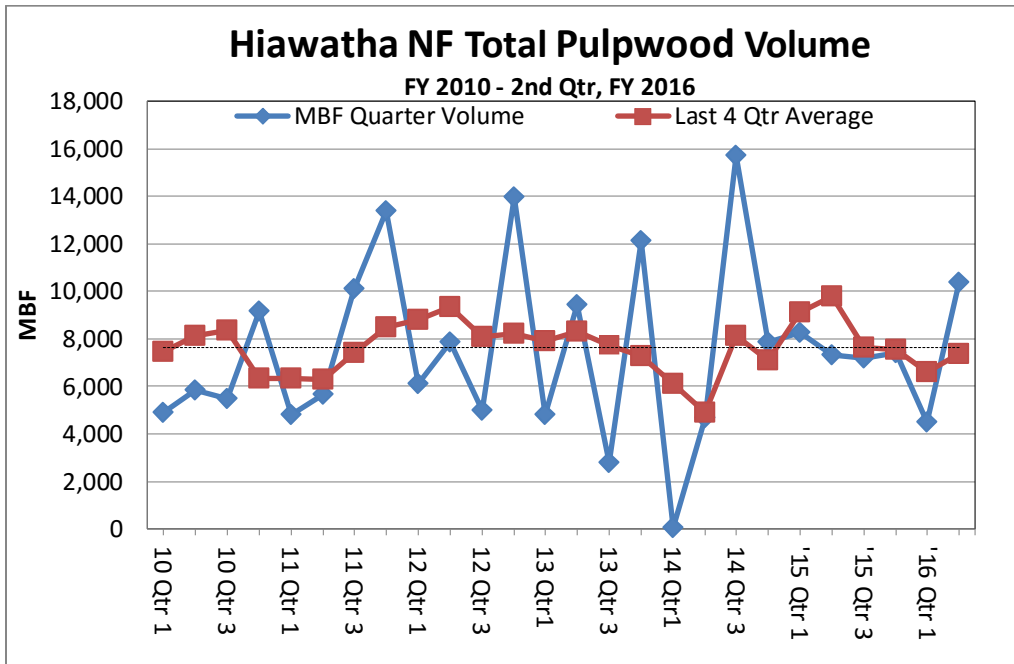
<http://www.fs.fed.us/forestmanagement/products/sold-harvest/cut-sold.shtml>



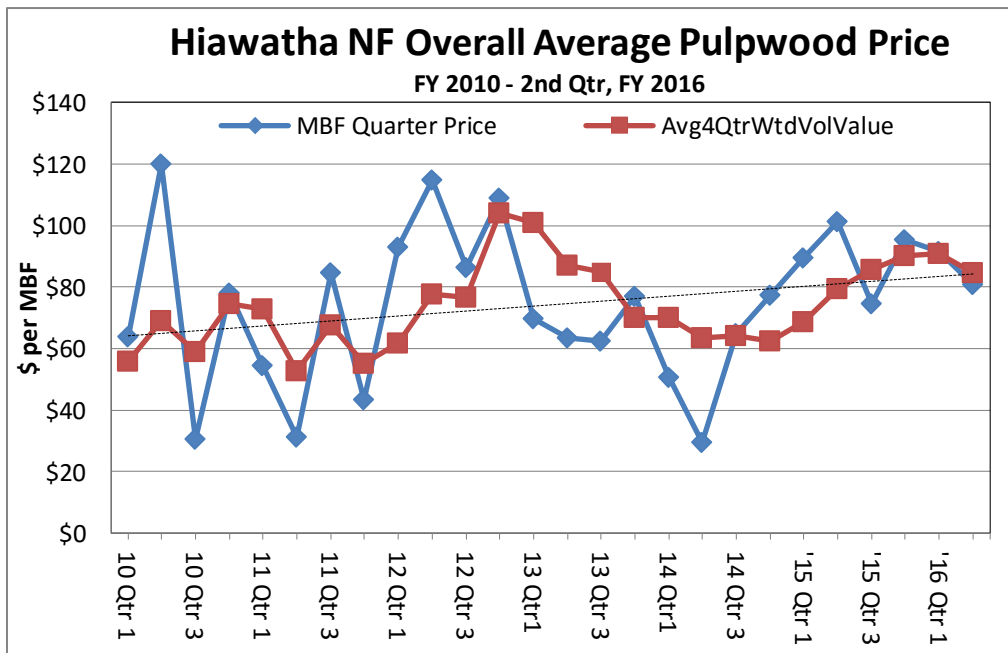
Hiawatha sawtimber sale volume exceeded pulpwood sale volume with a record 12.6mmbf in the 2nd quarter largely on the strength of red pine sales. Sale volume had fallen from over 6mmbf to 2.5mmbf in the 1st quarter. Typically, 2nd quarter sales increase from the 1st quarter, but never this much! The 6-year trend of sawtimber sale volume is slightly increasing.



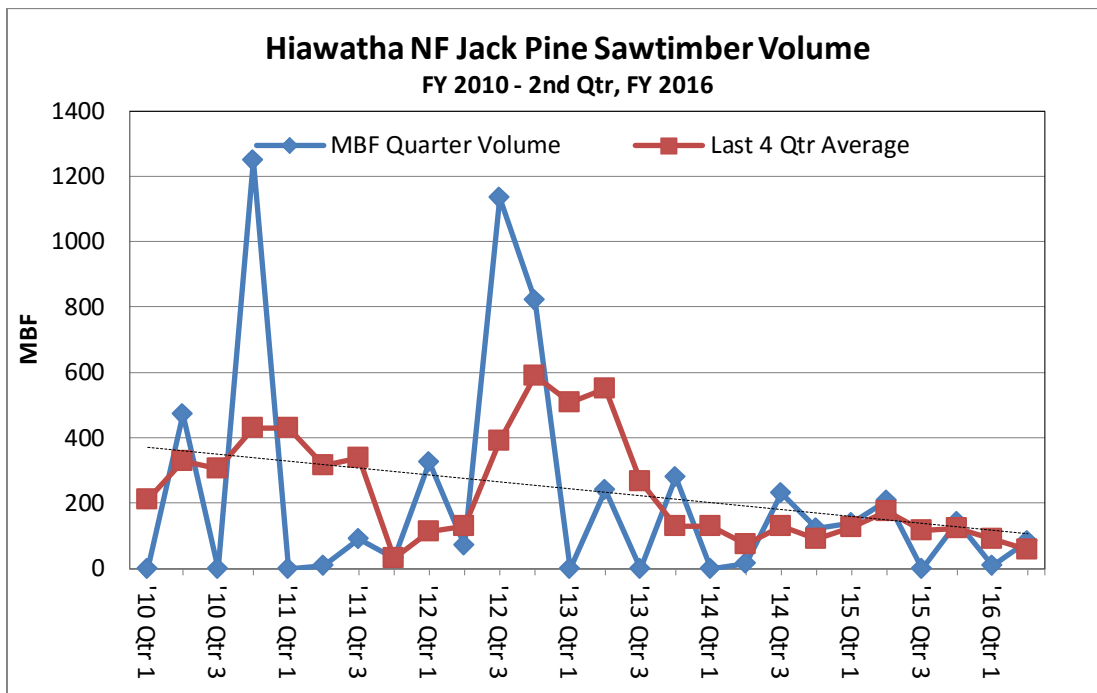
The average sawtimber price increased from \$158 to \$174 per mbf in the 2nd quarter. It peaked at \$250 in the 1st quarter of FY 2015 then fell for two quarters before rising to \$209 per mbf in the 4th quarter of FY 2015. The average sawtimber price is strongly influenced by the mix of species and products offered – it was very much influenced by red pine sales this past quarter. The six-year price trend has been increasing, with almost a doubling of the nominal price.



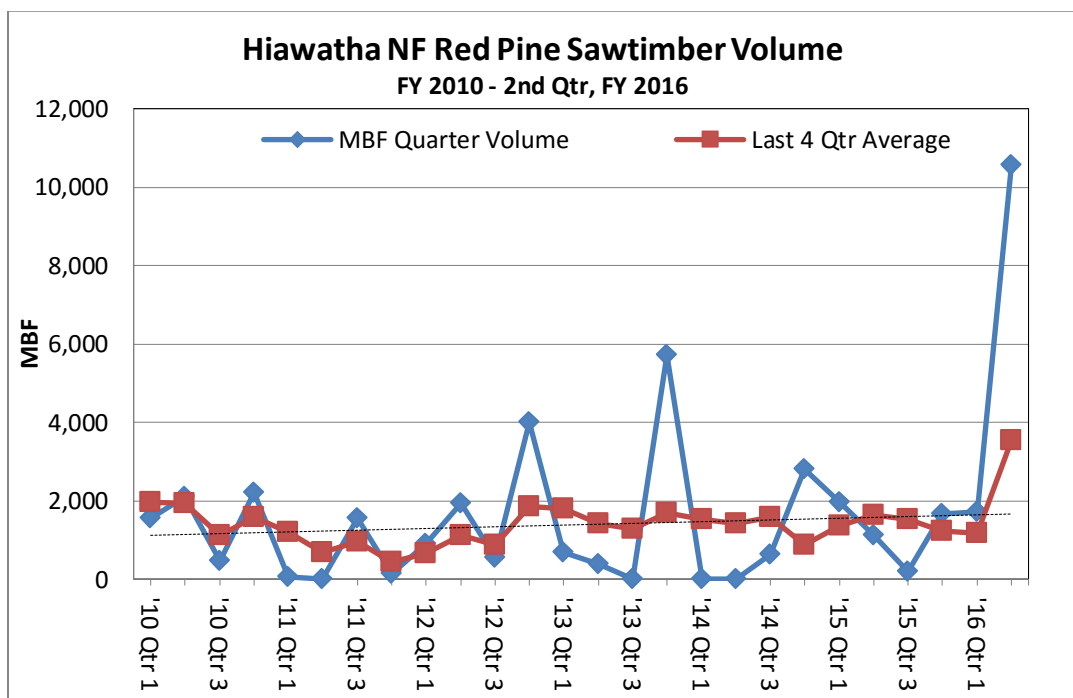
Pulpwood sale volume increased to 10.4mmbf. Volumes were stable for five quarters until the 1st quarter of FY 2016, when they fell to 4.5mmbf from the previous quarter's 7.4mmbf volume. As the graph above indicates, earlier quarter-to-quarter sales were becoming more erratic with higher highs and lower lows. The highest sale volume in the past six years was 15.73mmbf in the 3rd quarter of FY 2014. Beyond the stark differences quarter-to-quarter, the six-year trend is virtually flat overall. Sale volumes may drop a bit in the coming 3rd quarter as sawtimber sale volume comes back down.



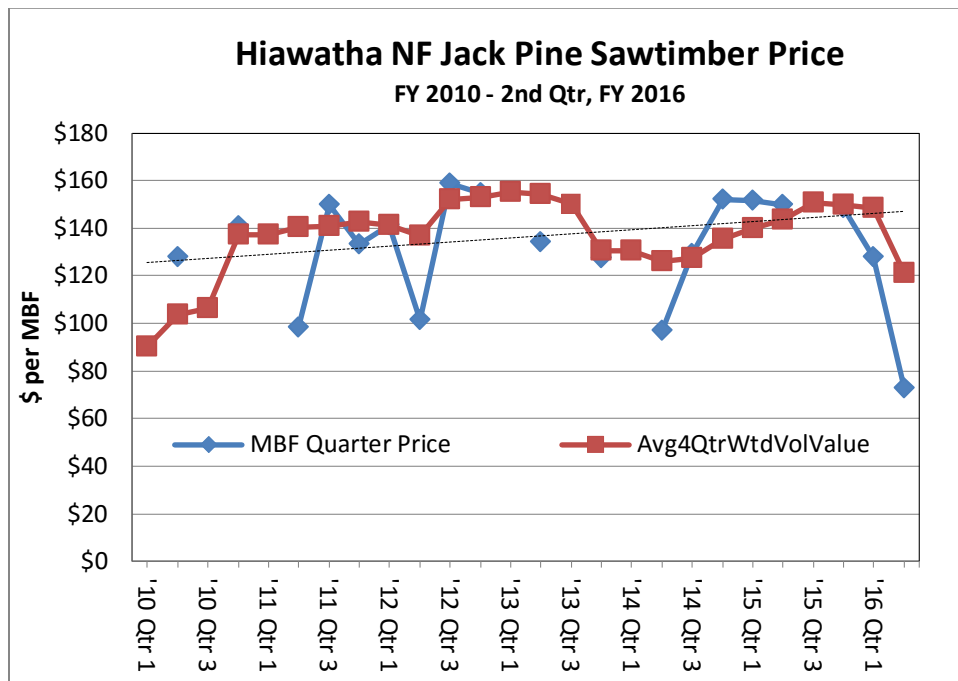
The 2nd quarter FY 2016 average pulpwood price declined further from \$91.50 to \$81. It had been \$95 per mbf in the 4th quarter of FY 2015. It had peaked at \$101 per mbf in the 2nd quarter of FY 2015 after rising four quarters from a low of under \$30 in the second quarter of FY 2014. Despite the recent two quarterly declines, the trend line shows a moderately increasing price trend since the beginning of FY 2010. If sale volumes continue to be relatively stable, they may also influence prices to be less volatile. In this regard and given the trend line, prices are expected to be stable or slightly increase in the coming quarter.



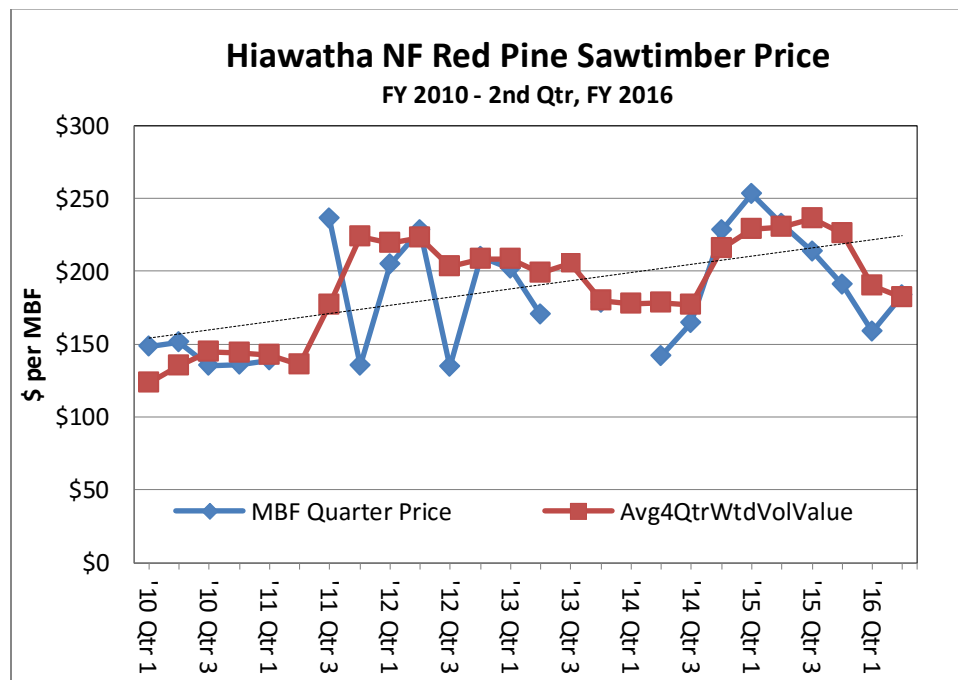
Hiawatha sale volumes of jack pine sawtimber have had a sharp downward trend over the past six years. Sale volumes have been negligible for over three years. The 2nd quarter was no exception to this as only 83mbf was reported sold. No volume was sold in the 3rd quarter of FY 2015, volume was only 143mbf in the 4th quarter of FY 2015 and only 9mbf were reported sold for the 1st quarter of FY 2016. The highest volume sold in the past six years (1.25mmbf) was back 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 with less than 10mbf) as there are quarters with sales.



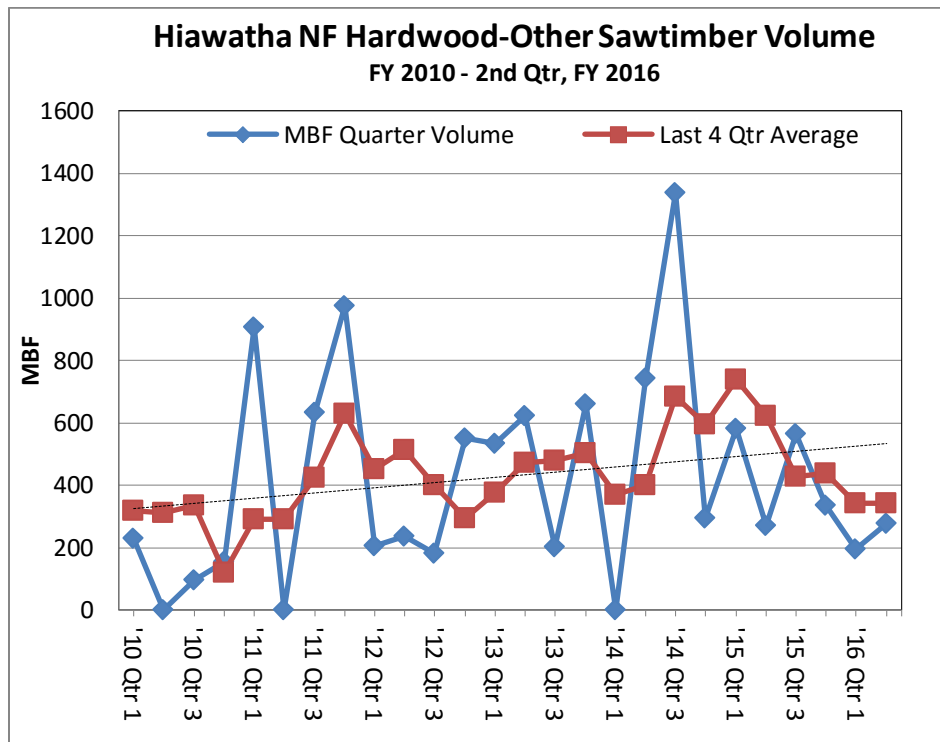
Red pine sawtimber sale volume hit a record level of 10.56mmbf in the 2nd quarter. The six-year sale average before the 2nd quarter was 1.3mmbf and the previous high was 5.7mmbf in the 4th quarter of FY 2013. Over the past six years, three times as much red pine sawtimber as jack pine sawtimber has been sold on the Hiawatha. However, in the past two years, more than ten times as much red pine sawtimber has been sold. The record 2nd quarter volume has turned the flat sale trend line into an increasing sale trend line. Next quarter's sales are likely to be back below 2mmbf.



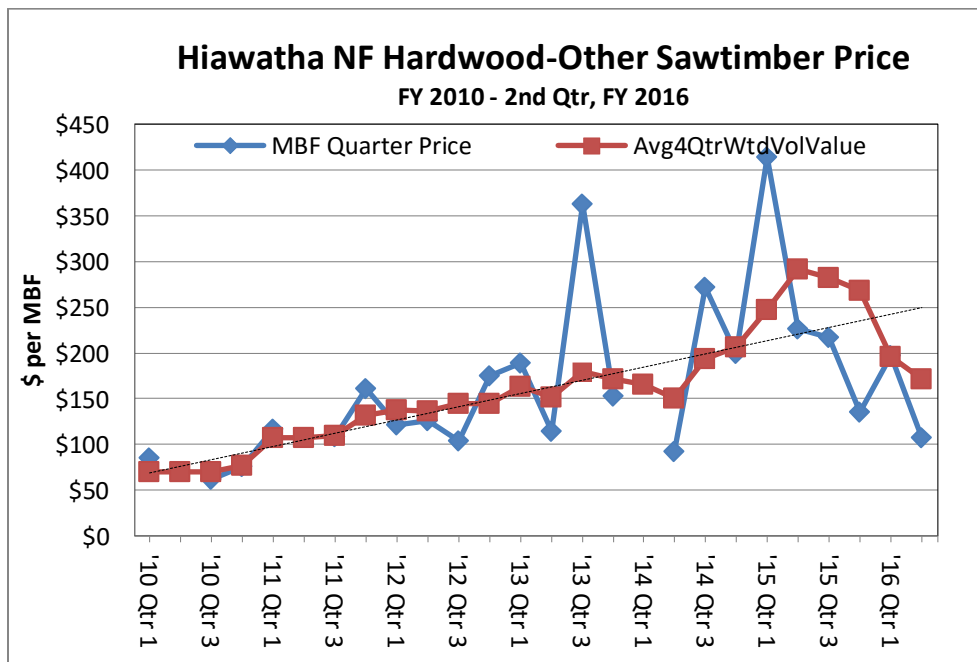
The 2nd quarter price fell sharply to \$73 per mbf, but it is based upon negligible volume - as most prices have been for the past three years. The 4th quarter FY 2015 jack pine sawtimber price was \$148 per mbf, more than twice the current (2nd quarter) price. In contrast to the most recent two quarters, there is a moderate increasing price trend over the past six years, but this price trend is based upon many quarters with negligible or no sales.



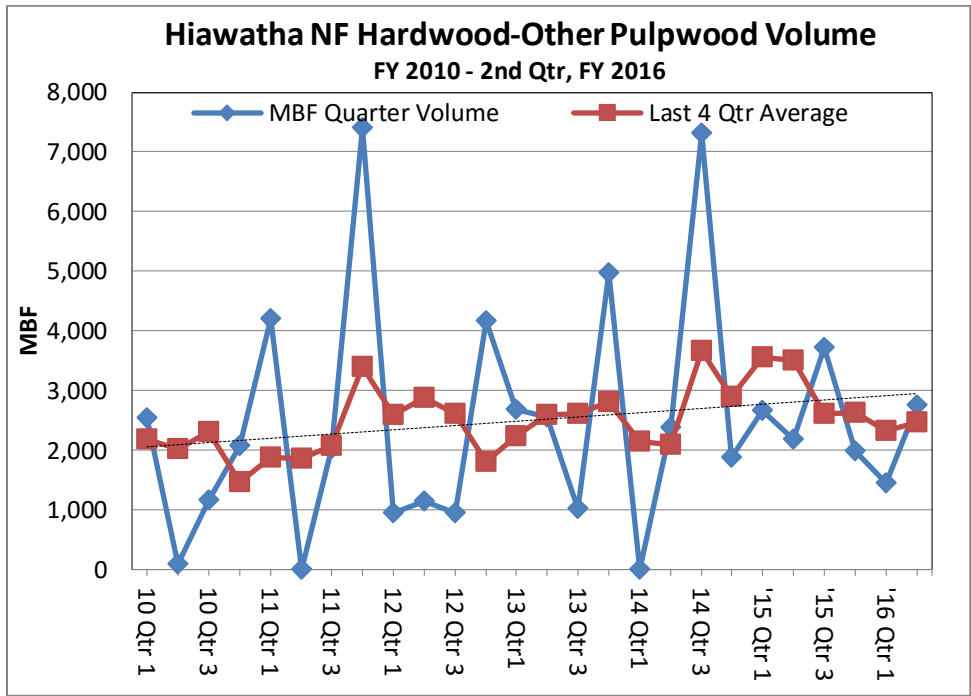
The red pine sawtimber price increased from \$159 to \$183 per mbf in the 2nd quarter. It had declined for the four previous quarters. The price reached \$253 per mbf in the 1st quarter of FY 2015, its highest level in years, before beginning its descent. It was as low as \$142 in the 2nd quarter of FY 2014 before beginning its ascent to the \$253 price. The overall six-year price trend has been increasing. Next quarter's price is expected to remain stable or increase moderately.



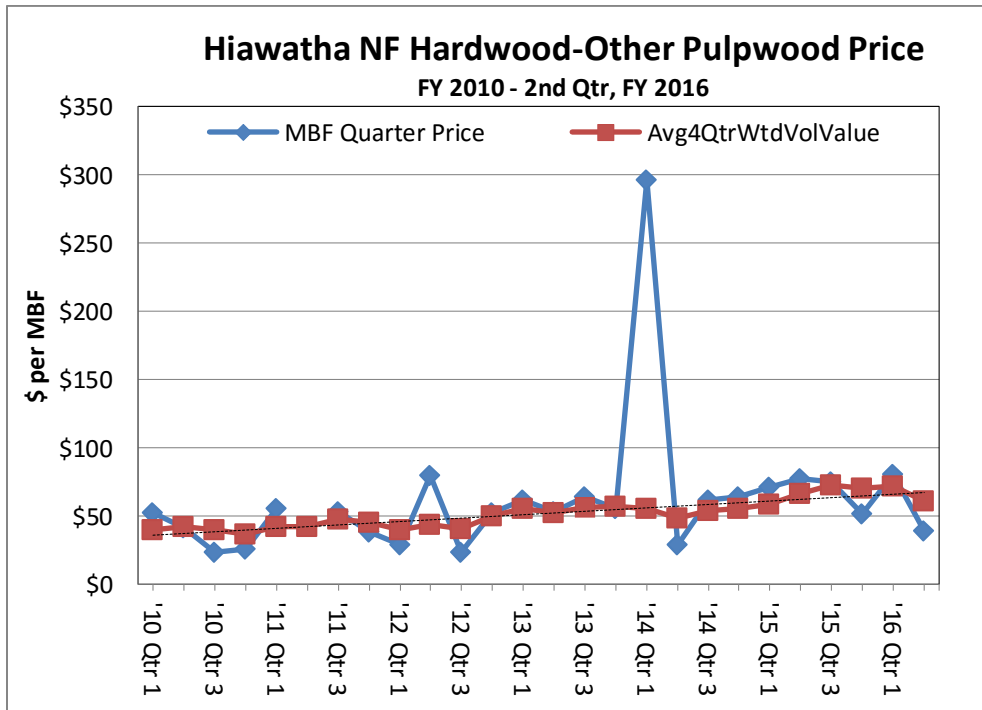
The “hardwood-other” sawtimber sale volume increased from 195mbf to 278mbf 2nd quarter. Quarterly sale volume reached a six-year record level of 1.3mmbf in the 3rd quarter of FY 2014. Sale volumes seesawed back and forth from quarter to quarter in a fairly narrow range in FY 2015. The six-year sale volume trend is upward; it is strongly influenced by the high 2nd and 3rd quarter sale volumes of FY 2014.



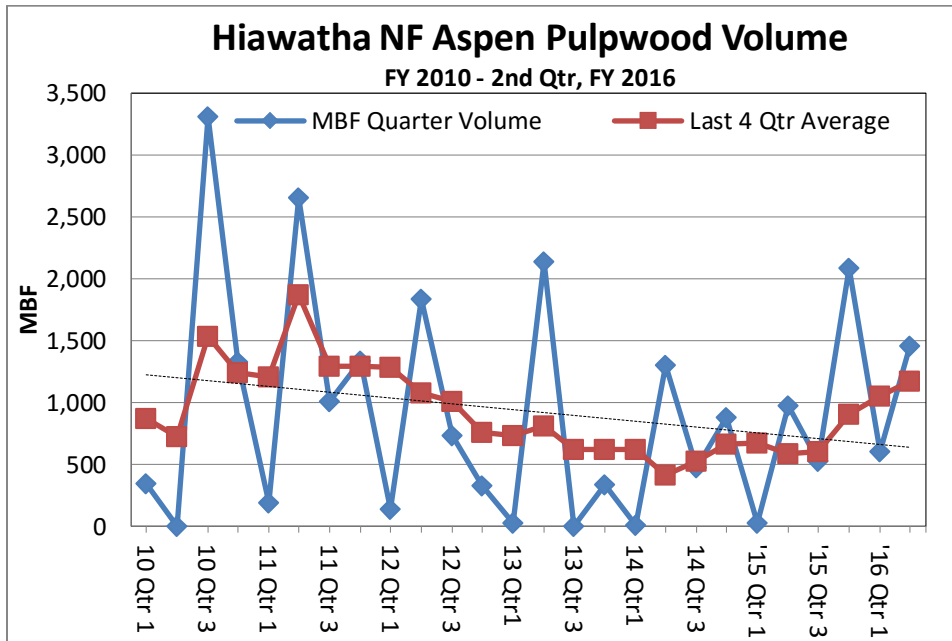
The “hardwood-other” sawtimber 2nd quarter price dropped from \$198 to \$108 per mbf. It had fallen for three quarters from a record \$414 per mbf price in the 1st quarter of FY 2015 before slightly rebounding to the \$198 price last quarter. In the 2nd quarter FY 2014, the price was below \$92 per mbf. The quarterly price trend has risen very steeply over the past six years – more than jack or red pine sawtimber - from well under \$70 to \$250 per mbf. While prices may increase in some future quarters, overall they are expected to level off and the price trend is likely to moderate somewhat.



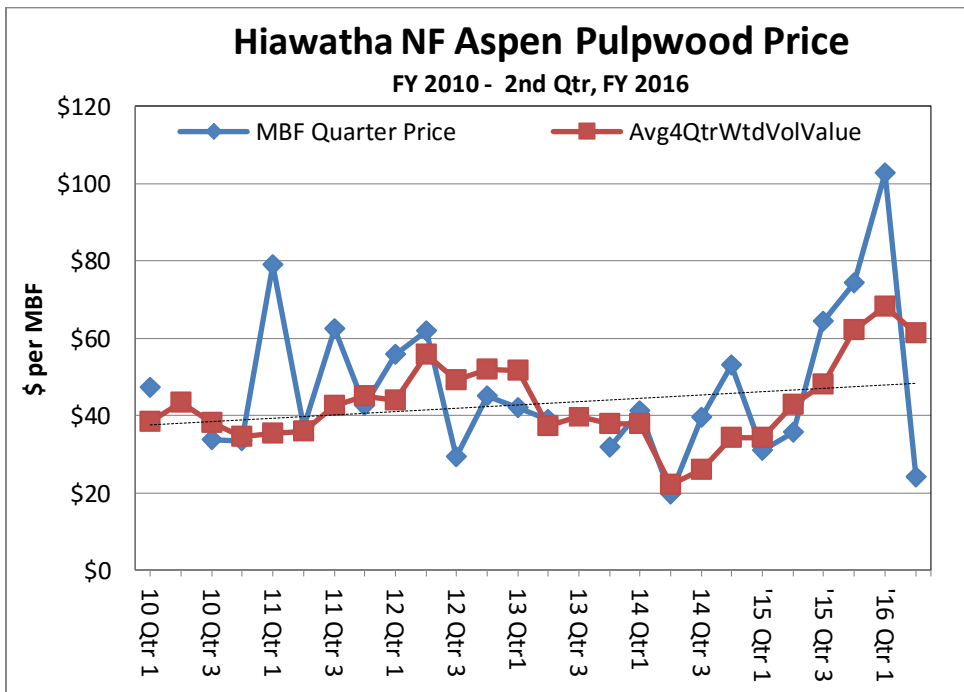
Sales of “hardwood-other” pulpwood volume rebounded in the 2nd quarter from 1.45mmbf to 2.76mmbf. After shooting up in the 3rd quarter of FY 2014 to over 7.3 mmbf, the pulpwood sales came sharply down the next quarter to 1.9mmbf. Generally, sales are highest in the 4th quarter, but annual peak sales were in the 3rd quarter the last two fiscal years. It appears the erratic nature of sale volumes from quarter-to-quarter may be moderating based upon the past seven quarters. There is an increasing sale volume trend over the past six years.



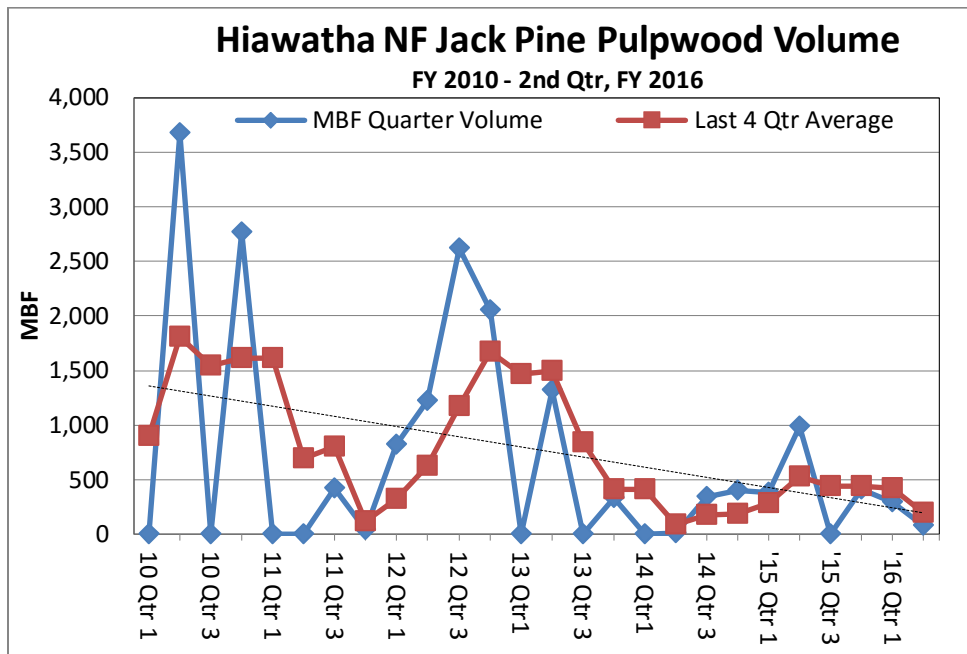
Prices fell from \$81 to \$39 per mbf in the 2nd quarter for “hardwood-other” pulpwood. Prices had risen gradually from \$29 in the 2nd quarter of FY 2014 before dropping back down to \$52 in the 4th quarter of FY 2015. The 1st quarter FY 2014 price is an anomaly or error. Other than this major exception and a few minor ones, the price has fluctuated in a fairly narrow range around \$50 over the past six years. There has been a modest increasing price trend for the period.



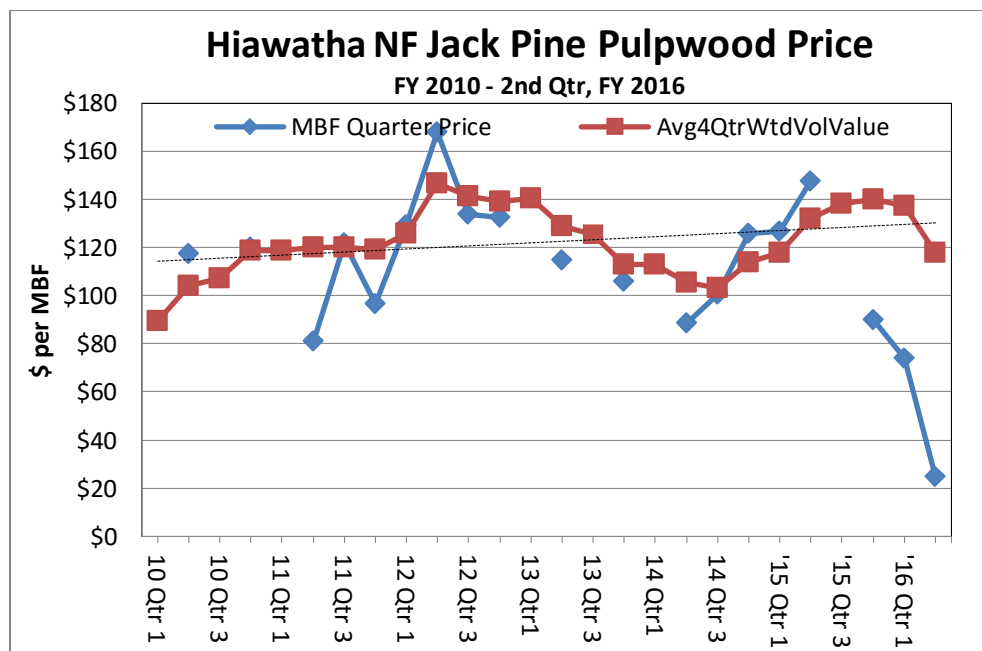
Aspen pulpwood sale volume increased in the 2nd quarter, from 605mbf to 1,457mbf. It hit a ten-quarter peak of 2.1mmbf in the 4th quarter of FY 2015. Aspen pulpwood sale volumes have been quite erratic, often going from no or negligible volume in one quarter to 1mmbf or more the next quarter. There has been a distinctively downward trend over the past six years, but the past three quarters are at odds with this pattern. There has been very low or no sales in the 1st quarter of every fiscal year, generally followed by higher sales in the 2nd quarter. It would not be surprising if the coming 3rd quarter sales decline, but it will be a good indication that the declining volume trend is being reversed if they do not fall below the 500mbf level.



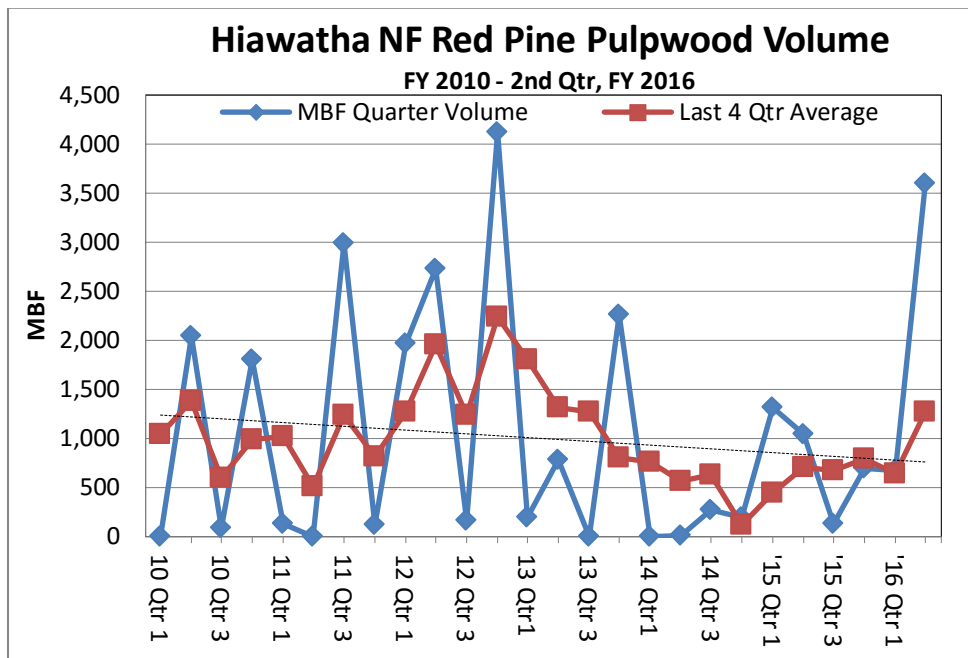
The 2nd quarter aspen pulpwood price had a very steep drop from a record \$103 per mbf price last quarter down to \$24. It had increased four quarters in a row before the 2nd quarter. It was at a six-year record low under \$20 in the 2nd quarter of FY 2014. The steep rise in the "Avg4QtrWtdVolValue" (red) line over the past seven quarters shows the sharply rising price trend over the past two years. The six-year price trend flipped last quarter from being slightly declining to slightly increasing. It is not surprising that there was a sharp drop in prices, given how much prices had risen in the prior four quarters and recent higher sale volumes.



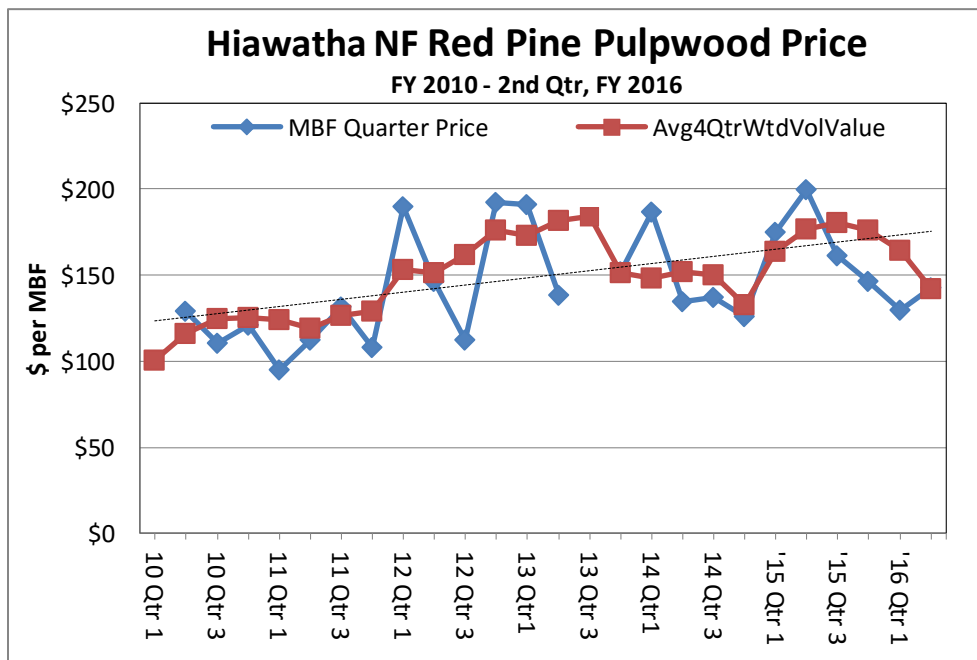
Jack pine has had a diminishing role in Hiawatha timber production. Jack pine pulpwood sales dropped further in the 2nd quarter, from 297mbf to 80mbf. Only 413mbf of jack pine pulpwood was sold in the previous 4th quarter of FY 2015; there were no jack pine pulpwood sales in the 3rd quarter. Sales have been below 500mbf each quarter for three years except for the 2nd quarter of FY 2015 when they reached 985mbf. There were no jack pine pulpwood sales in two quarters of both FY 2013 and FY 2014. Sales have been on a steep downward trend over the past six years. Sales in some upcoming quarter might exceed 1,000mbf; however, most quarters will have very negligible or no volumes.



The 2nd quarter jack pine pulpwood price dropped from \$74 to \$25 per mbf, its lowest price in the past six years. The 2nd quarter FY 2015 jack pine pulpwood price was at \$146 per mbf. Previous higher prices influence the six-year price trend shown above, but this increasing trend line is misleading given that there have been about as many quarters without sales of jack pine as there have been quarters with sales over the past six years. While not a trend, recent quarters' lower prices for jack pine pulpwood are probably as relevant for future prices as the longer-term six-year trend line. Future quarters' prices are likely to rebound substantially.



Red pine pulpwood sale volume shot up along with red pine sawtimber sale volume. It rose from 677mbf in the 1st quarter to over 3.6mmbf in the 2nd quarter of FY 2016. Even if there are no more sales in FY 2016, the year will see more sale volume than the previous two years. FY 2014 had no sales in the first two quarters followed by only 270mbf sold in the 3rd quarter and 197mbf in the 4th quarter. FY 2015's sale volume was higher, but well below most earlier years which often had quarters with more than 2mmbf in sale volume. The very high 2nd quarter did not reverse a declining six-year volume trend, although red pine's downward trend is not nearly as steep as the jack pine pulpwood volume trend.



The 2nd quarter red pine pulpwood price rose back to \$143 per mbf. It had declined for the third quarter in a row to \$129 per mbf in the 1st quarter of FY 2016. It had gone from \$175 to \$200 per mbf between the 1st and 2nd quarters of FY 2015 before beginning its descent. Despite recent declines, prices have been on an upward trend over the past six years. If FY 2010 and FY 2011 were dropped, the four-year price trend would be flat. It also should be noted that there has been very low or no sale volume in many quarters over the past six years, which undercuts the significance of the price trend.