

# **2018 Indiana Forest Products Price Report and Trend Analysis**

**January 2018**



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## Survey Procedures and Response

Data is collected twice a year, but log prices change constantly. Standard appraisal techniques by those familiar with local market conditions should be used to obtain estimates of current market values for stands of timber or lots of logs. Please note, because of the small number of mills reporting logging costs, “stumpage prices” estimated by deducting the average logging and hauling costs (**Table 5**) from delivered log prices must be interpreted with extreme caution and is meant to only serve as a guide. Actual stumpage values you may be offered depend on many variables such as access, terrain, time of year, etc.

Data for this survey was obtained by a combination direct mail and email survey to a variety of forest product industry including sawmills, veneer mills, concentration yards, and independent log buyers. Only firms operating in Indiana were included. The survey was conducted and analyzed by the Indiana Division of Forestry. The prices reported are for logs delivered to the log yards of the reporting mills or concentration yards. Thus, prices reported may include logs shipped in from other states (e.g. black cherry veneer logs from Pennsylvania and New York).

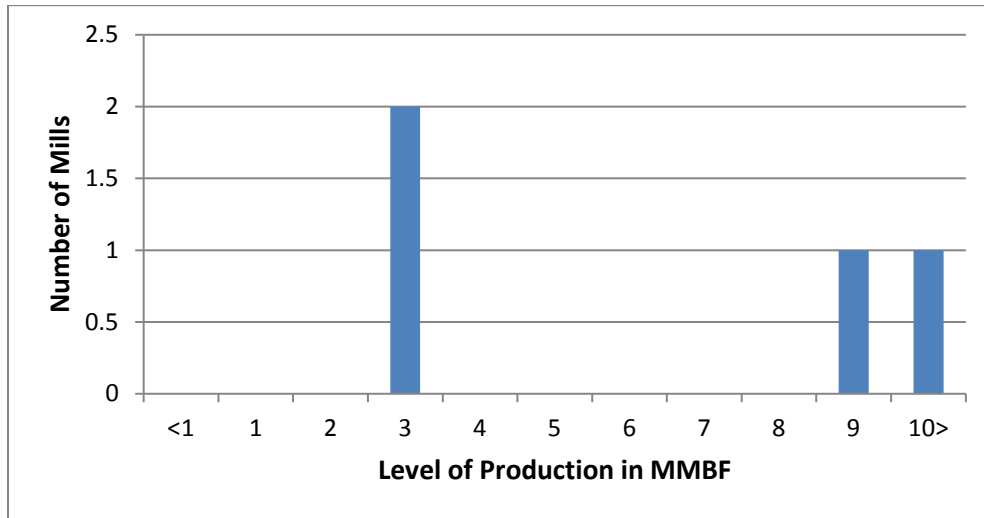
The survey was mailed to 17 firms and emailed to 31 firms. It is estimated these companies produce close to 90% of the state’s roundwood production. Electronic reminders, follow-up phone calls and additional mailings encouraged responses.

9 firms reported some useful data. Four mills reported producing 1 million board feet (MMBF) or more (Figure 1). Two mills reported production of 5 MMBF or greater. Total board foot production reported for 2017 was 36 MMBF compared to 70 MMBF for 2016, and 42 MMBF for 2015. The largest single mill production reported was 20 MMBF. These annual levels are not comparable since they do not represent a statistical estimate of total production. The number of companies contributing price data for each product is shown in the second and third columns in Tables 2 and 3, and in the second column in Tables 4 and 5.

The price statistics by species and grade don’t include data from small custom mills, because most do not purchase logs, or they pay a fixed price for all species and grades of pallet-grade logs. They are, however, the primary source of data on the cost of custom sawing and pallet logs. The custom sawing costs reported in **Table 5** do not reflect the operating cost of large mills.

This report can be used as an indication of price trends for logs of defined species and qualities. It should not be used for the appraisal of logs or standing timber (stumpage). Stumpage price averages are reported by the Indiana Association of Consulting Foresters in the Indiana Woodland Steward, <http://www.inwoodlands.org/>.

Figure 1. Distribution of the 4 mills reporting 2017 level of production.



## Hardwood Lumber Prices

Hardwood lumber prices as of January 2013 are shown in Table 1, which represents prices per thousand board feet (MBF) for green, 1 inch thick 4/4 lumber by species and grade compiled by the Hardwood Market report out of Memphis, TN. Log prices are directly tied to lumber prices since logs are delivered to mills on a continuing basis. This allows mills to base the price they pay for logs on current lumber market prices. The link to prices paid for standing timber is less direct, depending on how far in advance of logging a stand of timber is purchased.



### Premium Species

Red oak and white oak are often looked at as the primary market and economic indicators in the hardwood industry. Current pricing for both red and white oak is on the rise. White oak lumber (#2/Btr) prices are 3% higher than what was reported in July 2017 and red oak prices are almost 6% higher.

The red oak market is doing very well. There are several circumstances contributing to the strong market. One reason is that exporters are building inventories to meet the expected strong demand from China after their New Year, another is those buying green lumber are also building inventories in anticipation of the seasonal slowdown of domestic production around the Holidays and lastly, increasing log exports have folks concerned about availability as well as higher log costs to domestic sawmills. Current pricing for red oak is at levels not seen since January 2015. Steady demand is being reported from the moulding/millwork, cabinet, and furniture sectors and the residential flooring folks are aggressively buying #2/3A red oak. #1C is the most popular KD red oak item and much of that production is headed to China and Vietnam. Pricing for green upper grade (FAS&FIF), red oak lumber, with a \$200 premium peaked at \$1,370 per thousand board feet (MBF) in the summer of 2014. Prices for FAS lumber spiraled downward through early 2016 and has since risen to the current price of \$1,150 MBF. Both #1C and 2A pricing have been increasing since January of 2016 to \$845 and \$560 MBF respectfully.

White oak markets are also experiencing very good times as most mills are able to move their production quite easily. Most of the upper grade lumber is going overseas (Far East and Europe). Here in the states, white oak is most popular with the hardwood flooring industry. Upper grade white oak pricing has increased steadily since January 2016 to its current price of \$1,650 MBF. This price is also 38% higher than what was reported in July of 2013. #1C and #2A pricing has also firmed quite well with increases of 34% and 7% respectfully. KD 4/4 upper grade white oak can be sold at about any price and both #1 and #2C are very strong as well.

Producers of green walnut are very happy with the current market. Most all grades and thicknesses are in strong demand and prices continue to rise. Upper grade green walnut prices (\$2,900 MBF) are close to July 2015 prices. #1C prices are over 47% higher than in July 2013 and 16% higher than those reported in July 2017. Most say the walnut market is just crazy and wonder when prices will begin to fall.

The cherry market continues to rebound, almost solely on the Chinese markets. Many exporters are constantly sold out of lumber. This strong Chinese market offsets the sluggish domestic markets. Cabinet, flooring, and furniture manufacturers are producing few products in cherry and usage by the architectural millwork and moulding segments are similarly low. Green cherry lumber prices have recovered nicely since their low point during the summer of 2016. Upper grade cherry prices are 16% higher and the commons are averaging 13% higher than those reported in July 2016.

Hard maple is also making a comeback from less than desirable market conditions. Much of the turnaround can be attributed to manufacturers switching from soft maple to hard maple. The segment using good volumes of hard maple is the cabinet industry. Most of the #1C production is going into cabinets. Little hard maple is shipped overseas. Green lumber pricing increases are smaller than for other species. Upper grade hard maple pricing is only 10% higher than what was reported in July 2017 while the combined average of #1 and #2A is 14% higher.

### Other Species

Poplar has been the “steady Eddy” of the hardwood market. Despite more production, supply and demand remain in good balance. Demand has been good for both domestic and international markets. Near record poplar exports and the much improved pallet market has taken #1C and #2A inventories to more manageable levels. Green lumber pricing however is pretty consistent since January 2015. The average price of the common grade poplar is still seeing the effects of large inventories as prices are lower than in years past.

Markets for soft maple continue to struggle. Most are finding it hard to generate any meaningful sales for green and KD upper grade lumber. Demand is reported to be flat for both #1C and #2A lumber as well. Mills are trying their best to control soft maple production to offset large unsold inventories. Many point to the substitution of hard maple for soft maple as the main issue with soft markets. Upper grade soft maple prices have dropped 4% since the fall of 2016 while the combined average price of common grade soft maple has dropped 12%.

Ash lumber markets are very strong. The pace of the ash business was quite good in recent months and continues to gain momentum. China is buying very large amounts of lumber and orders from Chinese buyers are plentiful; as exporters are filling containers prior to China’s New Year. Demand is outpacing supply for almost every ash item. Upper grade ash lumber prices are 1,075 MBF which is almost 12% higher than a year ago. Common grade ash prices are also higher with #1C at \$715 MBF (18% increase from a year ago) and #2A at \$420 MBF (10% increase)

Hickory markets have improved since late last year. In 2016, many mills struggled to move their hickory lumber but most reports indicate now mills are having little difficulty moving their production. Much of the green production is going to flooring facilities or to dry kilns in preparation to export. The improved industrial markets have also played a part in the positive comments for hickory. Record volumes of lumber are being shipped to Mexico and China. Upper grade hickory lumber prices are nearing levels reported during the summer of 2015. The overall average of hickory lumber prices are 7% higher than in the fall of 2016.

**Table 1. Hardwood lumber prices, dollars per one thousand board feet (MBF), 1-inch-thick (4/4) Appalachian market area unless otherwise indicated. Source: *Hardwood Market Report*, P.O. Box 2633, Memphis, TN 38088-2633**

Lumber/Grade	July 2013	Jan 2014	July 2014	Jan 2015	July 2015	Jan 2016	July 2016	Sept 2016	July 2017	Dec 2017
<b>Ash</b>										
FAS + Prem.	845	845	875	1,085	1,110	1,150	1,085	950	1,050	1,075
No. 1C	585	585	620	780	795	780	685	585	660	715
No. 2A	360	350	350	450	460	505	455	375	370	420
<b>Basswood</b>										
FAS + Prem.	630	645	660	695	695	695	775	795	765	735
No. 1C	345	385	405	430	430	430	465	460	440	400
No. 2A	190	210	210	230	230	230	245	245	215	195
<b>Beech</b>										
FAS	500	500	500	500	500	500	555	545	560	560
No. 1C	420	420	420	420	420	420	460	460	435	420
No. 2A	345	345	345	345	345	345	360	350	285	275
<b>Cottonwood (Southern)</b>										
FAS	635	635	670	685	705	745	765	780	780	780
No. 1C	435	435	470	480	500	535	545	560	560	575
No. 2A	240	255	240	260	260	260	260	260	260	260
<b>Cherry (North Central)</b>										
FAS + Prem.	1,335	1,345	1,345	1,540	1,520	1,495	1,265	1,210	1,420	1,510
No. 1C	705	780	775	1,050	1,035	1,015	825	775	880	960
No. 2A	375	445	455	675	660	645	475	405	450	540
<b>Hickory</b>										
FAS + Prem.	720	775	845	1,000	1,000	905	830	820	840	900
No. 1C	595	660	715	835	835	705	545	535	535	580
No. 2A	445	480	520	615	615	545	425	415	395	425
<b>Hard Maple (unselected)</b>										
FAS + Prem.	1,075	1,305	1,390	1,450	1,390	1,220	1,305	1,300	1,070	1,195
No. 1C	790	1,000	1,180	1,260	905	700	850	840	730	880
No. 2A	550	685	810	835	655	495	495	485	425	475
<b>Soft Maple (unselected)</b>										
FAS + Prem.	940	1,000	1,040	1,115	1,115	1,095	1,210	1,250	1,230	1,200
No. 1C	650	710	785	845	750	635	825	870	830	785
No. 2A	340	360	455	500	490	450	460	480	400	400
<b>White Oak (plain)</b>										
FAS + Prem.	1,015	1,055	1,295	1,410	1,410	1,340	1,440	1,570	1,615	1,650
No. 1C	575	695	845	960	920	665	710	790	975	1,015
No. 2A	475	620	660	660	650	485	470	480	525	555

**Table 1. (continued)**

<b>Lumber/Grade</b>	<b>July 2013</b>	<b>Jan 2014</b>	<b>July 2014</b>	<b>Jan 2015</b>	<b>July 2015</b>	<b>Jan 2016</b>	<b>July 2016</b>	<b>Sept 2016</b>	<b>July 2017</b>	<b>Dec 2017</b>
<b>Red Oak (plain)</b>										
FAS + Prem.	880	1,045	1,370	1,335	1,145	935	1,040	1,030	1,080	1,150
No. 1C	570	690	860	930	795	550	610	665	795	845
No. 2A	495	650	700	700	690	500	485	500	530	560
<b>Yellow Poplar</b>										
FAS + Prem.	760	775	775	830	830	830	830	830	830	830
No. 1C	490	505	505	545	545	535	515	475	435	435
No. 2A	330	340	355	385	385	385	365	335	265	275
<b>Sycamore (Southern plain)</b>										
FAS	455	455	455	455	455	455	455	455	460	455
No. 1C	435	435	435	435	435	435	435	435	440	435
No. 2A	375	375	375	375	375	375	375	375	360	360
<b>Black Walnut</b>										
FAS	1,795	1,815	2,325	2,890	3,040	2,575	2,425	2,515	2,600	2,900
No. 1C	875	875	1,235	1,590	1,645	1,310	1,270	1,270	1,400	1,675
No. 2A	475	475	730	990	1,035	745	730	715	765	990

## Exports

### Shipments Pacing Toward Another Record Year!

U.S. hardwood lumber exports totaled just over 1.4 BBF through the end of the third quarter (Q3), up 14% year-over-year and on pace to reach a record 1.9 BBF in 2017. Exports were up to every major market region through September, while only Alder shipments were lower, due largely to reduced production. This week, we summarize export performance through Q3 2017, with regional winners and losers. U.S. housing activity and exports will continue to strengthen hardwood lumber demand.

### Asia

Shipments to Asia were 17% ahead of the 2016 pace through September, with a value of just under \$1.4 billion. China easily remained the export “headline,” accounting for 54% of global hardwood lumber exports through September, up from 52% a year ago. Exports to China set a record in September, beating May’s record by 5%, and have generally been at or near record levels every month since last summer, except for a seasonally slower December. Monthly shipments to China topped 80 MMBF in 11 of the last 13 months, and 70 MMBF in 8 of the 11 months prior, all but bypassing the summertime slowdowns that occurred from 2013 through 2015. Exports to China have more than quadrupled over the last ten years (Figure 1). Year-to-date shipments of most species of hardwood lumber were up by double-digit percentages to China

Vietnam was the third-fastest growing major market for hardwood lumber in Asia through Q3. Shipments to Vietnam in Q3, in fact, were the second-strongest quarterly total on record. As with China, shipments of most species have grown by double-digit percentages to Vietnam this year, with the exception of White Oak and Alder, which were lower for the year. Exports through Q3 were mixed to secondary Asian markets, with Malaysia and the Philippines posting the largest gains. Shipments to Japan, Taiwan and Korea posted moderate gains, while exports fell to Thailand and Indonesia.

Log exports remained among mills' top concerns through Q3, with exports to Asia up 14%, including a 19% increase to fastest-growing buyer China. Red Oak log shipments to China have more than doubled in 2017, and increases in Walnut, White Oak, Maple, Poplar Cherry and Birch log exports have averaged 60%. Only logs classified as "other" were lower year-to-date through September.

### **Europe**

U.S. hardwood lumber exports to the European region were 2% higher than through Q3 2016, led by slightly-stronger UK purchasing and a 10% increase in demand from Italy. Shipments to the UK have been largely steady all year, with monthly shipments ranging between 3.3 MMBF and 4.2 MMBF. Monthly shipments to Italy have been more volatile, however, with volumes falling 7% in Q1, rising 23% in Q2, and then falling 24% in Q3. In Germany, slower Poplar and Walnut purchasing has slightly offset gains in White Oak and Red Oak, putting year-to-date totals a bit behind the 2016 pace through September. Q3 2017 exports to Spain were 6% higher than in Q2, due largely to stronger White Oak exports. Total exports to Portugal, Ireland and Sweden were down 9% for the year, on average.

### **Canada**

Year-to-date hardwood lumber shipments to Canada were 5% higher through Q3 2017. Canada's imports of U.S. Red Oak were up 9% year-to-date through September, while the total value was 16% stronger, indicating higher prices paid for #2/Btr. Imports of White Oak were up 32% year-to-date through September, but the total value was only 12% stronger, indicating a shift in grade mix towards lower grades and/or falling upper-grade prices. Canada has purchased 14% less U.S. Soft Maple and 24% less Ash in 2017 than in 2016.

### **Latin America**

U.S. hardwood lumber growth in Latin America was second only to Asia through Q3, at 15%. The overwhelming majority of that growth was in Birch, though Hickory, White Oak, Ash and Cherry volumes were also up for the year. Though Mexico remained by far the largest regional export market—accounting for 94% of total exports to the region year-to-date through Q3—Chile and Brazil accounted for the largest growth, by percentage. Monthly shipments to Guatemala continued their up-and-down trend through Q3, while volumes to Honduras rebounded in Q3 from summertime slowness.

Hardwood Review - Tony Burbeck  
Editor

Indiana's primary exports of hardwood products (log, lumber, veneer) remain a viable part of the overall hardwood sales. Lumber shows a -4% decrease for the first 10 months with veneer up marginally and export logs showing a +19% gain. China, Canada, Japan along with Vietnam remain four of Indiana's largest hardwood importers of logs and lumber in 2017. China, reigns as Indiana's largest overall market encompassing 87% and 51% of log and lumber exports



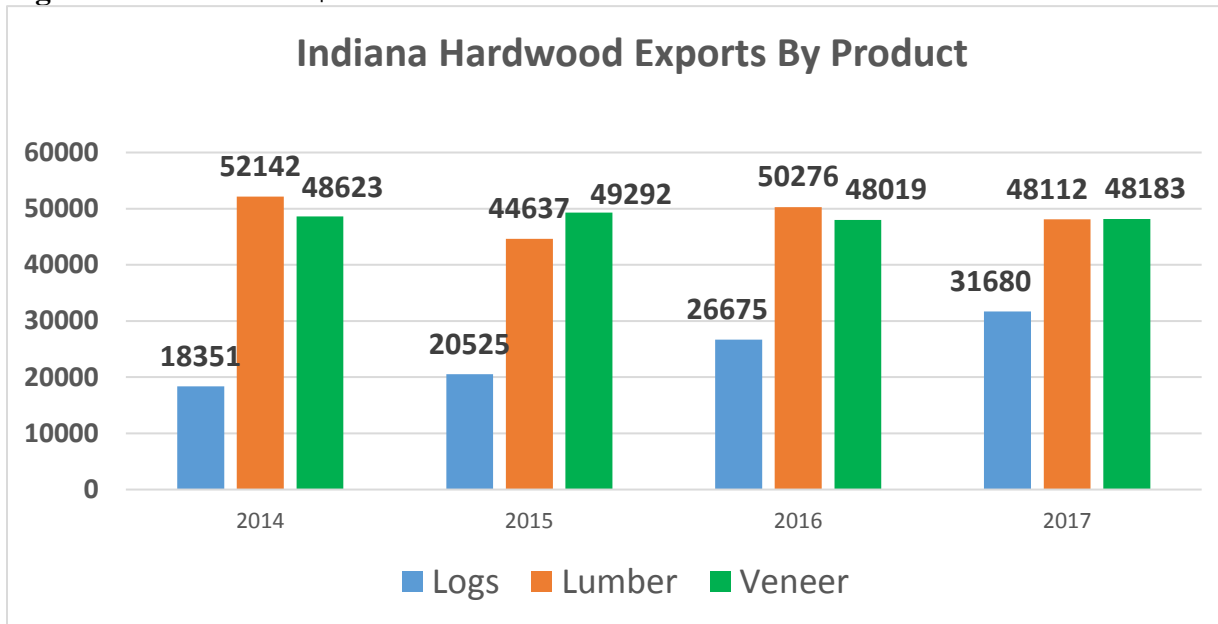
respectively. Canada, Spain, Germany and Portugal respectively encompass the top 4 markets for veneer exports. Vietnam continues to develop in our market and has surpassed Japan as the # 3 importer of logs.

Saw log markets seem to remain steady with stave markets slowing down now that barrel inventories have improved. Veneer suppliers and importers are also now back in the market with summer behind them. Prices especially in white oak and walnut continue to remain very firm giving the veneer, stave and sawmills little or no wiggle room on pricing. Lumber is a mixed bag overall, most companies selling their key lumber species but struggling to maintain the 2016 export pace.

Overall veneer sales are up minimal the first 10 months when comparing to 2016 sales dollars with Canada being the exception up +30%. Most companies continue to maintain long-term customers but finding it difficult to increase their new customer base without giving price discounts which only shrink already small margins. White oak and walnut veneer sales remain very good with most mills having only a minimal amount of grades to offer.

Figure #1 below compares Indiana’s primary hardwood products from 2014 to 2016. The numbers reflect the first 10 months of each year to make the comparisons equivalent. 2017 lumber exports have decreased by -4% and veneer showing a marginal increase with logs increasing by +19% when comparing 2016 export numbers.

**Figure #1- Thousands \$**

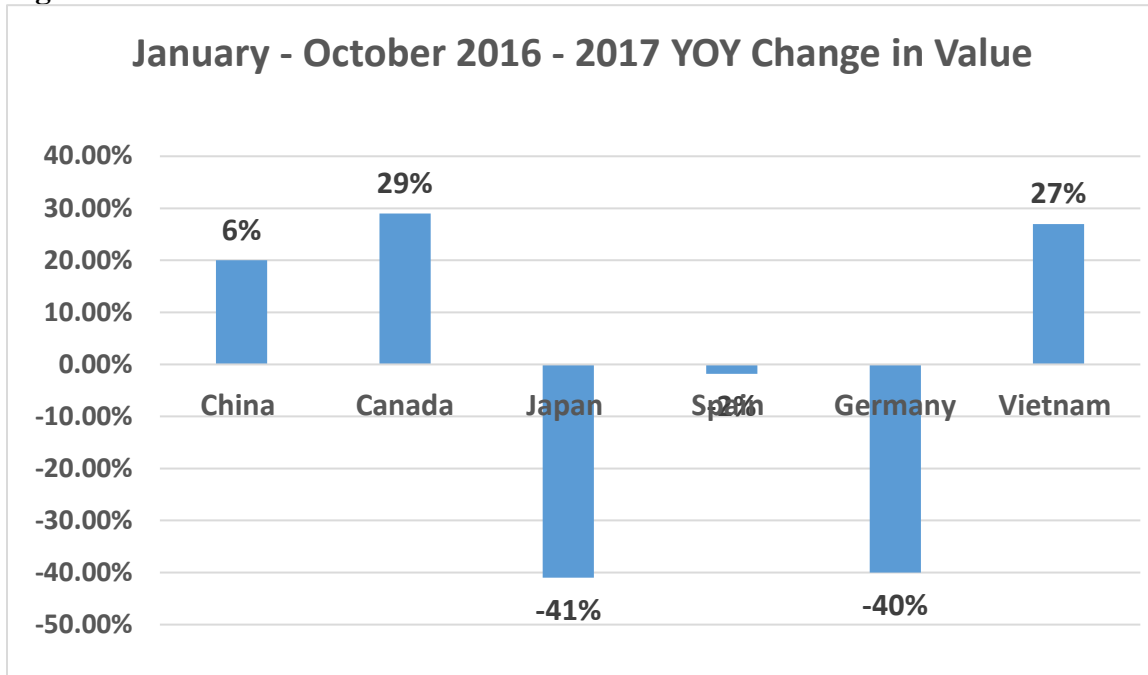


US Census Bureau’s Hardwood Export Statistics – January – October

Figure #2 below compares Indiana’s top individual (logs, lumber & veneer) markets in 2016 to the current gain or loss in value by percentage for the first 10 months in 2017. The chart below reveals three of Indiana’s major export markets, Japan and Spain and Germany with declines at -41%, -2% and -40% respectively. The remaining markets, China, Canada and Vietnam all

exhibiting positive growth numbers.

**Figure #2 - Gain or Loss**



US Census Bureau’s Hardwood Export Statistics – January – October

**Logs**

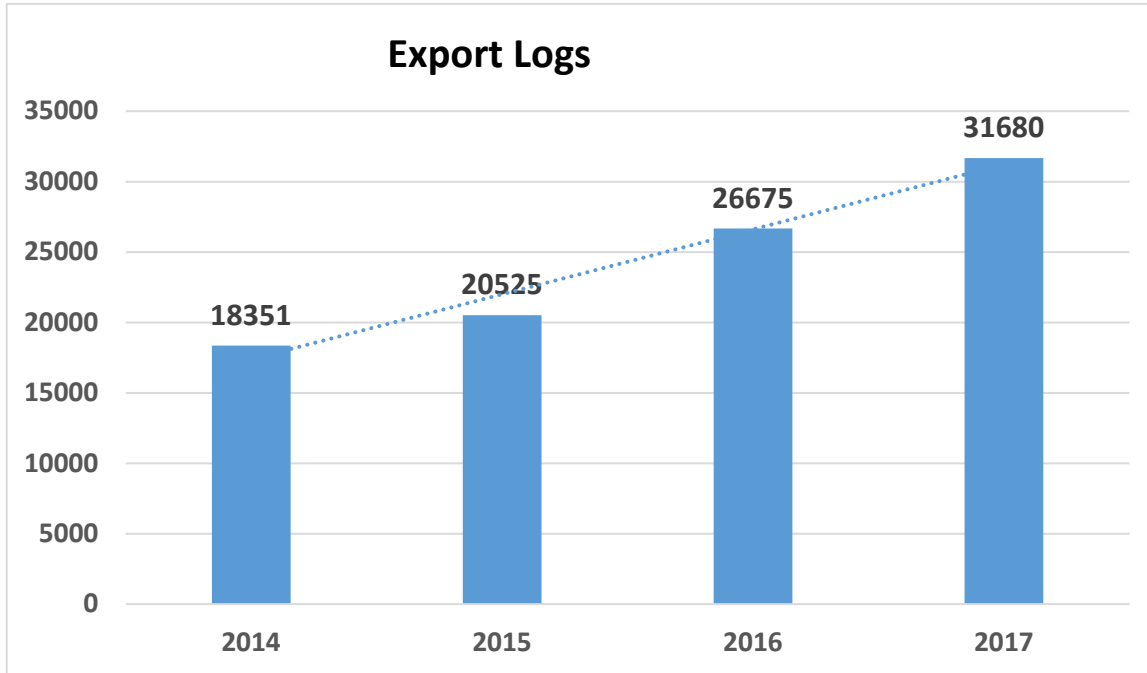
China, Vietnam and Japan are the three largest importers of hardwood logs from Indiana in 2017. US Census Bureau’s Hardwood Export Statistics show that Indiana exported \$32 million dollars’ worth of logs to the world in 2016. At its current pace 2017 should set the record at approximately \$37 million dollars or a 15.6% increase.

Using \$2500/m’ for an average this is approximately 14.8 million board feet (BF) enough to supply a large sawmill or two medium mills.

China is by far the largest importer at \$21.8 million dollars in 2016 and projected to reach \$25.8 million dollars an 18.5% growth. This growing demand spurred by China’s need for raw material due to cutting restrictions by the Chinese government and now Russia’s decision to ban log exports has created a shortage along with higher costs for many of the U.S. sawmills. Still, red oak, black walnut, ash and white oak veneer along with 3SC & 2SC (side’s clear) saw logs remain the core for China. Over 20 countries compete to purchase logs from Indiana that include cherry, hard maple, ash, hickory and tulip poplar. Log prices have remained steady are have risen in the case of walnut and white oak due to the push from the Chinese, veneer and Amish flooring manufactures.

Figure #3 graph compares Indiana's export totals for logs thru the first 10 months of 2014 to 2017.

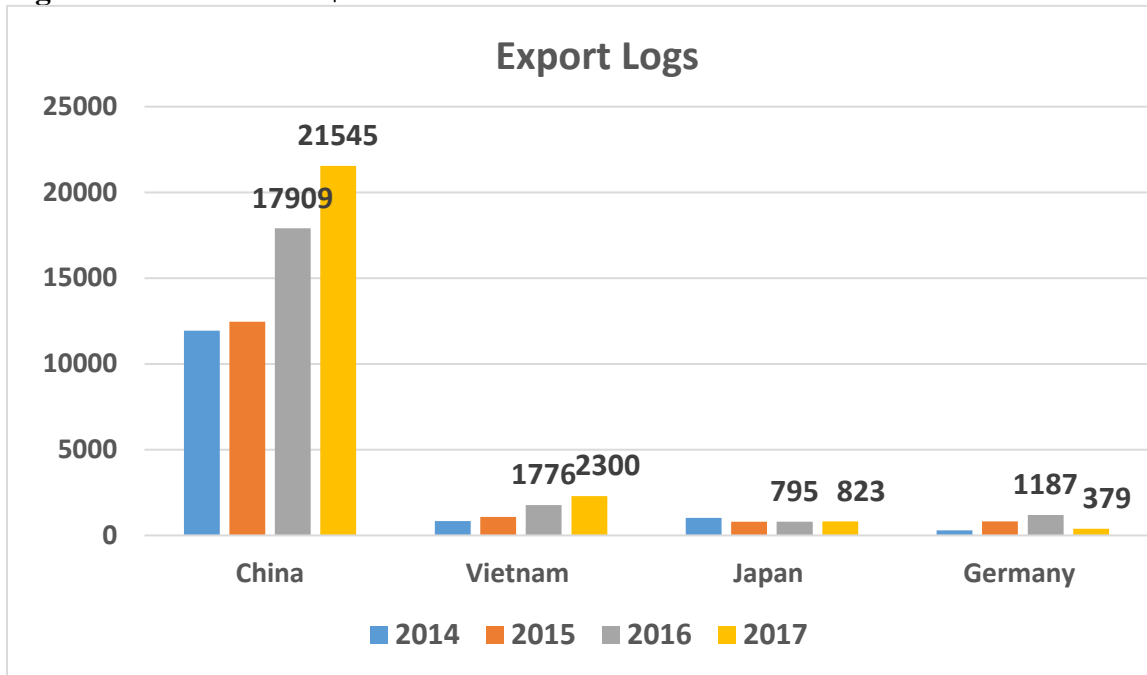
**Figure #3 –Thousands \$**



US Census Bureau's Hardwood Export Statistics – January – October

Figure #4 graph compares log export totals for the first 10 months of 2014 thru 2017 from the top four countries importing from Indiana.

**Figure #4 – Thousands \$**



US Census Bureau’s Hardwood Export Statistics – January – October

## Lumber

According to the NAHB/Wells Fargo Housing Market Index, stronger buyer traffic pushed builder confidence to levels not seen in more than a decade. And, consumer confidence soared in March to the highest level in more than 16 years. Construction industry employment has risen by 136,000 in the last 12 months. The limited number of property listings will remain a hurdle to faster growth, however. Year-to-date lumber exports through February were higher for every species except Alder and Beech. With the notable exceptions of upper-grade Soft Maple and White Oak—and certain low-grade items—lumber prices will be generally firm to somewhat higher over the next two months. **Source-Hardwood Review**

Indiana’s hardwood export market has experienced an adjustment period over the past several years but is still in a solid position globally. In the first 10 months of 2017 lumber exports have dropped -4% from 2016. China, Canada and Vietnam were the bright spots in the overall markets up +27%, +35% and +25% correspondingly.

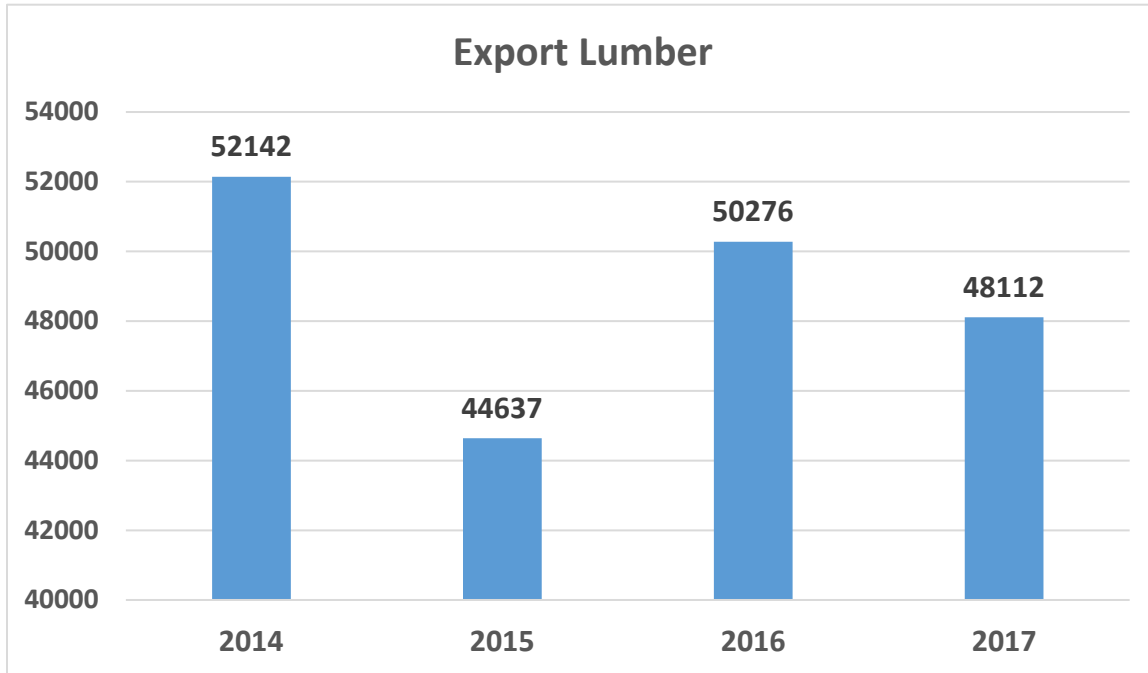
Indiana’s lumber exports in 2016 were \$57 million, at the current pace, 2017 lumber exports are looking to have a down year unless they begin to show positive signs in November and December.

China as stated earlier is Indiana’s largest export market and is followed by Canada, Japan, Mexico and Vietnam making up the top five markets. Vietnam continues to slowly gain ground

due to its need for logs and lumber in the #1C and #2C grades mostly used in home furnishings and kitchen cabinet construction.

Figure #5 graph compares Indiana’s export totals for lumber thru the first 10 months of 2014 to 2017.

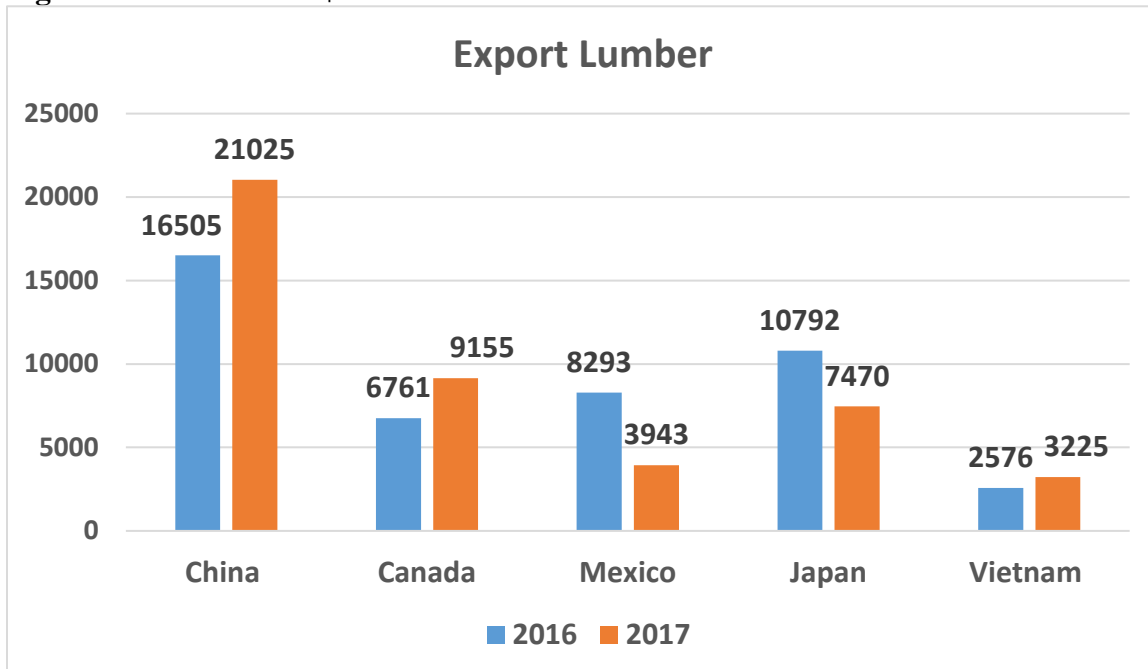
**Figure #5 – Thousands \$**



US Census Bureau’s Hardwood Export Statistics - January – October

Figure - #6 graph compares lumber export totals for the first 10 months of 2014 thru 2017 from the top five countries importing from Indiana.

**Figure #6 - Thousands \$**



**Veneer**

Veneer demand continues to remain firm and showing a small increase over 2016. Depending on the specie and mill most still running at 80%-85% capacity. Custom cutting has become the norm for some to fill operational capacity and costs.

High quality veneer log pricing remains static for most species; however, walnut and white oak still remain in great demand. Margins continue to be squeezed with volumes up slightly. Stave log supply/demand ratio is in better balance continuing the stability in pricing from the last quarter of 2016. Still, wet weather conditions this fall along with the economic environment can play havoc on log pricing and volumes available.

Black walnut and white oak sliced veneer pricing remains very competitive on all grades especially the high-end “A-A”, “A” grades with the middle “A-B” grades making up the majority of sales. Most veneer mills haven’t any additional walnut and white oak stock to offer new customers. There continues to be a solid demand for rift and quartersawn white oak also. Hard maple, ash, cherry, hickories all remain sluggish with only the special cuts like burl, curly, quartered etc., in demand.

Presently, 2017 veneer sales should remain close to or slightly ahead of 2016 levels. The outlook for veneer, 4SC, 3SC and stave logs should continue to remain persistent for the remainder of 2017 and into the first quarter of 2018.

Figure #7 graph compares Indiana’s veneer export totals for the first 10 months of 2014 to 2017.

**Figure #7 – Thousands \$**

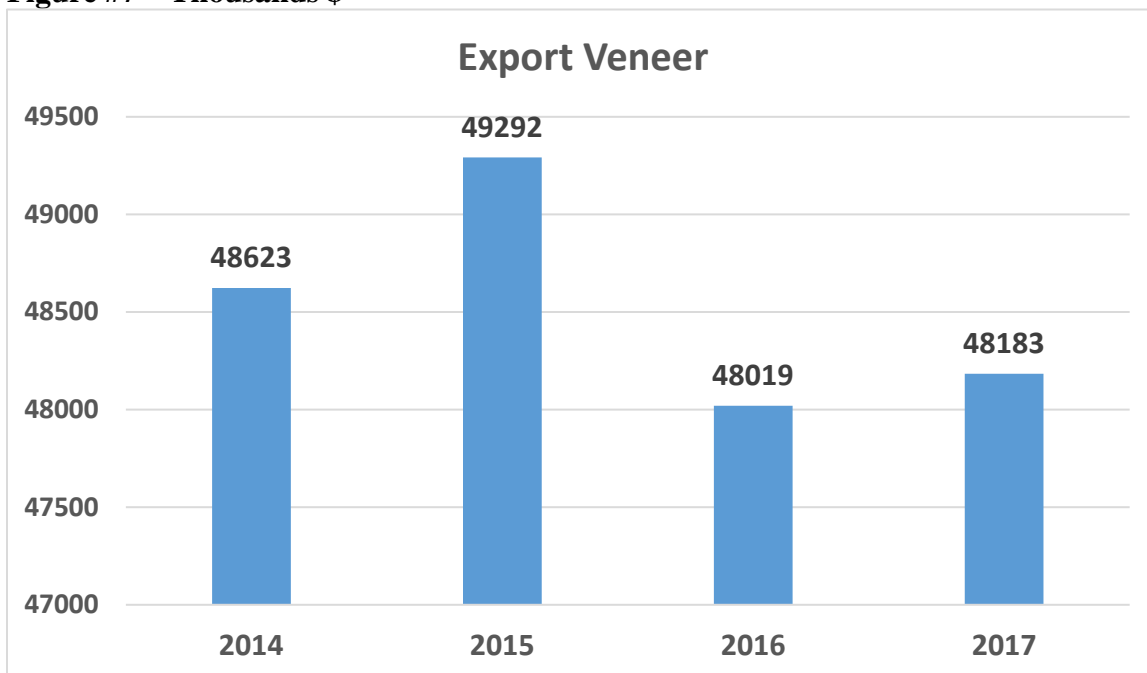
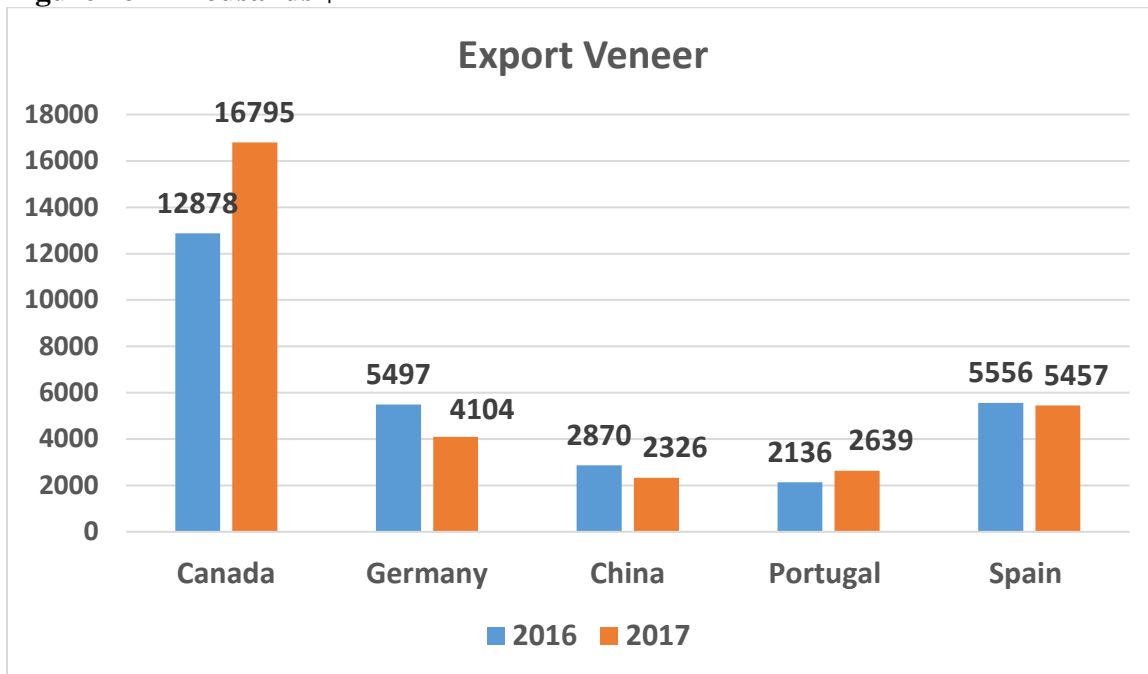


Figure - #8 graph compares veneer export totals for the first 10 months of 2016 thru 2017 from the top five countries importing from Indiana.

**Figure #8 - Thousands \$**



US Census Bureau's Hardwood Export Statistics – January – October

**Delivered Sawlog Prices**

The number of mills reporting delivered sawlog prices was about 8% lower than those who reported in the 2016 spring report. (Table 2). Sawlog prices for the premium species (specifically black walnut and white oak) were down slightly from the 2016 spring report. Black walnut prices were down across all sawlog grades 3% while white oak sawlogs were down 4.5%. From an overall standpoint, prices were down for most every other species with ash, hard maple and soft maple taking the biggest hits. Tulip poplar log prices were very comparable to the spring 2016 data while red oak prices were 5% lower.



### Premium Species

White oak sawlog prices were significantly higher than what was reported from the 2017 spring report, averaging 22% higher across all grades. The lone decrease was for #3 sawlogs but only down 1.5%. Prime white oak sawlogs were up almost 42% while #1 and #2 were 23% and 25% higher respectfully. Although not as sought after as a year or so ago, stave log demand is still taking volume away from the grade sawmills.

Demand for black walnut sawlogs is very strong. Overall walnut log pricing increased 18% the 2017 spring report. Prime walnut sawlogs saw an increase of almost 21% while lesser quality sawlogs still saw an average increase of 17%.

Black cherry sawlog prices experienced the best turnaround in pricing from the 2017 spring report. Prime cherry sawlog pricing was 46% higher. The overall price across all grades increased by 32%. Domestic demand is still sluggish but the Chinese markets are more than offsetting the poor domestic markets.

Hard maple sawlog prices made quite an about face as well. More and more folks are substituting hard maple for soft maple in their product lines. Prime sawlog prices were a whopping 82% higher than what was reported in the 2017 spring report. Grade 1 thru 3 hard maple sawlog increases were more modest but still averaged 15% higher than the spring report.

Even with the diminished soft maple lumber market, sawlog prices for all grades of soft maple were higher than reported for the 2017 spring report. Prime soft maple logs saw the biggest increase (24%) while grades 1 thru 3 averaged 12% higher than the spring report.

### Other Hardwood Species

Ash sawlog markets continue to be good. Sawlog prices across all grades were 16% higher than reported in the spring of 2017. Leading the way were prime sawlog prices at 33% higher. Ash log exports are off the charts. Many overseas buyers are looking for between 75-125 containers per month.

Tulip poplar sawlog prices were also higher than what was reported in the 2017 spring report but those increases were modest compared to some of the other species. Prime sawlog prices rose only 6% while #1, #2, and #3 poplar sawlog prices were 12%, 17%, and 8% higher respectfully.

### Softwood Logs



The price of pine sawlogs saw no increase or decrease (\$277 MBF) from the 2017 spring report. Red cedar prices showed a significant decrease of 38% to \$400 MBF. It should be noted that we receive few responses from softwood producers. Three pine producers completed surveys while on one Red Cedar producer provided pricing information.

**Table 2. Prices paid for delivered sawlogs by Indiana sawmills (Sept. 2017).**

Species/Grade	September-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-17	Sep-17	Mar-17	Sep-17	Mar-17	Sep-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>White Ash</b>									
Prime	700-900	3	2	600	800	600	800	33.3	33.3
				0.00	100.00				
No. 1	270-600	6	5	420	464	450	500	10.5	11.1
				39.58	66.68				
No. 2	220-500	5	4	314	355	300	350	13.1	16.7
				29.93	60.76				
No. 3	250-300	4	3	263	283	275	300	7.6	9.1
				23.94	16.67				
<b>Beech</b>									
Prime	250-500	3	2	283	375	300	375	32.5	25.0
				16.67	125.00				
No. 1	250-400	5	4	300	313	300	300	4.3	0.0
				27.39	31.46				
No. 2	250-300	3	3	267	283	300	300	6.0	0.0
				33.33	16.67				
No. 3	200-300	3	3	267	267	300	300	0.0	0.0
				33.33	33.33				
<b>Cherry</b>									
Prime	700-1200	3	2	650	950	700	950	46.2	35.7
				50.00	250.00				
No. 1	500-1000	6	5	533	660	500	550	23.8	10.0
				44.10	97.60				

No. 2	400-800	5	4	370	538	350	475	45.4	35.7
				37.42	89.85				
No. 3	250-300	3	3	250	283	250	300	13.2	20.0
				28.87	16.67				
<b>Hickory</b>									
Prime	500-600	3	2	483	550	500	550	13.9	10.0
				16.67	50.00				
No. 1	350-500	6	5	385	432	355	450	12.2	26.8
				24.32	32.77				
No. 2	300-400	5	4	294	330	300	310	12.2	3.3
				11.66	23.80				
No. 3	250-300	4	3	263	283	275	300	7.6	9.1
				23.94	16.67				

Table 2. (continued)

Species/Grade	September-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-17	Sep-17	Mar-17	Sep-17	Mar-17	Sep-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>Hard Maple</b>									
Prime	800-1200	3	2	550	1000	600	1000	81.8	66.7
				104.08	200.00				
No. 1	400-800	6	5	508	580	550	550	14.2	0.0
				35.16	64.42				
No. 2	350-600	5	4	375	444	400	412.5	18.4	3.1
				35.36	54.37				
No. 3	300	4	3	263	300	275	300	14.1	9.1
				23.94	0.00				
<b>Soft Maple</b>									
Prime	450-500	3	2	383	475	400	475	24.0	18.8
				44.10	25.00				
No. 1	350-500	6	5	358	400	325	400	11.7	23.1
				32.70	27.39				
No. 2	300	5	4	270	300	300	300	11.1	0.0
				20.00	0.00				
No. 3	250-300	4	3	250	283	275	300	13.2	9.1
				35.36	16.67				
<b>White Oak</b>									
Prime	1200-1400	3	2	917	1300	900	1300	41.8	44.4
				101.38	100.00				
No. 1	500-1000	6	5	617	760	600	700	23.2	16.7
				47.73	102.96				

No. 2	400-800	5	4	430	538	450	475	25.1	5.6
				51.48	89.85				
No. 3	300-400	4	3	338	333	350	300	-1.5	-14.3
				37.50	33.33				
<b>Red Oak</b>									
Prime	1000	3	2	650	850	650	850	30.8	30.8
				28.87	150.00				
No. 1	475-800	6	5	492	555	500	500	12.8	0.0
				16.67	61.44				
No. 2	400-600	5	4	395	468	375	435	18.5	16.0
				22.91	45.35				
No. 3	300-400	4	3	325	333	325	300	2.5	-7.7
				32.27	33.33				

Table 2. (continued)

Species/Grade	September-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-17	Sep-17	Mar-17	Sep-17	Mar-17	Sep-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>Tulip Poplar</b>									
Prime	500-600	3	2	517	550	500	550	6.4	10.0
				16.67	50.00				
No. 1	400-540	5	4	414	465	400	460	12.3	15.0
				28.21	37.75				
No. 2	300-400	4	3	300	350	300	350	16.7	16.7
				20.41	28.87				
No. 3	250-300	4	3	263	283	275	300	7.6	9.1
				23.94	16.67				
<b>Black Walnut</b>									
Prime	1500-2200	3	2	1533	1850	1500	1850	20.7	23.3
				33.33	350.00				
No. 1	1000-1800	6	5	1125	1300	1100	1300	15.6	18.2
				57.37	148.32				
No. 2	450-1600	6	5	775	930	750	850	20.0	13.3
				55.90	190.13				
No. 3	350-800	4	4	463	538	500	500	16.2	0.0
				37.50	94.37				
<b>Softwood</b>									
Pine	230-300	3	3	277	277	300	300	0.0	0.0
				23.33	23.33				
Red cedar	400	2	1	650	400	650	400	-38.5	-38.5
				650.00	0.00				

## Veneer Log Prices

The number of mills reporting veneer log prices decreased significantly from the 2017 spring report. The limited number of responses is an important key to remember this report should only serve as a guide rather than “the rule”. Prices were reported by both veneer mills and sawmills. Sawmills resell their veneer quality logs to veneer mills, exporters, overseas importers and manufactures. On occasion sawmills may produce specialty cuts like quarter sawn with the marginal veneer logs. The variation in veneer log pricing is due to mix veneer mills, sawmills and loggers reporting their values. This difference in values could be reduced if prices were only from veneer manufactures. With so few responses (an average of two), the authors of this report feel the prices reported do not paint an accurate picture of current veneer log prices.

Market comments seem to be significantly more positive than those from the spring report. Walnut and white oak continue to experience excellent good demand and are the lion’s share of Indiana veneer log market. Pricing remains very competitive from the export (especially China) side. The export log market has put a great deal of pressure on veneer mills as the international buyers are paying good prices for veneer logs. Several overseas companies are now buying North American veneer not being manufactured in the US but from companies processing US logs. Lookalikes of plastic and vinyl using 3D technology continue to gain market share and is a major concern for the veneer business.

Due the perceived inaccuracy of the reported prices, we have decided list the tables that were in the spring 2017 report as we feel they are more indicative to the current prices. Black walnut and white oak veneer remain in demand both domestically and internationally. Black walnut veneer logs are very hard to find. Several veneer log buyers we have talked to have told us they have very few walnut logs on their yard. The large volumes of walnut logs being exported is also a major concern. Many feel the frenzied walnut market will not continue and are wondering when the bottom will fall out. With this excellent demand, another concern is the size of walnut logs is shrinking due to the intense demand.

White oak veneer log demand is running a close second to walnut. Again, several of the producers we have spoken with report most all of their inventory is already sold. Much of the white oak veneer logs are going to Europe and the Far East. Cherry, red oak, and hard maple veneer log markets continue to be sluggish with little demand.

Table 3. Prices paid for delivered veneer logs by Indiana mills (March 2017).

Species/Grade	March-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-16	Mar-17	Mar-16	Mar-17	Mar-16	Mar-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>Black Walnut</b>									
<b>Prime</b>									
12–13	3000-3500	6	3	3,542	3,333	3,750	35	-5.9	-99.1
				367.52	166.67				
14–15	3000-6000	6	5	4,333	4,200	4,000	4,000	-3.1	0.0
				247.21	514.78				
16–17	3000-8000	6	5	5,792	5,700	5,750	6,000	-1.6	4.3
				245.09	969.54				
18–20	5000-10000	6	4	7,417	7,875	7,250	8,250	6.2	13.8
				238.63	1087.33				
21–23	4500-12000	5	3	9,300	8,500	10,000	9,000	-8.6	-10.0
				538.52	2179.45				
24–28	6000-15000	2	2	9500	10500	9500	10500	10.5	10.5
				0.00	4500.00				
>28	8000-15000	2	2	10000	11500	10000	11500	15.0	15.0
				0.00	3500.00				
<b>Select</b>									
12–13	2200-2500	2	2	2000	2350	2000	2350	17.5	17.5
				0.00	150.00				
14–15	3000	2	1	3500	3000	3500	3000	-14.3	-14.3
				0.00	0.00				
16–17	5000	2	1	4500	5000	4500	5000	11.1	11.1

				0.00	0.00				
18–20	6000	3	1	5,067	6,000	6,000	6,000	18.4	0.0
				933.33	0.00				
21–23	7000	3	1	5,167	7,000	6,000	7,000	35.5	16.7
				833.33	0.00				
24–28	12000	3	1	5,667	12,000	6,500	12,000	111.8	84.6
				833.33	0.00				
>28	12000	2	1	6500	12000	6500	12000	84.6	84.6
				0.00					

Table 3. (continued)

Species/Grade	March-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-16	Mar-17	Mar-16	Mar-17	Mar-16	Mar-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>White Oak</b>									
<b>Prime</b>									
13–14	1200-2300	4	4	1,925	1,700	1,850	1,650	-11.7	-10.8
				143.61	234.52				
15–17	2000-3250	4	7	2,400	2,557	2,400	2,500	6.5	4.2
				57.74	195.92				
18–20	2000-4000	4	7	2,800	2,993	2,750	3,000	6.9	9.1
				70.71	265.12				
21–23	2250-4250	3	5	3500	3400	3500	3500	-2.9	0.0
				0.00	358.82				
24–28	2500-4500	3	5	4000	3900	4000	4000	-2.5	0.0
				0.00	367.42				
>28	3000-5000	2	3	4000	4167	4000	4500	4.2	12.5
				0.00	600.93				
<b>Select</b>									
13–14	1200-2600	2	2	1,400	1,900	1,400	1,900	35.7	35.7
				0.00	700.00				
15–17	1800-2700	2	2	1,800	2,250	1,800	2,250	25.0	25.0
				0.00	450.00				
18–20	2000-2700	2	2	2,000	2,350	2,000	2,350	17.5	17.5
				0.00	350.00				
21–23	2500-3250	2	2	2,500	2,875	2,500	2,875	15.0	15.0
				0.00	375.00				
24–28	3000	2	1	2,750	3,000	2,750	3,000	9.1	9.1
				0.00	0.00				
>28	3500	2	1	2,750	3,500	2,750	3,500	27.3	27.3

0.00 0.00

Table 3. (continued)

Species/Grade	March-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-16	Mar-17	Mar-16	Mar-17	Mar-16	Mar-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>Black Cherry</b>									
<b>Prime</b>									
12-13	1000	2	1	3,000	1,000	3,000	1,000	-66.7	-66.7
				0.00	0.00				
14-15	1000-5500	2	4	3,500	3,000	3,500	2,750	-14.3	-21.4
				0.00	935.41				
16-17	1000-6500	2	4	4,000	3,250	4,000	2,750	-18.8	-31.3
				0.00	1163.69				
18-20	1000-7000	2	4	4,500	3,500	4,500	3,000	-22.2	-33.3
				0.00	1258.31				
21-23	1800-3000	2	2	4,500	2,400	4,500	2,400	-46.7	-46.7
				0.00	600.00				
24-28	2000-3000	2	2	5,000	2,500	5,000	2,500	-50.0	-50.0
				0.00	500.00				
>28	2000	2	1	5,000	2,000	5,000	2,000	-60.0	-60.0
				0.00	0.00				
<b>Select</b>									
12-13	1000	2	1	2,000	1,000	2,000	1,000	-50.0	-50.0
				0.00	0.00				
14-15	1000	2	1	2,500	1,000	2,500	1,000	-60.0	-60.0
				0.00	0.00				
16-17	1000	2	1	3,000	1,000	3,000	1,000	-66.7	-66.7
				0.00	0.00				
18-20	1000	2	1	2,500	1,000	3,000	1,000	-60.0	-66.7
				500.00	0.00				
21-23	1000	2	1	3,000	1,000	3,000	1,000	-66.7	-66.7

				0.00	0.00				
24-28	1000	2	1	3,000	1,000	3,000	1,000	-66.7	-66.7
				0.00	0.00				
>28	1000	2	1	3,000	1,000	3,000	1,000	-66.7	-66.7
				0.00	0.00				

**Table 3. (continued)**

Species/Grade	March-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-16	Mar-17	Mar-16	Mar-17	Mar-16	Mar-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>Red Oak</b>									
<b>Prime</b>									
16-17	800-1500	5	6	1,460	1,167	1,500	1,150	-20.1	-23.3
				74.83	111.55				
18-20	800-1600	5	7	1,460	1,229	1,500	1,300	-15.8	-13.3
				74.83	112.79				
21-23	800-1600	4	6	1,450	1,233	1,500	1,300	-15.0	-13.3
				95.74	120.19				
24-28	800-1500	3	3	1,467	1,100	1,600	1,000	-25.0	-37.5
				133.33	208.17				
>28	1800	2	1	1,600	1,800	1,600	1,800	12.5	12.5
				0.00	0.00				
<b>Select</b>									
16-17	800-3500	2	3	1,300	1,900	1,300	1,400	46.2	7.7
				0.00	818.54				
18-20	800-4000	2	3	1,300	2,067	1,300	1,400	59.0	7.7
				0.00	982.06				
21-23	900-1400	2	2	1,300	1,150	1,300	1,150	-11.5	-11.5
				0.00	250.00				
24-28	1000	2	1	1,300	1,000	1,300	1,000	-23.1	-23.1
				0.00	0.00				
>28	1200	2	1	1,300	1,200	1,300	1,200	-7.7	-7.7
				0.00	0.00				
<b>Hard Maple</b>									
<b>Prime</b>									



16–20	2000-2500	5	5	3,050	2,160	3,250	2,000	-29.2	-38.5
				348.21	102.96				
> 20	2000-3000	4	5	3,613	2,360	3,850	2,300	-34.7	-40.3
				416.02	186.01				
<b>Select</b>									
16–20	2000	2	1	3,000	2,000	3,000	2,000	-33.3	-33.3
				0.00	0.00				
> 20	2000	2	1	3,500	2,000	3,500	2,000	-42.9	-42.9
				0.00	0.00				

Table 3. (continued)

Species/Grade	March-17 Range (\$/MBF)	No. Responses		Mean (s.e.) <sup>1</sup>		Median		Change (%)	
		Mar-16	Mar-17	Mar-16	Mar-17	Mar-16	Mar-17	Mean	Median
				(\$/MBF)		(\$/MBF)			
<b>Yellow Poplar</b>									
<b>Prime</b>									
16–20	1000	3	2	733	1,000	650		36.4	-100.0
				83.33	0.00				
> 20	1000	4	2	733	1,000	650		36.4	-100.0
				83.33	0.00				
<b>Select</b>									
16–20	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A

## Miscellaneous Products

The change in prices paid for or received for various raw-wood products between the spring 2017 report and the current report. (Table 4). These are lower quality and sometimes smaller logs purchased in batches of random species to be sawn into cants or chipped. The cants are re-sawn into boards used for pallets, blocking, railroad ties or other industrial applications that have a strong market. Some mills restrict purchases to specific species or exclude specific species, depending on the markets they sell to. The price for pallet and cant logs increased slightly as the industrial markets are much improved. Mills are now able to move their pallet cants easily whereas a year ago sawmills had large unsold cant inventories. Bark prices were also slightly higher than what was reported in the spring 2017 report. Coarse mill residue (chips) prices were higher than the 2017 spring price report. Several in the industry have commented how the paper mills are scrambling for chips.

Until about the 1970's sawdust, chips and bark would have been burned or landfilled by many mills. They now have many more uses. Sawdust can be used to make fuel pellets, burned as a heating source, or used as animal bedding. Wood chips are produced primarily from slabs sawn off of debarked logs. The decline in the pulp and

paper industry is a threat to this market. Bark used for landscape mulch is now a large market. In some facilities all or some portion of these byproducts are used to fire efficient low-emission boilers to heat dry kilns year round and heat facilities in the winter. Attempts have been made to cogenerate electricity at mills, standalone generating plants, and biofuel. Success has been limited by the low cost of electricity purchased off of the grid, below cost price received if sold into the grid, and the high cost to produce biofuels.

**Table 4. Prices of miscellaneous products reported by Indiana mills (Sept. 2017), free on board (fob) the producing mill.**

	No. Responses	Range	Mean		Median	
		Sep-17	Mar-17	Sep-17	Mar-17	Sep-17
Pallet logs, \$/MBF	3	300-370	291	330	290	320
Pallet logs, \$/ton	1	37.5	36	37.5	36	37.5
Pulpwood, \$/ton	1	0	37.5	0	0	37.5
Pulp chips, \$/ton	2	28-30	23	29	22.5	29
Sawdust, \$/ton	1	6	16	6	15.6	6
Sawdust, \$/cu. yd.	2	5-12.15	6	9	4.3	8.6
Bark, \$/ton	1	10	8	10	8	10
Bark, \$/cu. yd.	3	3-21.5	9	10	9	6
Mixed, \$/ton	0	N/A	N/A	N/A	N/A	N/A
Mixed, \$/cu. yd.	0	N/A	N/A	N/A	N/A	N/A

## Custom Costs

Costs of custom services increased from the spring report in the areas of sawing and logging (per/MBF). The high cost of diesel fuel usually plays a large role in logging costs as well as sale layout and costs to close out sales implementing Best Management Practices (BMPs) (**Table 5**). Only one response was returned for logging costs and it was reported at \$200 MBF. In reality, we feel this is a little low as communications with others put the logging costs at \$210-\$250 MBF. Custom sawing costs are normally associated with portable sawmills. For many years, the common rate was \$250 MBF. The average custom sawing cost reported is now \$307 MBF. The average distance is now at 88 miles, significantly higher than the 40 miles reported during the spring. Keep in mind though with all of the custom cost information, the number of responses was very limited.

**Table 5. Custom costs reported by Indiana mills (Sept. 2017)**

	Mean	Median
--	------	--------

	No. Responses	Sep-17				
		Range	Mar-17	Sep-17	Mar-17	Sep-17
Sawing (\$/MBF)	3	250-350	286	307	275	320
Sawing (\$/hour)	0	0	N/A	N/A	N/A	N/A
Logging (\$/MBF)	1	200	N/A	200	N/A	200
Hauling (\$/MBF)	1	2	N/A	2	N/A	2
Distance (miles)	2	75-100	40	88	40	87.5
\$/MBF/mile	0	N/A	N/A	N/A	N/A	N/A