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July, 2018

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**Calendar of Events**

July 5	General Meeting	Yacht Club	7:15 PM	Dovetail jig presentation
July 8	Golf Outing	Tanasi Golf Club	3:00 PM Shotgun	Lloyd Donnelly
July 10	Field Trip	Various	8:30 AM Departure	Ned Miller
July 21	Board Meeting	Sloan's Hardware	8:15 AM	All Members Welcome
Sept 19	Picnic		TBD	

**Board Meeting Highlights – 6/23/2018**

The TVWC Board met on June 23, 2018. Twenty-one members were present. The following items were discussed and, as appropriate, acted upon.

Treasurers' Report Current balances are: Club Operations - \$3058; Wood Operations - (\$835); Kiln Amortization Fund - \$4100; Toys for Tots - \$535. Total Ending Balance: \$6858.

Service Projects 19 requests with 10 completed

Membership Report Chris Campbell reported current paid membership of 165 with 6 new members joining at the last meeting.

Future Programs Ned Miller confirmed the July general meeting program with Bill McKeel and Lloyd Donnelly on using the Leigh RTJ 400

Dovetail Jig. The program for August is still under development. The September program will be the TFT kickoff plus Dick Hoffman short presentation on quarter sawn wood

Club Kiln Nearly all the components for monitoring kiln operation have been purchased. A small team will install these components over the next few weeks.

Wood Sale The oak and hickory in the kiln is ready for sale. After considerable discussion it was decided to hold two sales to sell the current kiln contents-- one sale on Tuesday, June 26 at 6:00 p.m. and another sale on Saturday, June 30 at 12 noon. Two sales will allow the board to see if we can increase the amount of lumber sold by creating more opportunity for members to attend.

Golf Outing There are 25 golfers signed up for the golf outing at Tanasi on July 8<sup>th</sup>.

Wheelchair Lifts Bob Brown reported that a few members met with a wheelchair motorized lift company to learn about its products.

**Welcome New Woodworker Club Members**

Dobby Dobson  
Tom Lane  
Michael Shep  
John Layman  
Scott Duncan  
Jim Merritt

- Best of Show
- Best Box Project
- Best Turned Project
- Most Lighthearted Theme
- Most Unique/Creative Use of Epoxy

Don Kimbrel's entry was judged both Best of Show and Best Box Project.



**General Meeting Spring Challenge**

Neil Wilson introduced this year's entries for Beads of Courage boxes



Best of Show/Best Box Project

Chris Campbell's entry won Best Turned Project

There were 21 entries for Beads of Courage boxes at the meeting. Sixty-three members cast their votes for their favorite in five different categories based on quality of workmanship and overall design scheme:



The Most Unique/Creative Use of Epoxy was given to Dick Hoffman.



Best Turned Project



Most Unique/Creative Use of Epoxy

The entry with the Most Lighthearted Theme was awarded to Stu McFadden.



Most Lighthearted Theme

In addition to the other 17 entries (shown on the next page) the club donated an additional 18 boxes (for a total of 39 boxes) this year to the Smoky Mountain Woodturners Club for the Beads of Courage Program benefiting hospitals in eastern Tennessee. The TV Woodworkers Club started its participation in Beads of Courage in July of 2016 and has contributed 157 treasure boxes of the 290 that have been given by the SM Turners.

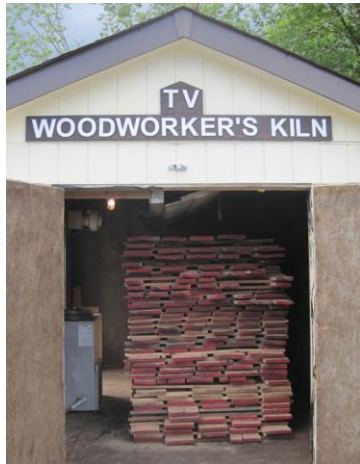




Thanks to local merchants who have contributed to prize money:

Woodcrafters – Knoxville  
 Sloan's – Tellico Village  
 Wilburn True Value – Lenoir City

## Wood Sale



The club held a wood sale on Saturday June 30<sup>th</sup>. This is a great benefit of being a member of the club to purchase dried boards at below market prices. Revenue from wood sales goes to offset wood cutting and kiln operational costs.



Thirteen members participated in the sale of white and red oak costing \$1 per board foot raising \$213 for the club. The order of board selection is based on a rotating lottery. Participants are encouraged to pay for their purchase by check or exact change.

Lumber not sold at sales is stored at the kiln. If you wish to purchase lumber at non-sale times, please contact Lloyd Donnelly, Don Kimbrel, or Bill McKeel for access to the area.

## Tools and Tips

The following primer on buying hardwood lumber was contributed by Dick Hoffman.

### **Understanding Cutting, Lumber Grades and Pricing**

#### ***TVWW Club vs Lumberyards***

As a member of the Tellico Village Woodworkers, we have the unique opportunity to buy kiln dried hardwood lumber at a bargain price, thanks to the having our own kiln. Currently the Club sells all species of wood at \$1.00 a board foot. This is well below market price for almost every species of wood. To understand just how good a deal this is, you need a couple of reference points:

1. A board foot is defined as a one square foot of lumber, 1" thick.
2. When buying lumber, grades of lumber get less expensive as the clear usable area of a board declines. The different grades of lumber are shown in the following table. Note that the highest grade FAS, has a yield of 83.33% and No, 3A Common at 25%.

Grade	Trade Name	Min. board width	Min. board length	Min. cutting size	Min. Area of clear cuttings required
Firsts and Seconds	FAS	6"	8'	4" x 5' or 3" x 7'	83-1/3%
FAS One Face	F1F	6"	8'	4" x 5' or 3" x 7'	83-1/3%
Select	SEL	4"	6'	4" x 5' or 3" x 7'	83-1/3%
No. 1 Common	1C	3"	4'	4" x 2' or 3" x 3'	66-2/3%
No. 2A Common	2C	3"	4'	3" x 2'	50%
No. 2B Common	3AC	3"	4'	3" x 2'	33-1/3%
No. 3A Common	3BC	3"	4'	1-1/2' x 2'	25%

3. Using a price chart from Cline Brother's Lumber in Dalton GA., you can see that FAS for Oak is \$3.54 a board foot vs. the Clubs \$1.00 a board foot. Even at buying 500+ BDFT, the price is more than double of the Club. This is even

more extreme when looking at Walnut other hardwoods.

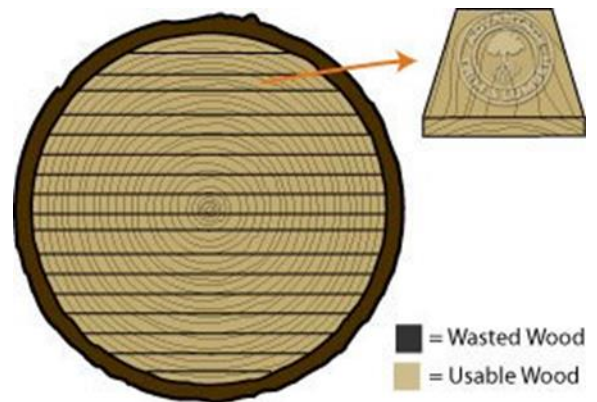
Club sales oak at approximately **28% of market** and walnut/cherry at **15% of market**.

	500+ bdft	Less than 100 bdft		500+ bdft	Less Than 100 bdft
4/4 FAS	2.52	3.54	4/4 FAS	5.05	6.90
4/4 #1C	1.89	2.55	4/4 #1C	2.65	3.57
4/4 #2	1.63	2.18	4/4 #2	1.75	2.38
5/4 FAS	3.15	3.93	5/4 FAS	5.65	7.73
5/4 #1C	2.05	2.72	5/4 #1C	2.90	3.91
5/4 #2	1.84	2.59	5/4 #2	2.05	2.74
6/4 FAS	4.05	5.38	6/4 FAS	5.75	7.87
6/4 #1C	3.31	4.41	6/4 #1C	2.35	4.53
8/4 FAS	5.20	6.34	8/4 FAS	6.20	8.49
8/4 #1C	3.52	4.77	8/4 #1C	3.75	5.08

## Ways of Cutting Lumber

There are basically 3 different cuts of lumber that comes out of a log: quarter sawn, flat sawn and rift sawn. Advantage Lumber's website does a nice job explain the differences:

### 1. Plain Sawn



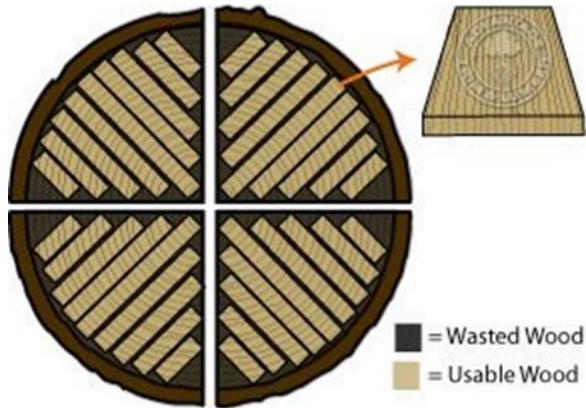
Most mills sell plain sawn (aka flat sawn) lumber because it's the simplest, most cost-efficient way to mill a log into planks. Cutting parallel through the log, plain sawn wood planks are wider and can be milled effortlessly with minimal waste. The loops and growth swirls found in the grain patterns of plain sawn wood gives you that famous "cathedral" look.

Despite the attractive look on the surface, there are certain drawbacks to plain sawn lumber. As the wood dries and ages, the tension of the tangential grain can make plain sawn planks cup, twist and sometimes bow. They also tend to absorb more moisture from the air which can also lead to unwanted movement.



4. When buying lumber, it's often more economical to buy lower grades of lumber, especially if you don't need more than a 3- or 4-foot run of clear lumber. For example, making a 3' by 18" table top using FAS would require 2-3 boards at a cost of \$7.08 to \$10.62. Using #1 Common would also require 2-3 boards that will cost \$5.10 to \$7.66.
5. For Club lumber, the pricing policy is slightly different than a lumber yard. Rather than grading boards that come out of the kiln based on yield, we allow Club members to only pay for clear wood. This means subtracting sections of splits, knots or unusable areas of a board. This is effectively better than the lumber yard grading process. As an example:
  - a. A Club 8' x 6" clear board has 4 BDFT and would be sold for \$4.00 (\$1 x4BDFT).
  - b. If a different Club board had 50% unusable area, the usable BDFT would be 2. It would be sold for \$2.00 or half the cost of a clear FAS board.
  - c. Cline's rate of for No 2 Common Oak (50% yield) is \$2.18/ BDFT vs FAS for \$3.54. This is a 62% discount vs the Club's 50% discount.
6. Bottom line, the Club's board foot rate is substantially less than market AND the effective usable cost per board foot is even better. The

## 2. Quarter Sawn



Quarter sawn lumber comes at a premium due to the labor it takes to mill each plank. To mill quarter sawn wood, each log is sawed at a radial angle into four quarters. Then each quarter is plain sawn. This method of quarter sawing does leave some waste, but much less than rift sawn lumber.

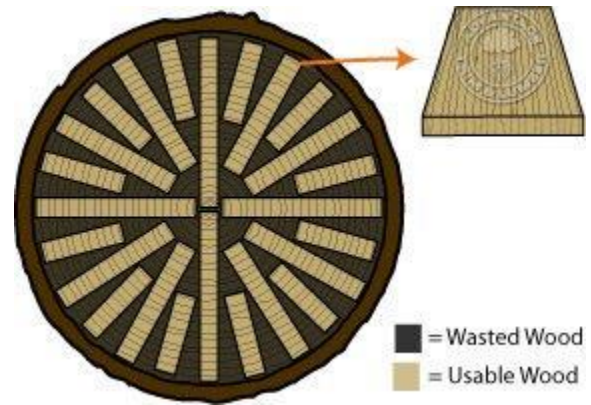
This method of sawing produces a plank where the tree's growth rings are near, or totally perpendicular to the plank's surface. This produces a straight, linear grain pattern. Our inventory of quarter sawn red and white oak looks remarkable and are preferred by furniture makers, designers, and architects because of this unique look.

There are other benefits to buying quarter sawn wood products. These benefits include increased structural integrity:

- Smoother surface due to less distinct grain
- Decreased expansion and contraction on the plank's width
- Twisting, cupping, and warping resistance
- Ages evenly over time
- Chances of surface checking are significantly reduced
- More resistant to moisture penetration
- Enhanced paint retention

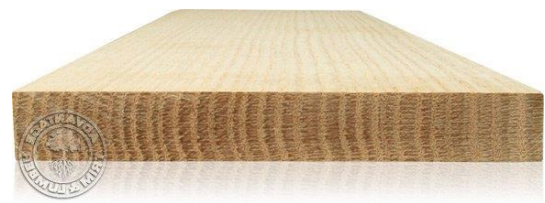


## 3. Rift Sawn



Milling rift sawn lumber takes more time and labor. It also has unique benefits over quarter and plain sawn lumber. Furniture makers depend on this cut of wood for the vertical grain that is shown from all sides. This linear grain pattern is achieved by milled perpendicular to log's growth rings. The log is milled carefully on an angle between 45° to 75°.

Rift sawn lumber is dimensionally superior to both plain sawn and quarter sawn lumber. However, they also produce the most waste. As you can see from the diagram to the left, there is nearly as much waste produced as there is usable planks. Because of the cost to produce and the cost of waste, rift sawn lumber will cost more per board foot than both quarter sawn and plain sawn lumber.



### Approximate difference in pricing for different cuts

- Flat sawn oak: \$3.50/ BDFT
- Quarter Sawn oak: \$10/ BDFT
- **Club quarter sawn oak: \$1.00/ BDFT**