

Knothole News

www.greencountrywoodworkers.org



PRESIDENT'S MESSAGE

First, let me say thanks to those of you who participated in the auction last Sunday. It was a fun event and successful. We accomplished the goal of relocating the tools of a woodworker, who can no longer work wood, to new homes and also raised some money for the club. Way to go guys.



The consensus seems to be strong that it is time for an in-person meeting and so I think we should begin to plan for our May meeting to be at someone's shop and we all need to begin thinking about our schedules and when it might suit us to host a meeting. I would like to schedule for the remainder of the year at our May meeting. So, we need a host and program for May to begin with. Let me know as soon as you can. If another month would suit you better, you can let me know and we can start filling out the calendar. We have had a suggestion to do a swap meet at our next meeting. Everyone bring a tool or wood or ? that they are no longer attached to and leave with something new. Details to be figured out but that is the gist of the idea. In the meantime, stay safe and make some more beautiful wood work.

Bill Nay, President

New telephone number (call or text) →

*"When I'm working on a problem, I never think about beauty. I think only how to solve the problem. But when I have finished, if the solution is not beautiful, I know it is wrong."
R. Buckminster Fuller (1895-1983),
inventor, architect and designer*

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Photo's From the Recent Auction



“When the only tool you have is a hammer, you tend to see every problem as a nail.”
Abraham Maslow (1908-1970), psychologist, philosopher

Content Submitted by Club Members

I made this cane for a friend. It is a maple shaft with a walnut handle. The shaft was turned on Greg's lathe as mine is too small for this. The handle is connected via a dowel. For the finish I used one coat of Danish oil followed by four light coats of Mini-wax wipe on polyurethane.

(Vinton Knarr)



I made this pen for a friend.

(Gregg Zumwalt)



Content Submitted by Club Members (continued)

This project was geared towards making my shop more dust free. I watched a few YouTube videos on how to make 2-stage air filters using shop vacs, cyclones and PVC pipe. I came up with this solution. It is centralized and allows me to quickly change my blast gates to get suction to the machine I need to use. Adding in remote control electrical switches has also made it more likely for me to use a vacuum. I have 3 clusters of machines and 3 vacuums to deal with the dust created by those machines. All and all, I like the outcome.

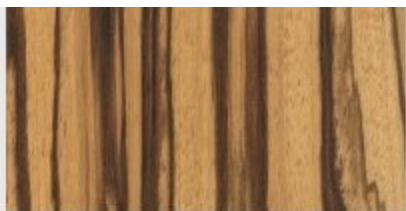
(Ray Hucek)



“Zebrawood” from (www.wood-database.com)



Zebrawood (sanded)



Zebrawood (sealed)

Common Name(s): Zebrawood, Zebrano

Scientific Name: *Microberlinia brazzavillensis*

Distribution: West Africa

Tree Size: 65-130 ft (20-40 m) tall, 4-5 ft (1.2-1.5 m) trunk diameter

Average Dried Weight: 50 lbs/ft³ (805 kg/m³)

Specific Gravity (Basic, 12% MC): .67, .81

Janka Hardness: 1,830 lbf (8,160 N)

Modulus of Rupture: 17,800 lbf/in² (122.8 MPa)

Elastic Modulus: 2,374,000 lbf/in² (16.37 GPa)

Crushing Strength: 9,210 lbf/in² (63.5 MPa)

Shrinkage: Radial: 7.6%, Tangential: 10.8%, Volumetric: 17.8%, T/R Ratio: 1.4

April 11, 2022, No. 360

Color/Appearance: Heartwood is a light brown or cream color with dark blackish brown streaks vaguely resembling a zebra's stripes. Depending on whether the wood is flatsawn or quartersawn, the stripes can be either chaotic and wavy (flatsawn), or somewhat uniform (quartersawn).

Grain/Texture: Has a fairly coarse texture and open pores. Grain is usually wavy or interlocked.

Endgrain: Diffuse-porous; large to very large pores in no specific arrangement, few to very few; solitary and radial multiples of 2-3; heartwood deposits (brown) occasionally present; narrow rays not visible without lens, spacing fairly close; parenchyma diffuse-in-aggregates, unilateral, vasicentric, winged, lozenge, and confluent, and banded (marginal).

Rot Resistance: Heartwood is rated as durable and is also resistant to insect damage.

Workability: The wood saws well, but can be very difficult to plane or surface due to the prevalence of interlocking grain. Tearout is common. Zebrawood glues and finishes well, though a transparent pore filler may be necessary for the large open pores which occur on both dark and light surfaces.

Odor: Has a characteristic, unpleasant smell when being worked.

Allergies/Toxicity: Although severe reactions are quite uncommon, Zebrawood has been reported as a sensitizer. Usually most common reactions simply include eye and skin irritation. See the articles [Wood Allergies and Toxicity](#) and [Wood Dust Safety](#) for more information.

Pricing/Availability: Zebrawood tends to be fairly expensive.

Sustainability: This wood species is not listed in the CITES Appendices, but is on the IUCN Red List. It is listed as vulnerable due to a population reduction of over 20% in the past three generations, caused by a decline in its natural range. (A closely-related, lesser-used species in Cameroon, *Microberlinia bisulcata*, is also listed as critically endangered.)

Common Uses: Zebrawood is frequently quartersawn and used as veneer. Other uses include: tool handles, furniture, boatbuilding, and skis.

selecting

Table Saw Blades

Matching the right blade to the type of cut you're making is the key to getting professional-quality results from your table saw.

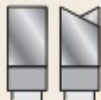
Tooth Configurations



Flat Top



Alternate Top Bevel (ATB)



Combination (ATB-R)



High-ATB



Triple Chip Grind (TCG)

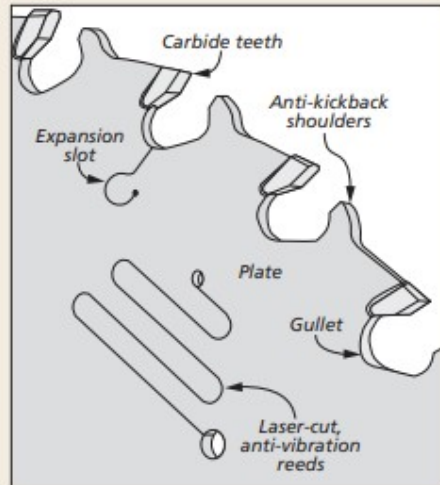
If you were to peek into most woodshops, chances are you'd find a table saw near the center of each one. With it, you can rip stock to width, crosscut workpieces to length, and create many different kinds of joinery.

It will only do these things well if you install the right blade for each task. If you don't, you might get rough cuts, tearout, or burnt edges. Worse yet, you could risk kickback during a cut.

WHAT'S THE DIFFERENCE? In order to learn how blades are designed for different tasks, you need to understand the common parts of the blade. You can start by taking a look at the drawing at right. As you can see, the blade begins with a steel plate, and ends in teeth tipped with carbide.

Another feature of blade design is the laser cutouts in the plate. As technology improved, laser-cut expansion and anti-vibration slots were added to improve performance. These slots reduce vibration and help keep the blade cool, reducing blade warp due to heat build-up.

But it's mainly the teeth and gullets that differentiate the three major types of blades — rip, crosscut, and combination. I'll take a look at each of these blades individually. The type, number, and configuration of the teeth vary according to the task. The drawings



in the margin show the shapes of the teeth and the different combinations.

RIP BLADES. Rip cuts are made along the length of a workpiece, in

30-tooth rip blade

60-tooth crosscut blade

40-tooth combination blade



line with the direction of the grain. As the name implies, this cut separates the grain by ripping between the layers. For this type of cut, you don't need a lot of teeth. In fact, too many only cause the wood to burn. A blade with 24-30 teeth and a flat-top configuration is perfect. The combination of fewer teeth and flat-top design help prevents the saw from bogging down in thick stock.

In addition to the flat-top teeth, rip blades also have deep gullets. It's the gullets that allow the large amount of chips and dust to be carried out of the cut. If the chips can't escape, the blade will heat up and burn the edge of the workpiece.

CROSSCUT BLADES. At the other end of the spectrum is the crosscut blade. Since a crosscut is perpendicular to the grain direction, you want

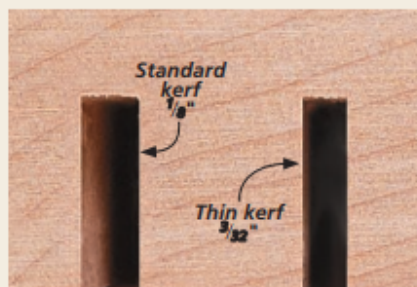
more teeth to slice through the fibers rather than ripping them. The right tooth for this kind of cut has to be sharp enough to score the fibers and slice them cleanly. The alternate top bevel (ATB) teeth fill the bill perfectly. The result is a clean cut in solid wood.

You'll find that a 60-tooth count is the norm for table saw crosscut blades. As you can see in the drawings at right, the gullets of crosscut blades are shallower than the rip blades. These shallower gullets are all you need to carry away the smaller chips from a crosscut.

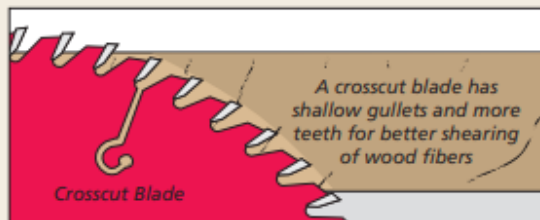
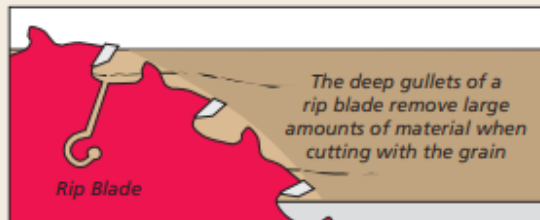
COMBINATION BLADE. A combination blade is a compromise between a rip and crosscut blade. It will do either task reasonably well, depending on the thickness of the stock. It also works well for plywood and other sheet goods.

You'll normally find 40-50 teeth on a combination blade. Many combination blades add a flat-top or raker tooth to the ATB design for smoother rip cuts. This ATB-R has become common on combination blades from many manufacturers.

THIN-KERF BLADES. Another feature to consider when shopping for blades is the thickness of the blade.



▲ A thin kerf might not seem like much of a difference, but it reduces the workload on your saw by 25%.



Crosscut, rip, and combination blades are available in both standard and thin-kerf designs. Thin-kerf blades are a great choice for most saws. The plate and teeth are 25% thinner than conventional blades (usually around 3/32" instead of 1/8"). This reduces the workload for the saw and makes it easier to cut thick stock with a lower-powered saw. I keep a thin-kerf combination blade on my saw most of the time.

Finally, my best advice is to buy a top-quality product (refer to Sources on page 51). It will pay you back every time you use your saw. No matter what the task, the right blade can improve the quality of your work. **W**

Top-Notch Blade: Freud's Premier Fusion

I've been a fan of Freud blades for many years. For me, it's tough to beat the quality of their products for the price. Recently, I tried out their Premier Fusion combination blade. This blade is priced about 50% higher than their conventional blades, so I was anxious to see if the performance justified the cost.

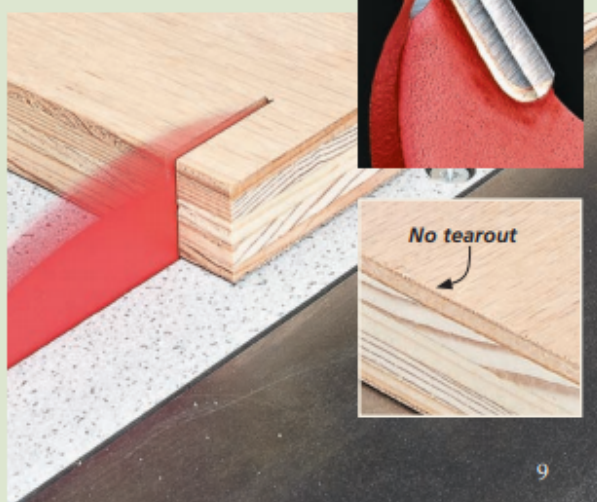
WHAT IS IT? At first glance, the Premier Fusion looks like most Freud blades, right down to the familiar red, non-stick coating.

The teeth are made from Freud's unique micro-grain carbide called TiCo — a combination of titanium and cobalt. But what's different

here is the profile of the teeth. The Hi-ATB configuration also relies on a special double side grind in the sharpening process (see inset photo at right). This creates two cutting surfaces for a smooth face on all sorts of cuts.

As you can see in the photos at right, the Fusion crosscut the face veneer of some cabinet-grade plywood without leaving a splinter. Not many blades can boast a cut that clean. Best of all, it did that and virtually every other type of cut day after day. If you really don't like changing blades, this is the one for you.

▼ Cutting cabinet-grade plywood with no tearout is the sign of a good blade.



GREEN COUNTRY WOOD- WORKERS

The Green Country Woodworkers are made up of men and women who are interested in woodworking as a hobby.

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The monthly meetings are conducted as educational forums for the benefit of our members and guests. We have idea exchanges, problem solving sessions, safety tips and tool tips plus a main speaker on topics related to woodworking in all its phases.

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The club sponsors community service projects such as making Toys for Tots at Christmas and supporting Beads of Courage by turning bowls and making boxes for children undergoing cancer treatment at Children Hospital at Saint Francis. The containers hold the children's beads. The beads represent their treatment progress.

KNOTHOLE NEWS

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OBJECTIVES

- To provide the Knothole News, a monthly newsletter
- To promote woodworking and participate in woodworking and craft shows to inform the public of club activities
- To make wooden toys which are donated to selected organizations throughout the year
- Monthly Show & Tell; all items entered in the show and tell will be presented to the membership by the builder

Membership applications are available at each meeting from the club secretary or treasurer. At this time, no membership fee is charged.

MEETINGS

The club meets on the second Thursday of each month at 6:30PM, typically at a designated member's shop. The upcoming location and topic are published in advance in the Knothole News.

We also have a monthly dinner/social on the 4th Thursday of the month at 6:00PM; the location is determined during the regular monthly meeting.

WWW.GREENCOUNTRYWOODWORKERS.ORG

Please be sure to check out our new web site for more information about the organization, past Knothole News publications, pictures, resources, etc.

