Do It Yourself

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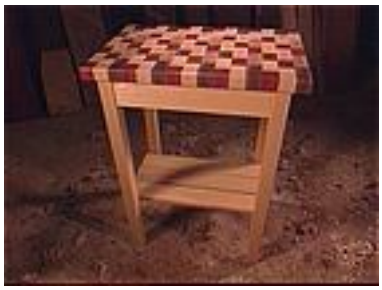
Butcher-Block Table: Tabletop

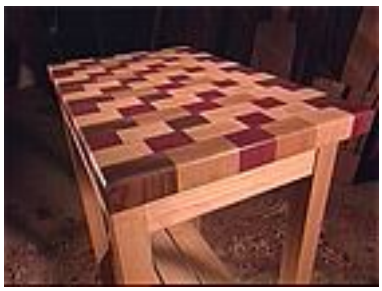
From "Wood Works"
episode WWK-506 -- More Projects »

In this episode of *DIY Wood Works*, host David Marks builds a butcher-block table from a variety of hardwoods. The top of this familiar table is built by joining small pieces of scrap wood. The woods are edge-glued, dimensioned to uniform thickness and then laminated so that the end-grain is exposed, forming the top of the table. The four legs of the base are made from ash and are joined to the apron with mortise and loose-tenon joinery. Cross stretchers are added for strength and stability. A custom jig is sued to cut dados in the stretchers, and the solid oak slats are glued into the dados forming shelves that are perfect for storing culinary items.



David Marks builds this butcher-block table from a variety of hardwood scrap-pieces that are simply leftovers from previous woodworking projects.

The simple, sturdy base with open-framework shelf supports an elegant and distinctive-looking top. The rich colors and contrast of the varied hardwoods, and the random pattern of the blocks, makes this piece both functional and eye-catching.



The table-top is comprised of walnut, ash, cherry and purple-heart pieces, oriented so that the end-grain forms the top surface.

Materials:

Various hardwood stock (e.g., walnut, ash, cherry and purple-heart)
Table saw
Jointer
Drum sander
Clamps
Water-resistant (FDA-approved) woodworker's glue
Hand scraper
Chalk
Safety glasses or goggles

Safety Alert: *Always* wear safety goggles or safety glasses when working with wood, power-tools, saws, drills, routers, etc.

Butcher-Block Tabletop

David builds the top for this table from a variety of hardwood scrap-pieces that are simply leftovers from previous woodworking projects. The base is made from ash, and supports the top at a height of 36-inches -- the standard height for kitchen countertops. To provide an ample work-surface, the finished top measures approximately 17 inches wide by 26-1/2 inches long. Rather than using an ordinary checkerboard pattern, David worked out a more distinctive, random-looking design beforehand. The layout of the blocks is based on that design (**figure A**).

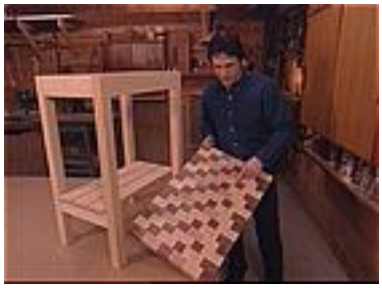


Figure A

Safety Alert: When making a tabletop that will come into contact with food -- such as this butcher-block -- be sure that the woods you use for the top surface are food-safe. One wood to avoid, for example, is spalted maple. The spalting is caused by a fungus that can be toxic.

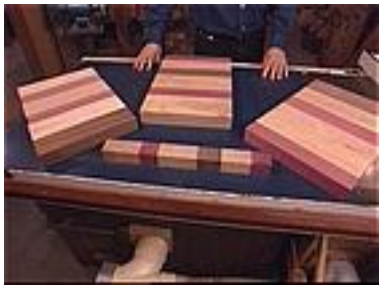


Figure B

The dimensions and design come from dividing the top into 15 rows, each about 1-3/4 inches wide. Each row is cut from three glued-up blocks (**figure B**). Each block is slightly wider than the target 17-inch width. Five strips are cut from each of the blocks. The three different blocks will give the random pattern that's desired.

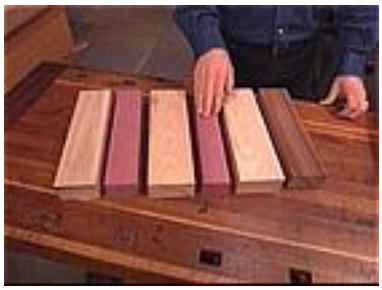


Figure C

The first step is to assess the woods you have, and lay out your patterns using the various woods. Here's the layout that David used for one of his blocks (**figure C, from right to left**): walnut (3 inches), ash (3-1/2 inches), purple heart (2 inches), ash (3-1/2 inches), purple heart (2-3/8 inches) and ash (3 inches). Follow a pattern like this, or use your own creativity to come up with a pattern that's pleasing to your eye.

Steps:

Figure D

- Use the cross-cut sled at the table saw to cut all pieces of stock to the same length (**figure D**). Then use the table saw to rip each piece to the proper width.
- Joint the all of the edges (**figure E**) so that they'll be flat, in preparation for the glue-up.
- Arrange the stock as they will be aligned to form your three blocks. Once the blocks are glued up, each will be sliced across the varying woods to form five strips from each block.
- Apply water-resistant yellow glue to the edges of the stock. Apply good clamping pressure to the blocks and allow the glue to dry

completely (**figure F**).

Important: Be sure to use a water-resistant glue that is approved by the FDA for cutting boards.

Figure E

- Once the glue has dried, use a hand-scraper to remove any excess glue (**figure G**).

- Run each of the three blocks through the drum sander (**figure H**) to make them all a uniform thickness.

Figure F

Tip: If you don't have access to a drum sander that can handle a piece of stock this size, you have a couple of other options for this step. You could flatten each block using a belt-sander and check it using a straight-edge. Another option is to take the glued-up blocks to a cabinet-maker who has a wide-belt sander, and rent time on the machine.

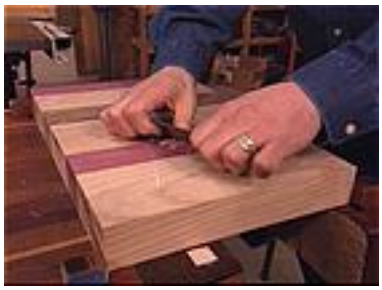


Figure G

- With the three "boards" glued up and sanded to uniform thickness, rip five strips from each of the boards using the table saw. First, use the cross-cut sled to make a trim-cut along one side of each board to square one side.

- Use the fence and pressure rollers on the table saw to rip each strip to 1-3/4 inches wide (**figure I**). The pressure rollers help to hold the thick blocks firmly against the fence.

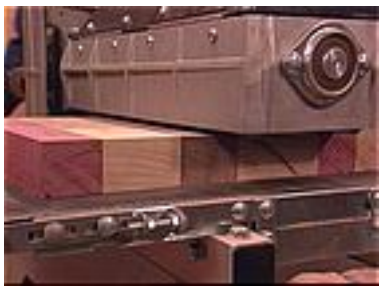


Figure H

- With all the strips from each of the three blocks cut, you can begin laying out your pattern(**figure J**). David used his preliminary sketch to help in laying out the pattern (**figure K**).

Important:The strips are aligned so that the end-grain is facing up. Since the wood surface will be used for cutting, the wear and blows of kitchen knives would eventually mar and sever the fibers of the wood if the grain were running lengthwise. With the end-grain facing up, the chopping action may cause the wood fibers t separate, but they will not sever.

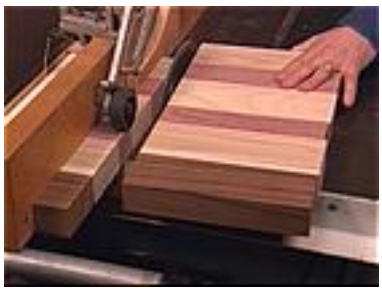


Figure I

- For glue-up, clamp a rail along the edge of the assembly table to help in aligning the strips. With the strips laid out according to your desired pattern, mark a carpenter's chalk-triangle as a reminder of the positioning (**figure L**).

- For efficiency, then rotate each strip onto its side so that you can apply water-resistant glue to the joining sides of all strips at once using a glue roller (**figure M**).

- Next, glue the opposite side each strip individually, and set the strips into proper position. The glue will join the long-grain of each strip, creating a strong bond.

- Add a second caul to the other side of the assembly, and clamp the assembly both horizontally and vertically (**figure N**) until the glue has dried for several hours.

In the segment that follows, the table base is built from ash.

Click here to order your tools and materials for this project from **Woodcraft**!

- **ALSO IN THIS EPISODE:**
  Butcher-Block Table: Tabletop
  Butcher-Block Table: Base
  Butcher Block Table: Shelf, Joinery and Base-Assembly
  Butcher Block Table: Finishing Touches


Figure J

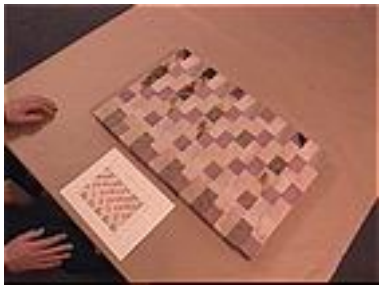


Figure K

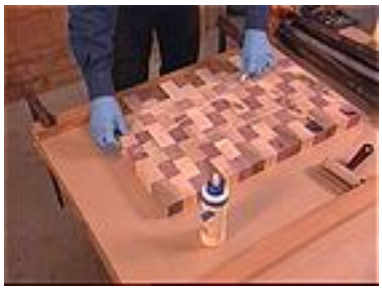


Figure L

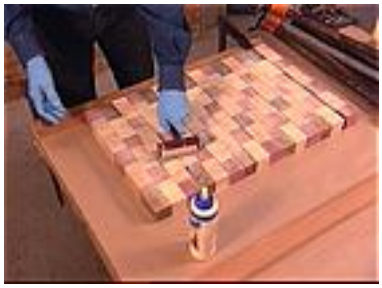


Figure M


Figure N