



# Low-Cost Lumber

With 12 great choices, you're bound to find a few near you

BY MATT KENNEY

**L**ike most woodworkers, I love beautiful wood. And I want to use the best I can find in the furniture I make. Woods like cherry, walnut, and white oak, however, can cost \$6 or \$7 per board foot, and much more in some regions. Even in the best of times, that adds up quickly. In these hard times, with everyone's purse strings cinched tighter, it's not easy to drop several hundred dollars on wood.

It's possible to find cherry and walnut for less than retail if you buy green lumber from a small sawmill and dry it yourself, or if you're able to cut your own lumber. But those options are not open to everyone.

That's why I began to look around for some furniture woods that were high in quality but lower in cost. I asked editors and longtime authors, I queried lumber dealers around the country, and I scoured the Internet. I was given plenty of sugges-

tions for low-cost woods, but not all of them panned out.

In the end, I whittled down the list to 12. True, most aren't suitable for high-style period furniture, but they work beautifully for almost everything else. Better yet, all cost less than \$5 per board foot, some much less. Mind you, these prices are for rough lumber. You'll pay more if you need it surfaced.

Here's something else I learned. It makes sense to stay local. Being from the South, I've used white ash for furniture and never paid more than \$2 per board foot. But I'd never heard of aspen or red alder, which are available out West, and at bargain prices.

So take a look at these low-cost but overlooked furniture woods, find one that grows in your area, and head out to the lumberyard. Don't let the economy keep you from making beautiful furniture.

*Matt Kenney is an associate editor.*

## Behind the numbers

The best way to identify a wood's hardness, workability, and proclivity to warping and checking, without using subjective terms such as fair, good, hard, or soft, is with numbers. That's why we give the specific gravity and percent shrinkage for each species listed. More information about wood shrinkage can be found by visiting the Forest Products Laboratory Web site at [www.fpl.fs.fed.us](http://www.fpl.fs.fed.us).

A wood's **specific gravity** speaks to how hard, dense, and heavy it is. The higher a wood's specific gravity, the tougher and stronger it is, basically. These numbers also mean that cherry and walnut are easier to work—by hand or machine—than white oak.

The **percent shrinkage** indicates a wood's stability. There are three numbers to consider: tangential and radial shrinkage, taken on their own, and the ratio of the two. As the ratio of tangential to radial shrinkage gets higher, wood is more prone to warping.

WOOD TYPE	SPECIFIC GRAVITY	PERCENT SHRINKAGE		
		Tangential	Radial	T/R ratio
Cherry	0.50	7.1	3.7	1.9
Walnut	0.55	7.8	5.5	1.4
White oak	0.68	10.5	5.6	1.8

# Available throughout the United States

## Beech

Once favored for handplanes and other tools, beech is tough, even-grained, attractive, and fairly easy to work. It has the soft, fleshy tones of pear, with very fine, light flecks. Beech isn't known for its stability, so design accordingly.

*"If oak is masculine, beech is feminine, and sexy too."*

—Garrett Hack, contributing editor

**Average price:** \$2–\$3 bd. ft.

**Specific gravity:** 0.064

**Percent shrinkage:**

Tangential 11.9, Radial 5.5  
T/R ratio 2.2



**Small scale, big effect.** Scott King (Barbados) used the soft tones and understated grain of beech to great effect in this tabletop treasure box, where garish grain would have upset the delicacy of the small parts.

## Hickory

With a warmth and tone similar to raw cherry, hickory is a beautiful furniture wood, even if doesn't darken with age. It's extremely difficult to work with hand tools, but power tools can get the job done. Be wary of cracks: Once one starts, it tends to dive deeper. There are several types of hickory, shagbark being common, but there's little difference among them.

*"Hickory often has wonderful, flame-like grain patterns like walnut or butternut. The more I use hickory, the more I like it."*

—Peter Turner, frequent contributor

**Average price:** \$3–\$4 bd. ft.

**Specific gravity:** 0.72

**Percent shrinkage:**

Tangential 10.5, Radial 7.0  
T/R ratio 1.4



**Strength and beauty.** Renowned woodworker James Krenov (Calif.) put the strength of hickory to good use. The hickory legs and frame are delicate but strong enough to support this pear cabinet.

## Poplar

Poplar is often used as a secondary wood in furniture, and most woodworkers are hesitant to let it take center stage. One reason is its green streaking, which some try to hide under a coat of stain. But staining doesn't work well, because poplar is prone to blotching. Instead, finish with oil and let the poplar age gracefully.

*"The creamy color of poplar ages to a mellow gold, while the green streaks turn dark brown. Arranged with care, these colors can be used to nice effect."*

—Mike Pekovich, FWW art director

**Average price:** \$1–\$2 bd. ft.

**Specific gravity:** 0.42

**Percent shrinkage:**

Tangential 8.2, Radial 4.6  
T/R ratio 1.8



**High-contrast wood.** In this bench by Pekovich (Conn.), the light and dark streaks of the poplar top add visual interest and blend well with the walnut base.



## Red oak



**Smart design quiets loud grain.** This writing desk by Stephen Lamont (Alton, England) proves that red oak, despite its dark grain lines, can have a subdued beauty.

Plainsawn red oak, with big cathedrals of grain swathed in stain and encased in polyurethane, is often associated with factory-made furniture that has little personality. But rift- or quartersawn red oak is a different story. The straight grain adds a clean, linear element to furniture, and its subtle ray fleck shimmers. It's often stacked, and priced, with the plain-sawn stuff. You'll sometimes find curly boards in the same stack.

*“Quartersawn red oak is sleek, handsome, hard wearing, and it works nicely.”*

—Mario Rodriguez, frequent contributor



**Average price:** \$2–\$3 bd. ft.  
**Specific gravity:** 0.63  
**Percent shrinkage:**  
Tangential 8.6, Radial 4.0  
T/R ratio 2.2

## Soft maple

**Spectacular figure, reasonable price.** Pekovich found the curly maple for this Shaker side table by digging through the soft-maple bin at a local hardwood dealer.



It's hard to believe that soft maple isn't more popular as a primary wood. It has a uniform color and a nice grain pattern that is often indistinguishable from hard maple, and it's much easier to work. Soft maple is great for ebonizing. There's more than one species sold as soft maple, but they're all maples and are essentially the same.

*“Often, figured soft maple isn't separated out from the regular boards. So to find it, you only need to dig through the stack.”*

—Roland Johnson, contributing editor



**Average price:** \$3–\$4 bd. ft.  
**Specific gravity:** 0.54  
**Percent shrinkage:**  
Tangential 8.2, Radial 4.0  
T/R ratio 2.0

## White ash



**Beautiful curves.** The wishbone curves of this chair and desk by Doug Chamblin (Ore.) display the beauty, strength, and bendability of white ash.

Less dense than oak, white ash is a joy to work with hand tools. It's easy to work with machines and power tools, too. Given its weight, ash is tremendously strong, and it steam-bends very well, even when kiln-dried. So it's a great wood for chairs or any furniture parts, like legs and aprons, that might be curved. And the rich, creamy color of white ash makes it a great wood for fine furniture.

*“Quartersawn boards, still available in wide widths, are especially stunning, and cost less than cherry and walnut.”*

—Matt Kenney, associate editor



**Average price:** \$2–\$3  
**Specific gravity:** 0.60  
**Percent shrinkage:**  
Tangential 7.8, Radial 4.9  
T/R ratio 1.6

# Midwest/West

## Aspen



**Average price:** \$2–\$3 bd. ft.  
**Specific gravity:** 0.38  
**Percent shrinkage:**  
Tangential 6.7, Radial 3.5  
T/R ratio 1.9

Aspen is creamy white with a faint grain, and is slightly softer than cherry. Once dry, it's remarkably stable. The occasional tree can have as much flash and pop as the best curly maple. Aspen usually works well with hand tools or power tools, glues easily, and takes paint very well.

*“Aspen is my favorite alternative to woods like cherry and walnut. It's an ideal secondary wood, but also is beautiful enough for an entire piece of furniture.”*

—Garrett Hack



**Plays well with others.** The light color and subtle grain of aspen blend well with other woods, such as the alder drawer fronts of this cabinet by Matt Kenney (Conn.).

## Red elm



**Average price:** \$2–\$3 bd. ft.  
**Specific gravity:** 0.53  
**Percent shrinkage:**  
Tangential 8.9, Radial 4.9  
T/R ratio 1.8

The distinctive grain of red elm is a cross between ash and red oak, and when quartersawn it lacks the medullary rays (ray fleck) prominent in oaks. In color, red elm can vary from light tan to reddish brown, with hints of yellow and green. When roughsawn, it might appear a bit sickly, but once milled and given a hand-planed surface, it's very attractive.

*“Easy to work and dimensionally stable, red elm makes a great furniture wood. It's one of my personal favorites.”*

—Roland Johnson



**Wood and design work together.** The straight grain of riftsawn red elm complements the lines of this side table by Kevin Kauffunger (Penn.), and its reddish color adds warmth.

## Red alder



**Average price:** \$4–\$5 bd. ft.  
**Specific gravity:** 0.41  
**Percent shrinkage:**  
Tangential 7.3, Radial 4.4  
T/R ratio 1.1

Often referred to as poor-man's cherry, red alder has a grain pattern similar to cherry. It's dimensionally stable, relatively light, and works beautifully. Wide, clear, and long pieces are readily available. It takes a stain or dye well, and with the right color is a good cherry imposter.

*“Red alder has a nicer grain pattern than cherry, and its sapwood is less of a headache when it's time to apply a finish.”*

—Mark Edmundson, frequent contributor



**Subtle grain, rich color.** Red alder has the warmth of cherry, with slightly more subtle grain, making it great for furniture with clean lines, like this table by Kenney.



# East

## Eastern white pine



**Casual, but refined.** The relaxed feel of Eastern white pine is perfect for understated but elegant pieces like this Shaker lap desk by Christian Becksvoort (Maine).

Plentiful, beautiful, and still available as wide planks, eastern white pine is a great furniture wood. It's easy to work, and a sharp handplane will leave a beautiful luster on the surface. Knots and pitch pockets can gum up your tools, but you can cut ruthlessly around them to get beautiful boards. You can do the same with a less-expensive grade, and save money.

*"My favorite softwood, because it smells great, is a pleasure to work, and when quartersawn, it's more stable than any other native North American wood."*

—Christian Becksvoort, contributing editor



**Average price:**

Select: \$2–\$3 bd. ft.;  
1 common: \$2 bd. ft.

**Specific gravity:** 0.35

**Percent shrinkage:**

Tangential 6.1, Radial 2.1  
T/R ratio 2.9

## Sassafras

**An imposter with its own identity.** The color and grain of sassafras make it a great substitute for chestnut, but this step stool by Kelly Mehler (Ky.) shows that it can stand on its own as a furniture wood.



A soft, open-pored wood with distinct grain patterns, sassafras gives off a unique but pleasant aroma when worked. Because of its light brown color, it can be substituted for chestnut. As a secondary wood, it has a stronger impact than poplar or maple, and it looks great as a primary wood, too.

*"Sassafras is a pleasure to work. It's soft, cuts cleanly, and has a tangy aroma."*

—Jon Arno, Fine Woodworking's late, great expert on wood



**Average price:** \$3–\$4 bd. ft.

**Specific gravity:** 0.45

**Percent shrinkage:**

Tangential 6.2, Radial 4.0  
T/R ratio 1.6

## Yellow birch



**Furniture in flames.** Figured yellow birch is fairly common and can be used to add drama. Hank Gilpin (R.I.) chose a single splendid board for the drawer fronts of this sideboard in yellow birch.

Because it's used heavily in kitchen cabinets, yellow birch is available at most lumberyards. Take your time going through the stack and you'll find some beautiful boards. It can be brittle and difficult to work, but patience gets around those problems. Curly yellow birch is also available, and is less expensive than curly maple or flame birch.

*"Yellow birch isn't used enough as a primary wood, which is a shame, because it's beautiful."*

—Christian Becksvoort



**Average price:** \$4–\$5 bd. ft.

**Specific gravity:** 0.62

**Percent shrinkage:**

Tangential 9.2, Radial 7.2  
T/R ratio 1.3