

# Black Walnut

**Black Walnut** – (plantation timber)

While its primary native region is the Midwest and east central United States, the black walnut was introduced into Europe in 1629. It is cultivated there and in North America as a forest tree for its high quality wood. Black Walnut is highly prized for its dark-colored true heartwood. Due to its value, forestry officials often are called on to track down Walnut poachers; in 2004, DNA testing was used to solve one such poaching case, involving a 95-foot tree worth US \$8500.



## Product

Black Walnut is heavy and strong, yet easily split and worked. Walnut wood has historically been used for gunstocks, furniture, flooring, paddles, coffins, and a variety of other woodworking products.

The following comments were collected from a national wood products discussion forum using Black Walnut in the United States.

### *Comment from contributor A:*

Recognized as one of the most lovely and finest hardwoods, these days walnut is in short supply. As a result, the wood is often cut into veneers and used to cover less-expensive woods in furniture making. A large diameter tree with a tall straight trunk can be worth tens of thousands of dollars and can produce enough veneer to cover three acres. And yes, there are walnut rustlers.

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### *Comment from contributor B:*

The big money comes from veneer grade walnut trees. They will be in the saw log class at 14 inches in diameter. Veneer grade trees will be 21 inches in diameter. The price per log triples from saw log to veneer. Get in touch with your service forester or private forestry consultant. Anyone with Black Walnut trees has a gold mine that is worth investing the time with

Comment from contributor C:

If you have one or two or even a dozen trees in your yard and think you are sitting on a fortune in valuable wood, think again. The most valuable walnut trees are straight and tall with even grain and diameter over 16 inches at breast height. Yard trees rarely have these characteristics. In addition, many yard trees have had nails, fence wire, horseshoes, and other metal objects attached that then grow into the wood. This ruins the most valuable part of the tree from a veneer perspective and drastically reduces its value for sawlogs. Very rarely will a timber buyer mess around with yard trees.

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Comment from contributor D:

If your walnut tree has a damaged or crooked trunk and you want to get a nice straight tree that is much more valuable later on, you can cut down smaller walnut trees with an established root system to the ground and they will send up a shoot that grows straighter and faster than the original.

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Comment from contributor E:

Several key characteristics determine the value of a black walnut tree for timber or veneer, including trunk diameter, merchantable height, and how free the trunk is from defects such as knots and lightning damage. Quality lumber and veneer trees generally have diameters of 18 inches or greater.

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Comment from contributor F:

The length of tree trunk that can be used for lumber or veneer is called its merchantable height. In black walnut and other hardwoods, merchantable height is usually the trunk height to major branches or forking. Minimum merchantable height for lumber and veneer black walnut trees is eight to 10 feet. Quality lumber and veneer trees will have merchantable heights that are several times this height. The quality of a hardwood tree is measured by how free its trunk is from defects such as crookedness, limbs, knots, scars, swellings, bumps, cracks, holes, insect or disease damage, and wounds. Other factors being equal, the fewer the defects, the more valuable the tree. High-value walnut lumber and veneer trees have few visible defects. On the other hand, walnut trees with numerous defects are of little economic value. In general, the larger the walnut's diameter and merchantable height and the more free the trunk is from defects, the greater its economic value for lumber or veneer.

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Comment from contributor G:

With all these positive attributes Walnut still accounts for less than 1% of the hardwood production in the US. The wood is expensive; generally the highest priced domestic hardwood. Most logs are short; special grading rules allow for 6' being included in FAS, the top grade. Lengthier logs would be worth considerably more.

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# Cherry

## **Black Cherry** – (plantation timber)

Second only to Black Walnut in value as a fine hardwood species, Black Cherry is prized for its rich color and fine graining. The fine, satiny texture of the wood is uniform and frequently wavy, with distinctive gum veins and pockets. The lustrous heartwood ranges from light to dark reddish brown, contrasting sharply with the sapwood, which may be light brown to pale with a light pinkish tone.



## Product

Black Cherry is commonly seen in American cabinetry and furniture and is often used as flooring and is just under forty-four percent harder than Douglas fir, around seventy-three percent as hard as Red Oak and close to two thirds as hard as Maple.

The following comments were collected from a national wood products discussion forum using Black Cherry in the United States.

## Comment from contributor A :

Black Cherry, in my opinion, is a wonderful wood any my personal favorite, except for the expense. If finished right, it will develop a rich patina with time and exposure to light. Generally the light sapwood is removed and only the heartwood is used. However, some manufacturers use it all and bleach all the natural color out of it then add a stain to recolor. Generally "Pennsylvania Cherry" commands a premium price. When I was visiting Colonial Williamsburg, they were working with VA cherry and said it was no where near the quality of the PA cherry.

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Comment from contributor B:

Cherry is extremely popular with cabinetmakers. Cherry is easy to work, fine textured, strong and fairly durable. Highly rated in all working properties including wood bending and turning and becomes darker and richer with age. Cherry is easy to work, finishes smoothly, and is dimensionally stable. It is easily machined. It can be sawn cleanly, turned well, and planed excellently with standard cutting angles. Screw-holding ability is good, as is gluing, except where gum streaks are present. The gum content can make it susceptible to scorching from blade friction. The scorching is best avoided with sharp tools and fast feed rates, where possible. Durability is rated as very resistant to heartwood decay. Wild Black Cherry has an exceptionally fine figure and almost satiny light reddish-brown color. Its figure and stable, close grain have been valued by furniture and cabinetmakers for centuries. It is light and strong. This tree's rich red heartwood makes it one of the most valuable trees in the forest. Large, veneer-grade Black Cherry trees can be worth many thousand dollars each. Hardwood lumber mills are constantly seeking quality sources of this species. Thus it is becoming increasingly rarer to find stands of reasonably sized Black Cherry trees.

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Comment from contributor D:

What happened to those 158 towering, mature black cherry trees - which may have been worth up to \$4 million as hardwood - the Cook County Forest Preserve District cut down in south suburban Swallow Cliff Woods? That is the most intriguing question I've been getting from Chicago Sun-Times readers since last Thursday's column on a new federal lawsuit challenging the district's controversial "restoration" project in the preserves.

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Comment from contributor E:

Black cherry is not abundant outside its commercial range. It accounts for only 0.3 percent (about 3 billion cubic feet) of the net volume of hardwood growing stock on commercial forest land in the eastern United States and only 0.2 percent (about 5 billion board feet) of the net volume of hardwood sawtimber. Approximately one-half of the current growing stock is 11 inches in diameter or smaller. Chances of increased timber volume under present practices do not appear good. Although the commercial range extends from southern New York to West Virginia, the better quality material is generally found in quantity only in Pennsylvania. The continued high demand for the better grades for use in furniture, veneer, and plywood-along with the small volume available-seem to insure an increasingly short supply. It is not grown in plantations in any volume.

Current lumber prices for black cherry rank the species comparable in value to hard maple; higher than ash, but lower than yellow-birch. Cherry is most valuable in veneer log form, and prices up to \$700 per thousand board feet are being paid for the best logs.

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Comment from contributor F:

Of our forest trees, wild cherries are the most valuable, sharing comparable value only with black walnut. Stumpage prices for wild cherry logs are in the \$500 to \$900 per 1,000 board feet range, but in 1999 a record price was paid of over \$5000 for an especially prime specimen that was clear grained for 40 feet and 2 feet in diameter.

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# Ash

## **White Ash – (plantation timber)**

The White Ash is also known as American Biltmore or Cane Ash. This tree is most famous for being the best wood for baseball bats and other sports equipment such as tennis racquets, hockey sticks, polo mallets, and playground structures. The reasons for White Ash being the most popular wood for these items is that it is tough and does not break under large amounts of strain. This wood can be bent into different shapes without losing its strength and is quite light.



## Product

There are numerous other uses for White Ash wood including church pews, bowling alley flooring, garden and porch furniture, and cabinets. The following comments were collected from a national wood products discussion forum using White Ash in the United States.

### *Comment from contributor A:*

Unfortunately, there is a serious problem with ash trees in the Midwest. The emerald ash borer, EAB, is an exotic beetle that was discovered in southeastern Michigan near Detroit in the summer of 2002. The adult beetles nibble on ash foliage but cause little damage. However, the larvae (the immature stage) feed on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients.

Since its discovery, EAB has killed more than 30 million ash trees in southeastern Michigan alone, with tens of millions more lost in Ohio and Indiana. Most of the devastation is in southeastern Michigan.

As a result, regulatory agencies and the USDA are enforcing quarantines (Indiana, Illinois, Maryland, Michigan, Ohio, Pennsylvania, and West Virginia) and fines to prevent potentially infested ash trees, logs or hardwood firewood from moving out of areas where EAB occurs. There is no problem with air-dried or kiln-dried lumber. Unless this is controlled, it is likely that there will be little ash lumber in the future. This makes a strong argument to plant large tracts of this valuable tree somewhere else, perhaps out west or in another country altogether.

# Fruitwood

## **Fruitwood** – (plantation timber)

This fine-grained, elegant fruitwood is held in high regard around the world. Most of the fruit and ornamental blossom trees around the world belong to the Rose Family (Rosaceae) and fruitwood is no exception. Pyrus fruitwood grows in Europe and Western Asia. The so-called common fruitwood also can be found in the United States, but most of the commercial timber and veneer is from Germany, Switzerland and France.

Fruitwoods grow wild in Europe and Asia, but are not in the “New World,” according to the book Encyclopedia of Trees by Hugh Johnson. “The common fruitwood from which all the orchard varieties are derived occurs frequently in the south of Europe, and is not uncommon in the north. It is one of the longest-lived of the fruit trees and eventually reaches a remarkable size.” Johnson writes there are records of fruitwood trees growing to 60 feet and more, with diameters of 16 feet. The common fruitwood yield the “fruit-wood of French provincial furniture; the light brown that glows in old armoires and dressers.”



## Product Market

New Leaf Fruitwood plantations will be the first to supply long lengths of knot free dimensional lumber worldwide. Today, its rarity commands prices paid for tropical hardwoods and with the availability of dimensional timber, prices would be among some of the highest paid in the industry.

- 4 x 4; 6 x 6; and 8 x 8 timber
- 1 x 2; 1 x 4; 1 x 6; 1 x 8; 1 x 10; 1 x 12; dimensional lumber
- Hardwood flooring
- Furniture
- Finely crafted woodwork products
- Cabinets
- Wood pellets

The following comments were collected from a national wood products discussion forum using Fruitwood in the United States.

*Comment from contributor A:*

“Fruitwood is truly one of the most elegant woods available in the world,” said Rick Banas, vice president of Interwood Forest Products, Shelbyville, IN. “Its warm tones, fine grain structure and pleasing finish have made it a favorite of architects all over the world. Although fruitwood has been widely used by the European furniture industry, it has never found its way into the U.S. market with the exception of some exclusive custom pieces,” said Banas. “Figured, as well as non-figured fruitwood, have been equally in demand in the United States for architectural markets, as well as aircraft and yacht interiors.”

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*Comment from contributor B:*

Myles Gilmer, owner of Gilmer Wood Products of Portland, OR, said uses for fruitwood run the gamut. “It is used for architectural uses, such as paneling, and in lots of furniture and cabinetry. It’s very popular with carvers and wood turners.” Gilmer said most of the wood is steamed, which brings out a pleasing pastel reddish-pink color and relieves stresses within the wood so that it dries flat. “Without steaming, it is a pale flesh color, and fruitwood has long been used by sculptors trying to mimic the color of flesh.” Gilmer said the wood stains very well and is ebonized for musical instruments. “Fruitwood wood can yield wood with fantastic figures such as a curl-like fiddleback and a very distinctive mottled roe. The curl figure is popular for use in violins, guitars and recorders. Fruitwood is a nice looking wood that takes a dynamite polish. Fine grained, it has a wonderfully tactile feel.”

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*Comment from contributor C:*

Richard Hearne, owner/president of Hearne Hardwoods Inc., Oxford, PA, makes three to four trips to Europe each year in search of fruitwood. While the wood is known by many as common fruitwood, much of what he sells comes from Germany. Ninety-five percent of the common fruitwood he sells is steamed “Because we want the two to match and the veneer is usually steamed, we carry steamed lumber. In North America, the demand for most fruitwood is for upscale architectural millwork applications, such as reception areas in financial institutions or private offices. Many in Europe consider fruitwood to be the finest hardwood.” Hearne said it is among the most expensive hardwoods. “It is a typical fruitwood, so it is hard and dense, with properties similar to rosewood.” One factor driving the price of fruitwood, Hearne adds, is the waste involved in processing the material. Another is the demand. “European fruitwood is one of the finest continental hardwoods.”

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*Comment from contributor D:*

David Cummings, a lumber broker who frequently travels to Europe searching for quality fruitwood specimens in old orchards says, “The only “drawback” is that the wood is not often available in long dimensions”.

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# Oak

## **White Oak** – (plantation timber)

White Oak wood is hard, strong and durable; a valuable timber tree with many commercial uses. Its use for the staves of barrels and buckets and as a shipbuilding wood is due to its resistance to water penetration is well known. This characteristic is attributed to a plastic-like substance named tyloses that plugs the sapwood vessels to block the movement of water and fungal spores. It is one of the premier woods used in the manufacture of furniture, paneling, veneer, and the aptly named hardwood floors. Its use for railroad ties and mine timbers is testimony to its strength and reliability. It has a high fuel value and is one of the best sources of firewood.



## Product

This tree is most famous for being the best wood for hardwood flooring and stair case structures.

## Product Advantages

- Becoming an increasingly rare wood as most of the quality timber has been harvested in its native territory in the eastern U.S.

## Product Market

- Flooring
- Furniture
- Interior finishing
- Wine and whiskey casks

The following comments were collected from a national wood products discussion forum using White Oak in the United States.

## *Comment from contributor A:*

White Oak wood is very valuable. If you have a veneer log, it can bring as much as black walnut.



# Oak

## **Red Oak** – (plantation timber)

The Northern Red Oak or Champion Oak, *Quercus rubra* (syn. *Quercus borealis*), is an oak in the red oak group (*Quercus* section *Lobatae*). It is a native of North America, in the northeastern United States and southeast Canada. It grows from the north end of the Great Lakes, east to Nova Scotia, south as far as Georgia and states with good soil that is slightly acidic.



## Product

The northern red oak is one of the most important oaks for timber production in North America. The wood is of high value. Other related oaks are also cut and marketed as Red Oak, although their wood is not always of as high a quality. These include black oak, scarlet oak, pin oak, shumard oak, southern red oak and other species in the red oak group. The northern red oak is widely planted and naturalized also located in Central Europe.

## Product Market

- Wood Flooring
- Kitchen Cabinetry
- Wood Pellets
- Veneer
- Furniture

## Product Advantages

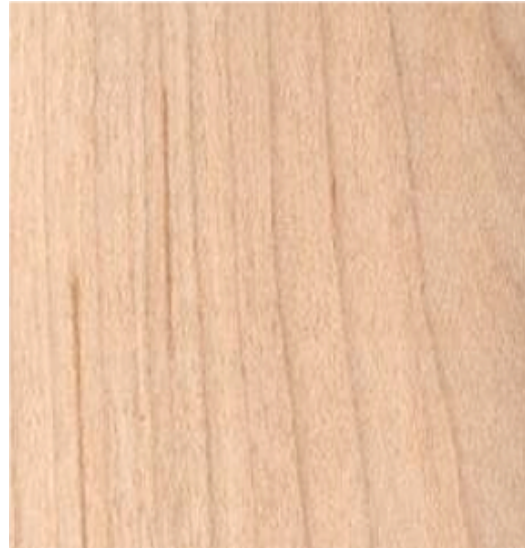
Northern red oak stump sprouts profusely and this helps greatly with regeneration. This makes Red Oak an ideal choice for sustainable wood pellet plantations.

Given the right growing conditions, Red Oak is one of the fastest growing of all the oaks.

# Maple

## **Hard Maple** – (plantation timber)

Hard maple (*Acer saccharum*) is also known as sugar maple, rock maple, sweet maple and black maple. Hard maple is most prevalent in the Eastern United States, Canada and the Great Lake states, and is the source for maple syrup. The heartwood of hard maple is a light reddish-brown to tan, while the sapwood is white to creamy white.



Human influences have contributed to the decline of Hard Maple in many regions. Hard Maple also exhibits a greater susceptibility to pollution than other species of maple. Acid rain and soil acidification are some of the primary contributing factors to Maple decline, so location is an important factor when considering future plantations. There is a big demand for really clean Maple - material without knots, insect damage and sugar markings.

## Product

Hard Maple saplings are grown in our New Leaf Growhouse™ for a minimum of 5 years until harvest. The Growhouse™ provides the correct growing environment for these trees. Caliper diameters must be at least 1" to ensure transplant survivability. Seedlings range from a height of 16 to 24 feet depending on climatic conditions during the growth cycle. Seedlings are shipped clear of branches almost their entire length creating a palm-tree-like product when it leafs after transplant.

## Product Market

Hard maple is used primarily by cabinetmakers, furniture makers, contractors, and in architectural millwork applications. It is also used in custom flooring.

There is significant demand for Hard Maple as large dimensional timber but is simply not available due to the rare occurrence of clear-grained mature trees. Unfortunately, most of these were cut down years ago.