

PENNSYLVANIA HARDWOOD



BUYERS GUIDE

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RED OAK

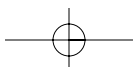
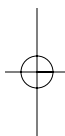
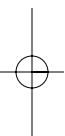


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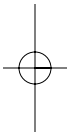
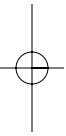
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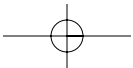
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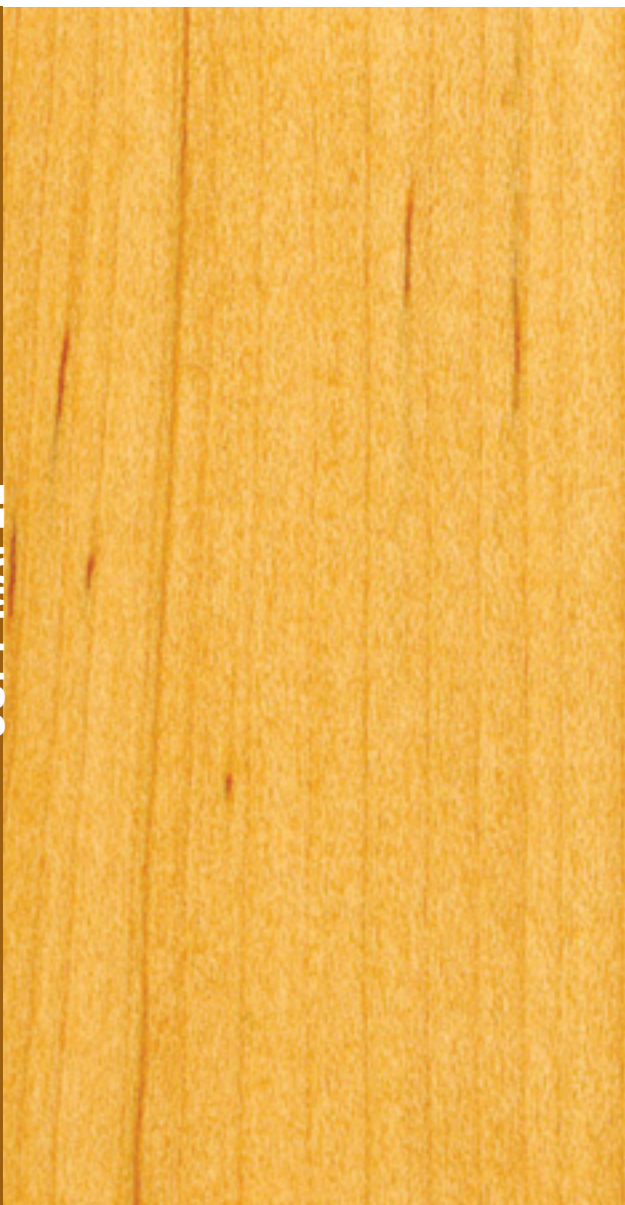
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WELCOME



SOFT MAPLE



The Forests of Pennsylvania

Today hardwood forests dominate the landscape across Pennsylvania. The 16.7 million acres of forestland provides a plethora of values to the citizens of Pennsylvania and beyond. World Class wood products, recreational opportunities, natural aesthetics, clean water, air and habitat for a diverse range of plants, animals, birds and fish are the result of a strong commitment to sustainable forest management and conservation in Pennsylvania. The highest quality black cherry, oak, maple and other species for flooring, cabinets, molding and furniture come from the region known as the wood basket of Pennsylvania.

Nearly 70% of Pennsylvania's forestland is privately owned, public land ownership by the State Department of Conservation and Natural Resources, the Pennsylvania Game Commission and the USDA Forest Service constitutes a significant portion of forestland. These large blocks of public forests anchor the timber base that is generally dispersed with private land throughout the northern tier of the state. The northwest and north central region, particularly the area around the Allegheny National Forest, is well known throughout the world, as the "Black Cherry Capitol of the World", for the high quality of the black cherry timber grown here. Other hardwoods such as Northern Red Oak, White Oak, Red Maple, Hard Maple, Beech, Poplar, Ash and Hickory are grown and harvested throughout Pennsylvania.

Inventory data shows a stable forest structure with preponderance of large trees at their economic and ecological maturity. Wood volume continues to increase while timber harvesting and forest management activity supports one of the states core manufacturing industries. This valuable raw material supports 82,000 jobs and generates \$17 billion in economic activity yearly.

PA Leads the Pack

Pennsylvania has been a leader in the Certification movement ensuring the sustainability of these beautiful and valuable forests for generations to come. Over 2.5 million acres of forestland in Pennsylvania have been independently certified under the Forest Stewardship Council (FSC) Certification. Additional acreages have been certified under the Sustainable Forestry Initiative, The American Tree Farm system, Green Tag and other certification systems as public and private landowners seek to verify their management practices.

The Allegheny Hardwood Utilization Group, Inc. (AHUG) is a support organization of the hardwood industry in the northwest, north central portion of the state. Dedicated to economic development of the industry based on a sustainable forest resource. AHUG provides marketing, professional development, technical expertise, training opportunities as well as legislative and issue action as needed and directed by our membership. Working closely with state and federal agencies, academia, banks, utilities, and the private sector to encourage economic growth in the hardwood industry.

The Pennsylvania Story

Pennsylvania's forests are rich in diversity and heritage and are a reflection of the history of the state itself. Natural and man-made forces have shaped this forest since the beginning of time. Nature, native Americans, early settlers and modern man have and continue to change and impact the forest.

Between 1880 and 1920 Pennsylvania's predominantly hemlock and beech forest were cleared for farms and produce building materials to supply a growing nation. Alarm was raised at the time by early conservationists to the loss of forests that led to a model for the future stressing wise use and protection of the resource, scientific management, sustainable yield, wildlife protection and a multiple-use management that continues today. That insight and philosophy has led to a forest and wildlife today that is in significantly better condition than a century ago and continues to improve. All this at a time when human population has continued to increase and demands on the land are great.

Pennsylvania's forests have demonstrated a resiliency and responsiveness to early conservation and protection efforts. Land management is based on "total resources management" that includes economic, social and biological factors. Silvicultural prescriptions emphasize species and age class diversity and are obtained through natural regeneration processes. Pennsylvania promotes both economic and ecological advantages of proper timber management.

As a result of the intensive harvesting at the turn of the century, Pennsylvania now boasts some of the finest hardwood forests in the world. Comprised of more than 70 species, most well known and abundant are Red Maple, Black Cherry, Northern Red Oak, Sugar Maple, Chestnut Oak, Yellow Poplar, White Oak, and White Ash. Soft wood species include Eastern Hemlock, White Pine and Red Pine.

Sustainability

Sustainability and high quality go together. Pennsylvania has the highest amount of hardwood growing stock in the nation with growth rates double the amount of current harvest levels. Harvest rates are approximately one percent of the total timber volume of the state. Land Managers use a variety of silvicultural practices to ensure regeneration and quality.

High quality timber, forest products and a balance of public and private ownership create stable conditions and economic incentive to wisely manage and perpetuate Pennsylvania forestlands.

Availability

Pennsylvania landowners have various objectives for their land. About 25% of Pennsylvania's forests are government owned, including both the state and federal government. The Allegheny National Forest is 500,000 acres of federal land located in the northwestern part of the state. The ANF and surrounding private and state owned land are home to some of the world's finest black cherry hardwoods, lending to the area's internationally

known nickname, the “Black Cherry Capitol of the World”. In addition, the state forests of Pennsylvania consist of 2.1 million acres and another 1.1 million acres that are managed by the Pennsylvania Game Commission. This public land is managed for multiple use, therefore not all is available for timber harvesting. Much of the forest is preserved for wilderness and natural values.

Availability and Time Cycles

Private landowners account for the majority of land ownership across Pennsylvania. While many of these owners manage their forest for production of timber, many do not. This creates a competitive dynamic that cannot easily be changed or predicted and is often misunderstood by international buyers. Price for Pennsylvania hardwoods is not only determined by supply and demand for particular species, but also availability of the raw material at the time. Quality, availability and quantity may differ greatly across the state resulting in a wide range of prices on the stump and at the sawmill. Because of these procurement practices and other market forces availability and time cycles for delivery may be impacted. The Pennsylvania Forest Products Industry makes every effort to take these factors into account when making commitments for delivery.

The Future Supply and Management

Pennsylvania continues to lead the way in conservation. Embracing forest certification early on, the state has one of the largest forestland masses under sustainable forest management systems.

Primary certifications are through the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) and other smaller systems such as Tree Farm and ISO manufacturing systems are used as well.

Welcome to American Business

The United States business culture is as diverse as its citizenship. Being a country of immigrants, there is a strong sense of regional and ethnic identity. As you prepare for your visit to the United States, the following points of U.S. business etiquette may be helpful.

Punctuality: Please arrive on time for your appointments. Being on time is a very important rule of business etiquette. If circumstances make you late, then please call the company and announce your delay.

Greetings: Business meetings begin and end with a firm handshake. The United States is founded on the principle of equality. You should extend your handshake to both men and women. Eye contact should be maintained during the handshake and while speaking. The exchange of business cards is a casual activity. They can be exchanged during greetings or at the end of the meeting. Americans use business cards as a resource for future contact.

Introductions: Listen to the pronunciation of the person's name. Repeating the name back to your American counterpart is a sign of genuineness.

Address your American colleagues with a title, such as “Mr.,” “Ms” “Mrs.” “Doctor” in conjunction with their last name. Many Americans will ask you to call them by their first name. This is not a sign of familiarity but reflects the casual business style of Americans. Please be prepared to partake in preliminary small talk at the beginning of a business meeting. This creates a comfortable environment before engaging in business affairs.

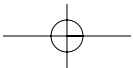
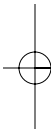
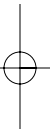
Structure of American Companies: The structure of U.S. companies differs according to industry and the company’s history. The hierarchical chain of command of U.S. companies is important to decision-making and will supersede personal relationships.

Business Negotiations: The aim of U.S. business negotiations is to arrive at a signed contract. The process is viewed as a problem-solving task based on mutual benefits. During the process it is important to know the rank and title of your American colleagues. The final decision will be made by the highest ranking individual. The use of interpreters during the process may give your words more weight and contribute to your success. During negotiations, your American counterparts expect that company policy and legal business practices will be followed.

For further information please visit our website at www.one-planet.net or telephone 1.412.632.1070.



SPECIES



HICKORY





ASH

Typically a straight-grained wood, the sapwood of Ash can appear nearly white and the heartwood can vary from grayish to light brown to a pale yellow, streaked with brown. It takes stain well and is strong and elastic with a coarse, uniform texture that works well for machining, nailing, screwing & gluing.

USES:

Bows • Tool Handles • Baseball Bats • Hockey Sticks • Billiard Cues • Skis • Oars • Architectural Millwork & Moulding • Cabinets • Paneling • Firewood



BASSWOOD

Basswood has a fine, uniform texture and a straight grain that is nearly indistinct. The sapwood is creamy white, while the heartwood is pale to reddish brown; occasionally with darker streaks. It machines well and can be easily worked with hand tools; making it the perfect choice for carving. Ash offers good dimensional stability when dry and it can be sanded and stained to a good, smooth finish.

USES:

- Carvings • Turnings • Pattern-making
- Door Frames • Furniture • Moulding & Millwork
- Blinds & Shutters • Musical Instruments • Boxes



BIRCH

Ease of use and a reasonable price have made birch a great craftwood, for almost any woodworking project. Yellow birch has a white sapwood with a light, reddish-brown heartwood. It is generally straight-grained, often with a curly or wavy pattern and it takes stain extremely well.

USES:

- Wood crafts • Toys • Toothpicks & Tongue Depressors • High-end Furniture • Paper Pulp
- Furniture • Millwork & Paneling • Kitchen cabinets



CHERRY

Cherry is a medium-density wood with good bending properties; low stiffness; medium strength and shock resistance. The grain is straight, with a satiny, smooth texture that may be flecked with brown pith and small gum pockets. The heartwood

varies from rich red to reddish-brown and it will darken with age and exposure to light, but the sapwood is a creamy white. Cherry is easy to machine and it nails & glues well when stained. It has moderate shrinkage properties, but its dimensionally stable after kiln-drying.

USES:

- Fine furniture • Cabinet-making • Paneling
- Flooring • Doors • Boat Interiors • Musical Instruments • Moulding & Millwork • Turnings & Carvings

**HARD MAPLE**

Hard and heavy with good strength properties; Hard Maple has a high resistance to abrasion and wear. It dries slowly with a high rate of shrinkage and it has good steam-bending properties. The sapwood is a creamy white and the heartwood varies from light to dark reddish-brown. Both may contain pith flecks. The grain of Hard Maple is generally straight, but there are also curly, fiddleback or birds eye varieties. It can be stained to an amazing finish.

USES:

- Flooring (including ballrooms and gymnasiums) • Table Tops & Butcher Blocks • Stairs • Furniture • Doors
- Handrails • Kitchenware • Cabinets • Mouldings & Millwork • Paneling • Toys



HICKORY

Hickory is the heaviest of the American hardwoods. It is tough and resilient, with good strength and shock resistance. The sapwood of Hickory is white, with fine brown lines, while the heartwood is a pale to reddish-brown. It is a coarse-textured wood with a fine grain that is normally straight, but can sometimes be wavy or irregular. Because of its heaviness, Hickory can be difficult to machine and glue and extremely hard to work with hand tools. It has a tendency to split with nailing or screwing, so pre-boring is advised.

USES:

• Tool Handles • Furniture & Cabinets • Flooring & Paneling • Wooden Ladders • Dowels • Sporting Goods



POPLAR

A versatile; medium-density wood, Poplar has excellent strength and stability. It offers excellent strength and stability with shock resistance and low bending and compression values. Poplar has little tendency to split when nailed and it takes and holds paint and stain very well. The sapwood is a creamy

white and may be streaked. The heartwood of Poplar varies from a pale, yellowish brown to an olive green color that will tend to darken and turn brown when exposed to light. It has a straight grain with a comparative uniform, fine texture.

USES:

- Light Construction • Musical Instruments • Siding
- Edge-glued Panels • Doors • Furniture & Cabinets
- Paneling • Mouldings & Millwork • Turnings & Carvings

**RED OAK**

Red Oak has a sapwood that is white to light brown and the heartwood is pink to reddish-brown. It is similar in appearance to White Oak, but it has a slightly less-pronounced figure, due to smaller rays. The generally straight-grained wood has a coarse texture. Red Oak is hard and heavy, with medium bending strength and stiffness, high crushing strength and great wear-resistance. It machines well and it is very good for steam-bending. Pre-boring is recommended when nailing or screwing and it can be stained to a good finish.

USES:

- Paneling • Caskets • Furniture & Cabinets
- Flooring • Architectural Millwork and Mouldings
- Doors



SOFT MAPLE

Soft Maple is 25% less hard than hard maple. It machines well, has medium bending and crushing strength, low stiffness and shock resistance. The sapwood is a grayish-white, sometimes with dark-colored pith flecks, and the heartwood varies from light to dark reddish-brown. Soft Maple has a straight grain and can be stained to an excellent finish. It dries slowly with minimal degrade and there is little movement. Soft Maple is often used as a substitute for Hard Maple and it can be easily stained to resemble other hardwood species, such as cherry. It's physical and working properties make it a good substitute for beech.

USES:

- Furniture • Paneling and Millwork • Kitchen Cabinets • Mouldings • Doors • Musical Instruments
- Turnings



WALNUT

A tough, medium-density hardwood, Walnut is often used in contrast with a lighter-colored species. Walnut works easily with both hand and machine tools, has good dimensional stability and

moderate bending and crushing strengths. The grain is typically straight, however can also be wavy or curly as well. Walnut offers a greater variety of figure types than any other hardwood. The sapwood is a creamy white and the heartwood is light to chocolate brown—occasionally displaying a purplish cast and darker streaks. Walnut will develop a rich patina that will become more lustrous with age.

USES:

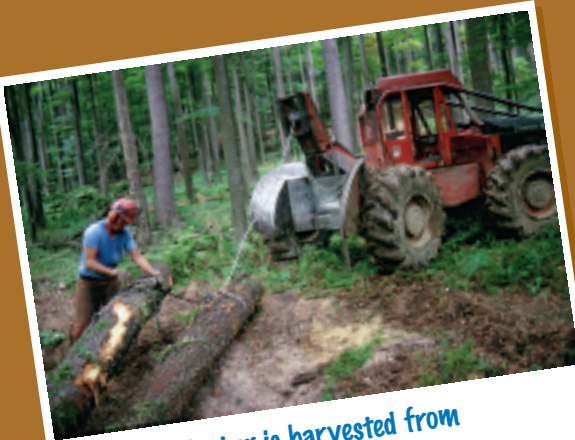
- Gun stocks • Furniture • Cabinets • Paneling
- Flooring • Doors • Architectural Millwork

**WHITE OAK**

White Oak is a hard and heavy wood that offers great wear-resistance and can be stained to a wide variety of finishes. It is typically straight-grained, machines well and performs very well in steam bending. The sapwood is a light color and the heartwood is light to dark brown. White Oak has a coarse texture and because its longer rays give it more figure than Red Oak. Since it reacts with iron, the use of galvanized nails is recommended. The wood dries slowly and it can be stained to a wide range of tones.

USES:

- Barrel staves • Caskets • Cabinets • Paneling
- Furniture • Flooring • Doors • Mouldings
- Architectural Millwork



Timber is harvested from Pennsylvania forests.



Logs are hauled and stacked to be processed by Pennsylvania lumber mills.



Upon entry at the mill, the bark is removed from the logs.



Processing logs/cants into lumber.



Cut lumber is then air dried or kiln dried and palletized for shipment.



Dimension lumber is sorted by length and width and palletized for shipment.



Logs are tagged by length, diameter and footage to be prepared for shipping.



A log container is loaded for shipment.



**Pennsylvania Hardwoods make
some of the world's most beautiful
wood products ...**



**... with quality that is
meant to last a lifetime!**



BUYER BASICS

CHERRY



Wood Products Terminology

BIRD'S EYE — Small circular or elliptical areas resembling birds' eyes on the tangential surface of wood, formed by indented fibers. Common in sugar maple and used for decorative purposes; rare in other species.

BOARD FOOT — A unit of lumber measurement equivalent in volume to a piece having nominal dimensions of 1 ft. (length) by 12 in. (width) by 1 in. (thickness)

BOARDS — Lumber 2 in. or more wide that is nominally less than 2 in. thick. Boards less than 6 in. wide are also called strips.

BOW — A form of warp; deviation from lengthwise flatness in a board.

BURL (*Burr*) — A hard, woody outgrowth on a tree, more or less rounded in form, usually resulting from the entwined growth of a cluster of adventurous buds. Burls are a source of highly figured veneers.

CLEAR — In reference to lumber, free of defects or blemishes.

CLOSED FACE — (*Same as Closed Side or Tight Side*) The veneer surface not touching the veneer knife during slicing, which is free of knife checks.

CLOSED SIDE (*Closed Face, Tight Side*) — The veneer surface not touching the veneer knife during peeling or slicing, which is free of knife checks.

DEFECTS — Irregularities or abnormalities in wood that lower its strength, grade, value, or utility.

FACE — Either side or surface of a plywood panel. Also, the surface of plywood having the higher quality, in which case the opposite side is called the *back*.

FIBERBOARD — A panel product manufactured of refined or partially refined wood fibers.

FLITCH — A portion of a log sawn on two or more faces, commonly on opposite faces, leaving two waney edges. When intended for resawing into lumber, it is resawn perpendicular to its original wide faces. Or, it may be sliced or sawn into veneer, in which case the resulting sheets of veneer laid together in the sequence of cutting are called a flitch.

GRADE — A designation of the quality of a log, or of a wood product such as lumber, veneer, or panels.

HEARTWOOD — The central core of wood in mature stems. At one time heartwood was sapwood but it no longer conducts sap or has living cells. In most species, extractives impart a darker color to heartwood.

KILN (*Dry Kiln*) — A heated chamber for drying lumber, veneer, and other wood products, in which temperature, humidity, and air circulation are controlled.

KILN-DRIED — Having been dried in a kiln to a specified moisture content; for cabinet woods, usually implies dryness below that's attainable by air drying.

OPEN FACE (*Same as Open Side or Loose Side*) —

The surface of veneer against the knife during slicing; may contain knife checks.

OPEN SIDE (*Loose Side, Open Face*) —

The surface of veneer against the knife during peeling or slicing; may contain knife checks.

ROTARY-CUT VENEER (*Peeled Veneer*) —

Veneer cut on a lathe by rotating a log against a fixed knife, which produces a continuous veneer sheet.

SELECT — In softwood lumber, the highest appearance grades are Select grades, usually separated as B and better, C, and D Select grades. In hardwood factory lumber, Selects is one specific grade, placing in quality below Firsts and Seconds, but higher than Common grades.

SLICES VENEER — Veneer produced by moving a log or flitch vertically against a fixed veneer knife.

STAIN — A discoloration in wood caused by stain fungi, metals, or chemicals. Also, a finishing material used intentionally to change the color of wood.

SURFACE CHECKS — Checks that develop on a side-grain surface and penetrate the interior to some extent.

TIMBER — Wood in standing trees having potential for lumber.

VENEER — Wood cut by slicing, peeling, or sawing into sheets 1/4 in. or less in thickness.

WANE — Bark, or lack of wood from any cause, on the edge or corner of a piece of lumber.

AVERAGE CONVERSION FACTORS FOR WOOD PRODUCTS (ENGLISH TO METRIC)

| Product | Standard Individual Unit (English) | To Convert To | Multiply By | To Convert Metric from Metric Multiply By |
|--------------------------|---|--|--------------------|--|
| Logs | MBF | Cubic Meters | 4.530 | 0.2208 |
| Softwood Lumber | MBF | Cubic Meters | 2.360 | 0.423729 |
| Hardwood Lumber | MBF | Cubic Meters | 2.360 | 0.423729 |
| Softwood Flooring | MBF MSF (1") | Cubic Meters Square Meters (25.4 MM thickness) | 2.360 | 0.423729 |
| Hardwood Flooring | MBF MSF (1") | Cubic Meters Square Meters (25.4 MM thickness) | 92.900 | 0.0108 |
| Softwood Siding | MBF MSF (1") | Cubic Meters Square Meters (25.4 MM thickness) | 2.360 | 0.423729 |
| Hardwood Siding | MBF MSF (1") | Cubic Meters Square Meters (25.4 MM thickness) | 92.900 | 0.0108 |
| Railroad Ties | MBF | Cubic Meters | 2.360 | 0.423729 |

| | | | | |
|-------------------------|--|---|-----------------|-----------------------|
| Softwood Veneer | MSF (3/8") | Cubic Meters Square Meters (9.53 MM thickness) | 0.885 92.900 | 1.132 0.0108 |
| Hardwood Veneer | MSF (1/28") | Cubic Meters Square Meters (.0907 MM thickness) | 0.084 92.900 | 11.86 0.0108 |
| Softwood Plywood | MSF (3/8") | Cubic Meters Square Meters (9.53 MM thickness) | 0.885 92.900 | 1.132 0.0108 |
| Hardwood Plywood | MSF (1/4") | Cubic Meters Square Meters (6.35 MM thickness) | 0.590 92.900 | 1.695 0.0108 |
| Particleboard | MSF (3/4") | Cubic Meters Square Meters (19.05 MM thickness) | 1.770 92.900 | 0.565 0.0108 |
| Wood Chips | STN | Metric Tons | 0.907 | 1.102 |
| Molding | MFT | Meters | 304.8 | 0.0033 |
| Other | To Convert From Square Meters (25.4 MM Thickness) | TO Cubic Meters | | Multiply By 0.0254 |

WEIGHT CONVERSION FACTORS

| Unit of Weight | (multiply by) | measurement | (equals) | Equivalents |
|-----------------------|---------------|-------------|----------|------------------|
| Pounds (lbs) | X | 0.45359 | = | kg |
| | X | 0.0004536 | = | t (metric ton) |
| | X | 0.0004464 | = | tn (long ton) |
| | X | 0.0005000 | = | shtn (short ton) |
| Kilograms (kg) | X | 2.2046 | = | lbs |
| | X | 0.001 | = | t |
| | X | 0.000984 | = | tn |
| | X | 0.001102 | = | shtn |
| Ton Metric (t) | X | 2204.622 | = | lbs |
| | X | 1000 | = | kg |
| | X | 0.9842 | = | tn |
| | X | 1.1023 | = | shtn |

| | | | | |
|----------------------|---|---------|---|------|
| Ton Long (tn) | X | 2242 | = | lbs |
| | X | 1016.04 | = | kgs |
| | X | 1.01604 | = | t |
| | X | 1.12 | = | shtn |

| | | | | |
|-------------------------|---|----------|---|-----|
| Ton Short (shtn) | X | 2000 | = | lbs |
| | X | 907.184 | = | kgs |
| | X | 0.907184 | = | t |
| | X | 0.892857 | = | tn |

EQUIVALENTS FOR WEIGHTS AND VOLUMES FOR CONVENTIONAL SHIPPING UNITS

| Weight Metric Tons | Estimate Ft³ | Volume M³ | Assumed lb/ft³ | Specific Weight kg/m³ |
|-----------------------------------|------------------------------------|---------------------------------|--------------------------------------|---|
| 1 loading ton of round wood | 40 | 1.132 | 55 | 883 |
| 1 loading ton of lumber | 50 | 1.416 | 44 | 706 |
| 1 ton of plywood conif. | 63 | 1.784 | 35 | 560 |
| 1 ton of plywood nonconif. | 55 | 1.560 | 40 | 640 |
| 1 ton of plywood particleboard | 55 | 1.560 | 40 | 640 |
| 1 ton of plywood hardboard | 37 | 1.050 | 59 | 950 |
| 1 ton of plywood softboard | 118 | 3.330 | 19 | 300 |

Hardwood lumber is generally sold in the U. S. in the following standard thicknesses.

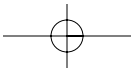
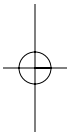
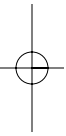
| Rough Dimension | Surfaced 1 Side (S1S) | Surfaced 2 sides (S2S) |
|------------------------|------------------------------|-------------------------------|
| 3/8" | 1/4" | 3/16" |
| 1/2" | 3/8" | 5/16" |
| 5/8" | 1/2" | 7/16" |
| 3/4" | 5/8" | 9/16" |
| 1" | 7/8" | 13/16" |
| 1-1/4" | 1-1/8" | 1-1/16" |
| 1-1/2" | 1-3/8" | 1-5/16" |
| 2" | 1-13/16" | 1-3/4" |
| 3" | 2-13/16" | 2-3/4" |
| 4" | 3-13/16" | 3-3/4" |

Note: A "quarter" system is commonly used in the hardwood lumber industry when referring to thickness. 4/4 refers to a 1 inch thick board, 6/4 is a 1-1/2 inch thick board, 8/4 is a 2 inch thick board, and so on. This convention is not normally used for softwood lumber.





CERTIFICATIONS



ASH



Forest Certifications Systems

For those interested in certified product, Pennsylvania has a largest certified hardwood forests in the United States with over 2.5 million acres of forest evaluated by FSC. The Pennsylvania State Forests are certified under the Forest Stewardship Council (FSC). Many other landowners are certified under either or both the FSC and Sustainable Forestry Initiative (SFI) Systems. There are also Tree Farm and ISO manufacturing systems present in Pennsylvania. Many companies that do not own timber are chain of custody certified to produce certified product.

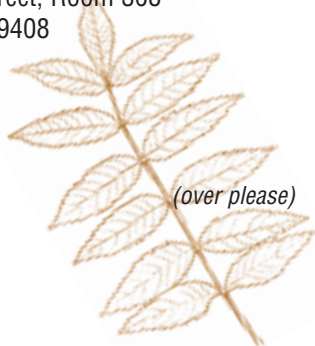
To request catalog listing of Pennsylvania FSC Certified Forest & Chain of Custody Certified Hardwood Product Suppliers or Sustainable Forestry Initiative Partner Program Participants, contact the Pennsylvania Hardwoods Development Council.

Pennsylvania Hardwoods Development Council Pennsylvania Department of Agriculture

2301 North Cameron Street, Room 308
Harrisburg, PA 17110-9408

Ph: (717) 772-3715

Fx: (717) 705-0663



Forest Certification has become an important tool to measure forest sustainability. There are several certification systems and finding a comparison of the major systems is somewhat difficult because of the different standards that each incorporates but there are some comparisons that can be considered:

The On-Line Comparative Matrix of Forest Certification Schemes

(Confederation of European Paper Industries)

<http://www.forestrycertification.info/>

Focusing of Certification Similarities to Promote SFM

(Forest Products Association of Canada)

http://www.fpac.ca/en/members/Committees_Task_Forces/Certification/FPACertificationEN-less_resolution.pdf

Forest Certification Comparison Matrix

(Metefore)

<http://www.certifiedwoodsearch.org/matrix/matrix.asp>

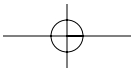
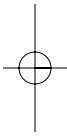
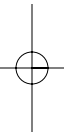
The UK Government has published an especially rigorous assessment of the major, internationally recognized forest certification systems.

Four systems that met the UK Government's criteria for legal and sustainable timber were CSA, FSC, PEFC and SFI. For the full report see

<http://www.proforest.net/cpet/cpet-s-assessment-of-evidence/assessment-of-certification-schemes-category-a>

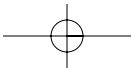
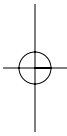
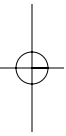


PAYMENT INFORMATION & OPTIONS





WALNUT



Payment Options

CASH IN ADVANCE

Payment is received prior to the transfer of the goods to the buyer. Funds are typically transferred either via bank wire transfers or via credit cards. This option is the most beneficial for the exporter, least beneficial for the buyer.

LETTER OF CREDIT

A definite undertaking issued by the bank of the applicant to pay the beneficiary at sight or maturity a specified sum of money, provided the stipulated documents are presented in conformity to its terms and conditions.

A letter of credit is a bank's undertaking to pay the beneficiary even if the applicant cannot do so, provided conforming documents are presented. This method protects both the exporter and the buyer.

- **Irrevocable Letter of Credit:**

A letter of credit that can not be amended or cancelled without consent of all parties. All Letters of Credit are irrevocable unless stated otherwise.

- **Revocable Letter of Credit:**

A letter of credit that may be withdrawn from the beneficiary at any time prior notice to the beneficiary. Normally revocable letters of credit are unacceptable to the seller and are rarely used.

OPEN ACCOUNT

Open Accounts allows for the goods to be shipped and delivered prior to payments to the exporter. Accounts are typically set for 30, 60, or 90 day terms. This method is most advantageous to the buyer.

DOCUMENTARY COLLECTIONS

Documentary Collections are transactions that the exporter entrusts collection of payment to the exporter's bank. Documents are sent to the buyer's bank, along with instructions for payment. Funds are received from the buyer, remitted to the exporter through the banks involved in the collection in exchange for those documents. The buyer is typically responsible to pay the draft on sight or at a specified future date. This form of payment is less costly than an L/C however the exporter bears more risk with this method.





FREIGHT LOGISTICS

WHITE OAK



Container Loading Information

Board Feet contained in a 40' standard container of Lumber

- 13,000 Board Feet – Maple, Oak, Ash
- 17,000 Board Feet – Poplar
- 14,000 Board Feet – Cherry

Typical load consists of approximately 16 bundles containing a mixture of 8', 10' & 12' boards per 40' container

- 90,000# maximum weight per 40' container for logs and lumber

Board Feet contained in a 40' standard container of Logs

- There are approximately 4,000 Board Feet of Logs that can fit into a standard 40' container. Although dependent upon the species this can vary as the weight must not go over the maximum weight of 90,000#. The weight varies by species.
- Logs are tagged. Each log is assigned a Tag #. This tag number advises the following information about the shipment of logs.
 - Length
 - Diameter
 - Footage
 - Price per thousand board feet
 - Price per log

(over please)

- A grand total of board feet and amount contained on the container along with the total dollar value of the container.

CONTAINER DIMENSIONS:

| Container Size | Length | Width | Height |
|----------------|--------|-------|--------|
| 20' Standard | 234" | 92" | 102" |
| 40' Standard | 474" | 92" | 102" |
| 20' High Cube | 234" | 92" | 114" |
| 40' High Cube | 474" | 92" | 114" |

Fumigation Process

The fumigation process for lumber and logs occurs typically at the port before the container is placed on the vessel. Appointments are made before the container arrives and is coordinated with the vessel schedule. Pallets or skids must be ISPM 15 and contain a certificate. Lumber requires a Phytosanitary certificate from APHIS. Lumber must be inspected at the site before going in the container. Lumber and Logs are fumigated inside the container. Certificates are issued for the fumigation of the lumber and logs. Containers are sealed and placed on the vessel.

Incoterms

INCOTERM refers to the type of agreement for the purchase and shipping of goods internationally. There are 13 INCOTERMS to describe the movement of goods.

INCOTERMS allow for the determination of whether the buyer or the seller is responsible for the different aspects of the shipment.

INCOTERMS were created for use when dealing in the world of global trade and can have direct effect on the financial impact of the company's business.

The latest INCOTERMS are listed under the INCOTERMS 2000.

EXW EX WORKS (named place)

Goods are made available to the buyer at a named place, e.g., works, factory, warehouse, etc. These goods are not loaded or cleared for export. The seller does not contract for any transportation.

Seller Responsibilities: Buyer Responsibilities:

| | |
|--|--|
| <ul style="list-style-type: none"> - Warehouse storage - Warehouse Labor - Export Packing | <ul style="list-style-type: none"> - Loading Charges - Inland Freight - Terminal Charges - Forwarder's fees - Loading on vessel - Ocean/Air Freight - Charges on arrival at Destination - Duty, Taxes & Customs Clearance - Delivery to Destination |
|--|--|

FCA FREE CARRIER

When the goods have been unloaded at the seller's dock or a named place where shipment is available to the carrier or agent, not loaded.

Seller Responsibilities: Buyer Responsibilities:

| | |
|---|---|
| <ul style="list-style-type: none"> - Warehouse storage - Warehouse Labor - Export Packing - Loading Charges | <ul style="list-style-type: none"> - Inland Freight - Terminal Charges - Forwarder's fees - Loading on vessel - Ocean/Air Freight - Charges on arrival at Destination - Duty, Taxes & Customs Clearance - Delivery to Destination |
|---|---|

Note: However there are two terms for FCA. FCA Seller's Premises where the seller is responsible only for the loading of the goods and not responsible for inland freight; and FCA Named Place (International Carrier) where the seller is responsible for inland freight.

NOTES:

FAS FREE ALONGSIDE SHIP

When goods are placed alongside the vessel, the quay (pier) or in lighters at the named port of shipment.

Seller Responsibilities: Buyer Responsibilities:

| | |
|---------------------|-------------------------------------|
| - Warehouse storage | - Forwarder's fees |
| - Warehouse Labor | - Loading on vessel |
| - Export Packing | - Ocean/Air Freight |
| - Loading Charges | - Charges on arrival at Destination |
| - Inland Freight | - Duty, Taxes & Customs Clearance |
| - Terminal Charges | - Delivery to Destination |

NOTES:

FOB FREE ON BOARD

When goods have been delivered over the ship's rail at the named port of shipment.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|---------------------|-------------------------------------|
| - Warehouse storage | - Forwarder's fees |
| - Warehouse labor | - Ocean/Air Freight |
| - Export packing | - Charges on arrival at Destination |
| - Loading Charges | - Duty, Taxes & Customs Clearance |
| - Inland Freight | - Delivery to Destination |
| - Terminal Charges | |
| - Loading on vessel | |

NOTES:

CFR COST AND FREIGHT

Seller pays the cost and freight necessary to bring the goods to the named port of destination, but the risks of loss and damage are transferred to the buyer over the ship's rail at the port of shipment.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight | <ul style="list-style-type: none">- Charges on arrival at Destination- Duty, Taxes & Customs Clearance- Delivery to Destination |
|---|---|

NOTES:

CIF COST, INSURANCE AND FREIGHT

Same as CFR, but the addition that the seller procure international insurance against the buyer's risk of loss or damage to the goods during the shipping.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight | <ul style="list-style-type: none">- Charges on arrival at Destination- Duty, Taxes & Customs Clearance- Delivery to Destination |
|---|---|

NOTES:

CPT Carriage Paid To

Pay the cost and freight for the carriage of the goods to the name place of destination, the risk of loss transfers to the buyer at the time that the goods have been delivered to the custody of the 1st carrier.

Seller Responsibilities: Buyer Responsibilities:

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination | <ul style="list-style-type: none">- Duty, Taxes & Customs Clearance- Delivery to Destination |
|---|---|

NOTES:

CIP Carriage and Insurance

Same as CPT, but the addition that the seller procure international insurance against the buyer's risk of loss or damage to the goods during shipping.

Seller Responsibilities: Buyer Responsibilities:

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination | <ul style="list-style-type: none">- Duty, Taxes & Customs Clearance- Delivery to Destination |
|---|---|

NOTES:

DAF Delivered at Frontier

When goods are made available, cleared for export at the named point and place at the frontier but before the customs border of the adjoining country. Not unloaded.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|--|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination. | <ul style="list-style-type: none">- Duty, Taxes & Customs Clearance- Delivery to Destination |
|--|---|

NOTES:

DES Delivered EX Ship

When goods are made available to the buyer on board the named ship, not cleared for import at the named port of destination. Not unloaded.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|--|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination. | <ul style="list-style-type: none">- Duty, Taxes & Customs Clearance- Delivery to Destination |
|--|---|

NOTES:

DEQ Delivered Ex Quay (Duty Unpaid)

When goods made available to the buyer on the quay (pier) at the named port of destination, not cleared for import, not unloaded.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination | <ul style="list-style-type: none">- Duty, Taxes & Customs Clearance- Delivery to Destination |
|---|---|

NOTES:

DDU Delivered Duty Unpaid

When the goods are made available to the buyer at the named place of destination in the country of importation (excl. duties, taxes, and any other official charges payable upon importation). Not cleared for import and not unloaded at the place of destination.

Seller Responsibilities: **Buyer Responsibilities:**

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination- Delivery to Destination | <ul style="list-style-type: none">- Duty, Taxes & Customs Clearance |
|---|---|

NOTES:

DDP **Delivered Duty Paid**

Same as DDU and the seller bears the risk of costs including duties, taxes and other charges including customs clearance for the importation, but not unloaded at the place of destination.

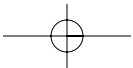
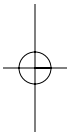
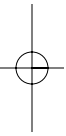
Seller Responsibilities: **Buyer Responsibilities:**

| | |
|---|---|
| <ul style="list-style-type: none">- Warehouse storage- Warehouse labor- Export packing- Loading Charges- Inland Freight- Terminal Charges- Loading on vessel- Forwarder's fees- Ocean/Air Freight- Charges on arrival at Destination- Delivery to Destination- Duty, Taxes & Customs Clearance | <ul style="list-style-type: none">- All responsibility rests on the seller of the goods |
|---|---|

NOTES:



REQUEST FOR QUOTATION



BASSWOOD



Request for Quotation

Accurate information is an essential ingredient in requesting bids and securing orders. You must understand the complete scope of the project and there are certain items that have be considered to provide and receive a responsible, complete quotation.

The following pages demonstrate a sample Request For Quotation. These sample forms include the necessary components to most lumber sales. We've provided a completed sample form for your review and there is also a blank form that you can use for your own projects.

>>>



LUMBER QUOTATION FORM

TO:

FROM:

Species:

Thickness:

Dryness:

Grade:

Width:

Length:

Quantity:

Delivery Date:

FOB Point/Port of Discharge:

Incoterms:

Payment Terms:

Authorized Signature: _____ Date: _____

Specifications:

LUMBER QUOTATION FORM

TO:

Fred Green
 Sales Manager
 ABC Lumber Company
 100 First Street
 Pittsburgh, PA 01234
 412-123-4567
 412-345-6700
 Fax 412-345-6789

FROM:

John Smith
 Purchasing Manager
 Specialty Hardwood Cabinets
 900 Main Street
 Antwerp, Belgium
 707-123-4567
 707-345-6700
 Fax 707-345-6789

Species: Red Oak
 Thickness: 4/4 and 8/4
 Dryness: Kiln Dried: 6% to 8%
 Grade: #1 Common
 Width: 4" and wider
 Length: 4' and longer

Quantity: 5x40' per month
 Delivery Date: by August 1, 2008
 FOB Point/Port of Discharge: Antwerp, Belgium
 Incoterms: C.I.F.
 Payment Terms: Irrevocable L/C
 Authorized Signature: John Smith Date: 06/01/08

Specifications:

Green end paint, export strapping, HT skids, export tallies

CONTRIBUTORS

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& Development Commission**

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www.sapdc.org
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Group, Inc. (AHUG)**

PO Box 133
Kane, Pennsylvania 16735
www.growthevote.org/ahug
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**North Central Pennsylvania Regional
Planning & Development Commission**

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www.ncentral.com
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**Northern Tier Regional Planning
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www.northerntier.org
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**U.S. Commercial Service
U.S. Department of Commerce**

425 6th Avenue, Suite 2950
Pittsburgh, PA 15219-1819
www.buyusa.gov/pittsburgh
Telephone: 412-644-2815



**Pennsylvania Hardwoods
Development Council**

2301 North Cameron Street
Harrisburg, Pennsylvania 17110
<http://www.agriculture.state.pa.us/>
Telephone: 717.772.3715



COMPANIES

The following companies provided information contained in this booklet:

Helsel Lumber Mill

3446 Johnstown Road
Rt 164 – Blue Knob
Duncansville, PA 16635
www.helsellumber.com
Telephone: 814-696-0869



Babcock Lumber Company

P.O. Box 520
Roaring Run Road
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www.babcocklumber.com
Telephone: 724-593-6124



Bedford Forest Products, Inc

202 Barclay Street
Bedford, PA 15522
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One Planet

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Pittsburgh, PA 15209
www.one-planet.net
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**For more information on
Pennsylvania Hardwoods
please contact the
company/organization below.**

HARD MAPLE

**For additional copies of the guide contact:
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814-949-6228**

