

Glossary

Airdry—See moisture content.

Air drying—The process of drying green lumber by exposure to prevailing atmospheric conditions.

Annual growth ring—The growth layer added to the tree each year in temperate climates or each growing season in other climates; each ring includes earlywood and latewood.

Bark—Outer layer of a tree, which consists of a thin, living inner part and a dry, dead outer part that is generally resistant to moisture movement.

Board—(1) Yard lumber that is less than 2 in. (50 mm) thick and ≥ 2 in. wide. (2) A term usually applied to 1-in.- (25.4-mm-) thick lumber of all widths and lengths.

Bole—The stem or trunk of a tree of size sufficient to yield lumber, veneer, or poles.

Bolt—(1) A short section of a tree trunk or limb, (2) a short log of a length suitable for peeling in a lathe for veneer, or (3) a short portion of a log prepared for production of shingles, staves, etc.

Bow—The distortion of a piece of lumber in which there is a deviation in a direction perpendicular-to-the- flat face from a straight line from end to end of the piece.

Burl—(1) A hard, woody outgrowth on a tree, more or less rounded in form, usually resulting from the entwined growth of a cluster of adventitious buds; (2) in wood or veneer, a localized severe distortion of the grain generally rounded in outline, usually resulting from overgrowth of dead branch stubs, varying from less than a half inch to several inches in diameter; frequently includes one or more clusters of several small contiguous conical protuberances, each usually having a core of pith but no appreciable amount of end grain (in tangential view) surrounding it.

Cambium—The layer of tissue between the bark and wood that repeatedly subdivides to form new wood and bark cells.

Canal, resin—See Resin canal.

Cell—In wood anatomy, a general term for the minute units of wood structure having distinct cell walls and cell cavities. Includes tracheids, parenchyma, and other elements of diverse structure and function.

Cellulose—The carbohydrate that is the principal constituent of wood and forms the framework of the wood cells.

Characteristic—A distinguishing feature or trait.

Check—*Syn:* Cracks, drying check, checking. A separation of the wood fibers within or on a log, timber, lumber, or other wood product resulting from tension stresses set up during drying, (usually the early stages of drying).

Chemical Brown Stain—A chemical discoloration of wood, which can occur during the air drying or kiln drying of several softwood species, caused by the concentration and modification of extractives.

Clear wood—Wood without knots, defects, or imperfections.

Collapse—The flattening of single cells or rows of cells during the drying or pressure treatment of wood, characterized by a caved-in or corrugated appearance.

Compression parallel to grain—Compression, endwise (parallel to the grain). The imposition of a compressive stress that acts in a direction parallel to the grain of the wood, as in a column.

Compression perpendicular to grain—Compression, sidewise (perpendicular to the grain). The imposition of a compressive stress that acts in a direction approximately perpendicular to the grain of the wood, as in a railroad tie.

Compression wood—Abnormal wood formed on the lower side of branches and inclined trunks of softwood trees. Compression wood is identified by its relatively wide annual rings (usually eccentric when viewed on cross section of branch or trunk), relatively large amount of latewood, sometimes more than 50% of the width of the annual rings in which it occurs, and its lack of demarcation between earlywood and latewood in the same annual rings. Compression wood shrinks excessively lengthwise when compared with normal wood.

Conifer—A tree belonging to the order Coniferae, usually evergreen, with cones and needle-shaped or scale-like leaves, and producing wood known commercially as “softwood.”

Crook—A distortion of a piece of lumber in which there is a deviation in a direction perpendicular to the edge from a straight line from end to end of the piece.

Cross section—*Syn*: Transverse section. A section of a board or log taken at right angles to the grain.

Cup—A form of board warp in which there is a deviation from a straight line across the width.

Cut stock—A term for softwood lumber, indicating that the product generally has been manufactured to dimensions suitable for a fabricating operation with little additional processing required.

Decay—*Syn*: Rot, dote. The decomposition of wood substance by fungi. In advanced (or typical) decay, destruction is readily recognized because the wood has become punky, soft and spongy, stringy, ring-shaked, pitted, or crumbly. Decided discoloration or bleaching of the rotted wood is often apparent.

Advanced (or typical) decay—the older stage of decay in which the destruction is readily recognized because the wood has become punky, soft and spongy, stringy, ring-shaked, pitted or crumbly. Decided discoloration or bleaching of the rotted wood is often apparent.

Early (or incipient) decay—refers to the stage at which the decay has not proceeded far enough to soften or otherwise perceptibly impair the hardness of the wood. Early decay is usually accompanied by a slight discoloration or bleaching of the wood.

Defect—An irregularity or imperfection in a tree, log, bolt, or lumber that reduces its volume or quality or lowers its durability, strength, or utility value. Defects may result from knots and other growth conditions and abnormalities, insect or fungus attack, and milling, drying, machining, or other processing procedures.

Density—The weight of a body per unit volume, usually expressed in pounds per cubic foot (grams per cubic centimeter). In wood, density changes relative to moisture content.

Discoloration—*Syn*: Stain. Change in the color of lumber resulting from fungal and chemical stains, weathering, or heat treatment.

Dry—Seasoned: in softwood lumber, the abbreviation S-Dry means not in excess of 19% moisture content at time of surfacing, in accordance with recognized standards.

Dry-bulb temperature—The temperature indicated by the dry-bulb thermometer of a psychrometer.

Dry kiln—A room, chamber, or tunnel in which the temperature and relative humidity of air circulated through parcels of lumber and veneer govern drying conditions.

Drying—The process of removing moisture from wood to improve its serviceability in use.

Drying or kiln schedule—The prescribed schedule of dry-bulb temperature and wet-bulb temperature or relative humidity used in drying; sometimes expressed in terms of wet-bulb depression or equilibrium moisture content (EMC). In kiln drying, air velocity is an important aspect.

Durability—A general term for permanence or resistance to deterioration. Frequently used to refer to the degree of resistance of a species of wood to attack by wood-destroying fungi under conditions that favor such attack. In this connection, the term “decay resistance” is more specific.

Earlywood—*Syn*: Springwood. Wood formed during the early period of annual growth; usually less dense and mechanically weaker than wood formed later.

Equilibrium moisture content (EMC)—Wood moisture content at which it neither gains nor loses moisture to the surrounding air.

Extractives—Substances in wood, not an integral part of the cellular structure, that can be removed by solution in hot or cold water, ether, benzene, or other solvents that do not react chemically with wood substances.

Figure—The pattern produced in a wood surface by annual growth rings, rays, knots, deviations from regular grain such as interlocked and wavy grain, and irregular coloration.

Flatsawn—Lumber sawed in a plane approximately perpendicular to a radius of the log.
See Grain.

Fungi—Low forms of plants consisting mostly of microscopic threads that may traverse wood in all directions, converting the wood to materials the plants use for their own growth. Fungi cause decay and staining of lumber.

Fungicide—A chemical that is toxic to fungi.

Grade—A classification or designation of the quality of manufactured pieces of wood or logs and trees.

Grain—The direction, size, arrangement, appearance, or quality of the fibers in lumber. When used with qualifying adjectives, the term designates the orientation of fibers and/or growth rings in lumber.

Close grain—(1) narrow, inconspicuous annual rings. The term is sometimes used to designate wood having small and closely spaced pores, but, in this sense, the term “fine textured” is more often used. (2) in stress grading, wood averaging on one end or the other of each piece not less than 6 nor more than 30 annual rings per inch. Pieces averaging at least 5 or more than 30 rings per inch are accepted as close grain if containing a third or more of latewood.

Coarse grain—wide conspicuous annual rings in which there is considerable difference between earlywood and latewood. The term is sometimes used to designate wood with large pores, such as oak, ash, chestnut, and walnut, but, in this sense, the term “coarse textured” is more often used.

End grain—The ends of wood pieces that are cut perpendicular to the fiber direction.

Flat grain—*Syn:* Flatsawn, plain grain, plainsawn, tangential cut. Lumber sawn or split in a plane approximately perpendicular to the radius of the log. Lumber is considered flatgrained when the annual growth rings make an angle of less than 45° with the surface of the piece.

Medium grain—Used in stress grading to denote wood averaging on one end or the other of a piece not less than four annual rings per inch.

Straight grain—Lumber in which the fibers and other longitudinal elements run parallel to the axis of a piece.

Green lumber—(1) In general, lumber as cut from freshly felled trees. (2) In accordance with the American Softwood Lumber Standard, lumber containing >19% moisture content.

Green volume—Cubic content of green wood.

Growth ring—A layer of wood (as an annual ring) produced during a single period of growth.

Growth rate—The rate at which a tree has laid on wood, measured radially in the tree trunk or in the radial direction in lumber. The unit of measure in use is the number of annual growth rings per inch.

Hardwood—Generally, a botanical group of trees that has broad leaves (e.g., oak, elm, basswood); in contrast to the conifers or softwoods. Also, the wood produced from such trees. (The term has no reference to the actual hardness of the wood.)

Heartwood—The inner layers of wood in growing trees that have ceased to contain living cells and in which the reserve materials (e.g., starch) have been removed or converted into resinous substances. Heartwood is generally darker than sapwood, although the two are not always clearly differentiated.

Infection—The invasion of wood by fungi or other micro-organisms.

Infestation—The establishment of insects or other animals in wood.

Juvenile wood—The initial wood formed adjacent to the pith, often characterized by lower specific gravity, less strength, greater longitudinal shrinkage, and different microstructure than that of mature wood.

Kiln—A chamber or tunnel used for drying and conditioning lumber, veneer, and other wood products in which the temperature and relative humidity are controlled.

Kiln drying—The process of drying lumber in a closed chamber in which the temperature and relative humidity of the circulated air can be controlled.

Knot—That portion of a branch or limb that has been surrounded by subsequent growth of the wood of the trunk or other portions of the tree. A knot hole is merely a section of the entire knot; its shape depends upon the direction of the cut.

Latewood—*Syn*: Summerwood. The portion of the annual growth ring that is formed after the earlywood formation has ceased. Latewood is usually denser and mechanically stronger than earlywood.

Lumber—The product of the sawmill and planing mill that is not further manufactured except by sawing, resawing, passing lengthwise through a standard planing machine, cross cutting to length, and matching.

Lumber, boards—Lumber less than 2 in. (50 mm) thick and 2 or more in. wide.

Lumber, dimension—Lumber from 2 in. (50 mm) up to 5 in. (127 mm) thick and 2 or more in. wide, includes joists, rafters, studs, planks, and small timbers.

Lumber, timbers—Lumber ≥ 5 in. (≥ 127 mm) in the smallest dimension. Includes beams, stringers, posts, caps, sills, girders, and purlins.

Lumen—In wood anatomy, the cell cavity.

Moisture content, wood—Weight of water contained in the wood, expressed as a percentage of the weight of the oven-dry wood.

Air dried—Wood having an average moisture content of 25% or less, with no material more than 30%.

Green—Freshly sawn wood or wood that essentially has received no formal drying.

Kiln dried—Dried in a kiln or by some other refined method to an average moisture content specified or understood to be suitable for a certain use. Kiln-dried lumber can be specified to be free of drying stresses.

Partly air-dried—Wood with an average moisture content between 25% and 45%, with no material greater than 50%.

Shipping dry—Lumber partially dried to prevent stain or mold in brief periods of transit, preferably with the outer 1/8 in. (3 mm) dried.

Mold—A fungus growth on lumber at or near the surface, not typically resulting in deep discolorations.

Naval stores—A term applied to the oils, resins, tars, and pitches derived from oleoresin contained in, exuded by, or extracted from trees chiefly of the pine species (genus *Pinus*) or the wood of such trees.

Old growth—Timber in or from a mature, naturally established forest. When the trees have grown during most, if not all, of their lives in active competition with other trees for sunlight and moisture, the timber is usually straight and relatively free of knots.

Oven-dry—Term used to describe wood that has been dried in a ventilated oven at 100°F to 105°F (37°C to 40°C) until there is no additional loss in weight.

Pith—The small, soft core at the original center of a tree around which the wood forms.

Plainsawn—Another term for flatsawn or flatgrained lumber.

Post—Short timber used in upright position for supporting structures of fencing. It may be round, split, or sawn.

Preservative—Any substance that is effective, for a reasonable length of time, in preventing the development and action of wood-rotting fungi, borers of various kinds, and harmful insects that deteriorate wood.

Pressure-treated wood—Wood treated by applying pressure to force the preservative into the wood.

Pulpwood—Any wood cut or prepared primarily for the production of wood pulp.

Quartersawn—Another term for edge-grained lumber, showing the radial surface of the wood.

Radial surface—A longitudinal surface or plane extending wholly or in part from the pith to the bark.

Ray—A ribbon-like grouping of cells extending radially across the grain, so oriented that the face of the ribbon is exposed as a fleck on the surface.

Refractory—In wood, implies difficulty in processing or manufacturing by ordinary methods, difficulty in drying, resistance to penetration of preservatives, or difficulty in machining.

Relative humidity—The amount of water vapor in the atmosphere, expressed as a percentage of the maximum quantity that the atmosphere could hold at a given temperature. The amount of water vapor that can be held in the atmosphere increases with the temperature.

Resin canal (or duct)—An intercellular passage that contains and transmits resinous materials. Resin canals extend vertically or radially in a tree.

Ring, annual growth: *See* Annual growth ring.

Ring failure (or separation)—A separation of the wood during drying. Occurs along the grain and parallel to the annual rings, either within or between rings; called honeycomb and ring check in some localities. *See* Shake.

Rot—Decay.

Sap—The moisture in green wood, containing nutrients and other chemicals in solution.

Sapwood—The outer zone of wood in a tree, next to the bark. In a living tree, sapwood contains some living cells (the heartwood contains none) as well as dead and dying cells. In most species, it is lighter colored than the heartwood. In all species, it lacks resistance to decay.

Season—To dry lumber and other wood items to the desired final moisture content and stress condition for their intended use.

Second growth—Timber that has grown after the removal, whether by cutting, fire, wind, or other agency, of all or a large part of the previous stand.

Shake—A separation along the grain, the greater part of which occurs between and within growth rings. Found in stumps and ends of freshly cut logs and green lumber. *See* Ring failure.

Shear—A condition of stress or strain where parallel planes slide relative to one another.

Shingle—A thin, rectangular piece of wood with one end thinner than the other, which is lapped lengthwise to cover roofs and outer walls of buildings. Can be sawn or split.

Shook—A set of parts for assembling a barrel or packing box.

Shrinkage—The contraction of wood fibers caused by drying below the fiber saturation point. Shrinkage (radial, tangential, and volumetric) is usually expressed as a percentage of the dimension of the wood when green.

Sill—The lowest horizontal wood member of the framework of a construction (e.g., window, door, bridge).

Small timbers—A term used mostly to designate square or near square dimension and timber sizes >2 in. and <9 in. in nominal thickness.

Softwood—Generally, one botanical group of trees that, in most cases, have needle- to scale-like leaves; the conifers. Also, the wood produced by such trees. (The term has no reference to the actual hardness of the wood.)

Sound wood—Wood free from insect damage or any form of decay (incipient or advanced).

Species—A group of individual plants of a particular kind; that is, a group of individuals sharing many of the same characteristics. Species is lower in classification than the genus, but greater than the variety.

Specific gravity—The ratio of the oven-dry weight of a piece of wood to the weight of an equal volume of water at 39°F (4°C). Specific gravity of wood is usually based on the green volume and oven-dry weight.

Split—A separation of the wood parallel to the fiber direction, caused by the tearing apart of wood cells.

Springwood—*See* Earlywood.

Stain—A discoloration in wood that may be caused by micro-organisms, metal, or chemicals. The term also applies to materials used to impart color to wood.

Blue stain—A bluish or grayish discoloration of the sapwood caused by the growth of certain dark colored fungi on the surface and in the interior of the wood; made possible by the same conditions that favor the growth of other fungi.

Brown stain—A rich brown to deep chocolate brown discoloration of the sapwood of some pines caused by a fungus that acts much like blue stain fungi.

Chemical brown stain—A chemical discoloration of wood, which sometimes occurs during the air drying or kiln drying of several species, apparently caused by the concentration and modification of extractives.

Sap stain—*See* Stain.

Sticker stain—A brown or blue stain that develops in seasoning lumber where it has been in contact with the stickers.

Stem—The bole or trunk of a tree.

Stickers—Strips or boards used to separate the layers of lumber in a pile, thus improving air circulation.

Strength—The term in its broad sense includes all the properties of wood that enable it to resist different forces or loads. In its more restricted sense, strength may apply to any one of the mechanical properties.

Strength-reducing defects—Imperfections affecting strength, such as checks, compression wood, cross grain, decay, knots, shakes, and splits.

Stress—Force per unit of area.

Stud—One of a series of slender wood structural members used as supporting elements in walls and partitions.

Stump—The part of a tree (above and below ground) remaining after the main stem is cut off.

Summerwood—*See* Latewood.

Swelling—Increase in the dimensions of wood caused by increased moisture content. Swelling occurs tangentially, radially, and, to a lesser extent, longitudinally.

Tangential—Strictly, coincident with a tangent at the circumference of a tree or log or parallel to such a tangent. In practice, however, tangential often means roughly coincident with a growth ring. A tangential section is a longitudinal section through a tree or limb and is perpendicular to a radius. Flat-grained and plainsawn lumber are sawn tangentially.

Texture—A term often used interchangeably with grain; sometimes used to combine the concepts of density and degree of contrast between earlywood and latewood. In this publication, texture refers to the finer structure of the wood (*See* Grain) rather than the annual rings.

Transverse—Directions in wood at right angles to the wood fibers. Includes radial and tangential directions. A transverse section is a section through a tree or timber at right angles to the pith.

Treatment—The act or manner of treating wood; the quality of preservative or other substance specified or used to treat wood.

Tree—A woody plant having one well-defined stem and a more or less definitely formed crown, usually attaining a height of at least 8 ft.

Trunk—The main stem or bole of a tree.

Twist—A warp distortion caused by the turning or winding of the edges of a board so that the four corners of any face are no longer in the same plane.

Virgin growth—The original growth of mature trees.

Warp—Distortion in lumber causing departure from its original plane, usually developed during drying. Warp includes cup, bow, crook, twist, and kinks or any combination thereof.

Weathering—The mechanical or chemical disintegration and discoloration of the surface of lumber that is caused by exposure, light, the action of dust and sand carried by winds, and the alternate shrinking and swelling of the surface fibers with continual variation in moisture content brought by changes in the atmosphere. Weathering does not include decay.

Wet-bulb temperature—The temperature indicated by the wet-bulb thermometer of a psychrometer.

Wetwood—Green wood with an abnormally high moisture content that generally results from infections in living trees by anaerobic bacteria, but may also result from water logging during log ponding. Wetwood can occur in both softwoods and hardwoods; green lumber is usually difficult to dry without defects. Wood with this defect is also difficult to glue. Although difficult to recognize, wetwood is often characterized by a translucent, water-soaked appearance and a sour or rancid odor.

White-speck—In western softwoods, pockets of decay caused by the fungus *Fomes pini*.

Wide ring—A rate of growth of less than four annual rings per inch. A growth rate faster than that described by medium grain.

Wood—*Syn:* Xylem. The tissues of the stem, branches, and roots of a woody plant lying between the pith and cambium, serving for water conduction, mechanical strength, and food storage, and characterized by the presence of tracheids or vessels.

Wood-destroying organisms—Fungi, beetles, termites, carpenter ants, marine borers.

Wood, reaction—In wood anatomy, wood with more or less distinctive anatomical characteristics; formed in parts of leaning or crooked stems and branches. Reaction wood consists of tension wood in hardwoods and compression wood in softwoods.

Workability—The degree of ease and smoothness of cut obtainable with sharp hand or machine tools.

Xylem—The tissues of the stem, branches, and roots of a woody plant lying between the pith and cambium, serving for water conduction, mechanical strength, and food storage, and characterized by the presence of tracheids or vessels.

Appendix—Trade Name Index

Trade name	Scientific name
Alaska-cedar	<i>Chamaecyparis nootkatensis</i>
Atlantic white cedar	<i>Chamaecyparis thyoides</i>
Baldcypress	<i>Taxodium distichum</i>
Balsam fir	<i>Abies balsamea</i>
Black spruce	<i>Picea mariana</i>
California red fir	<i>Abies magnifica</i>
Cedar, Alaska	<i>Chamaecyparis nootkatensis</i>
Cedar, Atlantic white	<i>Chamaecyparis thyoides</i>
Cedar, Eastern Red	<i>Juniperus virginiana</i>
Cedar, Incense	<i>Libocedrus decurrens</i>
Cedar, Northern White	<i>Thuja occidentalis</i>
Cedar, Port-Orford-	<i>Chamaecyparis lawsoniana</i>
Cedar, Southern Red	<i>Juniperus silicicola</i>
Cedar, Western Red	<i>Thuja plicata</i>
Cypress, Bald	<i>Taxodium distichum</i>
Douglas-fir	<i>Pseudotsuga menziesii</i>
Eastern Hemlock	<i>Tsuga canadensis</i>
Eastern Redcedar	<i>Juniperus virginiana</i>
Eastern White Pine	<i>Pinus strobus</i>
Engelmann Spruce	<i>Picea engelmannii</i>
Fir, Balsam	<i>Abies balsamea</i>
Fir, California Red	<i>Abies magnifica</i>
Fir, Douglas-	<i>Pseudotsuga menziesii</i>
Fir, Grand	<i>Abies grandis</i>
Fir, Noble	<i>Abies procera</i>
Fir, Pacific Silver	<i>Abies amabilis</i>
Fir, Subalpine	<i>Abies lasiocarpa</i>
Fir, White	<i>Abies concolor</i>
Grand Fir	<i>Abies grandis</i>
Hemlock, Eastern	<i>Tsuga canadensis</i>
Hemlock, Mountain	<i>Tsuga mertensiana</i>
Hemlock, Western	<i>Tsuga heterophylla</i>
Incense Cedar	<i>Libocedrus decurrens</i>
Jack Pine	<i>Pinus banksiana</i>
Jeffrey Pine	<i>Pinus jeffreyi</i>
Juniper, Western	<i>Juniperus occidentalis</i>
Larch, Western	<i>Larix occidentalis</i>
Limber Pine	<i>Pinus flexilis</i>
Loblolly Pine	<i>Pinus taeda</i>
Lodgepole Pine	<i>Pinus contorta</i>
Longleaf Pine	<i>Pinus palustris</i>
Monterey Pine	<i>Pinus radiata</i>
Mountain Hemlock	<i>Tsuga mertensiana</i>
Noble Fir	<i>Abies procera</i>
Northern White Cedar	<i>Thuja occidentalis</i>
Pacific Silver Fir	<i>Abies amabilis</i>
Pacific Yew	<i>Taxus brevifolia</i>
Pine, Eastern White	<i>Pinus strobus</i>
Pine, Jack	<i>Pinus banksiana</i>
Pine, Jeffrey	<i>Pinus jeffreyi</i>
Pine, Limber	<i>Pinus flexilis</i>
Pine, Loblolly	<i>Pinus taeda</i>
Pine, Lodgepole	<i>Pinus contorta</i>
Pine, Longleaf	<i>Pinus palustris</i>

Pine, Monterey	<i>Pinus radiata</i>
Pine, Pitch	<i>Pinus rigida</i>
Pine, Pond	<i>Pinus serotina</i>
Pine, Ponderosa	<i>Pinus ponderosa</i>
Pine, Radiata	<i>Pinus radiata</i>
Pine, Red	<i>Pinus resinosa</i>
Pine, Sand	<i>Pinus clausa</i>
Pine, Shortleaf	<i>Pinus echinata</i>
Pine, Slash	<i>Pinus elliottii</i>
Pine, Spruce	<i>Pinus glabra</i>
Pine, Sugar	<i>Pinus lambertiana</i>
Pine, Table Mountain	<i>Pinus pungens</i>
Pine, Virginia	<i>Pinus virginiana</i>
Pine, Western White	<i>Pinus monticola</i>
Pinyon	<i>Pinus edulis</i>
Pitch Pine	<i>Pinus rigida</i>
Pond Pine	<i>Pinus serotina</i>
Ponderosa Pine	<i>Pinus ponderosa</i>
Port-Orford-Cedar	<i>Chamaecyparis lawsoniana</i>
Redcedar, Eastern	<i>Juniperus virginiana</i>
Redcedar, Southern	<i>Juniperus silicicola</i>
Redcedar, Western	<i>Thuja plicata</i>
Red Fir, California	<i>Abies magnifica</i>
Red Pine	<i>Pinus resinosa</i>
Red Spruce	<i>Picea rubens</i>
Redwood	<i>Sequoia sempervirens</i>
Sand Pine	<i>Pinus clausa</i>
Shortleaf Pine	<i>Pinus echinata</i>
Silver Fir, Pacific	<i>Abies amabilis</i>
Sitka Spruce	<i>Picea sitchensis</i>
Slash Pine	<i>Pinus elliottii</i>
Southern Redcedar	<i>Juniperus silicicola</i>
Spruce Pine	<i>Pinus glabra</i>
Spruce, Black	<i>Picea mariana</i>
Spruce, Engelmann	<i>Picea engelmannii</i>
Spruce, Red	<i>Picea rubens</i>
Spruce, Sitka	<i>Picea sitchensis</i>
Spruce, White	<i>Picea glauca</i>
Subalpine Fir	<i>Abies lasiocarpa</i>
Sugar Pine	<i>Pinus lambertiana</i>
Table Mountain Pine	<i>Pinus pungens</i>
Tamarack	<i>Larix laricina</i>
Virginia Pine	<i>Pinus virginiana</i>
Western Hemlock	<i>Tsuga heterophylla</i>
Western Juniper	<i>Juniperus occidentalis</i>
Western Larch	<i>Larix occidentalis</i>
Western Redcedar	<i>Thuja plicata</i>
Western White Pine	<i>Pinus monticola</i>
White Cedar, Atlantic	<i>Chamaecyparis thyoides</i>
White Cedar, Northern	<i>Thuja occidentalis</i>
White Fir	<i>Abies concolor</i>
White Pine, Eastern	<i>Pinus strobus</i>
White Pine, Western	<i>Pinus monticola</i>
White Spruce	<i>Picea glauca</i>
Yew, Pacific	<i>Taxus brevifolia</i>