

surfaces provide an excellent base for enamel and its lightness permits economies in supporting cords and tapes and ease of operation.

### Roof Decking

In recent years, roof decking has become one of Incense Cedar's favorite applications. The wood's natural fine insulation combines with its beauty and stability to make it extraordinarily suitable for this use.

### Grading

Incense Cedar lumber is graded under current published grading rules of the Western Wood Products Association. It is separated into Select, Common, Framing, Factory (Shop) and Pencil Stock grades. There are three Select grades - B & Better Select, C Select and D Select. They may be combined into a single grade of D Select & Better. Common grades are five in number ranging from No. 1 Common which contains all sound knotted stock and a minimum of season checks, light stain or equivalent characteristics down to No. 5 Common, the lowest recognized grade and one which admits all characteristics known in lumber provided the piece is of usable size and quality.

The first three Common grades are sometimes combined and shipped as No. 3 & Better Common. Framing and Factory lumber are graded according to the rules for all species published by the Association.

Incense Cedar Pencil Stock is graded under the rules published by the Association.

### Distribution

From mills located in California and southern Oregon, Incense Cedar is distributed throughout the United States. It is usually available in mixed cars together with an assortment of the woods from the Western Woods Regions for the convenience of the lumber buyer. To the consumer, it is available at many retail lumber yards.

For list of Incense Cedar lumber manufacturers, grading rules or further information, write to:

Western Wood Products Association  
Yeon Building  
Portland, Oregon 97204

Softness, straightness of grain and ease of whittling are combined in Incense Cedar to fit it ideally to pencil manufacture.



# Incense Cedar

facts about

Incense Cedar lumber, one of the most durable and decay-resistant of native American woods, is produced from a forest tree found in California, southern Oregon and western Nevada. General John Fremont discovered the tree in 1947 in the upper Sacramento valley during one of his expeditions through the West.

The total sawtimber stand of Incense Cedar in its three-state growth region is estimated as thirteen billion board feet. Post-war lumber production averages approximately 70 million board feet annually. The lumber is used for general building purposes, in the manufacture of pencils and for various fabricated products such as Venetian blinds, toy stock, etc.

Incense Cedar is generally known in the lumber industry as one of the 12 woods of the Western Woods Region and is frequently available in mixed car shipments together with an assortment of one or more of the pines and others of its sister species.

### Botanical Classification

Incense Cedar's botanical name is *Libocedrus decurrens*. Under average conditions, mature trees are 20 to 30 inches in diameter and 75 to 110 feet in height. Unusual specimens up to 150 feet tall and six feet in diameter are sometimes found.

The tree is rarely found in pure stands but generally grows intermingled with Ponderosa Pine, Sugar Pine, Douglas Fir and White Fir. Live trees of sawtimber size are subject to fungus attack that causes cavities in the heartwood but the fungus action ceases when the trees are felled so the lumber is not thereafter imperiled.

Incense Cedar is a very handsome tree of columnar or pyramidal form usually growing on mountain slopes from 2500- to 7000-foot elevations. It produces some seed each year with an abundance approximately every third year. The seed has relatively large wings and is light in weight which gives it wide distribution from the parent tree. A pungent odorous resin in the wings which acts as rodent-repellent favors its germination.

Foliage on Incense Cedar trees is similar to other cedars-the leaves are 1/16 to 1/4-inch long, scale-like and closely appressed to the flattened branchlets that are arranged on one plane to form flat sprays. They are yellow-green in color.

Trees at maturity have a rapidly tapering trunk with a buttressed, fluted base. The bark, cinnamon-colored and deeply furrowed, is thick on older trees and offers considerable resistance to fire. Cones are 3/4 to 1-inch long and reddish-brown in color.

### Properties

The wood of Incense Cedar is non-resinous. Sapwood is white or cream-colored and the heartwood is light brown or light reddish-brown. Annual rings are moderately distinct and in average material there are generally 20 to 30 per inch.

The rich brown-red color and small, sound knots of Incense Cedar make it a perfect material for distinctive paneling.

Incense Cedar trees average about 20 to 30 inches in diameter but unusual specimens are sometimes found up to six feet through and 150 feet tall.

Texture is fine and uniform with small, evenly arranged cells. The wood has a spicy odor characteristic of all cedars. It weighs 24 pounds per cubic foot at 12 percent moisture content, making it one of the lightest of all softwoods, and has a specific gravity of 0.37.

Perhaps its outstanding characteristic, and one which leads to its widespread use in a variety of lumber products, it is exceptional resistance to decay and high durability when exposed to weather. The Forest Products Laboratory classes Incense Cedar with woods that hold paint longest and suffer least when protection against weathering becomes inadequate.

Second only to decay resistance in lumber importance is the high dimensional stability of Incense Cedar. Its volumetric shrinkage when dried from a green state down to 12 to 15 percent moisture content is only 3.8 percent-close to the bottom of 3.4-6.6 range of commercially important softwoods.

Incense Cedar has a very low "K factor" (thermal conductivity in British thermal units per hour) which makes it one of the finest wood insulators and leads to its use for sheathing, siding, floor and roof decking and other building uses where protection against heat and cold is important.

The species is rated in the topmost of three groups in workability with hand tools and it also machines smoothly and easily to smooth, even surfaces. It glues easily under virtually every gluing condition, fitting it for use as pencil stock, into which a considerable portion of the annual production goes.

Care is recommended in selection of fasteners; blunt-point nails are recommended. Nail-holding ability is good in relation to its light weight.

The heartwood of Incense Cedar requires no preservative against decay, but the sapwood, in common with all other species, requires treating when whole logs are used in contact with the ground as poles or posts. The sapwood is easily penetrated with all standard commercial preservatives.

## Uses

Incense Cedar is manufactured into lumber, pencil stock and posts. The lumber is used for a variety of building purposes, including framing and finish, and for re-manufacture into Venetian blinds, toy stock and many specialty products.

Bulk of the lumber production is in Common grades with some Selects, Dimension and Factory (Shop) grades available. The lumber is generally available in 1" thickness in lengths from 6' to 20'. Widths run 4" and wider in specified and random widths.

## Siding

The extreme decay resistance of Incense Cedar, coupled with its fine dimensional stability and high insulation quality, has made it one of the country's better siding materials. Its light weight and easy workability lead to marked economies in handling on the job site, resulting in lower construction costs. Superior weathering characteristics make it especially

adaptable to log cabin siding.

The ready paintability and the smooth, silken surfaces to which Incense Cedar is machined combine to form handsome exteriors. The wood may be painted or stained in any of the vast variety of finishes in the modern painter's color array.

Incense Cedar siding is produced in a wide range of patterns to fit any architectural need. Builders, carpenters, architects, dealers and homeowners hail it as a fine building material.

## Sheathing and Subflooring

For these two important building purposes, insulation, dimensional stability and resistance to decay are primary consideration. Sheathing and subflooring must stay in place, must provide as much insulation as possible and must endure under alternate drying and moisture conditions caused by condensation either from interior heating equipment or from the ground in the case of basementless homes.

Incense Cedar provides all three qualities in the fullest measure obtainable from any wood material. Its workability and light weight furnish bonus qualities in handling during construction. Especially recommended are the No. 3 and No. 4 Common grades for they possess ample strength for the purposes involved at pronounced economies.

The species is also produced in dimension lumber for studs, plates, posts, headers, fire stops and the multitude of other miscellaneous articles in construction use.

## Paneling and Interior Finish

The rich, brown-red color, small, sound knots and graceful grain combine to form in Incense Cedar an unusual and distinctive paneling and woodwork material. In its clear grades, particularly, Incense Cedar has gained favor for interiors in the clean-lined modern style.

For paneled ceilings or walls it carries the inherent features of wood's beauty, resistance to day-by-day wear and easy maintenance. Its excellent paint-holding property and stain-receptive surfaces provide the basis for the user's choice of an infinite variety of color tones. Incense Cedar's high dimensional

stability and excellent insulation quality furnish additional features to the home where it is installed. It is available in a broad range of paneling patterns to express virtually any decoration theme desired.

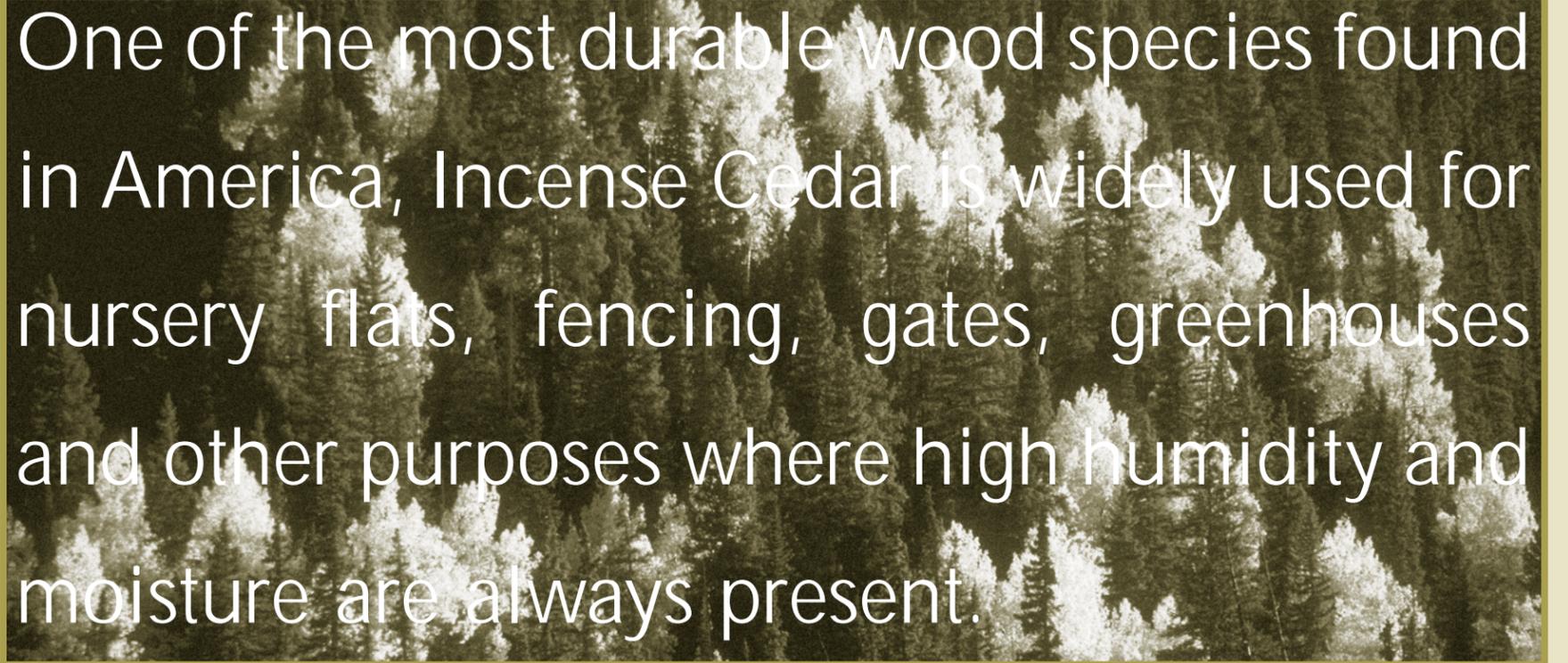
A novel and increasingly popular paneling article is "Pecky Cedar," manufactured from pieces containing small apertures where the live tree had been attacked by parasite vegetation. The vegetation dies and disappears when the tree is felled, leaving no threat to the lumber or the home where it is used.

The pleasant fragrance of Incense Cedar enhances its value as closet lining.

is ever-present, the species gives lasting services with little or no maintenance. Lower common grades are particularly efficient and economical for most miscellaneous purposes.

For greenhouse benches, flower boxes, nursery flats, boardwalks, mud sills, posts, rafters and window sash, it is unsurpassed in durability. Ice houses, irrigation and drain boxes, grave lining, casket shoo, shallow ditch shoring and duck boards are other uses for Incense Cedar where decay conditions are always present.

Fence boards, pickets, chicken houses, rabbit hutches, bird houses, duck boards, garden summer houses, flower and garden stakes, trellises, beach dressing



One of the most durable wood species found in America, Incense Cedar is widely used for nursery flats, fencing, gates, greenhouses and other purposes where high humidity and moisture are always present.

Exceptional dimensional stability, light weight and ability to take paints and varnishes well are reasons for widespread use of Incense Cedar in Venetian blinds, fascias, picture frames and mouldings.

## Pencil Stock

Straightness of grain, softness and ease of whittling fit Incense Cedar ideally to the manufacture of pencils. The lumber is first seasoned to a low moisture content, then cut into squares 8" or multiples of 8" in length and equal to the thickness of the piece in width. The light weight and easy workability of the species add to its desirability for pencils.

## Miscellaneous

Again, the superior resistance to decay of Incense Cedar is the primary reason for its use in a multitude of miscellaneous building purposes around the home, farm or in industry. Where humidity is high or moisture

cabins and cabanas, and small boat houses virtually demand the decay-resistance of Incense Cedar.

For hog houses, feed troughs and the many other types of small farm outbuildings and utilities, Incense Cedar furnishes years of trouble-free service.

As sheathing under stucco or brick veneer construction where condensation is heavy, the species is particularly suitable.

The ease with which Incense Cedar can be split to post sizes and, once more, its durability; account for its popularity for fence posts, short poles and shakes. Its light weight and working ease make it adaptable to the manufacture of toys and other specialty products. A large proportion of Incense Cedar annually is fabricated into Venetian blinds where its smooth