technology transfer *fact sheet*

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Tilia americana
Family: Tilaceae
American Basswood

Basswood (*Tilia* spp.), also known as lime in England and Europe, consists of 30 to 35 species native to Eurasia [30] and North America [4]. All species look alike microscopically. A favorite wood for carvings, such as those by Grinling Gibbons (England, 1670-1710). The word *tilia* is the classical Latin name, probably from the Greek *ptilon*, wing, referring to the wing like bract of flower clusters.

North American species are:

*Tilia americana**-American basswood, American limetree, American linden, American whitewood, Amerikaanse linde, Amerikanische linde, Amerikansk lind, bass-tree, basswood, bee-tree, black limetree, gray linden, lein, limetree, linden, linn, linn-tree, spoonwood, svart-lind, tiglio americano, tiglo americano, tilleul americain, tilleul noir, tilo americano, white linn, whitewood, wickup, yellow basswood.

*Tilia caroliniana**-Amerikaanse linde, Amerikansk lind, basswood, Carolina basswood, Carolina linde, Carolina linden, downy basswood, Florida basswood, Florida linden, linden, southern basswood, tiglio Americano, tilleul Americain, tilleul de Caroline, tilo Americano, tilo de Carolina.

*Tilia heterophylla**-American lime, Amerikaanse linde, Amerikansk lind, basswood, bee-tree, beetree linden, Tiglio Americano, Tilleul Americain, Tilo Americano, Tuleul Americain, white basswood.

* commercial species

Distribution
The natural range of American basswood is from southwestern New Brunswick to central Quebec, Ontario and southeast Manitoba, south to eastern North Dakota and northeastern Oklahoma to northern Arkansas and Tennessee, east to North Carolina, and north to Pennsylvania and New Jersey.

The Tree
American basswood grows to co-dominance in association with sugar maple and red oak/white ash forests, while it is a minor component in other forest types. It can grow to an elevation of 5,000 ft (1524 m) in the Appalachians. The tree can reach a height of 120 ft (37 m), with a diameter of almost 5 ft (1.5 m). Basswood may grow to be more than 140 years old. The trees have straight trunks, with most of the bole limb-free, and narrow, short crowns. The trees grow as a cluster of stems, developed from stump sprouts. The bark is initially dark green and shiny, developing to a grayish color with deep furrows.

The Wood
General
The sapwood of basswood is white to cream, while the heartwood is pale to reddish brown, with darker streaks. When dry, the wood has no characteristic odor or taste. The wood is soft and light, with a fine, even texture.

Mechanical Properties (2-inch standard)

	Specific gravity	MOE x10^6 lbf/in^2	MOR lbf/in^2	Compression Parallel lbf/in^2	Compression Perpendicular lbf/in^2	WML[a] in-lbf/in^3	Hardness lbf	Shear lbf/in^2
Green	0.32	1.04	5,000	2,220	170	5.3	250	600
Dry	0.37	1.46	8,700	4,730	370	7.2	410	990

[a]WML = Work to maximum load.
Reference (98).

Drying and Shrinkage

	Percentage of shrinkage (green to final moisture content)		
Type of shrinkage	0% MC	6% MC	20% MC
Tangential	9.3	7.4	3.1
2.2	6.6	5.3	2.2
15.8	15.8	12.6	5.3

References: 0% MC (98),
6% and 20% MC (90).

Kiln Drying Schedules[a]

	Stock				
Condition	4/4, 5/4, 6/4	8/4	10/4	12/4	16/4
Standard	T12-E7	T10-E6	–	–	–
Lighter color	T9-E7	T7-E6	–	–	–

[a]References (6, 86).

Working Properties: American basswood works easily with tools, making it a premier carving wood. It is poor in holding nails and in bending, but moderate in gluing and good for holding paint or printing inks.

Durability: Rated as slightly or nonresistant to heartwood decay.

Preservation: No information available at this time.

Uses: Lumber, veneer, plywood, carvings, pulp, decoys, fiber products, furniture stock, caskets, mobile homes, shade rollers, signs, toys, sporting goods, wooden ware, and novelties.

Toxicity: No information available at this time.

Additional Reading and References Cited (in parentheses)

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