technology transfer fact sheet



Sambucusspp. Family: Caprifoliaceae Elder

The genus *Sambucus* is composed of about 30 species, native to North America, Asia, Europe, northern Africa, the West Indies and the Andean region of South America. They are naturalized in areas The word sambucus is the classical Latin name, believed to be from the Greek name of a stringed musical instrument made of the wood.

Sambucus callicarpa-California Tree Elder, Coast Red Elder, Pacific Red Elder Redberry Elder, Red Elderberry

Sambucus canadensis-American Elder Blackberry Elder, Common Elder, Common Elderberry

Sambucus canadensis var. canadensis-American Elder (typical)

Sambucus canadensis var. laciniata-Florida Elder, Florida Elderberry, Gulf Elder, Southern Elder

Sambucus cerulea-Blueberry Elder, Blue Elder, Blue Elderberry, New Mexico Elder

Sambucus mexicana-Arizona Elder, Desert Elderberry, Mexican Elder, Mountain Elder, New Mexico Elder, Sauco, Tapiro

Sambucus velutina-Velvet Elder, Velvetleaf Elder

Distribution

North America

The Tree

Elder trees are woody plants (trees to shrubs) with large, opposite leaves which may be evergreen or deciduous and are pinnately compound. They produce clusters of small white to pink flowers in flat topped clusters (like queen Anne's lace), which later develop into berry like fruits. Elders can attain a height of 50 feet, with diameters of 1 foot. The bark is thick, with irregular ridges or scales and is dark brown to reddish brown.

The following is for Blue Elder:

The Wood

General

The sapwood of Elder is white, while the heartwood is a yellowish brown. It has a low luster and no odor or taste. It is light weight, brittle and of medium texture.

Mechanical Properties (2-inch standard)

				Con	Compression				
	Specific gravity	$\begin{array}{c} MOE \\ x10^6 \ lbf/in^2 \end{array}$	MOR lbf/in²	Parallel lbf/in²	Perpendicular lbf/in²	$\begin{array}{c} WML^a\\ in\text{-lbf/in}^3 \end{array}$	Hardness lbf	Shear lbf/in²	
Green	0.46	0.90	6,600	3,040	520	8.8	720	1,090	
Dry	0.52	1.03	9,200	5,090	760	9.9	840	_	
aWML = Work to maximum load. Reference (59)									

Drying and Shrinkage

	Percentage of shrinkage (green to final moisture content)				
Type of shrinkage	0% MC	6% MC	20% MC		
Tangential	9.0	-	-		
Radial	4.4	_	_		
Volumetric	15.6	_	-		
References: (59)					

Kiln Drying Schedules: No information available at this time. **Working Properties:** Elder is easy to work and finishes smoothly.

Durability: Elder is not durable.

Preservation: No information available at this time.

Uses: Twigs with pith removed were used for "spiles", the pipes used for getting maple sap to the bucket. Turnery.

Toxicity: The whole plant is poisonous (54)

Additional Reading and References Cited (in parentheses)

6. Boone, R.S., C.J. Kozlik, P.J. Bois & E.M. Wengert. 1988. Dry kiln schedules for USDA Forest Service, FPL General Technical Report FPL-GTR-57.	cial woods - temperate and tropical.
29. Elias, T.S. 1980. The complete trees of North America, field guide and natural history.	Van Nostrand Reinhold Co., New
York, 948 pp.	,
54. Lampe, Dr. Kenneth F.; McCann, Mary Ann. 1985. AMA Handbook of Poisonous and	Injurious Plants. American
Medical Assoc., Chicago, IL.	v
55. Little, Jr., E.L.1979. Checklist of United States trees (native and naturalized). USDA	Forest Service, Ag. Handbook No.
541, USGPO, Washington, DC.	5
59. Markwardt, L.J. and T.R.C. Wilson. 1935. Strength and related properties of woods	grown in the United States. USDA
Forest Service, Tech. Bull. No. 479. USGPO, Washington, DC.	
68. Panshin, A.J. and C. de Zeeuw. 1980. Textbook of Wood Technology, 4th Ed., McGraw	-Hill Book Co., New York, 722 pp.
74. Record, S.J. and R.W. Hess. 1943. Timbers of the new world. Yale University Press,	New Haven, 640 pp.
86. Simpson, W.T. 1991. Dry kiln operator's manual. USDA Forest Service, FPL Ag. Handboom	ok 188.
90. Summitt, R. and A. Sliker. 1980. CRC handbook of materials science. Volume 4, wood.	CRC Press, Inc., Boca Raton, FL.
459 pp.	
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