



Let's learn more about eastern spruce

EASTERN SPRUCE is the common name given to a grouping of spruces, to include red (*picea rubens*), white (*picea glauca*), and black (*picea mariana*). Trees within the Eastern Spruce grouping are evergreen, coniferous and grow in a pyramid-shape, with needle-like leaves arranged singly on all sides of its twigs and branches.

Eastern spruce is graded under the National Grading Rule for structural use, classified for strength properties within the Spruce-Pine-Fir (SPFs) grouping. In the U.S., the lumber is stamped with the SPFs grade mark designation; in Canada, the mark is SPF. As we've discussed before, the SPFs grouping is made up of 10 species, of which the eastern spruces make up three. These three are also the strongest of the individual species in the group.

How is it used? Eastern spruce is a valuable growing asset in the Northeastern U.S. as a top source of logs used in building construction. Lumber produced from the eastern spruces is light, strong, soft, and straight-grained, making it a preferable material for use by builders. How is it used? Wall studs, joists, and rafter applications lead the usages.

How much is used? Annually, more than 550 million bd. ft. of lumber—most of which is 2" thick and between 3" and 10" wide—is manufactured by lumber mills located in the Northeastern U.S. The most common grades of this lumber are No. 1 and No. 2.

Let's dig a little deeper into each of the three species within the Eastern Spruce grouping.

Red Spruce. Red spruce is one of the most important forest trees in the Northeast, and the most common of the three spruces manufactured into lumber in the U.S. The wood is light, soft, narrow-ringed, and tinted faintly with red. It has a fine, even texture, and a consistently straight grain. Red spruce is grown from Nova Scotia and New Brunswick in Canada down through New England and Eastern New York.

Red spruce will reach about 115 ft. at its tallest (typical mature height is 60-75 ft.), rendering it a medium-sized tree. Of all three eastern spruces, red spruce grows a larg-

er crown than the others. Its needles are a brighter, slightly yellow-green.

How is it used? The term "tonewood" is used to delineate specific wood types that possess tonal properties, making them good choices for woodwinds (think: flutes, clarinets, etc.) and/or acoustic stringed instruments. Red spruce is a strong option for tonewood needs, and has been used in the construction of higher-end acoustic instruments (violins, guitars).

Next time you grab a pack of spruce gum, chances are it was made from red spruce. Ditto spruce beer, which is made when spruce twigs are boiled with sugar and flavorings.

Long ago, red spruce roots were pulled by native peoples and used for lacing garments. Holes and leaking seams were patched with pitch, and the fresh, green foliage was used to flavor fermenting beer.

White Spruce and Black Spruce. White spruce and black spruce are remarkably similar in multiple aspects, to include growing range: the area in question for both covers vast areas of Alaska and across Canada, down to the Great Lakes and Northeastern U.S. regions. White spruce typically reaches an average of 80 ft. tall, while black spruce is slightly shorter.

The white spruce is the state tree of South Dakota, and may be found in growing pockets throughout the state. White spruce is also called skunk spruce and cat spruce, due to the fact that, when the needles are crushed, they put off a distinct aroma. White spruce is the northernmost tree species in North America, reaching the treeline at the Arctic Circle!

Lumber produced from both is a creamy white with a tinge of yellow. Both grains possess a fine, even texture, and a consistently straight grain.

Lumber retailers that stock either SPFs or SPF-grade stamped lumber most likely have eastern spruce within their lumber supplies. Be sure to research and ask!

— Jeff Easterling is president of Northeastern Lumber Manufacturers Association. Reach him at info@nelma.org.