

## Christmas Trees

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# Characteristics of Some Evergreen Trees

Before deciding which tree species to plant, a grower should consider several points. Characteristics of the different trees should be evaluated to determine which species will grow into high-quality trees on the available land and in the proposed climate. Consideration should also be given to the advantages and disadvantages of each potential Christmas tree species. For example, trees not native to the state may grow well in North Carolina, but such species may already be grown elsewhere in large numbers at low cost. On the other hand, the native Fraser fir is in great demand and can be successfully grown in limited areas, often giving western North Carolina growers a competitive advantage. The following species descriptions include trees that are commonly grown in North Carolina.



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<https://www.ces.ncsu.edu/wp-content/uploads/2014/05/fig1.jpg>

Christmas trees are an important part of North Carolina's agricultural production.

## Fraser Fir

Fraser fir ([Abies fraseri](#)) is one of the more attractive species used for Christmas trees. This fir <https://christmastrees.ces.ncsu.edu/christmastrees-characteristics-of-some-evergreen-trees/>



attractive species used for Christmas trees. This tree has a natural Christmas-tree shape, glossy dark-green foliage, strong branches that easily support ornaments, pleasing aroma, and excellent needle retention. Fraser fir has a highly restricted natural range in western North Carolina, eastern Tennessee, and southwestern Virginia. It occurs naturally at elevations above 5,000 feet. Fraser fir, however, is being grown successfully in plantations on fertile, moist, well-drained soils at lower elevations. At higher elevations, soil characteristics and aspect (direction which a slope faces) may not be critical. However, at lower elevations (below about 3,000 feet), soils and southern aspects are distinctly less favorable. Fraser fir is sensitive to drought and to poor soil aeration at any elevation. Poor soil aeration greatly increases the chances of the trees being killed by root disease. Locations with poor air drainage can form frost pockets, resulting in tree damage or death.



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Fraser fir

Even on good sites, Fraser fir plantings can be damaged or killed by balsam woolly adelgids. Mites are also frequently a serious problem. On well-drained sites, 8- to 12-inch transplants require about 8 years to grow into 7- to 8-foot trees. Fraser fir grows slower than several other species, but it also brings the highest price of any Christmas tree grown in North Carolina.

## Eastern White Pine

Eastern white pine ([Pinus strobus](#)) is native to western North Carolina at elevations between 1,200 and 3,500 feet.

It has a soft blue-green foliage, pleasing fragrance, and good needle retention. Within its natural range, growth is seldom significantly hampered by variation in slope, aspect, or elevation. Outside the tree's natural range, however, a planting site must

be chosen carefully. White pine is susceptible to root diseases, and it should not be planted in wet



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Eastern white pine

spots. Air drainage is also needed to avoid frost damage. White pine is occasionally infested by aphids and other insects.

On Piedmont sites, white pine plantings should be restricted to northern slopes with well-drained moist soils. Regardless of aspect, Piedmont soils underlain by a relatively impervious layer of clay within a foot of the surface should be avoided. White pine can be grown in the coastal plain, but there is abundant evidence that extending this species beyond its natural range is risky business. Typically it takes 7 to 10 years to grow a 2-year-old seedling to a 7- to 8-foot Christmas tree.

## Virginia Pine

Native Virginia pine (*Pinus virginiana*) is generally considered to be of poor form and color, thus detracting from its use as a Christmas tree. It can be grown on a variety of soils from the coastal plain into the lower mountains. Growth is rapid, so rotations of 4 to 6 years are possible. At present, quality is only moderate. Virginia pine is much less sensitive to soil fertility than Fraser fir or white pine, but fertile, well-drained soil is best for vigorous growth and dark green foliage. The tree is subject to rust canker, but the most common problem is caused by tip moths. Poor color can generally be corrected by artificial coloring before marketing.

## Redcedar

Redcedar (*Juniperus virginiana*) has been a traditional native Christmas tree in the Piedmont and coastal plain of North Carolina. Its chief disadvantages include prickly foliage, poor form and color, and weak branches. Redcedar dries out quickly after cutting unless the stem base is kept in water. This species should be marketed locally, because it is not suitable for shipping. Redcedar grows best on loamy soils of limestone origin, but it can be grown as a Christmas tree, with little shearing, on almost any site in North Carolina. *Phomopsis*, or cedar blight, is the major disease problem.



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Eastern Redcedar

There is wide variation in color, shape, disease resistance, and needle characteristics among redcedar. Many redcedar trees in the wild represent escapes from

among regional. Many regional trees in the wild represent escapes from ornamental selections.

## Leyland Cypress

Leyland cypress (*x Cupressocyparis leylandii*) is a cultivated hybrid of Monterey cypress and Alaska-cedar. It is grown in all southern states as an ornamental and now is becoming popular as a Christmas tree. It can retain moisture after being cut, if kept well-watered, and has an attractive natural shape.

Based on trials in the southern United States, "Leighton Green" is the most desirable variety for Christmas trees. Leyland cypress grows well on a variety of soil types, with best growth on well-drained upland sites with pH of 6.0 to 6.5. Christmas trees are usually harvested within 3 to 6 years after planting. Significant pests include bagworms and cypress canker, although this species is generally considered fairly pest-free.

Because of its tendency to dry after being cut, Leyland cypress is only recommended for production on choose-and-cut farms.

## Other Species

White spruce (*Picea glauca*), blue spruce (*Picea pungens*), and Norway spruce (*Picea abies*) are all grown in North Carolina. All of these spruces grow slowly and, except for Norway spruce, require from 10 to 15 years to grow to Christmas tree size. In addition to the slow growth, susceptibility to several pests may increase the cost of production. Norway spruce is plagued by white pine weevil, mites, and aphids. Needle cast diseases hinder blue and white spruce.

Introduced in limited quantity to the North Carolina mountains, white fir (*Abies concolor*) has been grown with varying degrees of success. This fir has long needles of excellent blue-green color. Both needle retention and shipping qualities are good, although growth rates are slow. White fir's site requirements are similar to those of other fir species, but takes 10 to 15 years to grow to salable size. White fir is also somewhat susceptible to freeze damage and may be injured on sites where Fraser fir and white pine are not.

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