



Growing Christmas Trees in Texas

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Marketing studies show that four to five million Christmas trees are imported into Texas each year from northern and western states. Texas producers could capture much of this market by supplying well-formed, fresh trees at a competitive price, and such additional land use could greatly supplement the income of thousands of Texans. Texas Christmas tree production can be profitable but requires considerable time for intensive cultural management practices to produce high-quality Christmas trees.

Types

A Texas Agricultural Extension Service result demonstration in 1971 proved the Christmas tree species Virginia pine (*Pinus virginiana*) suitable for East Texas production. A Texas producer can grow a 6-foot Virginia pine Christmas tree in 4 years. Some trees, on good sites and under excellent growing conditions, can be cut after 3 years.

The characteristics of Virginia pine make it a particularly attractive Christmas tree. In addition to short needles, it has numerous branches which are stout and hold ornaments well. The tree's pleasing aroma is a tremendous selling point. After the tree is cut, the foliage does not dry out rapidly and needle retention is good. Virginia pine resembles Scotch pine (*Pinus sylvestris*), a major Christmas tree species imported into Texas annually.

The present source of seedlings is a genetically improved Virginia pine from a seed orchard at Coosa Pines, Alabama. Because this is the only source of the improved Virginia pine for southern

Christmas tree producers, Texas producers have problems acquiring enough seedlings to meet their needs. To remedy this, the State of Texas is establishing a 10-acre improved Virginia pine seed orchard near Magnolia Springs in Jasper County. This will alleviate future problems of an inadequate supply of seedlings for Texas Christmas tree producers. It will take this seed orchard 5 to 7 years to begin producing sufficient quantities of seed.

Another species of Christmas tree native to East Texas is the eastern redcedar (*Juniperus virginiana*). This is a popular tree in small towns and communities where the redcedar appears traditionally in homes every Christmas. Redcedar grows well in most soils but does best in heavy clay sites.

Eastern redcedar has a pleasant aroma and requires light shearing to reach a Christmas tree taper. Prickly foliage and rapid drying are disadvantages of this species.

Pinus elliottii has become a popular tree with growers in Central and West Texas. This species is more suitable for the drier climate and alkaline soils. This pine grows well in sandy soils.

Before Planting

Many problems may be avoided by carefully choosing and preparing the planting site. This site should be accessible by an all-weather road. If you do not live near the site, plan protection against theft.

Virginia pine attains its best growth on well-drained, deep topsoils of loam, sandy loam or clay

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loam. This species survives under a diverse pH range, but best growth occurs on soils with a pH ranging from 5.5 to 6.5. Avoid deep, dry sands and heavy clay soils. Steep slopes contribute to soil erosion and can be hazardous when operating mechanized equipment.

A recently cultivated or pastured site is easier and more economical to prepare than one requiring cull tree or brush removal. Remove residual trees from the area to be planted. If these trees are not removed, they will be cumbersome to work around once the Virginia pine seedlings are established. These large trees also will cut off direct sunlight to the pine seedlings; sunlight is an essential element in proper growth and development of Christmas trees. The site may need disking if hardwood sprouts are present or if soil compacting is evident. If only weeds and grasses are on the site, mowing or burning is sufficient.

Control of the pocket gopher before planting is essential. Once seedlings are established, make this an annual management exercise. The most practical and efficient method of controlling pocket gophers is the use of toxic baits. Handle bait material very carefully. The most commonly used commercial bait is milo maize mixed with strychnine alkaloid at the 0.35 percent active ingredient rate.

Planting

Plant seedlings either by hand or machine, depending on the number. Hand planting is preferred for best layout so rows are straight in two directions. This facilitates mowing between the trees. The planting season extends from mid-December to mid-March.

Spacing depends on the type of mowing equipment you own. Number of trees per acre at various spacings is shown below.

Spacing in feet	Number of trees per acre
6 by 6	1,210
6 by 8	908
7 by 7	889
8 by 8	681

After Planting

The first year that seedlings are in the ground, soil moisture is critical. If feasible, water first-year seedlings during very dry periods. Once

the trees get through the first year, they survive well under these conditions.

Always control competing vegetation. Mow between trees with a tractor or lawn mower (if the acreage is small). As a rule, monthly mowings are adequate. When mowing, avoid breaking lower branches on larger trees. To control weeds, use herbicides in the immediate vicinity of the tree, but use them very carefully because direct contact could damage the tree. Cultivation is another weed control tool which should be used with caution. As trees mature, root systems can be damaged accidentally.

Begin shearing and pruning Virginia pines in the second year of production. Currently, most shearing and pruning is done by hand. Trees are sheared in late April and again in mid-July. Lateral branches are sheared and the terminal shoot is pruned. Lower branches should be about two-thirds as wide as the tree is tall to show correct taper. Each tree requires more time as it becomes larger in the third and fourth growing season.

The major insect pest of the Virginia pine is the Nantucket pine tip moth (*Rhyacionia frustrana*). This insect damages the tips of terminal and lateral branches considerably throughout the growing season. Insecticide applications on a regular schedule are necessary to control this pest in a Christmas tree plantation.



Two-year-old Virginia pine that has received proper weed and insect control, plus an initial tree shaping.

Marketing

Most Christmas trees are marketed when they range from 5 to 7 feet tall. Producers may consider marketing directly to the consumer, selling through a wholesaler or eliminating the wholesaler and selling directly to a local retail organization.

If your Christmas tree plantation is located near consumer markets, you may develop a good direct local market over the years. This includes breaking the consumers' old habit of purchasing imported trees. However, the appeal of allowing customers to select their own trees on the stump



Lateral branch shearing with a sharp knife is a key part of tree shaping.

offers potential for greater profits. Texas-grown trees sell for \$2 to \$2.50 per foot of height.

By selling to a Christmas tree wholesaler, you can dispose of your entire crop quickly for cash but probably will receive less profit.

Retail Christmas tree lots usually are not successful in towns under 10,000 population. Disadvantages of managing retail lots include wages paid to sales people, as well as the location, licensing, insurance and the risk factor of vandalism and theft. Retail lots often discard up to 10 percent of the trees. A landowner who has facilities for cutting and hauling could sell trees directly to established retail organizations, such as service clubs or grocery stores.

A potential projection of the costs from established Texas Christmas tree plantations ranges from \$3.25 to \$5 per tree. The major portion of the cost is labor. The larger the operation, the more the producer must depend on salaried employees to assist with intensive management. Consider this when determining the acreage to establish.



Prune the terminal leader to control height and maintain proper tree shape.



Intensive management of a 3-year-old Virginia pine plantation in Panola County.

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