

Pruning and Shearing Christmas Trees



Guide H-409

Pruning and shearing planted Christmas trees must be done yearly to maintain a conical form and moderate density. This is accomplished by trimming the current growth of the terminal leader and side branches (shearing) and by thinning competing terminals, protruding side branches, and upturning suckers (pruning). Start training when the trees are not more than two feet tall and continue yearly until the trees are harvested. Tools needed to train Christmas trees are hedge shears and hand pruners (figure 1). On a commercial scale, special Christmas tree trimming knives are useful. When using a knife, wear a leg guard as a safety precaution (figure 2).

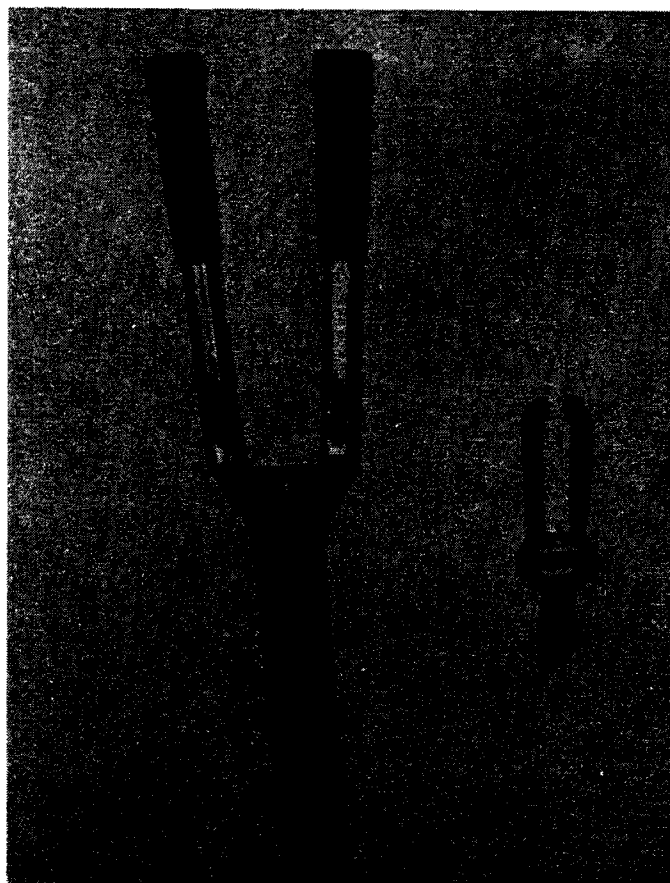


Fig. 1. Hedge shears and hand pruners are needed to prune home-grown Christmas trees.



Fig. 2. Trimming knives are commonly used to prune trees in a commercial operation.

The Overall Picture

As a general rule, keep in mind a clean picture of what the trees should look like when they are ready for sale. Shear and prune to produce conically shaped trees that are dense on all four sides and have a well developed basal handle. Limit leader growth to no more than 12 inches, or the main stem will have a large opening that can never be completely filled.

When trees have double leaders, eliminate the less vigorous by cutting back as close to the trunk as possible (figure 3). Cut laterals (side branches) on the top-most whorl to one-third the length of the leader and all other laterals to one-half to three-quarters of their length.

Shearing increases bud set on pines and forces sprouting of lateral buds in firs and spruces.

Pines

Pines develop buds only at the tips of current-year branches. To produce abundant buds, pines can only

be sheared during middle June to middle July. Exact dates can not be specified because of different weather conditions, elevation, exposure, and species. For Scotch pine, start shearing when new needles are one-half as long as old needles, and finish within the next four weeks. For other pine species, shear immediately after new needles are one-third as long as old needles.

During the first growing season, usually pines do not need shearing. With hand pruners, remove less desirable double leader or other obvious deformities.

During the second growing season, form the first whorl of about five branches, which should be evenly spaced around the trunk (figure 4). Check the central leader, and use hand pruners to cut it back to 1 foot if its growth is greater than that. Make the cut at a 45° angle to encourage the formation of a dominant bud near the top of the cut. Such a bud will form next year's leader. Slope the cut away from the afternoon sun to promote faster healing. If the central

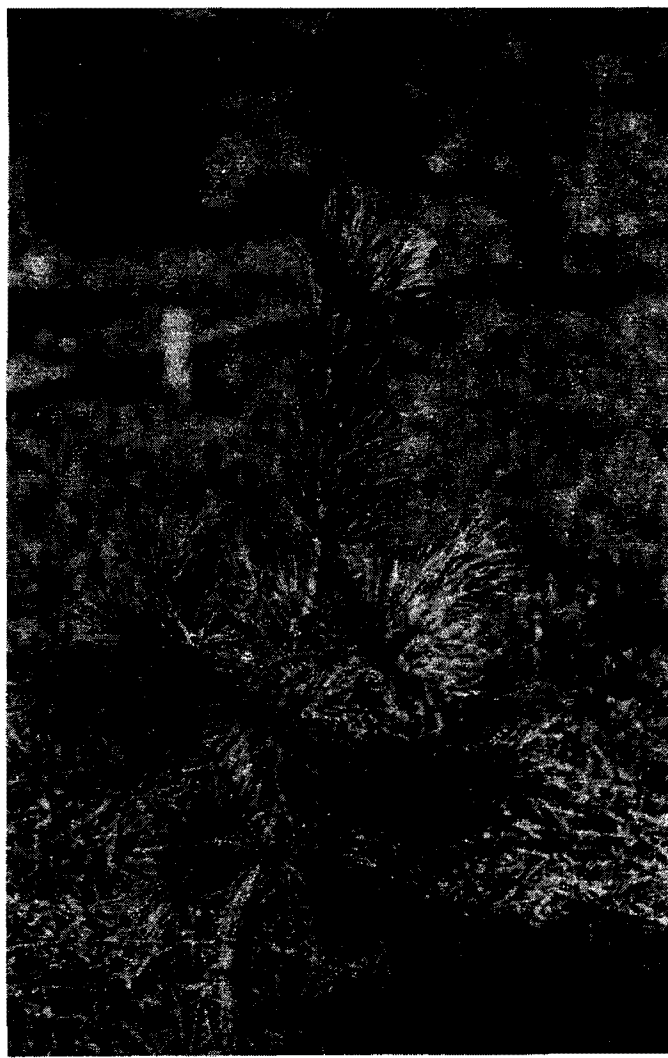
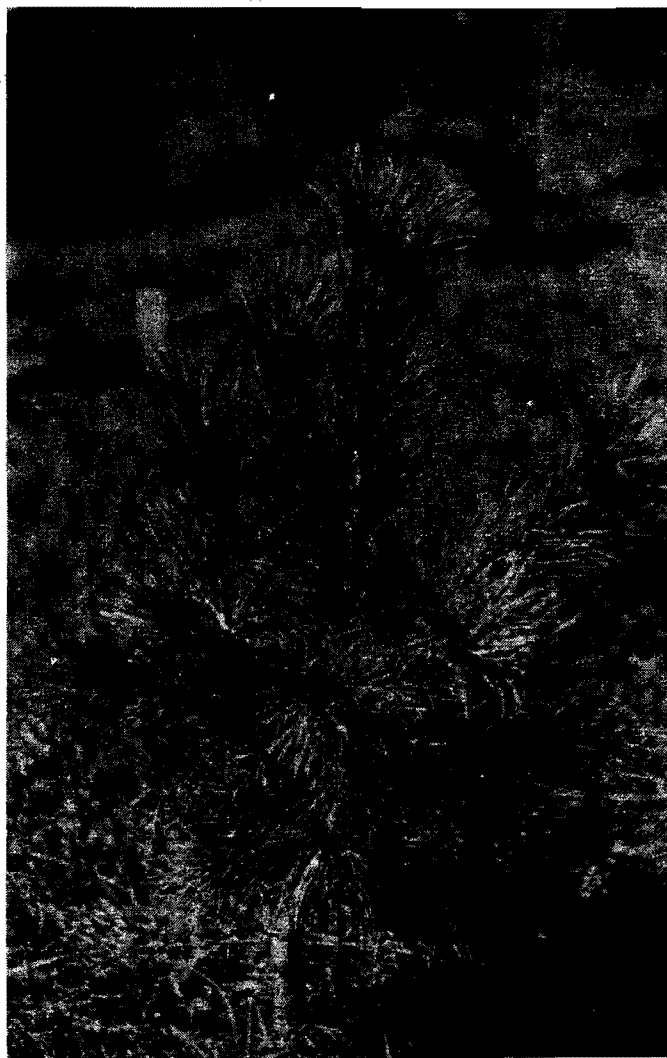


Fig. 3. A Scotch pine before (left) and after (right) the elimination of a double leader.

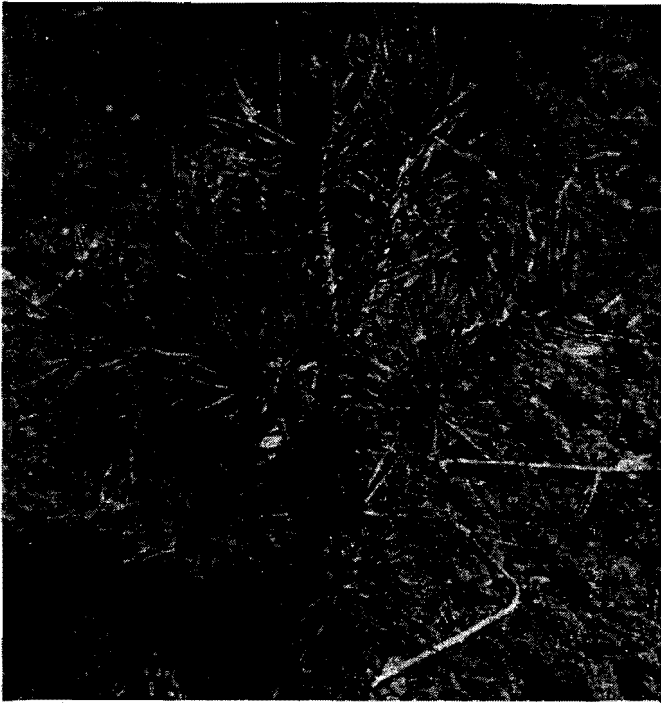


Fig. 4. The first whorl of five branches is selected during the second season.

leader does not exceed 12 inches, cut at least one-quarter inch to encourage dense bud formation. Use hand pruners to cut lateral branches on the top whorl to one-third the length of the central leader. If necessary, cut the remaining lateral branches to achieve a conical shape by using hedge shears.

During the third growing season, it is important to basal prune. Remove unwanted lower branches between the bottom whorl and the ground. Basal pruning should never remove more than 25 percent of the total branches. With hand pruners, make the cuts as close to the trunk as possible, to encourage rapid healing (figure 5).

General pruning guidelines for the second growing season should be followed during the third, fourth, and fifth seasons.

By the sixth growing season, the faster developing trees may be ready for harvest. Such trees should be lightly sheared, cutting only the longer branch tips, to form a natural-appearing cone shape (figure 6).

The seventh growing season is usually the main harvest season, and the trees that are ready for harvest should be lightly sheared as described for the sixth growing season.



Fig. 5. To remove branches, make cuts as close to the trunk as possible.





Fig. 6. Limber pine in its seventh growing season.



Fig. 7. Blue spruce in its ninth growing season.

Firs and Spruces

Firs and spruces develop buds on the branch tips the way pines do, but unlike pines, they develop lateral buds along current season's growth. Buds are completely formed by middle July, and shearing could start any time after that. However, north of Albuquerque, early spring (March and April) shearing is recommended to prevent die-back from cut tips.

The first three growing seasons should be devoted to maintaining a strong central leader, and the formation of a good bottom whorl. Handle deformities and basal pruning in the manner described for pines.

By the spring following the fourth growing season, most trees should have made sufficient growth to require shearing. First, cut back the leader to a 12-inch length with hand pruners. Make the cut about one-third inch above and slanting away from a thick bud. The bud will weaken or die if the cut is made closer than one-third inch. All cuts should help form a conical tree.

For the fifth, sixth, seventh, and eighth growing seasons, use the same technique. Trees should be lightly sheared during July to September of the harvest year. Cut only those branches that protrude from the cone shape and remove extra leaders by cutting back as close to the main stem as possible. Trees should be ready to harvest by the ninth growing season (figure 7).

Other Cultural Practices

Weed control, irrigation, fertilization, and pest management must be integrated into the shearing program. When tall weeds grow adjacent to seedlings, development of lateral branches is severely restricted. Supplemental irrigation, yearly fertilization, and control of damaging insects are needed to produce vigorous growth and a well-developed central leader.

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