Lesson 7: Growing and Marketing Christmas Trees

Considerations for Growing Christmas Trees

Christmas trees can be grown on suitable sites in all parts of Missouri. Each prospective grower should weigh the outlook in terms of his own set of circumstances. The following questions will need to be answered:

1. Noting the seasonal nature of the work, can the grower spare the time required to produce high quality trees?
2. Is labor available for planting, weed control, pruning, shearing, and harvest?
3. Where and how large are potential markets?
4. What species and varieties are best?
5. Is the planting site suitable for Christmas tree species?

Basic considerations and procedures will be discussed below, but the beginner must also learn that the plantation production of Christmas trees is a young and dynamic business. New materials, equipment, methods, and problems continue to evolve. One can keep up-to-date through the Christmas Tree Association and professional personnel in forestry and related fields.

Seasonal Nature of Christmas Tree Production

Activity peaks for Christmas tree growers occur during planting season (March until mid-April for most of Missouri), in June to mid-July when the pines are shaped by pruning and shearing, and during the fall harvest. The most laborious and time-demanding operations are the pruning, shearing, and harvesting.

Growers of Christmas trees must stay alert at all times. Mowing or other measures to reduce a competitive stress on trees by other vegetation must be administered as needed. Year-long vigilance is required to promptly discover and deal with any of the various protection problems. Sales opportunities also arise at all times of the year. A new grower should begin developing a sales program at least 1 year prior to the first harvest. Well-established wholesalers commonly make their major marketing efforts early in the calendar year. Regardless of how trees will be sold, harvesting and marketing procedures for the crop of any one year should be firmed up by August.

Marketing Christmas Trees

Where and how a particular grower will market depends upon such variables as the grower's sales personality, personnel available, quality of the crop, size of the harvest, and plantation location relative to population centers.

The highest profits per tree can be realized when the grower sells directly to the consumer, but retailing is very demanding in time and sales imagination.

Success will hinge on improved services, better trees, good display of merchandise, convenient and adequate parking, customer comfort, and a prompt and courteous sales procedure.

Grower-retailers often elect to operate well located sales lots in or near cities. An alternative method to the sales lot is "choose and cut" selling. Customers select, cut, and carry trees from the plantation. For this privilege, Christmas tree buyers are often willing to pay prices commanded at city retail lots.

Growers may wholesale their trees. Trees are normally harvested and delivered by the grower to individuals or organizations who operate retail lots. Wholesale transactions mean many trees can be sold. Sometimes, when sufficient acquaintance and trust exists between parties, trees are sold under consignment agreements. When growers consign their trees they assume less risk and are entitled to a lower share of the returns.

Growers can sell stands of trees. Under this arrangement, wholesale lots of trees are sold while they are still standing in the plantation. This is termed a "stumpage sale." Cutting and transportation are usually done by the buyer; likewise the seller's gross return is less.

Quality counts. Regardless of marketing method, one point needs emphasis: the Christmas tree market is a quality market. Annually, there is an abundance of trees, but good trees are always in short supply.

Maintain consistent production. One secret to marketing success is the ability to supply an established market on a yearly basis. This requires a balance in age classes of trees. For example, if final harvest is anticipated 8 years after planting a species, the farm should eventually include eight planting ages for that species or 40,000 trees with eight blocks of 5,000 trees which are 1 to 8 years old.

Christmas Tree Species

Scotch pine: The leading Christmas tree nationally, Scotch pine is excellent for Missouri Christmas tree production. Beginning with 2-year-old seedlings, Scotch pines attain popular Christmas tree sizes in 5 to 10 years.

Eastern white pine: A straight, symmetrical, beautiful tree, this species has potential second only to Scotch pine in Missouri plantations. Unfortunately, a good survival rate in the first year after planting is difficult to obtain. Christmas tree sizes are reached in 6 to 10 seasons after planting.

Jack pine: When survival, growth rate, and consumer acceptance are all considered, Jack pine ranks second to Scotch pine as a good yielder in Missouri plantations. However, it has a high proportion of poorly formed trees and winter yellowing. Until genetically better Jack pine stock is available, growers should test the species sparingly. Jack pines reach Christmas tree size in 4 to 6 years.

Douglas fir: Some excellent Douglas fir Christmas trees have been produced in Missouri, but there are several serious drawbacks to use of the species. First, Douglas fir varies greatly within the species. Second, Douglas fir requires deeper and better aerated soils than the previous species. Again, test this type of Christmas tree sparingly. Under favorable conditions, Douglas fir reaches Christmas tree size in 8 to 12 years.

Seedlings of Scotch pine, Eastern white pine, and Jack pine are grown at the State Forestry Nursery in Licking, Missouri, and in commercial nurseries.

Cultural Requirements of Christmas Trees

Christmas tree species survive and grow better in deep soils with good internal drainage. Favorable lands can range from fine sands to silty clays. Avoid areas that are constantly wet or subject to flooding. Planting in droughty sites can be equally futile. The wet winter and dry summer conditions caused by shallow claypans less than 2 feet deep are harmful to Christmas tree species. High fertility increases weed problems. Christmas tree species, especially pines, usually perform adequately at fairly low nutrient levels.

Planting should be done on open ground, staying 30 or 40 feet away from tree borders. Whenever possible, select open areas because conversion of brushy land is expensive and difficult. If conversion is necessary, completely clear the areas of vines, brush, and stumps. One effective measure is to rip freshly cleared ground with a heavy subsoil plow to remove hardwood root systems. Before and after planting, sprouting can be discouraged with a common chemical brush killer. In sparse or shallow-rooted stands of grasses, little or no control work will be necessary. Contour plow in bands about 3 feet wide along rows where trees will be planted. Follow deep plowing with disking to remove air pockets; then level the ground. As an alternative to plowing, a post-emergent herbicide can be applied in strips during late summer prior to spring planting. Site preparation should be completed about 1 year prior to planting.

Christmas trees are commonly grown at spacings ranging from 5 feet x 9 feet (968 trees/acre) to 6 feet x 10 feet (726 trees/acre). Ample space should be left at the ends of rows for turning mowers and other equipment.

Competing vegetation must be controlled. Most experienced growers routinely mow their plantations. Advantages are more light, moisture, and nutrients available to the tree, less fire hazard and rodent damage, easier control of sprouts, and more pleasant working conditions.

Vegetation near trees can be removed by hand tools or chemically. Pre-emergent herbicides can be effective

with timely applications. Plowing after planting is not recommended. Shallow disking between rows can be useful when combating heavy herbaceous growth.

In addition to control of competing vegetation, other protection problems arise sporadically. Livestock must be kept from the planting. Deer can be a serious and difficult problem to control where their populations are high. Rodents must be controlled with field applications of rodenticides or tree guards.

Insect and disease injuries include damage from tip moths, sawflies, mites, and needlecast disease. Resource foresters can provide the latest recommendations for dealing with pest or disease problems.

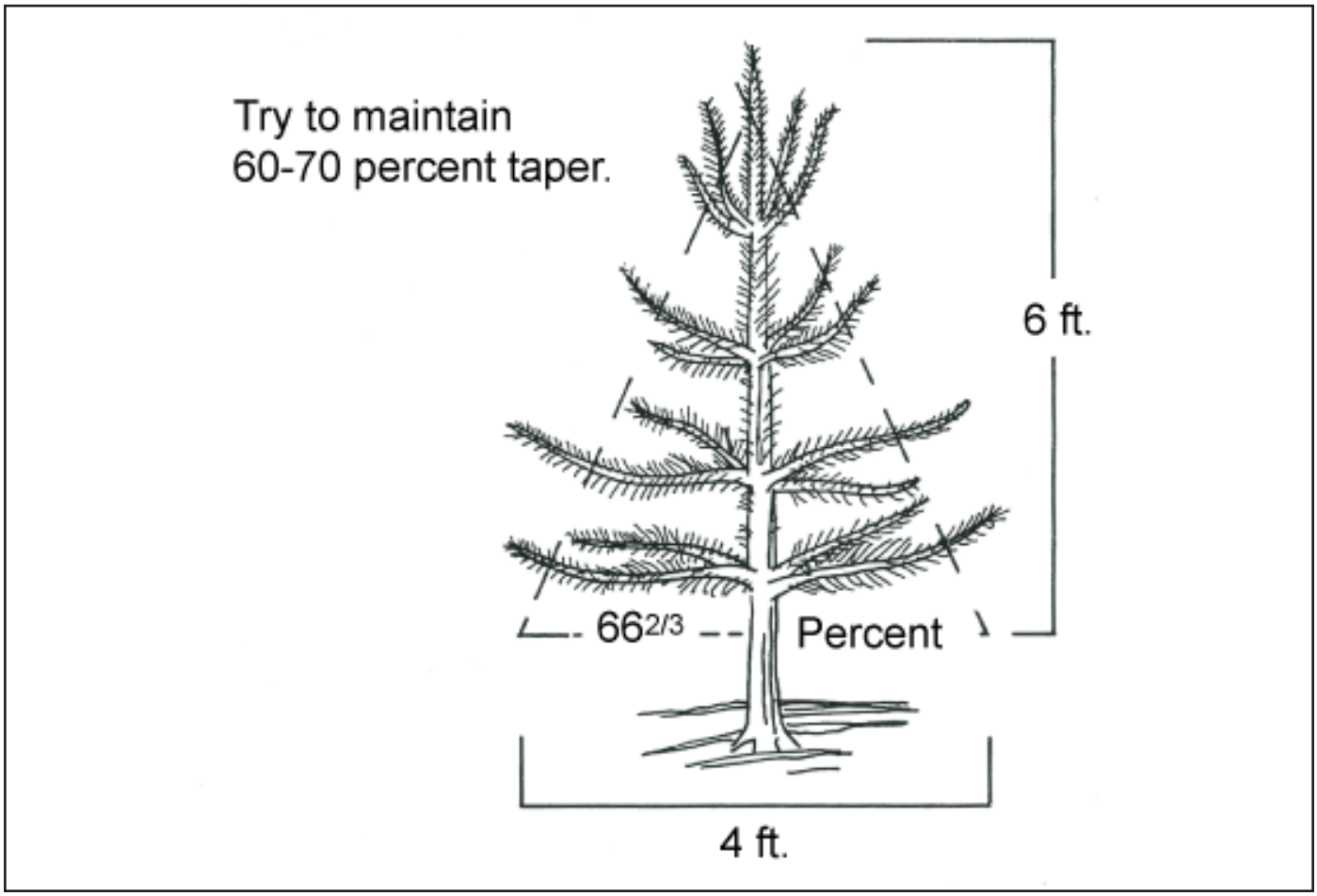
Of all hazards, fire can cause the most dramatic and sudden losses. This problem should be considered when locating plantations. A system of access roads and plantation borders can be designed to serve as fire breaks. Mowing prevents the buildup of dry organic matter and minimizes the effects of fire.

Shaping Christmas Trees

Shaping and shearing are essential practices in Christmas tree production. The ideal tree should resemble a cone about 2/3 as wide as it is high. For example, a 6-foot tree should have a 4-foot-wide base. See Figure 7.1.

Many growers prefer the combination of a pair of hedge shears with 8- or 10-inch blades and a pair of anvil type hand pruners such as those used on shrubs and fruit trees. The hedge shears are used for overall shaping, and the hand pruners for making interior cuts or thinning whorls of limbs. See Figure 7.2.

Figure 7.1 – Christmas Tree Shaping



Begin shaping operations when the trees are 2 to 3 feet tall. Developing a main terminal and creating some balance in the tree at this early stage is important. Trees should be shaped every year from the time they are first shaped until the year they are sold.

Shaping should be done early in the growing season when the new growth (candles) has completed elongation and started to harden off. Jack pine makes its growth early and should be shaped from mid-May to mid-June. Scotch and white pines should be shaped between June 15 and July 15.

There are no hard and fast rules for shaping that apply to every tree. See Figure 7.3. The objectives, however, for shearing and pruning are as follows:

◊ Control height growth: Cut the terminal leader back to 12 to 14 inches; make this cut at a 45° angle rather than a straight cut. Cut the lateral branches of the terminal whorl to about half the length of the leader.

◊ Eliminate extra leaders: Leave the leader that is straight and best and remove the others. This is especially important during the first shearing.

◊ Remove or conceal branch deformities: Crooked, crossed, or otherwise deformed branches should be removed while trees are young. "Tree trainers" (manufactured commercially) or tape, which will disintegrate within 1 or 2 years, can hold unruly leaders or branches in position until they assume better growth habits.

◊ Develop uniform taper and density: After the leader and terminal whorl are shaped, work around each tree and shear as many lateral limbs as necessary to bring the tree to the desired form and taper. Confine shearing primarily to the current year's growth when possible.

Summary

Growing Christmas trees can be a profitable enterprise, but many considerations go into the decision to grow trees. Understanding considerations such as delayed returns, marketing potential, site suitability, labor needs, species, and cultural requirements are important before becoming a Christmas tree grower.

Credits

Growing and Marketing Christmas Trees (Guide G5700). Columbia: University of Missouri Extension, 1981.

Shaping Pine Christmas Trees (Guide G5706). Columbia: University of Missouri Extension, 1981.

Figure 7.2 – Shearing and Pruning Tools

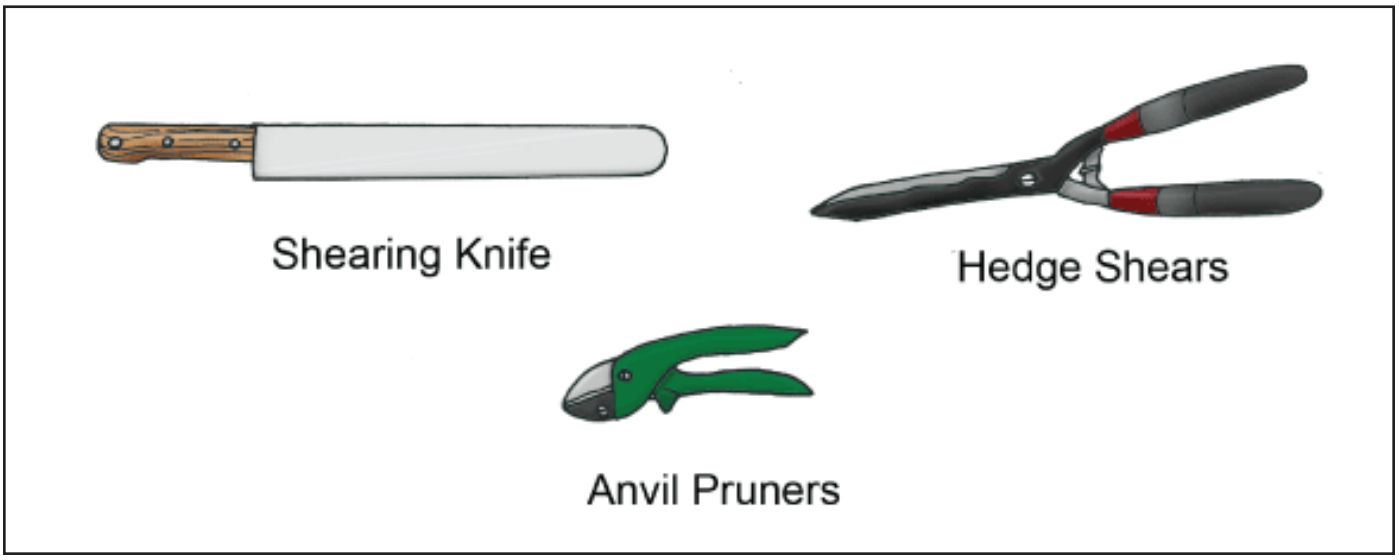
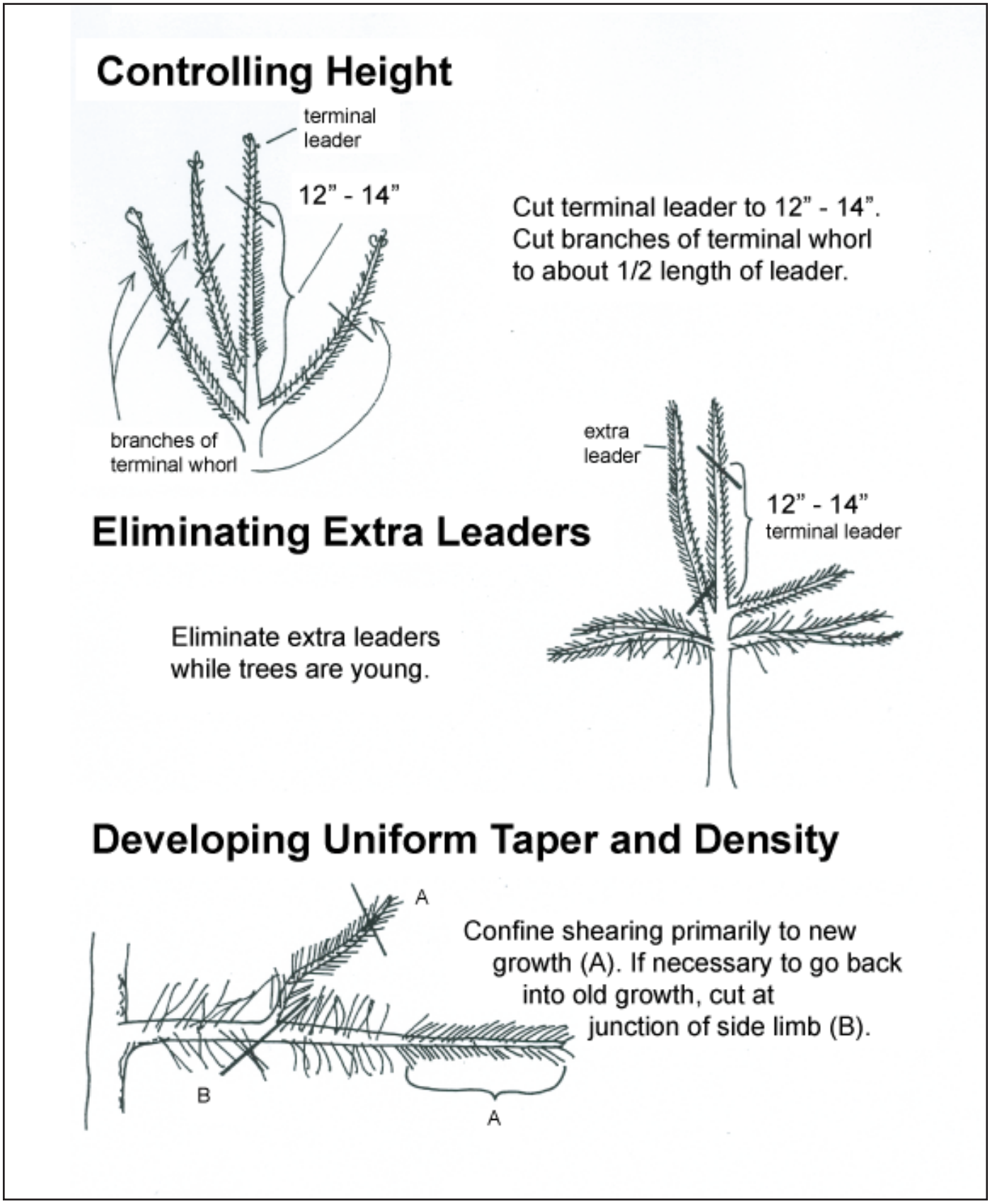


Figure 7.3 – Shearing Christmas Trees



Forestry