

# Culture and Harvesting of Wildling Christmas Trees



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Currently there are few Christmas tree plantings in New Mexico, but many trees are harvested each year from public and private forests. Trees harvested from natural stands do not have the same high quality as plantation-grown trees. However, quality of naturally seeded trees can be improved by following a few, simple cultural techniques.

## Release from Competition

On the basis of foliage, growth rate, and form, select trees for "release", the removal of all woody vegetation within a five-foot radius of the tree. This permits the tree to form branches evenly on all sides and reduces competition for moisture and nutrients. Release can be performed at any time of the year. Any chemical brush killer can be sprayed or painted on cut stumps of Gambel oak to prevent resprouting.

## Pruning and Shearing

Pruning and shearing, to control the growth and symmetry of the tree, may be done at the same time. Pruning removes part of a branch that may be protruding outside of the desired cone shape or basal branches up to an even bottom whorl. Pruning is done with hand shears, loppers or pruning saws, depending on the size of the branch to be cut. Shearing is the clipping of lateral branch tips on an imaginary sloping line from the apex to the base. When a shearing knife is used, a leg guard must be worn to prevent injury, should the knife be deflected toward the user. A small can of kerosene and a sponge or rag should be used to occasionally remove resin that accumulates on the surfaces of the tools.

Pruning and shearing may be done from late July to April, after trees are dormant. However, November, December and January are not good months to prune or shear, because cuts do not heal rapidly.

## Fertilization

Pruning and shearing encourages the development of new growth only under optimum soil fertility. If trees do not grow vigorously, pruning and shearing will not improve tree quality. Addition of nitrogen to

most New Mexico forest soils encourages faster growth and a darker green color. Trees respond best to single, yearly applications of ammonium nitrate.

A small can, such as the 6.5 oz. size used for tuna fish, works best in distributing the nutrients evenly at the base of the tree. To apply the fertilizer, stand 5 to 10 feet from the tree, look at its base and with a swift, jerking motion dump the fertilizer from the can. This propels the granules causing them to bounce on the ground and not be concentrated on one spot. Feeder roots do not extend much beyond the periphery outlined by the lateral branches. Fertilizer falling outside that periphery will be wasted.

Apply a complete fertilizer to each tree according to its size.

3 to 6 foot tree — ¼ can  
6 to 12 foot tree — ½ can  
over 12 feet — 1 can

Water is required to dissolve granules and move the fertilizer into the root zone. Plan fertilizer applications around high rainfall probabilities.

## Stump Culture

Stump culture provides several individual trees by regrowth from the original tree. The practice allows growth of saleable trees in a shorter time than with a new crop of seedlings. Also, more than one tree can be produced simultaneously from a single stem.

Several things must be kept in mind when practicing stump culture. The more branches left at the base, the faster the recovery rate and the faster the growth rate will be. One year after the top is cut, remove all sprouts except the most vigorous, which will form the next trees. Each year, shear and fertilize as previously outlined. A 6 to 8 foot tree can be produced in 5 to 7 years. Spruces and Douglas fir are not adapted to stump culture.

## Harvest

Harvesting should not begin until after at least 3 consecutive nights of freezing temperature. White fir, corkbark fir and Douglas fir can be harvested as early

as mid November; blue and Engelmann spruces should not be harvested before December 1, to reduce excessive needle drop. Trees should not be harvested during freezing weather because needles and branches break off during handling.

A bow saw or a small light-weight power saw is commonly used to cut Christmas trees. Usually it is necessary to drag trees by hand from the harvesting area to a pickup truck for transportation to a central loading area.

### Grading

At the central loading area, separate trees by height and grade. Separate first by height, then within the height piles, sort by grade as follows:

*U.S. No. 1* consists of trees possessing characteristics typical of the species. They are fresh, clean, healthy and well trimmed. They have not less than medium density, normal taper and three damage-free faces.

*U.S. No. 2* consists of trees possessing characteristics typical of the species. They are fresh, fairly clean, healthy and well trimmed. They have light or better density, candlestick, normal or flaring taper, and two damage-free faces.

*Culls* are trees not meeting U.S. No. 2 grade

### Storage

Cut trees can lose considerable moisture if not handled properly. For the buyer to receive quality trees, proper storage is needed. Covering piled trees completely with opaque white plastic will prevent moisture loss for up to 4 months. Plastic is recommended because many types of material cause excessive heat buildup which will damage trees. Plastic should be draped over the trees and the edges sealed with soil to prevent moisture loss and hold the sheet in place. Tree butts should not protrude from the pile, because they will tear the plastic.

If white plastic is unavailable, trees can be stored on moist ground under a shade with stems standing upright. Piling trees horizontally on wet ground will cause leaves to mold and greatly reduce tree quality.

The least desirable method of tree storage is horizontal stacking under direct sun. This causes severe moisture loss and consequent customer dissatisfaction.

### Loading

When trees are loaded for transportation to the sale yard, empty pockets should be avoided, because they waste space and trees placed over a hole are vulnerable to breakage. Small trees ( 3 to 5 feet) can be used to plug holes as they develop. This also increases the total tree count.

Trees should be loaded with butts forward to avoid the drying and abrasion caused by wind. Loading trees with tips forward may cause needles to be stripped or branches broken, and it violates road safety regulations. Do not allow any butts to stick out through side openings. Top off the load with large trees of sufficient weight and bulk to hold down underlying trees. If necessary, hold back enough trees of six feet and over to top it off. A load properly tied and topped off will reach its destination with tree quality preserved.

Don't be afraid to walk on the trees as you load. This compresses the trees, and there is little danger of breakage if they are properly supported underneath.

A pickup or a trailer (semi) with an open rear end and top are loaded in the same way. Each layer should be worked from the rear forward as trees are loaded. With a semi, it is even more important to watch for holes and to plug them with smaller trees. Also you can pick up an additional 3 to 5 feet of length by extending the tips at the rear. On a 40-foot semi, this can add 10 percent to the shipping space. Protect extended tops from road grime by placing plywood under them.

The main points in loading are: keep the load solid and tight, do not waste space, and do not let the wind get into the trees.