

**NATURAL RESOURCES CONSERVATION SERVICE
NEVADA CONSERVATION PRACTICE STANDARD**

TREE/SHRUB PRUNING

(Acre)

CODE 660

DEFINITION

Removing all or parts of selected branches from trees and shrubs

PURPOSES

- Improve the intended function of the plant.
- Improve appearance of trees and shrubs.
- Improve the quality of the wood product.
- Reduce a safety hazard.

CONDITIONS WHERE PRACTICE APPLIES

On Christmas trees and other potential high-value species; on trees where removing all or parts of branches enhances the beauty and/or safety of an area; and to remove hazardous or diseased portions of trees.

CRITERIA

Alex Shigo techniques for pruning is the accepted pruning technique.

Timing of shearing, branch removal and corrective pruning of high value tree species will be described to accomplish the intended purpose.

CONSIDERATIONS

The timing of pruning should consider the nesting and breeding requirements of arboreal species.

In urban areas special considerations need to be given for safety hazards.

Clean and sanitize pruning tools between prunings of diseased trees or trees that show

symptoms of disease to avoid transmission to uninfected plants.

Pruning is used to remove dead, diseased or living tree parts in order to benefit those that remain, achieve a desired shape, improve structural strength or maintain overall vigor.

Shearing is the practice of cutting back new growth to improve the form and density of the remaining crown.

Additional considerations when pruning for quality sawlogs.

Production of clear, knot-free wood on rotations shorter than required for natural pruning is the objective.

Pruning is designed to clear the butt log to a height of 18 to 19 feet above the stump providing high quality timber. Dead limbs exceeding two inches in diameter tend to persist indefinitely. They form loose knots which degrades wood quality. Smaller crop trees can not be pruned to this height in one pruning operation.

Under ideal conditions natural pruning removes the limbs providing clear boles. However, because spacing and other considerations are seldom perfect, artificial pruning is required to produce high quality clean bole trees. The greatest need for pruning is in open-grown or poorly stocked stands where limbs will persist to the ground indefinitely.

Ideally, pruning is completely accomplished in 2 to 3 operations spanning 5 to 20 years. The first pruning removes the lower limbs and subsequent pruning extend the pruning height. Prune only the dominant and co-dominant trees. Favor pruning high sites first.

Removing the lower limbs provides protection from fire, and allows for an increase in understory production.

Pruning should be coupled with thinning to stimulate diameter growth in order to fully capitalize its benefits. Prune in conjunction with the application of practice FOREST STAND IMPROVEMENT (Code 666).

Additional considerations when pruning Christmas trees

Pruning is done to increase the value of plantation trees and reduce the number of unmerchantable culls.

Shape by pruning (selective removal or cutting back of individual branches) or shearing (clipping of both terminal and lateral shoots). The intent is to produce an ideally shaped tree, or one which has 66 2/3% taper, and meets the Agricultural Marketing Service grades for Christmas trees.

Once shaping has started it may be required one or more times each year until harvest.

Delay basal pruning until no more than 1/3 of the total foliage on the tree will be cut off to prevent excessive shock.

Additional considerations when pruning for dwarf-mistletoe control

Dwarf mistletoe brooms, can weigh more than 200 pounds, and present a potential hazard particularly in the urban interface to the forest.

Pruning for dwarf mistletoe control in forest operations is generally uneconomical unless it can be accomplished in conjunction with precommercial thinning activities.

Ponderosa pine responds most favorably to pruning when at least half of the upper crown is at most only lightly infected. Any species infected with dwarf mistletoe will respond favorably to pruning providing that the pruning is not so severe to impair the physiology of the tree.

Dwarf mistletoe infection predisposes the host to other damaging agents. Consider treating dwarf mistletoe to increase tree vigor and resistance to damaging agents.

No special disposal method is required for pruned branches infected with dwarf mistletoe.

However, community forest stewardship plans that include pruning activities to any great degree need to consider the utilization or disposal of the biomass.

Water Quantity

This practice will have no significant effect on the quantity of surface and ground water.

Water Quality

This practice will have no significant effect on the quality of surface and ground water.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation. Species, site limitations, methods, equipment, season of year, and guides to pruning for the applicable purpose shall be considered.

Specifications Guide

For sawlog pruning, specify:

- purpose of pruning
- location and size (acres) of stand to be treated
- time of pruning
- trees to be pruned
- maximum height to prune
- maximum size of branch to prune
- species to be pruned
- pruning method

For Christmas tree pruning, specify:

- location and size (acres) of stand or plantation to be treated
- time of pruning
- maximum height of tree to treat
- species to be pruned
- pruning method

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OPERATION AND MAINTENANCE

Reinspection and repruning as needed for the prescribed purposes.

REFERENCES

Scharpf, R.F. and J.R. Parmeter Jr., tech coords. 1978. Proceedings of the symposium on dwarf mistletoes control through forest management. General Technical Report PSW-31, 190 p. USDA Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley, CA.

Smith, D.M., Hawley, R.C. 1962 The Practice of Silviculture. John Wiley & Sons, Inc., New York.

Townsend, L.R. 1993. Tree and Shrub Planting Guide. Utah Division of State Lands and Forestry, Salt Lake City, UT.