

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

TREE/SHRUB PRUNING

(Acre)

CODE 660

DEFINITION

Removing all or parts of selected branches from trees and shrubs.

PURPOSES

- Improve the quality of wood products.
- Improve domestic/wildlife grazing/browsing potential.
- Reduce fire and/or ladder fuels or a safety hazard.
- Improve the growth and vigor of understory plants.
- Adjust the foliage and branching density for other specific intents, such as wind and snow control, noise abatement, access control, and visual screens.

CONDITIONS WHERE PRACTICE APPLIES

On any area with trees or shrubs. On crop trees of high-value species (e.g. trees grown for select lumber, veneer or Christmas trees); on trees and shrubs where removing some branches enhances the beauty and/or safety of an area; to reduce the fire hazard or provide an area for fire control and to remove hazardous or diseased portions of trees.

CRITERIA

Pruning is an art based on the scientific principles of plant physiology. Alex Shigo techniques for pruning is the accepted pruning technique.

The pruning and shearing method and timing will match the limitations of the site and soils, achieve purposes for the specific tree or shrub species, and be conducted in a safe and efficient manner.

Pruning or shearing will not adversely reduce the growth and vigor of the tree or shrub for the intended purpose.

Debris and vegetative material left on the site after treatment will not present an unacceptable fire, visual

or pest hazard or interfere with the intended purpose and other management activities.

Pruning and shearing tools should be disinfected to prevent the spread of pathogens.

Review the estimated cost and projected economic benefits of the project before starting a pruning or shearing project.

To maintain plant growth and sustain vigor, pruning and shearing may be done in two or more timed intervals. Time pruning and shearing to minimize potential damage to the tree bole and stems.

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.

Removing the lower limbs provides protection from fire. For some shrubs it may increase browse by resprouting in the lower bole.

Pruning any pine limb releases host volatiles (odors) which may attract bark beetles, Ips, on small diameter trees (less than 9 inch d.b.h.) and Dendroctinuous, spp., such as mountain pine beetle, on large diameter trees (greater than 9 inch d.b.h.). When the threat of beetles is a consideration:

- 1) Timing of the pruning operation will coincide with the periods of lowest beetle activity, normally when temperatures are not conducive to beetle flights (November to March).
- 2) Slash treatment will follow guidance in Forest Stand Improvement Specification (666) to reduce the threat of population increases of beetles.

Pruning should be planned in conjunction with the application of other Conservation Practices and activities including Forest Stand Improvement (Specification 666).

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

Pruning in Urban Areas for Recreation, Visual Aesthetics and Other Uses.

Pruning techniques will follow established guidelines contained in the Standards of Pruning for Certified Arborists published by the Western Chapter of the International Society of Arborists.

Pruning for Christmas Trees

Pruning can increase the value of plantation trees and reduce the number of unmerchantable culls.

Once pruning occurs it may be required one or more times each year until harvest.

Basal pruning: Delay until no more than one-third of the total foliage on the tree will be cut off to prevent excessive shock.

Pruning for Quality Saw Logs

Under ideal conditions natural pruning removes the limbs providing clean 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 lower limbs will persist indefinitely.

Pruning will only be done in Douglas Fir, Jeffrey and Ponderosa Pine stands when the site index exceeds 70 (McArdle) (Meyer).

No pruning of true firs (White, Red, and Shasta), hemlock and spruce will be planned. These species are more prone to invasion by decay causing fungi.

Pruning will be in lifts (stages).

Stands should be healthy and vigorous.

Avoid pruning stands on exposed areas prone to windthrow, sites with a high water table or a high incidence of root rot.

Pruning in the spring or periods of active shoot elongation will be avoided. Pruning in pines should be accomplished after the new growth has elongated and hardened.

Fuel Hazard Reduction

Prune to break up the fuel ladder.

Along roads consider the removal of limbs to allow the passage of emergency vehicles.

Consider properly cutting portions of the limbs to provide at least 10 feet of ground clearance.

Shrub Pruning

Prune to direct or control growth.

Prune to encourage flower and fruit production.

Prune to promote plant health. Cutting at the 2 to 3-foot level will promote new growth and better quality forage for some wildlife browse species.

Prune to repair damage.

Prune to achieve a special effect or an artificial form.

Prune to alter, restore, or rejuvenate an established or neglected plant to make it more attractive. On taller shrubs lower limbs can be removed, transforming it in to a multi-stemmed shrub, resembling a small tree, and breaking up the fuel ladder.

Prune to compensate for transplanting. The balance between roots and top is upset when the plant is transplanted. Pruning can restore this balance.

Endangered Species Considerations

Determine if installation of this practice with any others proposed will have any effect on any federal or state listed Rare, Threatened or Endangered species or their habitat. NRCS' objective is to benefit these species and others of concern or at least not have any adverse effect on a listed species.

If the Environmental Evaluation indicates the action may adversely affect a listed species or result in adverse modification of habitat of listed species which has been determined to be critical habitat, NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid the adverse effects. Further assistance will be provided only if the landowner selects one of the alternative conservation treatments for installation; or at the

request of the landowners, NRCS may initiate consultation with the Fish and Wildlife Service, National Marine Fisheries Service and/or California Department of Fish and Game. If the Environmental Evaluation indicates the action will not affect a listed species or result in adverse modification of critical habitat, consultation generally will not apply and usually would not be initiated. Document any special considerations for endangered species in the Practice Requirements Worksheet.

Water Quantity

This practice will not have a significant effect on the quantity of surface and ground water.

Water Quality

This practice will not have a 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.

OPERATION AND MAINTENANCE

Reinspection and re pruning as needed for the prescribed purposes.

REFERENCES

9624-2815-MTDC. *Pruning in Timbered Stands*. USDA-Forest Service, Technology & Development Program. Missoula, MO. 1996.

Orto Books *All About Pruning*. The Solaris Group. San Ramon, CA. 1989.