

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

TREE/SHRUB PRUNING

(Acre)

CODE 660A

DEFINITION

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

PURPOSES

- Improve the intended function of the plant.
- Improve appearance of trees or shrubs.
- Improve the quality of the wood product.
- Improve domestic/wildlife grazing/browsing potential.
- Reduce a safety hazard.

CONDITIONS WHERE PRACTICE APPLIES

On crop trees of high-value species (e.g. trees grown for select lumber, veneer or Christmas trees); on trees and shrubs where removing all or parts of 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.

Prune trees according to the following steps:

1. Locate the branch bark ridge
2. Find **A** (outside edge of branch bark ridge).
3. Find **B** (swelling where branch meets branch collar. If **B** is difficult to determine drop a line from **A**: the angle **XAC** is equal to the angle **XAB** (see figure 1). Stub the branch to be pruned using a first cut from below and a second cut from above.
4. Make the final cut on line **AB**.

5. Do not cut behind the branch bark ridge.
6. Do not leave stubs.
7. Do not cut into the branch collar.

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

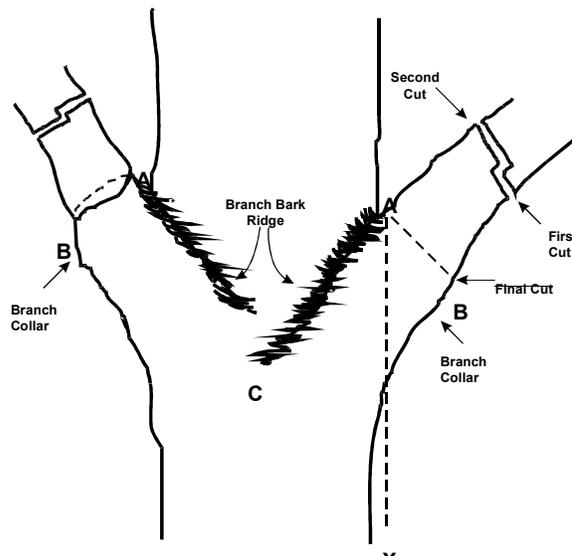


Figure 1. — Hardwood pruning (see figure 2 for conifer pruning).

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, and for wildlife shrubs it increases browse in the understory.

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 any pine limb releases primary attractants (odors) which may attract bark beetles, *Ips*, on small diameter trees (less than 9 inch d.b.h.¹) and Dendroctonus, mountain pine beetles, 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).

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.

¹ d.b.h. = Diameter At Breast Height (4.5 Ft.)

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.

Water Quantity

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

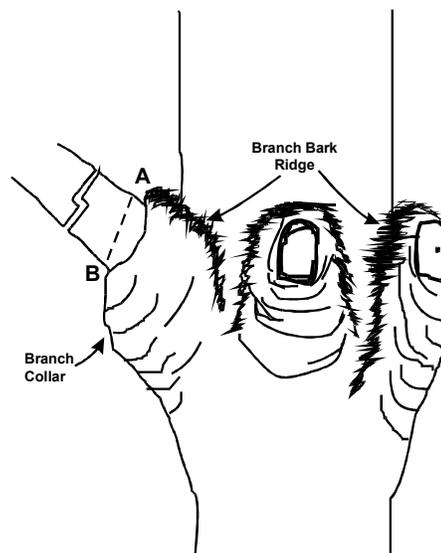
Water Quality

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

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's 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.



Conifers

Figure 2. — Conifer pruning.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, and 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

Re-inspection and re-pruning as needed for the prescribed purposes.