

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD  
SOUTH DAKOTA SUPPLEMENTS ITALICIZED**

**TREE/SHRUB PRUNING**

(ac.)  
CODE 660A

**DEFINITION**

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

**PURPOSES**

- To improve the intended function of the plant.
- To improve appearance *and health* of trees or shrubs.
- To improve the quality of the wood product.
- To 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 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**

***General Criteria Applicable To All Purposes Named Above***

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.

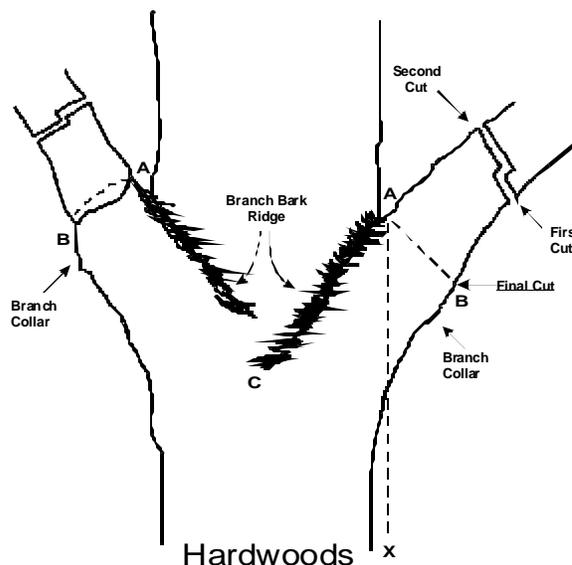


Figure 1. — Hardwood pruning (see figure 2 for conifer pruning).

*Use any appropriate, properly sharpened and maintained pruning tools including shears, pole saws, bow saws, and chain saws. The preferred tools for small and medium sized limbs are a hand or pole saw with a curved blade that cuts on the down stroke. Bow saws and chain saws are more appropriate for larger sized limbs.*

*It is not necessary to paint or treat pruning cuts.*

***Additional Criteria to Improve the Intended Function of the Plant***

*Pruning or shearing for quality Christmas trees:*

*Begin shearing when trees are 3 to 5 years old (approximately 3 feet in height) and terminal leader growth exceeds 12 inches. Continue shearing,*

Conservation practice standards are reviewed periodically and updated if needed. The current version of this standard is posted on our website at [www.sd.nrcs.usda.gov](http://www.sd.nrcs.usda.gov) or may be obtained at your local Natural Resources Conservation Service.

usually every other year, until the trees are marketed.

Basal pruning should be done to form a handle.

Shear pines in late June through the first week in July. Cut the leader back to 12 inches after the new growth (the candle) is fully elongated but still tender and succulent. Cut at a 45-degree angle to the stem. Cut the laterals back to six to eight inches.

Side shearing of pines should be done to produce a taper of 40 to 90 percent. Taper is the base width in relation to the height.

Shear spruces and firs during the dormant period. October through April is the best time for trimming spruces and firs, but timing is not as critical as with the pines.

Cut the leader as necessary to control height growth to about 10 to 12 inches. Shear just above (1/4 to 3/8 inch) a single bud at a 45 degree angle.

All extra leaders shall be removed.

Side shearing should be done to obtain a 40 to 70 percent taper.

#### **Additional Criteria To Improve Appearance and Health of Trees and Shrubs**

Dead and diseased branches should be removed from trees to enhance beauty and improve general view.

When pruning plants with fungal disease infections, sanitize pruning tools between each cut.

Deciduous shade trees may be pruned at any time for hazard situations or to repair storm damage. The ideal time is during the dormant season before new growth starts.

Avoid pruning elm trees when elm bark beetles are flying as the fresh cuts will attract beetles.

The live crown of any tree shall not be decreased to less than 50 percent of the total tree height.

Prune shrubs to improve their shape without changing their natural form, to stimulate blooming, and to improve growth.

Spring flowering shrubs should be pruned immediately after they have bloomed to stimulate wood growth through the current growing season and abundant blooms the following spring.

Summer flowering shrubs should be pruned in fall when dormant, or very early in spring before the growth starts.

#### **Additional Criteria to Improve the Quality of the Wood Product**

Prune ponderosa pine stands with a site index above 65. Select straight, dominant, or codominant trees free of disease, insects, forks, or other defects, and properly spaced.

Begin clear stem pruning when tree diameters are four to eight inches diameter breast height (DBH). Prune 100 to 150 well spaced crop trees per acre; the average spacing will be about 17 to 21 feet.

All branches will be removed to a height of at least 9 feet, but not more than 17 feet.

Do not remove more than one-third of the live crown in any single pruning operation. If necessary prune in two stages to reach a 17 foot height.

Pruning can be completed at any time, but avoid pruning ponderosa pine from April 15 through July 15, if possible.

Pruned branches will be scattered away from the base of the trees.

On site assistance for pruning high value hardwoods such as black walnut is available from the service forester, South Dakota Department of Agriculture, Resource Conservation and Forestry Division.

#### **Additional Criteria to Reduce a Safety Hazard**

Limbs shall be pruned to a height of 8 to 12 feet to facilitate movement.

Do not prune trees touching or near utility lines, Contact the appropriate local utility for assistance.

### **CONSIDERATIONS**

Consider removing fallen branches away from the base of the tree to reduce the potential damage from fire and insects.

Consider the expense of pruning forest stands. For pruning to be cost effective, it should be done on those trees which have the most vigor, best form, and ability to produce quality veneer or sawtimber.

From a work efficiency stand point, consider timing of forest pruning to coincide with a thinning, or other timber stand improvement activities managed for maximum growth. Hold crop trees at least 20 years after pruning.

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.*

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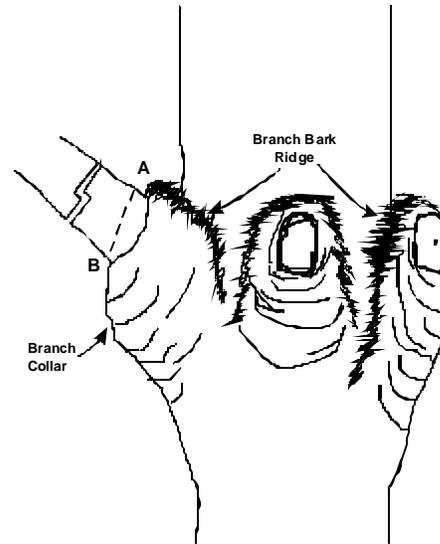
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## PLANS AND SPECIFICATIONS

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.



Conifers

Figure 2. — Conifer pruning.