

**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.
- 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 will be described to

accomplish the intended purpose. Refer to Forest Service publication NA-FR-01-95 "How to Prune Trees" or NRCS Forestry Technical Note #40 for additional guidelines on pruning.

- Use any appropriate, properly sharpened and maintained pruning tools including, shears, chain saws, pole saws and bow saws. The preferred tools for small and medium sized limbs are a hand or pole saw with a curved blade and backward facing teeth. Bow saws and chain saws are more appropriate for larger sized limbs.
- When pruning plants with fungal disease infections sanitize pruning tools between each cut.
- Do not prune oak species from mid-April to mid-July.
- Do not paint or treat pruning cuts. An exception could occur on oaks or elms to protect against oak wilt or Dutch elm disease.

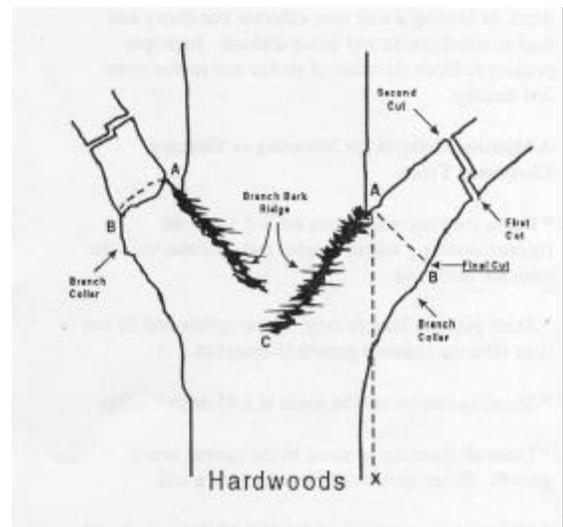


Figure 1. - Hardwood pruning

NRCS-Minnesota  
January 1999

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

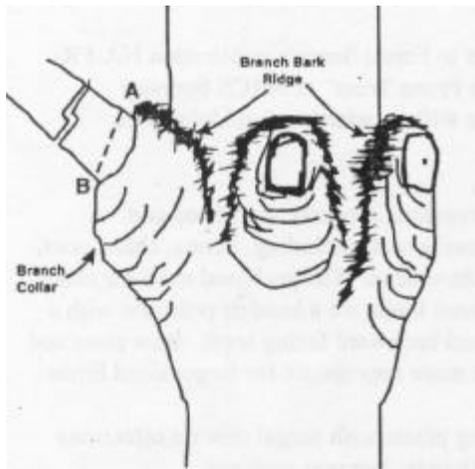


Figure 2. Conifer pruning

- Cutting into the branch collar, pruning flush to the trunk, or leaving a stub may enhance tree decay and lead to wood cracks and tissue dieback. Improper pruning reduces the value of timber and makes trees less healthy.

#### **Additional Criteria for Shearing or Shaping Christmas Trees**

- Begin shearing when trees are 3-5 years old (approximately 3 feet in height) and continue until the trees are marketed.
- Shear pines in June or July. Shear spruce and fir any time after the season's growth is complete.
- Shearing cuts should be made at a 45 degree angle.
- Limit all shearing on pines to the current year's growth. Shear spruce and fir just above a bud.
- Maintain one terminal leader of 8-15 inches in length. On spruce and fir, cut the terminal leader above a live bud.
- Shear side branches proportional to the leader to form a taper or a conical shape.

#### **Additional Criteria For Production of Wood Products.**

##### **A. CORRECTIVE PRUNING OF HARDWOODS**

- Prune seedlings in the spring before the new terminal has grown more than 3 inches. Remove multiple leaders and any damaged terminals.
- If a quality seedling is not apparent after 3 growing seasons, cut the tree off 1 inch above the ground during the dormant season. After stump spouts appear, select the best sprout to leave and remove all others.

##### **B. CLEAR STEM PRUNING**

- Prioritize pruning of stands based on site quality.
- The preferred pruning time is late winter before bud break.
- Prune to develop a single straight stem. Prune to a minimum height of 9 feet; prune up to 17 feet if the objective is to produce clean sawlogs.
- Do not prune higher than 1/3 of total tree height or remove more than one-third of the live crown in any single pruning. If necessary prune at 3 year intervals to reach a 17 foot height.
- Prioritize pruning based on species and local markets. In Minnesota trees to favor include black walnut, oak species (red oak), basswood, ash species, yellow birch, and sugar maple.
- In a stand of young trees, begin clear stem pruning when tree diameter is 4-8 inches. Prune 200-250 trees per acre spaced 12-15 feet apart.
- In a second stage pruning, or in a stand with trees up to 10 inches in diameter, prune 100-150 trees per acre spaced 15-20 feet apart.
- Prune only crop trees in a stand with trees over 10 inches diameter.

#### **Additional Criteria for Pruning White Pine for Blister Rust**

- Refer to MN/DNR Division of Forestry Silviculture Field Tip Number 10 for guidelines and additional information.

#### **Additional Criteria for Pruning Safety Hazard Trees**

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

- Or additional information on trees that pose potential Safety problems, refer to US Forest Service publication NA-FR-01-96, "How to Recognize Hazardous Defects in Trees" or NRCS Forestry Technical Note #40.

### CONSIDERATIONS

- Consider removing and or disposing of pruned branches to reduce the potential from fire and insect damage.
- On small seedlings and branches less than 1/2 inch thick, consider the use of shears with scissor blades rather than anvil-type shears which crush plant tissue and do not leave as clean a cut.
- 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 cost stand point, pruning is justified when it increases the stumpage value of the tree or stand above the cost of pruning.
- Consider limiting pruning to stands with a site index of 55 or greater.
- From a work efficiency stand point, consider timing of forest stand pruning to coincide with a thinning, timber stand improvement, or other release activities.
- Consider giving preference to pruning conifer species that are shade tolerant with persistent branches that don't naturally prune.
- 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.

### 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 limitation, methods, equipment, season of year, and guides to pruning for the applicable purpose shall be considered.

### OPERATION AND MAINTENANCE

Reinspection and repruning as needed for the prescribed purposes.

### REFERENCES

Albers, J. and Albers, M. 1998. White Pine: How to Prune for Blister Rust. MN/DNR Division of Forestry Silviculture Field Tip No. 10.

Baughman, M. and others, 1993. Woodland Stewardship, MN Extension Service, University of MN, St. Paul, MN.

Bedker, P. and others, 1995. How to Prune Trees, USDA, Forest Service Northeastern Area State and Private Forestry publication NA-FR-01-95.

Bedker, P. and others, 1996. How to Recognize Hazardous Defects in Trees. USDA, Forest Service Northeastern Area state and Private Forestry publication NA-FR-01-96.