

# Hardwood Tree Pruning Guide

## Pruning Fundamentals to Growing Veneer Quality Logs

### *Key Topics & Helpful References*

1. Pruning – Why do we need to prune?
  - a. Pruning is all about “managing the competition”
  - b. Removing lower limbs that may be interfering with routine maintenance & travel
  - c. Plantation grown trees versus natural regeneration trees
  - d. Improves quality of butt log; likely increases value of butt log to possible A grade veneer quality
    - i. **Know your veneer market specifications!**
    - ii. Target log lengths: 8’6”; 12’6”, 14’6”, 21’; ***Be sure to allow for stump height & trim allowance when determining total log length.***
    - iii. Limbs & knots are the main reason most trees do not yield A grade veneer
    - iv. Secondary defects: small diameters, wire, lightning, bird peck, wind throw
2. Species to Prune
  - a. Black Walnut
  - b. White Oak species
  - c. All hardwoods that have a veneer or stave market
3. Timing – When to Prune?
  - a. Black Walnut – prefer dormant season (winter months)
    - i. Trees you may not revisit soon should be pruned when you are there! i.e. pruning is more critical than timing
    - ii. Sap bleeding is not an issue alone; possible fungal infections is a greater concern
  - b. White Oak – dormant season
  - c. Red Oak – mid-November to mid-February
4. Tools Needed
  - a. Hand pruners
  - b. Folding, hand-held pruning saw or fixed pruning saw
  - c. Loppers
  - d. Pole saw (manual and/or mechanical); pole saw shears needed
  - e. Small chain saw
5. Utilize “tree-to-tree competition”
  - a. Retain ash, boxwood and some faster growing species like maples and sycamores, but top all species growing faster than the walnut, brush and briars (if present) to “train” walnuts
  - b. Remove fast growing sycamore, cottonwoods, soft maples, basswood and Tree-of-Heaven which are too competitive and can outgrow and overtop the walnuts
  - c. Cut back leaders of canopy competing trees and brush at 75% of the crop tree height once those trees begin to interfere with the growth of the crop trees. In situations where the “trainer brush” is very dense, you may need to cut off the most aggressive stems and apply approved herbicides to the stumps. Basal spraying is preferred by many for thinning thick competition
6. Techniques of **“Target Pruning”**
  - a. Locate central leader and work top down (refer to pruning handouts)
  - b. Prune lateral branches just outside their branch collars to minimize size of the pruning wound.

- i. Branch collars compartmentalize off the branch wood from the stem wood shielding the tree from fungi
  - c. Ideally, remove no more than 25% of the tree canopy in one growing season (might be only one limb)
  - d. Shaping the Central Leader – or “*within tree competition*”
    - i. using tape and/or stakes
    - ii. select the leader with a lateral branch underneath that will apply upward competitive pressure to keep the selected leader straight
    - iii. prune off competing leaders retaining one or possibly two central leaders
  - e. Demonstrate how to use each tool – safely.
- 7. Pruned Limbs and Cut Trees – what to do with them?
- 8. Coppicing
  - a. Why Coppice?
    - i. To remove an unsightly, misshapen stem
    - ii. New sprout will reach the height of original tree in 2 -3 seasons AND will likely have much better shape.
  - b. How to Coppice:
    - i. First, look all the way around the base of the tree to see any defects
    - ii. Saw lower stem at a slight angle about one inch above ground level
    - iii. After sprouts emerge, remove extra sprouts so only the best one remains
- 9. Follow Accepted Safety Procedures when using very sharp pruning tools

**Pruning References:** The following technical articles are posted at the Missouri Chapter, Walnut Council website: <http://walnutcouncil.org/state-chapters/missouri/>  
These articles were written by members of our chapter.

**“Can I Make a Veneer Log?”**

<http://walnutcouncil.org/wp-content/uploads/2018/11/Can-I-make-veneer-log.pdf>

**“Pruning Guide for Walnut and Other Valuable Hardwoods”**

<http://walnutcouncil.org/wp-content/uploads/2019/01/PruningguideMODec2015special-1.pdf>

**“To Prune or Not to Prune”**

<http://walnutcouncil.org/wp-content/uploads/2019/01/TopruneornotMOApr15special-1.pdf>

**“When to Prune Black Walnut Trees”**

<http://walnutcouncil.org/wp-content/uploads/2018/11/When-to-Prune-Black-Walnut-trees.pdf>

**“Pruning Central Hardwoods”**, Central Hardwood Notes, Schleslinger and Shigo, Northeast Forest Experiment Station, USDA Forest Service, Carbondale, Illinois.

**“Corrective Pruning of Black Walnut for Timber Form”**, Walter F. Beineke, FNR-76 Woodland Management, Cooperative Extension Service, Purdue University, West Lafayette, Indiana, 47907, <https://www.extension.purdue.edu/extmedia/FNR/FNR-76.html>

**“Pruning Timber Trees for Form and Function”**, Jay C. Hayek, Extension Forestry Specialist, Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana- Champaign.

**“Corrective Pruning of Black Walnut Seedlings Injured by a Late Spring Frost”**, F.W. Von Althen, Great Lakes Forest Research Centre, Sault Ste. Marie, Ontario, Report O-X-265, Canadian Forest Service, Department of Fisheries and the Environment, June 1977.

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