



# Colorado MASTER GARDENER

## Pruning Flow Chart for Shade Trees no. 7.824

by D. Whiting<sup>1</sup>

Do the roots become re-established following transplanting (as evidenced by current growth)?

No →

**Non-established trees**

- No pruning required at this point (heavy pruning slows root re-establishment).
- Minimal pruning needed to correct:
  - Broken branches
  - Maintain single trunk.

Yes  
↓

Established trees

⇒ Natural growth habit?

- Decurrent tree** (multiple scaffold branches) → See page 2.
- Excurent tree** (single trunk to top)



**Pruning objectives on excurent trees:**

1. Broken, damaged and competing branches
  - No corrective action needed at this time
  - Remove branch(es)
2. Maintain single trunk to top
  - No corrective action needed at this time
  - Pruning needed to correct co-dominant trunks or competing trunks.
3. Select lowest permanent branch
  - Select lowest permanent branch
  - Lowest permanent branch previously selected
  - Tree needs to grow more before selection
4. Branches less than 1/2 the diameter of adjacent trunk (less than 1/3 preferred)
  - No corrective action needed at this time
  - Needs corrective pruning by:
    - Thinning branches to slow growth
    - Removing branches
5. Manage temporary branches, removing over time but before they reach a 2-inch diameter
  - No corrective action needed at this time
  - Needs corrective pruning by:
    - Removing branches
    - Thinning or heading back temporary branches



Putting Knowledge to Work

### Pruning objectives on decurrent trees:

1. Broken, damaged and competing branches
  - No corrective action needed at this time
  - Remove branch(es)
2. Maintain single dominant trunk into upper portions of mature tree size
  - No corrective action needed at this time
  - Pruning needed to correct co-dominant trunk(s) or competing secondary trunks.
3. Select lowest scaffold branch
  - Select lowest scaffold branch
  - Lowest scaffold branch previously selected
  - Tree needs to grow more before selection
4. Select other scaffold branches – Factors to consider:
  - ⇒ Co-dominant or competing branching (Branch diameter less than ½ trunk diameter)
    - No corrective action needed at this time
    - Corrective pruning needed by:
      - Removing codominant branch(s)
      - Thinning branch to slow growth (Note: pay attention to potential crotch angles)
  - ⇒ Branch spacing (18” minimum on trees with mature size larger than 30', 6" minimum on smaller trees)
    - No corrective action needed at this time
    - Corrective pruning needed by:
      - Removing temporary branch(es)
      - Thinning or heading back temporary branch(es) to slow growth
  - ⇒ Branch union (crotch) angles
    - No corrective action needed at this time
    - Remove branch(es)
  - ⇒ Multiple branches originating at one site
    - No corrective action needed at this time
    - Remove branch(es)
5. Manage temporary branches, removing them over time (before they reach a 2-inch size)
  - No corrective action needed at this time
  - Needs corrective pruning by:
    - Removing branch(es)
    - Thinning or heading back branch(es)

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