

Agent In-service Training Pruning and Mulching

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Ver.1.0

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Cooperative Extension Service

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Overview:


- Why do trees in landscapes need to be pruned?
- Pruning objectives
- Techniques in pruning
- Pruning equipment
- Time of year (most frequently asked question)

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Cladogenesis

- Natural shedding of branches in a forest environment
 - low light



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Trees are of the Forest


- Nursery (& landscape)
 - abundance of light, water & mineral elements
- Objective in landscapes:
 - mimic the natural systems that they evolved under



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Branch Attachment



Natural Target Pruning:


- 1) Do not cut into collar (red)
- 2) Do not damage branch bark ridge (white)

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Pruning Objectives

- Identify (leave) Lowest Permanent Branch
 - 4-6 foot (landscape)
 - 7-8 feet (sidewalk)
 - 12-14 feet (over street)
 - may not exist at planting
 - leave as many branches as possible (1st year)
 - subordinate (shorten) ones to be removed later



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Pruning Objectives

- Leave as many branches as possible:
 - increased trunk diameter
 - slower increase in height
 - increased root regeneration
- Corrective pruning that may be difficult to do later



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Pruning Objectives

- Nice looking tree ready to go into the ground?
- Not yet!



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Pruning Objectives

- Nice looking tree ready to go into the ground?



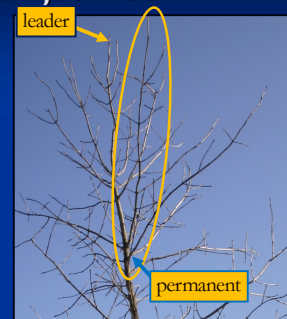
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Pruning Objectives

- Co-dominant leader developing
- Closely spaced branches



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Pruning Objectives

- Year 2 & 3+
 - begin removing lower branches for passage of traffic (walk & street)
 - begin removing crossing branches & ones close to other scaffold branches



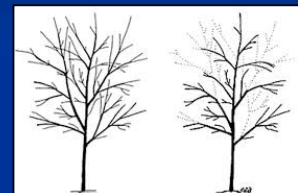
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Structural Pruning

- Maintain a central leader
- Well-spaced laterals
- Remove: broken, diseased, dead wood



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Co-dominant Leader



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Multiple branches



Acer rubrum
Red maple



Cercis canadensis
Eastern redbud

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Multiple Branches

- Avoid trees that have been rounded-over to produce a full-looking crown



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Pruning Equipment

- Scissors type (top)
 - cuts from top AND bottom
- Anvil type (bottom)
 - cuts from the top & crushes the bottom
- Quality: handles should not wiggle



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Pruning Equipment

- Fixed blade or folding
- Cut on the pull (carpenter's saw cuts on the push)
- Coarse (aggressive) teeth
- Thin blade to get into tight branch angles



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Time of Year

- Avoid periods of low carbohydrate reserves
 - leaf out
 - leaf drop
 - drought
- Avoid flight time for problematic borers



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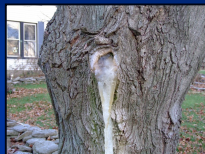
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Time of Year

■ Avoid Feb 1-June 1 for the bleeders

- maple ■ magnolia
- elm ■ poplar
- birch ■ willow
- linden ■ honeylocust
- dogwood ■ yellowwood
- hornbeam ■ grape
- resinous conifers



- Does not harm tree
- May attract bees & ants

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Time of Year

■ Flowering:

- If it flowers before
June 1st, prune it after
it flowers (flowers on
old wood)
- If it flowers after
June 1st, prune it before
it flowers (flowers on
new wood)



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Time of Year

■ The Very Best Time???

- Period of high energy
reserves)

■ The Second Best Time?

- as soon as you can get
to it.



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Closing Points:

- **Don't buy trees by the pound (over-dense canopy).**
- **Train a central leader.**
- **Well-spaced scaffolding branches.**
- **Practice natural target pruning & avoid pruning paints.**



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Comments/Questions?

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