Managing Landscape Trees During Drought

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What's the problem?

- Improper tree selection
- Trees in lawns
- Shallow roots



Tree roots

- Relationship to canopy
- May be deep
 - Depends on soil and irrigation history



How to Water Trees

- Deep to 2 -3 feet
- Beneath the canopy
 - Beyond the drip line
- Every two weeks or so



Tree roots

- Recently planted trees
 - Roots are mostly within the container soil ball
 - Roots may be just entering the native soil
 - Will take several years to fully establish



Things that increase water use

- Heat absorbing surfaces nearby
 - Parking lots
 - Large concrete surfaces
 - West and south facing walls



Recognize water stress

- Incipient
 - Color change to bluish or grayish green
- Temporary
 - Flagging, wilting
- Permanent wilting
 - Desiccation, drying
 - Nonrecoverable



Secondary effects

- Susceptibility to:
 - Insects
 - e.g., Borers
 - ambrosia beetles
 - longhorned eucalyptus borers
 - Diseases
 - e.g., Root rots
 - Phytophthora and Oak root fungus
 - Armillaria



Reduce tree water requirements

- Light pruning to reduce leaf area
 - DO NOT prune heavily
- Change irrigation schedule SLOWLY
 - 3x per week original schedule
 - 2x per week for 2 weeks
 - 1x per week for 2 weeks
 - Finally, 1x per 2 weeks

Things to do

- Water deep, but not too often
- Keep water away from trunk
- Avoid runoff, apply water slowly
- Mulch!



Thank you lroki@ucdavis.edu

Photo: L.Ok