Tree Care Workshop

Pruning for Tree Health and Well-Being

Ursula Schuch
School of Plant Sciences
University of Arizona
ukschuch@ag.arizona.edu
Reasons to prune trees

• Remove dead, damaged or broken branches
• Remove rubbing, crossing, inward growing branches
• For visibility and safety
• Training young trees
• Direct future growth
• Control plant size
• Reduce canopy density
Where to cut?

Branch Bark Ridge

Branch Collar
✓ Prune outside the branch collar
✓ Leaves branch protection zone intact in branches smaller than the trunk
✓ Allows the wound to heal
✓ Leave the cut to heal naturally
✓ Do not apply paint to the cut surface
Proper pruning cuts

✓ Cut outside the branch collar
✓ Do not leave stubs
✓ For branches larger than 1” diameter use the 3 cut method
✓ This prevents tearing the bark
Cutting a dead and living branch with the 3 cut method

1. Undercut - away from the trunk about one third into the bottom of the branch
2. Remove branch outside of undercut
3. Final cut outside the branch collar
Cutting a dead and living branch

Dead Branch

Living Branch

Second Cut

Cut First

Branch Collar

Branch Bark Ridge

Final cut

First Cut

Third Cut

Branch Collar
When to prune?

- **Winter** - Deciduous Trees
- **Spring** - Evergreens before spring growth starts
- **Summer** - Native trees
- Anytime – light pruning or when cleanup is needed
How much to cut?

• Remove no more than 25% of the foliage in one year.

Why?

Removing more canopy will prevent the tree from producing its own food through photosynthesis.
Reduction cut – controls size

• Cut branch should be no more than three times as thick as remaining branch
• Branch is cut back to lateral
• Also called drop crotch cut
Do not top trees

• Removes too much foliage
• Destroys the structure of the tree
• Does not control tree height
• New branches are weakly attached
Do not lion-tail trees

- Removes too much foliage
- Leaves unbalanced branches, sunburn prone
- Will grow many suckers
Training trees

• Develop sound canopy structure
• Single leader, well spaced branches
• Remove or shorten co-dominant stems
• Remove or shorten competing stems
• Identify lowest permanent branches, control growth of temporary branches (usually about 5 years after planting)
Training young trees

- Develop sound canopy structure
- Single leader, well spaced branches
- Remove, shorten co-dominant stems
- Remove or shorten competing stems
- Identify lowest permanent branches, control growth of temporary branches
Co-dominant stems
Pruning palms

• Remove only dead or dying fronds
• Leave all horizontal and upward pointing fronds
• Removing green fronds stresses the plant
DON'T CUT GREEN FRONDS.

A LITTLE TOO MUCH OFF THE TOP!

PRUNE FRUITING STRUCTURES?

SLOW DEATH OR INFECTION
Pruning Summary

- Prune for a reason
- Cut outside the branch collar
- Use the 3-cut method for larger branches
- Prune at the right time
- Cut less than 25% of foliage in one year
- Train trees, direct growth
Resources


• http://cals.arizona.edu/pubs/crops/az1455.pdf