

Pruning Trees and Shrubs



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UA Publications on Pruning

Pruning Deciduous Shade Trees

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1139-2015.pdf>

Pruning Citrus

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1455.pdf>

Pruning Shrubs in the Low and Mid Elevation Deserts in Arizona

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1499.pdf>

Pruning Evergreen Shrubs

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1661-2015.pdf>

Pruning Hedges to provide Screening

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1660-2015.pdf>

Landscape Maintenance Considerations for Homeowners Associations: Save Money, Be Safe, Look Good! (Powerpoint with notes)

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1613b.pdf>

Training and Pruning Newly Planted Deciduous Fruit Trees

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1668-2015.pdf>

Pruning is the intentional removal of parts of a plant for a purpose.



Pruning Equipment

Pruning Shears



Scissor
Action



Anvil
Action

Lopping Shears



Scissor
Action

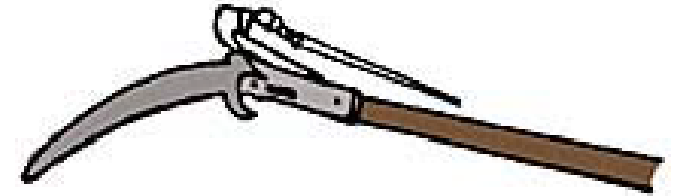


Figure 2. Combination pole
saw pruner



Figure 4. Pruning saws
(folding saw and bow saw)

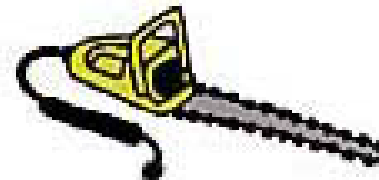
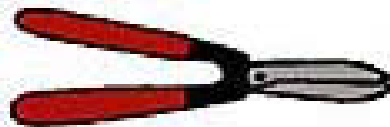


Figure 3. Hedge shears
(manual and power)

Sterilizing tools

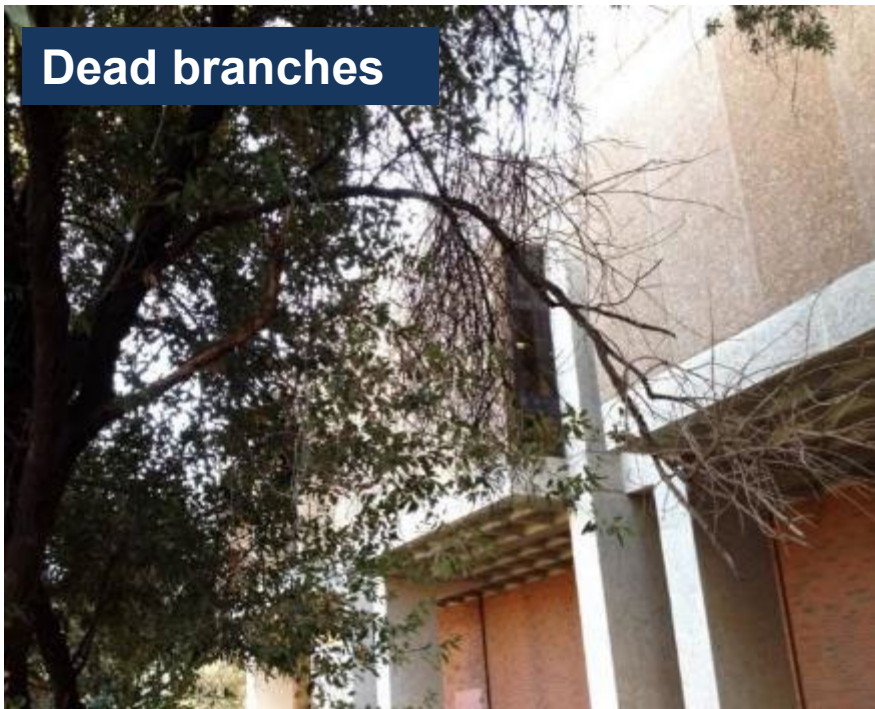
Virus, vascular fungus,
bacteria

Avoid oozing cankers

70% Isopropyl alcohol

Listerine, Lysol, Pine-Sol

Dead branches



Sign blocked



Rubbing/crossing branches

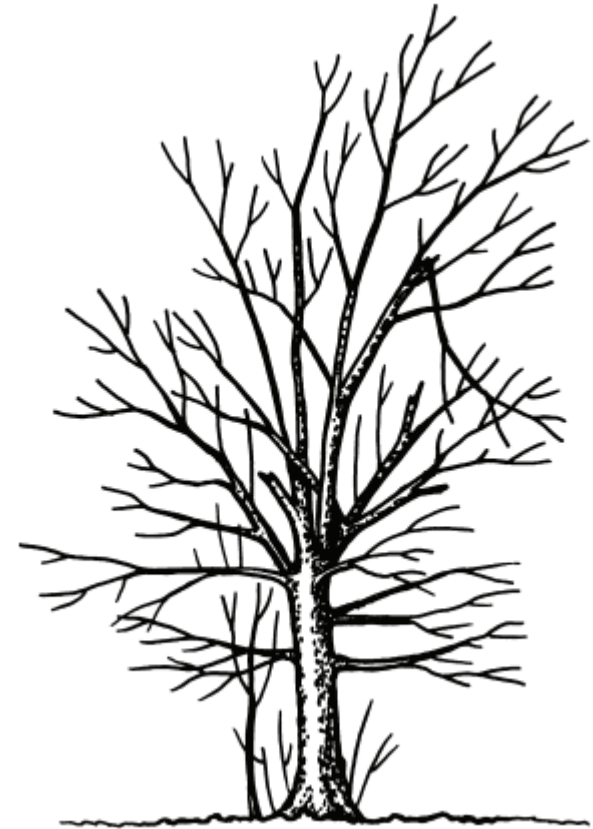


Broken branch



Why Do We Prune Plants?

- ✓ To remove damaged/broken branches
- ✓ To remove rubbing, crossing, inwardly growing branches
- ✓ To remove water sprouts or suckers
- ✓ For visibility & safety considerations
- ✓ To train young plants
- ✓ Control plant size
- ✓ Rejuvenation of plants
- ✓ Increase flowering, fruiting and vigor





Co-dominant leader

Remove suckers, root stock suckers, and adventitious buds growing on the stem



Remove suckers, root stock suckers, and adventitious buds growing on the stem

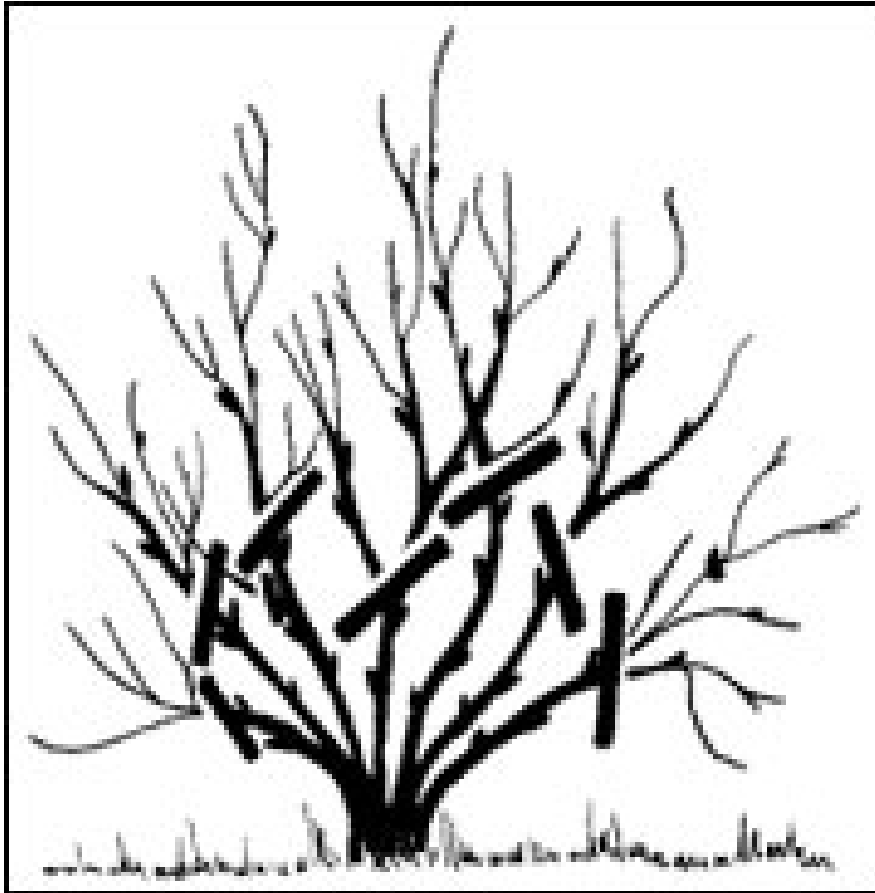


Pruning Basics

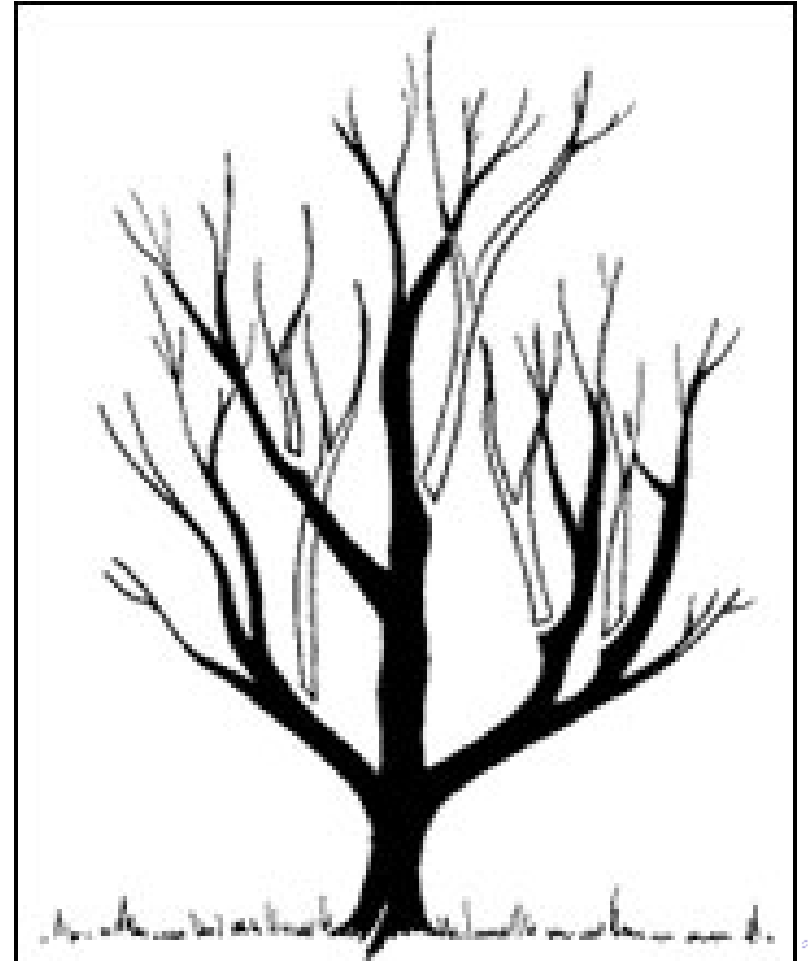
- **Never remove more than 25-30% of the canopy in any given year**
- If the plant requires frequent pruning, then it may not be the best suited plant for that situation
- **Pruning/training young trees best done when trees are young**
- Shearing of shrubs is labor intensive, generally unnecessary, requires regular repeat shearing

Pruning Basics

Heading versus Thinning



Cut anywhere
Leaves STUBS



Cut back to next lateral branch
NO STUBS

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**



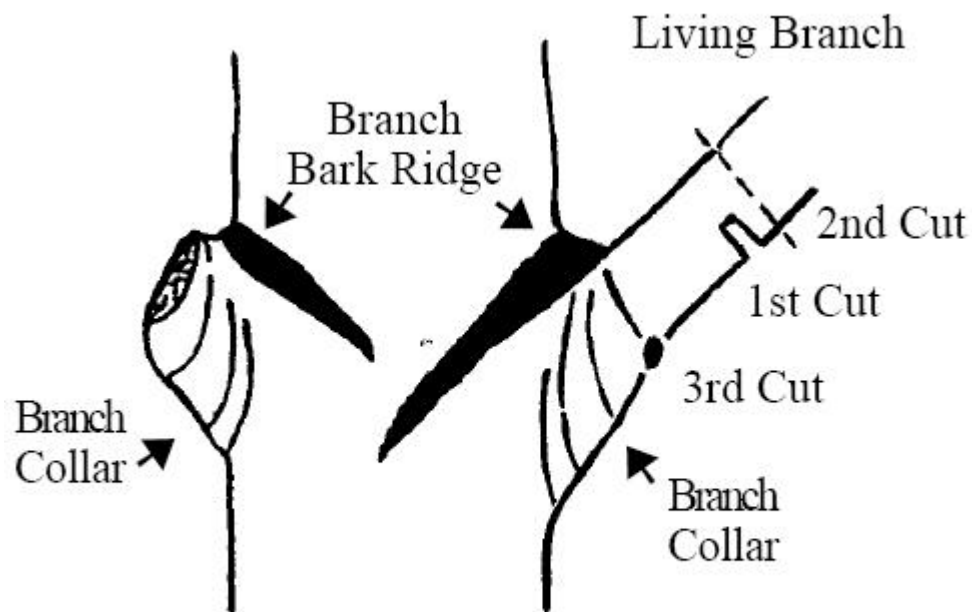
Proper pruning cuts

- ✓ 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

Removing Branches

3-cut method to remove larger branches

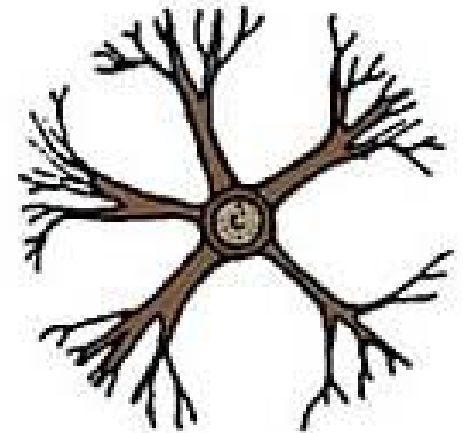
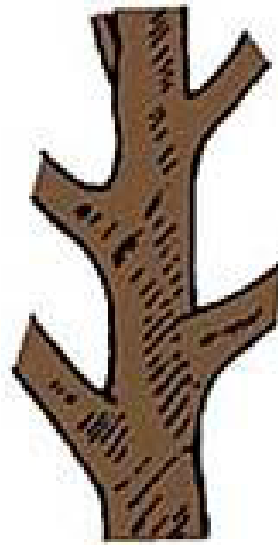
- Locate the branch collar
- Make first cut from below
- Make second cut from above and outside of first cut
- Make final cut to preserve branch collar



Branch bark ridge and branch collar

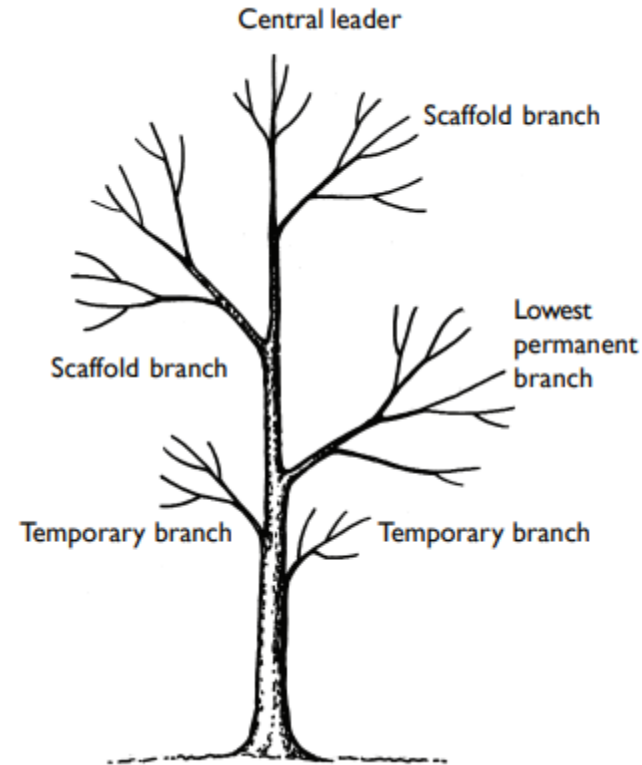
Branch Spacing

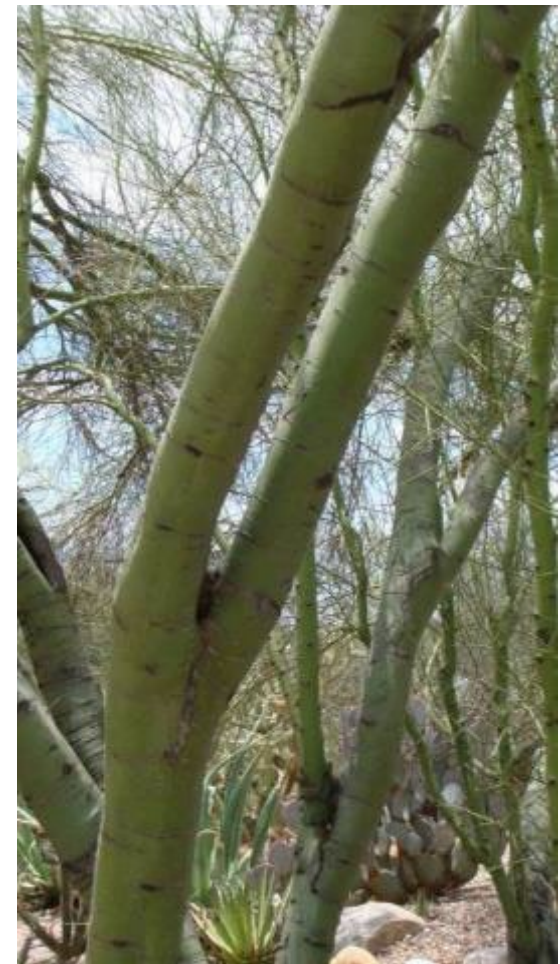
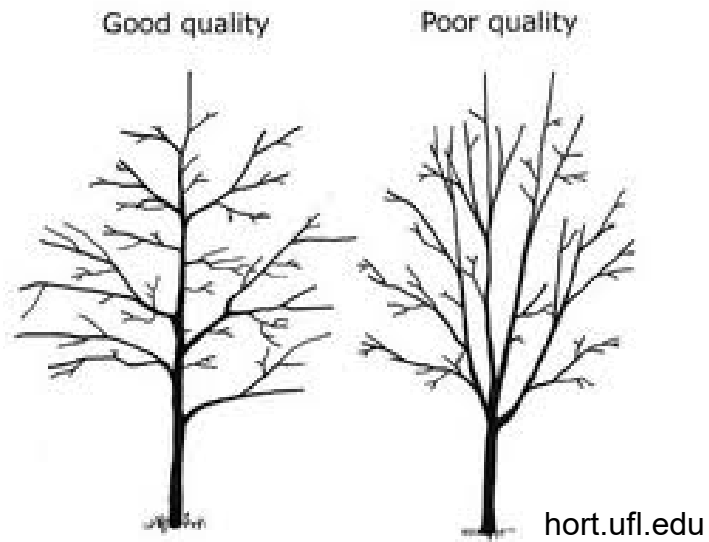
- Vertical spacing should allow for radial branch growth
- Radial spacing should be as balanced as possible



Training young 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)





Co-dominant
stems

What time of year to prune trees?

- Deciduous trees – **winter dormancy**
- Conifers – **winter dormancy**
- Native trees – **summer**

- In the low desert pruning can be done almost year round
- Light pruning or cleanup can be done anytime

Do not top trees



- Removes too much foliage
- Entry for disease organisms or insects
- Destroys the structure of the tree
- Does not control tree height
- New branches are weakly attached





Crown reduction reduces tree height



Do not lion-tail trees

- Removes too much foliage
- Leaves unbalanced branches, sunburn prone
- Will grow many suckers
- Tree dies due to starvation



Sonorantreesvc.com



Traversotree.com

Pruning Conifers

- Single leader – excurrent form when young
- Strong apical dominance
- Laterals naturally well spaced
- Maintain this natural form!



Pruning Conifers

- Conifers growing in a landscape with sufficient space do not require pruning.
- Prune dead, dying, damaged, or hazardous branches.
- Common pruning is removal of lower branches to allow traffic to pass.
- Reduction and thinning cuts are not appropriate.
- Most conifers cannot grow new shoots from old wood – prune light



Pruning Palms

- Remove only dead or dying fronds
- Leave all horizontal and upward pointing fronds
- Removing green fronds stresses the plant





Pruning Shrubs



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az1499

Revised 01/16

Pruning Shrubs in the Low and Mid-Elevation Deserts in Arizona

Ursula K. Schuch



THE UNIVERSITY OF ARIZONA

Cooperative Extension

az1499S

junio 2022

Poda de arbustos en los desiertos de baja y media elevación de Arizona

Ursula K. Schuch

Pruning Shrubs

- Maintenance begins at planting and pruning should begin before the plant reaches the desired size
- Slow growing shrubs normally have a well defined branch structure
- Shearing should be avoided
- Fast growing shrubs generally have many shoots originating at the base of the plant and require regular pruning



Other Shrub Pruning Concepts

- Visualize what the plant will look like with the branch in question removed
- Never remove more than 25-30% of the old branches annually, unless rejuvenating
- If the plant must be drastically reduced in size, reduce it over a 3-4 year period
- Make cuts on shrubs at varying lengths in order to leave the shrub with a textured natural look
- Fast growing plants such as oleander can be pruned to within 6 inches of the ground and will re-sprout rapidly

Before



After



Before



After



Selective thinning removes branches to point of attachment (left) or to the base of the plant (right)



A heading cut results in multiple shoots.



**Avoid stubs,
they just
die back**

Shrubs for the low and mid-elevation deserts in Arizona that require little or no regular pruning. Light pruning for size control or selective thinning can be done anytime.

Latin Name

Common Name

Dodonea viscosa

Hop bush

Fallugia paradoxa

Apache plume

Juniperus chinensis cultivars

Juniper

Larrea tridentata

Creosote

Ligustrum japonicum

Waxleaf privet

Nandina domestica

Heavenly bamboo

Pittosporum tobira

Japanese mock orange

Rhus microphylla

Little-leaf sumac

Rhus ovata

Sugar bush

Rhus virens

Evergreen sumac

Simmondsia chinensis

Jojoba

Thuja cultivars

Arbovitae

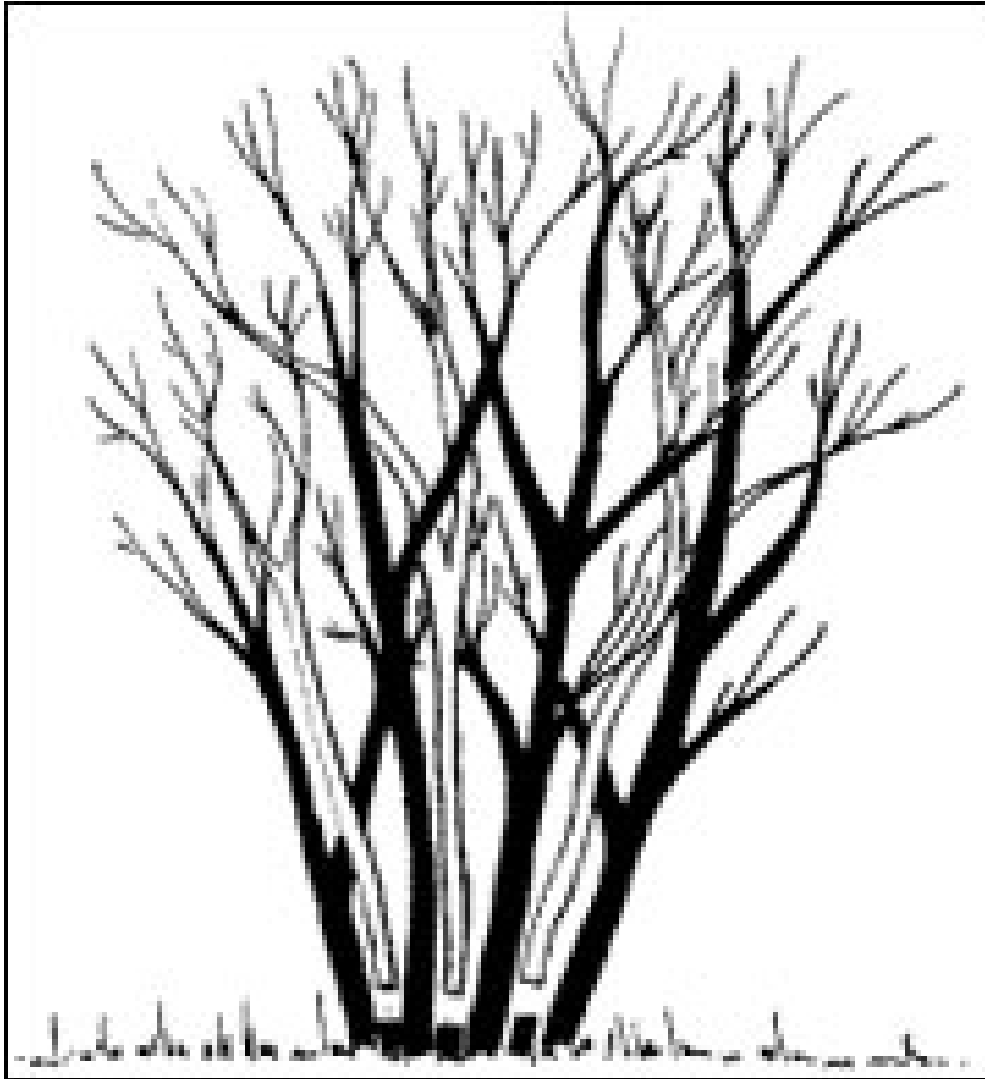
Vauquelinia californica

California rosewood

Xylosma congestum

Xylosma

Rejuvenation



Remove old or crowded stems from multi-stemmed large shrubs **at the base**

Rejuvenation of shrubs



Cut shrub 10 -16 inches above the ground

Late winter/ early spring

Thin branches out and cut back in height during summer

By fall the shrub has grown a full new canopy

Fast growing shrubs respond well

Does not work for arbovitae, juniper, rosemary

Why Not Shear Shrubs?

1. It looks unnatural
2. Flower production is decreased
3. It is very labor intensive
4. Plants soon become woody on the interior
5. Height is more difficult to control
6. Design intent is lost



Hedges

Choose evergreen plants with small leaves, short internodes, dense branching and that are able to sprout from old wood.

Keep the number of hedges to a minimum because they are labor intensive.

Shrubs suitable for formal and informal hedges

Latin Name	Common Name	Informal	Formal
<i>Buxus microphylla japonica</i>	Japanese boxwood	+	+
<i>Ligustrum japonicum</i>	Waxleaf privet	+	+
<i>Myrtus communis</i>	Myrtle	+	+
<i>Simmondsia chinensis</i>	Jojoba	+	+
<i>Xylosma congestum</i>	Xylosma	+	+
<i>Juniperus chinensis cv.</i>	Juniper	+	+
<i>Carissa grandiflora</i>	Natal plum	+	+
<i>Dodonea viscosa</i>	Hop bush	+	
<i>Leucophyllum frutescens</i>	Texas ranger	+	
<i>Leucophyllum laevigatum</i>	Chihuahuan sage	+	
<i>Nandina domestica</i>	Heavenly bamboo	+	
<i>Nerium oleander</i>	Oleander	+	
<i>Punica granatum</i>	Pomegranate	+	
<i>Thuja cultivars</i>	Arbovitae	+	



**Formally sheared
Xylosma hedge**



Shading and continuous shearing causes defoliation and thinness at the base of this hedge.



**Informal pomegranate
hedge, minimal
maintenance required.**



Informal *Myrtus communis* hedge works also well for shearing



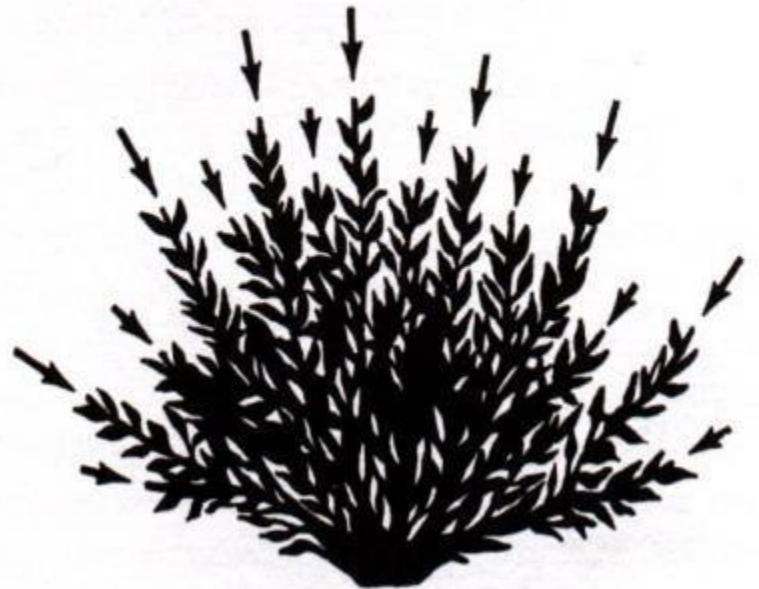
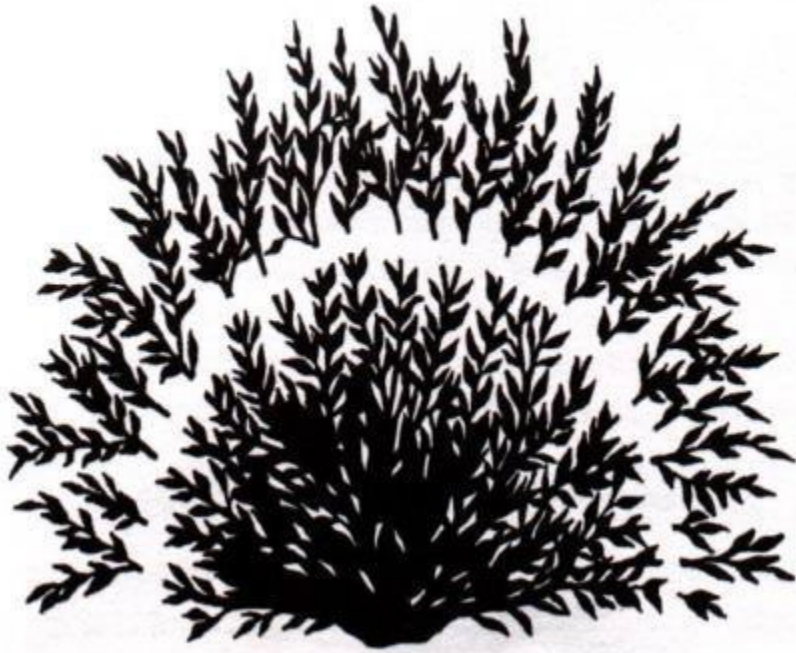


How to Avoid Shearing Shrubs

1. **NEVER** use hedge shears.
2. Selectively cut branches, cut just above a bud or side shoot.
3. Remove stems throughout the plant.
4. Cuts can be as severe as you desire.

Naturalistic Shrub Pruning

1. Cut branches back to a rough globe shape.
2. Cut every other branch back 6-9 inches to the first large V.



How to Prune Shrubs

1. Know the flowering period for the shrub
2. **Prune after bloom period**
3. Try not to remove major branches which will open up the plant to sunburn
4. Keep pruning to a minimum

5. If a shrub requires continual pruning, consider removing the plant and replacing with a slower growing or smaller size plant

6. Remove dead flowers 'deadheading' as soon after bloom as possible to reduce seed production and litter

7. If possible, attempt to cut above a bud on the stem



Texas olive
(*Cordia boissieri*)
can be grown as
shrub or tree



Shrub pruning summary

- Unless necessary, don't prune.
- Prune at the right time of year.
- Use the natural growth form of a shrub as a guide for naturalistic pruning.
- Don't shear unless required for formal hedges.



How to Hire a Tree Expert

Lucy Bradley, Revised by Ursula K. Schuch



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What is a certified arborist?

- **ISA (International Society of Arboriculture)** arborist certification: nongovernmental, voluntary process by which individuals can document their base of knowledge. Certification provides a measurable assessment of an individual's knowledge in the competencies needed for proper tree care.
- Professional who have an ISA Certified Arborist[®], are recognized by their peers and the public as a **tree care professional** who has attained a generally-accepted level of knowledge in areas such as tree biology, diagnosis, maintenance practices, safety, and other subject and practice areas within the tree care profession as identified through periodic job task analyses.
- They **must also continue their education to maintain their certification**. Therefore, they are more likely to be up to date on the latest techniques in arboriculture.



- Tree experts/arborists are hired for pruning, tree removal, emergency tree care, planting, maintenance
- Selecting an arborist
 - Check credentials
 - Check insurance
 - Check references
 - Get estimates
 - Get a contract with costs, duration, start/end of job
 - Clarify exact work (spraying, fertilizing, cleanup, who gets firewood, stump grinding, maximum charge)

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