

Tree Selection requires careful thought and research, as trees last a long time, and are expensive to remove.

Container size: Often a 5 gallon tree will grow as fast as a 15 gallon size tree within a year or two, if it is not rootbound. Watch for possible girdling roots caused by nursery practices. Deciduous fruit trees are often best purchased and planted in Winter, dormant.

Placement of your tree: Know the size and spread of the proposed tree, don't prune to fit the space! Avoid overhead wires, and neighboring trees. Think about the sun pattern, so you can have shade where and when you want it. (Deciduous trees on South or Western side of the house or patio).

Space plants for growth: Mature size vs. ultimate size (and don't trust the internet!). Plant understory plants for sun now, shade later, fill in with annuals and short-lived perennials until the tree is larger. Gardens are always in transition or succession.

Planting: Mix compost with native soil on the sides, but not at the bottom of hole (to avoid settling). The tree roots **MUST** enter the native soil. Keep the same soil level, when planting. Never bury the crown of the trunk. Cut any girdling roots. They can kill the tree later as they grow.

Staking: Staking is only temporary, and must allow the tree to flex which develops a strong tapered trunk. Remove the nursery stake right away and replace with two stakes and flexible ties. Remove those stakes as soon as trunk is tapered, strong, and can stand on its own. Be very careful of girdling ties.

Pruning: Imagine the tree as it grows; early shaping is important. Use thinning cuts, not heading cuts. No topping! Keep foliage on the young trunk to shade it and to add girth. Remove an unwanted side shoot when it is 1/2 the size of the trunk. Cut branches above the "collar" and don't leave "coat-hangers".

Reduce Fertilizers: Use plants with low nutrient requirements, fertilize less often, at lower rates, if at all. Instead, use aerobically activated compost tea, compost and keep the leaves under trees (oaks need that for health!). Healthy forests don't need chemicals.

Reduce Pesticides: Plant pest-resistant plants and consider getting rid of plants that require constant chemical spraying. Keep your trees healthy and unstressed. Use companion plants that encourage beneficials and ignore some pests for awhile to allow predators and parasites to appear. Import beneficial insects if necessary. Diversify, and avoid monoculture.

Tree roots: Imagine a wine glass on a plate. Roots are primarily in the top 12", spreading far past the drip line, with sinker roots for stability, but it depends on the species of tree.

Water wisely

New trees need more frequent watering, where root ball is located; Established trees, if locally adapted, need no irrigation at all. Utilize hydrozoning (planting plants with similar irrigation needs on the same valve), irrigate trees on a separate valve, so they can be deep watered infrequently. Add compost and mulch to reduce the need for water, Use drip irrigation, and possibly an ET timer.

Trees and Lawns do not generally need the same type of irrigation. Frequent sprinkler irrigation received by lawns favor shallow roots, even on top of the lawn (Magnolia, Liquidambar). Mowers and string trimmers can damage trunks.

If the lawn is gone, what strategies deal with fallen leaves and litter?

1. Change your expectations of complete tidiness!
2. Always keep mulch on the ground (no bare earth).
3. Allow some of the leaves to become one with the mulch.
4. Select trees for smallish leaves (no Magnolias!)
5. Space plants far enough apart to rake between them.
6. Select plants where leaves can fall and be hidden underneath.
7. Select plants that can be brushed aside like bunch grasses.
8. Select perennials that are cut back in fall, and do a wholesale clean-up of leaves and plants at one time of the year. (Compost!)

Drought tolerant trees for larger landscapes

- Incense Cedar
- Deodar Cedar
- Italian Cypress
- Eucalyptus (many types)
- Ginkgo
- Canary Island Pine
- Sycamore
- Coast Live Oak
- Valley Oak
- Pepper Tree
- Chinese Elm
- California or Mexican Fan Palm

Drought tolerant trees for smaller landscapes

- Marina Strawberry Tree
- Weeping Bottlebush
- Toyon
- Western Redbud
- Tristania
- Catalina Ironwood
- Acacia
- Hawthorn
- Golden Rain Tree
- Melaleuca
- Ray Hartman Ceanothus
- Oleander
- Chaste Tree
- Chitalpa
- Smoke Tree
- Purple Hopseed
- Coast Silktassel
- Crape Myrtle
- Grecian Laurel
- Pittosporum
- Majestic Beauty Indian Hawthorn
- Shiny Xylosma
- Purple Leaf Plum
- Portuguese Laurel

Drought tolerant edible trees

- Elderberry
- Persimmon
- Pomegranate
- Apple
- Mulberry
- Pineapple Guava
- Olive
- Fig
- Loquat

These are not exhaustive lists, but a starting point!

-- Deva

Mountain View Resources:

Mountain View Trees: www.mountainviewtrees.org

City of Mountain View Forestry and Roadways: (650) 903-6273; www.mountainview.gov

TREE CARE FOR



WATER CONSERVING LANDSCAPES

Deva Luna

EarthCare Landscaping

408-871-2792

Topics for today

- Tree Selection
- Planting & Staking
- Fertilizing, Composting
- Watering, Hydrozoning
- Pruning
- What can you plant underneath?
- How/when do you clean up leaves & litter?
- When do you need an Arborist?

Size of nursery container

Often a 5 gallon tree will grow as fast as a 15 gallon size tree within a year or two, if it is not rootbound. Proper staking and initial pruning is necessary.

Placement

Know the size and spread of the tree, don't prune to fit the space!
Avoid overhead wires, and neighboring trees
Think about the sun pattern, so you can have shade where and when you want it. (Deciduous trees on South or Western side of the house or patio).

Space plants for growth

- Minimize pruning and yard waste!
- Mature size vs. ultimate size
- Fill in with annuals and short-lived perennials
- Understory plants for sun now, shade later
- Gardens are always in transition or succession



Mixed herbal groundcovers, some sun and some shade-loving

Ecological succession as a tree grows

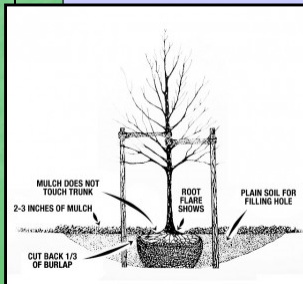
Planting

Mix compost with native soil on the sides, but not at the bottom of hole (avoid settling). The tree roots **MUST** enter the native soil.

Keep the same soil level, when planting. Never bury the crown of the trunk.

Cut any girdling roots. They can kill the tree later as they grow.

Staking



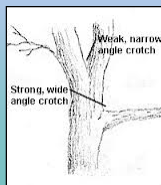
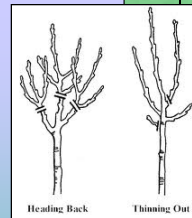
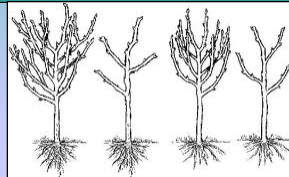
Staking is only temporary, and must allow the tree to flex which develops a strong tapered trunk. Use two stakes and flexible ties.

Remove stakes as soon as trunk is tapered, strong, and can stand on its own.

Be very careful of girdling ties.

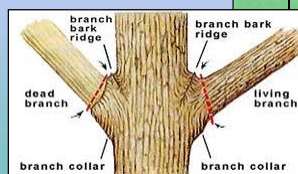
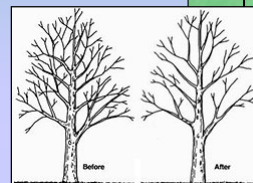
Pruning young trees

- Shape a tree when it is young. Imagine it grown.
- Remove duplicate branches
- Keep foliage on trunk awhile, until the side branches are 50% the size of the supporting branch
- Avoid narrow crotch angles
- Use thinning cuts, not heading cuts



Pruning mature trees

- Enhance the natural shape
- Open up dense growth
- Don't leave "coat hangers"
- Don't cut into the branch collar
- Hire a certified arborist





Coast Live Oak cylinder



Olive Tree Squares



I don't even know what it is!



Guess what kind of tree this is?



Redwood Trees



Japanese Maples

Reduce Fertilizers

- Use plants with low nutrient requirements
- Fertilize less often, at lower rates, if at all
- Use aerobically activated compost tea

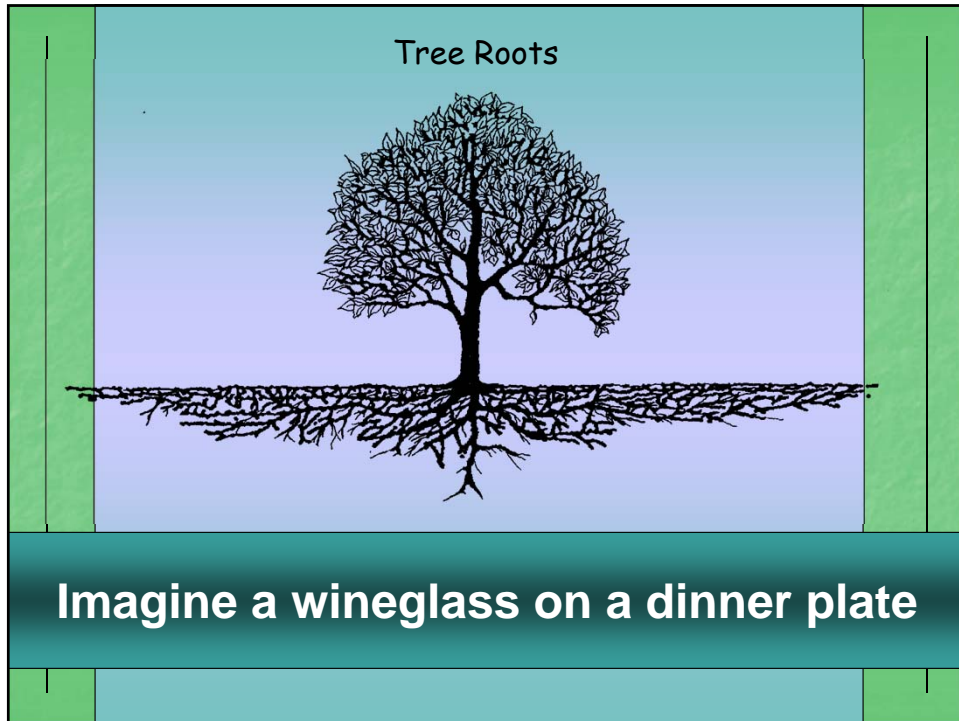


- Keep leaves under trees (oaks need that!)
- If you use the compost you make, you are closing a loop!

Reduce Pesticides

- Plant pest-resistant plants
- Plants that encourage beneficials
- Keep them healthy and unstressed
- Ignore some pests for awhile to allow predators and parasites to appear
- Import beneficial insects if necessary
- Diversity, avoid monoculture
- Consider getting rid of plants that require constant spraying





Water wisely

- Drip irrigation, possible ET timer
- New trees need more frequent watering, where root ball is located
- Established trees, if locally adapted, need no irrigation at all
- Hydrozones, irrigate trees on a separate valve, so they can be deep watered infrequently
- Add compost and mulch to reduce the need for water



Lawns and Trees

Most tree health is not compatible with lawn irrigation





Surface roots caused by frequent lawn irrigation



Failed lawn due to competition and shade
Solution: Mulch and/or ground covers



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What can you grow under large trees?




Design & Installation: Erin Dougherty Photo: Laura Livingood

Berkeley Sedge after haircut, annual clean-up




Plant compatible drought-tolerant shade-loving understory


Iris 'Canyon Snow'




Hummingbird Sage



Yerba Buena



Alum Root & Douglas Iris



Shade, Little Water

Flowering Currant



Wild Ginger



Redwood Sorrel



Western Chain Fern

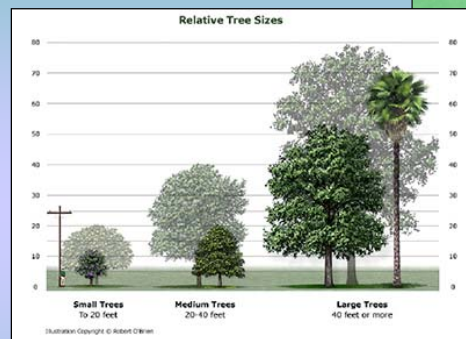


Shade, Summer Water

Lists of drought tolerant trees

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Trees for Smaller Yards

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- Coast Silktassel
- Crape Myrtle
- Grecian Laurel
- Pittosporum
- Majestic Beauty Indian Hawthorne
- Shiny Xylosma
- Purple Leaf Plum
- Portuguese Laurel

Droughty Edible Trees

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- Persimmon
- Pomegranate
- Apple
- Mulberry
- Pineapple Guava
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- Fig
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Consider multi-trunk trees

KEEP YOUR ORGANIC MATTER

Support the Soil-Food Web

- Composting
- Sheet Composting
- Compost Tea
- Vermiculture



Keep your rainwater onsite for your trees

- Don't allow water to go to the sewer
- Use pervious hardscape such as gravel, DG and pervious concrete
- Divert downspouts to drywells, swales or dry creeks



Gravel used as mulch, all droughty plantings

Installation: EarthCare Landscaping

PERVIOUS CONCRETE



EarthCare Landscaping
www.prettypervious.com

Resources

- www.ourcityforest.org

San Jose resources

- www.canopy.org

Palo Alto resources

- www.treesaregood.com

International Society of Arborists

(find an arborist)

- www.plantamnesty.org

Whose mission is to end the senseless torture and mutilation of trees and shrubs.

