LANDSCAPING WITH TREES AND SHRUBS
SELECTIONS FOR THE FOOTHILLS

Presented by

STEVE SAVAGE

University of California Cooperative Extension
Master Gardener of El Dorado County
COURSE OUTLINE

1. Getting Started
2. Basic Landscape Concepts
3. Site Considerations
4. Selection Considerations
5. Shrub Selections
6. Tree Selections
7. Drought Tolerant Selections
8. Bringing It All Together
9. Planting, Pruning and Maintenance
10. Hedges
1. GETTING STARTED

• Determine your goals for your landscape
• Identify your wants
• Consider features
GOALS FOR THE LANDSCAPE

• Privacy
• Safety
• Entertainment
• Recreation
• Fire safety

• Modify climate
• Beautify property
• Reduce water use
• Attract or repel wildlife
WANTS

• Think about what you want
• Your favorite plants
• Write it down
• Make lists
  – Brainstorm
  – Organize/ prioritize them
FEATURES TO CONSIDER

- Patio for parties
- Outdoor cooking area
- Secluded area
- Play area
- Swimming pool/spa
- Orchard
- Vegetable garden
- Flower garden
- Utility/work area
2. BASIC LANDSCAPE CONCEPTS

- Traditional home landscape areas
- Create rough designs
- Design considerations
- Design principles
Traditional areas in the home landscape:

• Public area
• Living area
• Service area
Let’s talk a little bit about each of these...
PUBLIC AREA – THE FRONT YARD

**Function**
- Frame the house for viewing foundation plantings

**Problems**
- On large lots, your house can appear isolated
- On hill-top lots, your house may look like a pimple
- Over planting
- Large garage up front
LIVING AREA – BACK YARD

**Function**
- Outdoor living & entertainment area
- Utilitarian – storage, garden, etc.
- Visual extension of house
- Recreation

**Problems**
- Area too small or poorly defined
- Plants not suited to space or design
- Landscape too labor intensive
SERVICE AREA (A.K.A. SIDE YARD)

Function

• Transport path from front to back yard
• Clothes line
• Storage
• Wood pile
• Dog run
• Trash cans
SERVICE AREA (A.K.A. SIDE YARD)

Problems

• Plants should be small and well-behaved
• Narrow or enclosed space
• Transport path further limits space
• Subject to extremes of
  – Light/dark
  – Hot/cold
• Unsightly storage
CREATE SOME ROUGH DESIGNS

• Brainstorm
• Create rough sketches
• Use oval (goose egg/bubble) drawings
• Make several different designs
INCLUDE IN YOUR DESIGN...

• House
• Driveway, sidewalks, etc.
• Existing trees
• Lawn areas
• Planting area
• Areas to be screened
• Service areas
Do several goose-egg drawings. Above are four alternative locations for specific design elements. You must decide whether the various elements are compatible with each other and whether the arrangement best fits your site.
PICK THE BEST DESIGN

The one that...

• Is most suitable to your needs
• Fits your property
• Fits your maintenance priorities
• Fits your budget
DESIGN CONSIDERATIONS

Design considerations set the overall direction of the landscape design.
DESIGN CONSIDERATIONS

• View
• Wind
• Mature height and spread
• Life span
• Form
• Texture
• Color
• Domination and subordination
DESIGN CONSIDERATIONS

Views and screening

Wind
KNOW MATURE SPREAD & HEIGHT

It helps you avoid

• Overcrowding
• Overplanting
Avoid these fast growing trees

- Chinese elm
- Alder
- Poplar
- Willow
- Silver maple
LIFE SPAN

Better fast growing choices

• Hackberry
• Liriodendron
• Sycamore
FORM

Some characteristics of form:

• Weeping (pendulous)
• Horizontal and spreading
• Vertical
• Round
CAUTIONS ON FORM

• Don’t use all plants of the same shape – it’s boring!
• Don’t combine too many forms – it’s confusing and lacks connection.
• Choose a plant that will mature into the desired shape.
• Don’t depend on pruning to get the desired shape.
Combining Forms

BAD

Strong conical or pyramidal form dominates the planting and overwhelms the balance of the shrub border.

BETTER

Here, a smaller pyramidal evergreen is used as an accent. This evergreen is in scale with the overall planting and its placement is off center.
Texture – the relationship between foliage, twig size and the remainder of the plant

Texture includes qualities of:

• Coarseness vs. fineness
• Roughness vs. smoothness
• Heaviness vs. lightness
• Thinness vs. denseness
TEXTURE

Caution: Vary texture, but don’t go to extremes!
COLOR

Color has the greatest appeal and creates the greatest response.
Basic Landscape Concepts

**COLOR**

- Warm vs. cool
- Advancing vs. receding
- Complementary
- Analogous

The pure colors of the light spectrum are arranged so that each color is next to its most similar neighbor.
Basic Landscape Concepts

COLOR
DOMINANCE AND SUBORDINATION

• Decide which elements will be dominant and which subordinate.

• Contrast between dominance and subordination gives interest to the design.
Design principles provide the unifying elements which tie the landscape together:

- Simplicity
- Variety
- Balance
- Emphasis
- Scale
- Sequence
Simplicity

a - shrub border composed of same type of plant, simple but boring
b - using a plant of contrasting size or form adds variety
c - monotonous fence
d - relieving monotony using a small tree and some shrubs
1 & 2 - variety created through sharp opposition between low horizontal mass and the vertical
3 - variety using a larger size of the same plant form
BALSANCE

**Formal Balance**

Formal Balance is built around a central axis or feature. One side is identical to the other.

**Asymmetrical Balance**

Though not identical on each side, balance is achieved through visually balancing weight and mass on each side.
Combining Simplicity, Variety and Balance

**Simplicity through Repetition**

Simplicity provided by lower rounded plants which also give balance and proportion. Variety provided by 2 small evergreens and small tree.

**Overkill**

- Too much variety
- Too many vertical elements
- Too many different forms
- The composition is distracting because there is no focal point.
EMPHASIS

Differentiating the more important elements from the less important
Emphasis

Emphasis can be achieved thru …

- differences in size

- grouping

- bold shapes

- the unusual or unexpected

A short section of fence gains emphasis because of its limited use in combination with other materials. When a fence is extended around three sides of an area, however, it loses emphasis.
SCALE

The absolute or relative size of objects to each other

Two kinds –
• Monumental
• Intimate
Monumental scale (left) is overwhelming, and may result in a sense of insignificance. Intimate scale (right), in which objects are underscored or smaller than expected, give the viewer a sense of complete control over the environment.
SEQUENCE

This is a sequential change of form, color, texture, size or pattern to control the viewer’s attention and direct it toward a specific location.
Sequence

Sequence can be achieved most simply through changes in size (indicated by arrow), it can also be gained through the use of color, texture and form.

Sequence can be a reoccurrence of units in linear movement. The composition shown above, has 3 units. the viewer’s attention is initially drawn to unit 1 because of the tree form. The viewer “reads” this unit as a self-contained element that is satisfying because of its emphasis, balance, simplicity, and variety. The viewer’s attention then moves to unit 2, and finally, to unit 3.

Sequence is obtained in the above drawing by alternating a large mass of shrubs with a small mass of trees.
Sequence, more

Plants may be set in a triangular staggered line (left) in a checkerboard pattern (middle), or in a staggered flowing line (right)
3. SITE CONSIDERATIONS

- Soil type
- Moisture availability
- Light conditions
- Animal problems
SOIL TYPE

- Clay vs. sand
- Acid vs. alkaline
- To amend or not to amend
MOISTURE

• Group plants with similar needs.
• Don’t overwater.
• Consider water needs rating (in July):
  – Low - 1.6 inches/month
  – Medium - 4.1 inches/month
  – High - 6.6 inches/month
MOISTURE

Water availability
- Well vs. EID
- Well flow rate
- Nearness of hose bib
- Proximity of turf areas and sprinklers to dry planting areas
LIGHT CONDITIONS

• Note areas of sun, shade and partial shade.
• If you desire flowers, note photoperiodicity of plant.
• Plant sun lovers in sun and shade lovers in shade.
• Crowd those plants which need protection from elements.
ANIMAL PROBLEMS

- Deer
- Gophers
- Moles
- Turkeys
- Skunks
- Squirrels
SPECIAL AREAS AND FACTORS

- Views and screens
- Drainage/wet & dry areas
- Sun vs. shade
- Water availability
INTEGRATE

• Use your goose egg drawing as a starting point.
• Use knowledge of design considerations and principles to make a more detailed drawing showing what kinds of plants to use.

<table>
<thead>
<tr>
<th>Tall or short</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evergreen or deciduous</td>
<td>Texture</td>
</tr>
<tr>
<td>Color</td>
<td>Sequence</td>
</tr>
</tbody>
</table>

• It’s not necessary to identify specific plants just yet.
4. SELECTION CONSIDERATIONS

Do your homework.
Know your zone.
Decide what cost/size is right for you.
Examine the plants carefully at the nursery.
THINGS TO CONSIDER

Do your homework:

• Find books, magazines and websites oriented to the West.

• Know your zone!

• Know the plant’s zone.

• Be sure plants are available locally (or can be reliably ordered and shipped online).
USDA/SUNSET ZONES

• Sunset zones - based on a combination of extremes and averages of minimum, maximum, and mean temperature, rainfall, humidity, and growing season length

• USDA zones - based on the average minimum temperature in a given region

• West Slope - mostly Sunset Zone 7 or 9 and USDA Zone 9a or 9b or some 8b
COST DECISIONS

• How many plants of what size?
• 1 gallon vs. 5 gallon
• Discount store vs. local nursery
EXAMINE PLANTS

Avoid plants with:

- Damaged trunks
- Defoliated branches
- Off-color leaves
- Insect infestation
- Wilting
- Girdling roots
- Roots coming out of bottom of can
THE PLANTS

Let’s take a look at some of the trees and shrubs that are particularly appropriate for our locale.
KEY TO THE HANDOUT

• **Exposure:**
  
  \[
  \begin{align*}
  S &= \text{sun} \\
  P/\text{Sh} &= \text{part shade} \\
  \text{Sh} &= \text{shade}
  \end{align*}
  \]

• **Water**

• **Deer Resistance:**
  
  Y, N, Y/ N
5. SHRUB SELECTIONS
SHRUBS

Evergreen Sun
Evergreen Part Sun/Part Shade
Evergreen Shade

Deciduous Sun
Deciduous Part Sun/Part Shade
Deciduous Shade
EVERGREEN - SUN

- *Arctostaphylos* – manzanita
- Callistemon citrinus - bottlebrush
- Ceanothus
- Cistus - rockrose
- Cotoneaster
- Euonymus japonica aureo variegate
- Grevillea
- Nandina – heavenly bamboo
- Photinia
- Pinus mugo
- Teucrium fruticans – bush germander
- Viburnum tinus - ‘Spring Bouquet’
MANZANITA – WHICH WOULD YOU PREFER ON YOUR PROPERTY?
BOTTLE BRUSH

CEANOTHUS

CISTUS
NANDINA

PHOTINIA

PINUS MUGO
BUSH GERMANDER

VIBURNUM TINUS
EVERGREEN – PART SUN/ PART SHADE

- Abelia grandiflora
- Choisya ternata – Mexican orange
- Cotoneaster
- Daphne odora
- Euonymus fortunei – ‘Emerald Gaiety’
- Loropetalum Chinense – Chinese Witch Hazel
- Nandina – heavenly bamboo
- Pieris japonica – lily of the valley
- Pittosporum
- Viburnum davidii
- Viburnum tinus
ABELIA GRANDIFLORA

MEXICAN ORANGE

Already shown
COTONEASTER
NANDINA
VIBURNUM TINUS
DAPHNE ODORA
(TOO BAD YOU CAN’T SMELL IT)

EUONYMUS FORTUNEI ‘EMERALD GAIETY’

LOROPETALUM CHINENSE – CHINESE WITCH HAZEL
PIERIS JAPONICA - LILY OF THE VALLEY

VIBURNUM DAVIDII

PITTOSPORUM
EVEGREEN - SHADE

- Choisya ternate – Mexican orange
- Daphne odora
- Nandina – heavenly bamboo
- Viburnum davidii

(But you just saw those!)
DECIDUOUS – SUN

- Berberis – Japanese barberry
- Buddlea – butterfly bush
- Chaenomeles – flowering quince
- Deutzia gracilis
- Euonymus alatus – burning bush
- Forsythia
- Hibiscus syriacus – rose of Sharon
DECIDUOUS – SUN (cont.)

- Berbe Philadelphus – Mock orange
- Prunus glandulosa – dwarf flowering almond
- Punica granatum v. ‘Legrellei’ – flowering pomegranate
- Potentilla fruticosa
- Spirea
- Viburnum plicatum v. ‘Tomentosam’ – Japanese snowball
- Viburnum opulus v. ‘Roseum’ – common snowball bush
JAPANESE BARBERRY

FLOWERING QUINCE

BUDDLEA
ROSE OF SHARON

MOCK ORANGE

DWARF FLOWERING ALMOND
VIBURNUM PLICATUM
V. ‘TOMENTOSAM’

VIBURNUM OPULUS
V. ‘ROSEUM’
DECIDUOUS – PART SUN/ PART SHADE

- Berberis – Japanese Barberry
- Cotoneaster
- Deutzia gracilis
- Philadelphus
- Viburnum burkwoodii
6. TREE SELECTIONS
WHY TREES?

To provide...

- Mass
- Background
- Wind break
- Shade
- Accent or specimen

To form or delineate boundaries...
SELECTION CONSIDERATIONS

- Size at maturity – height and spread
- Wind resistance – brittle branches
- Adaptability to soil
- Fruit and flower production
- Water and drainage needs
- Root system
- Insect and disease problems
- Hardiness to the climate
Check out the Urban Forest Ecosystem Institute at Cal Poly San Luis Obispo:

• It allows you to enter your zip code and find trees that are appropriate for your zone.

• You enter specific criteria (flowering, tree shape, fire safe, etc.) and it gives you a list of trees appropriate for your location and needs.
LOCATING TREES AROUND HOME

- Poor location: Some shade almost all day
- Good location: Some shade either in the morning or the afternoon
- Excellent location: Never in the shade
EVERGREEN

- *Arbutus unedo* – strawberry tree
- *Calocedrus decurrens* – incense cedar
- *Cedrus deodora* – deodar cedar
- *Cupressus arizonica* – Arizona smooth cypress
- *Laurus nobilis* – sweet bay
- *Magnolia grandiflora* – southern magnolia
- *Pseudotsuga Menziesii* – Douglas fir
- *Umbellularia californica* – California bay laurel
STRAWBERRY TREE
INCENSE CEDAR
DEODAR CEDAR
ARIZONA SMOOTH CYPRESS

SWEET BAY

SOUTHERN MAGNOLIA
DOUGLAS FIR

REMEMBER THAT MATURE SIZE MAY SURPRISE YOU!

CALIFORNIA BAY LAUREL
BUYER BEWARE; ONLY BUY LOCALLY.
DECIDUOUS

- Acer buergeranum – trident maple
- Acer campestre – hedge maple
- Acer pamatus – Japanese maple
- Acer rubrum – red maple (October Glory)
- Celtis – hackberry
- Cornus Florida – dogwood
- Ginko biloba – ginkgo (maidenhair)
- Lagerstroemia indica – crape myrtle
DECIDUOUS (CONT.)

- **Nyssa sylvatica** – sour gum (Tupelo)
- **Pistacia chinensis** – Chinese pistache
- **Platanus acerifolia** – London plane tree
- **Platanus racemosa** – California sycamore
- **Pyrus calleryana** – Bradford pear
- **Tillia dordata** – little leaf linden
RED MAPLE (OCTOBER GLORY)

DOGWOOD

HACKBERRY
TREES FOR SPECIAL SITUATIONS
compliments of Pat Rubin, Sacramento Bee

Medium to large trees to shade a yard or house

- California sycamore
- Chestnut leaf oak
- Hackberry
- London plane
- Magnolia
- Red maple
- Tupelo
TREES TO SHADE A SMALL AREA
compliments of Pat Rubin Sacramento Bee

• Citrus
• Crape myrtle
• Hawthorn
• Japanese crabapple
• Japanese snowbell
• Mayten
TREES TO AVOID IN A YARD

• Black walnut (inhibits growth of other plants)
• Tree of Heaven (sends up suckers everywhere)
• Privet (messy fruit, reseeds prolifically)
• Fruiting mulberry (messy fruit stains)
• Chestnut (prickly covers on nuts)
• Liquidambar (messy fruit, intrusive roots)
• Sycamore (messy fruit, intrusive roots)
TREES FOR FALL COLOR
compliments of Pat Rubin, Sacramento Bee

- Chinese flame tree
- Chinese pistache
- Crape myrtle
- Ginko
- Hawthorn
- Hedge Maple
- Liquidambar
- Persimmon

- Red maple
- Tallow
- Trident maple
- Tupelo
7. DROUGHT TOLERANT SELECTIONS

TREES
DROUGHT TOLERANT SELECTIONS - TREES

- **Arizona cypress (D)**
  (Cupressus arizonica)
  40’H x 20’W; grey to grey-blue

- **Douglas fir (D)**
  (Pseudotsuga menziesii)
  80-160’H x 30’W; resistant to oak root fungus
DROUGHT TOLERANT SELECTIONS - TREES

- **Incense cedar (D)**
  (Calocedrus decurrens)
  75-90’H x 25’W; native

- **Deodar cedar (D)**
  (Calocedrus deodara)
  80-90’H x 50’W; fast
DROUGHT TOLERANT SELECTIONS - TREES

- **Smoke tree**
  (Cotinus coggygria)
  Up to 15’H x W; multi-stemmed

- **Strawberry tree**
  (Arbutus unedo)
DROUGHT TOLERANT SELECTIONS - TREES

- Crape myrtle  
  (Lagerstroemia indica)
  15-25’H x W; single or multi-stemmed

- Western redbud (D)  
  (Cercis occidentalis)
  15-20’H x W; multi-stemmed; native
DROUGHT TOLERANT SELECTIONS - TREES

- **Chinese pistache**
  (Pistacia chinensis)
  - 30-60’H x W; great fall color; resistant to oak root fungus

- **Sweet bay (D)**
  (Laurus nobilis)
  - 20-40’H x W; leaves used in cooking
DROUGHT TOLERANT SELECTIONS - SHRUBS

• Heavenly bamboo (D) • Rockrose (D)
  (Nandina spp.) (Cistus spp.)

2-8’H x W; great color
3-4’H x wider
DROUGHT TOLERANT SELECTIONS - SHRUBS

• Cotoneasters
  (Cotoneaster spp.)
  Many varieties and sizes; most deer-resistant

• Bush germander (D)
  (Teucrium fruticans)
  6-8’H x W; grey to silver foliage
DROUGHT TOLERANT SELECTIONS - SHRUBS

• Ornamental pomegranate (D) (Punica granatum)
  8-10’H x W; small

• Butterfly bush (D) (Buddleya davidii)
  5-15’H x W; flowers mid-summer
DROUGHT TOLERANT SELECTIONS - SHRUBS

- **T oyon (Hollyberry) (D)**
  - *Heteromeles arbutifolia*
  - 8-15’H x W; subject to fireblight; native

- **W ild lilac**
  - *Ceanothus spp.*
  - Height varies according to species; native; deer-resistant
DROUGHT TOLERANT SELECTIONS - SHRUBS

• Photinia
  (Photinia fraseri)
  15-25’H x W; subject to aphids

• Pineapple guava (D)
  (Feijoa sellowiana)
  15-25’H x W; needs regular watering for best fruit
DROUGHT TOLERANT SELECTIONS - SHRUBS

• **Bush anemone (D)**  
  (Carpenteria californica)  
  4-8’H x W; native; deer resistant

• **Spice bush**  
  (Calycanthus occidentalis)  
  4-8’H x W; native
Drought Tolerant Selections - Shrubs

- Oregon grape (D) (Mahonia aquifolium)
  - 5-6’H x 3-4’W; native; sun or shade; deer resistant

- Manzanita (D) (Arctostaphylos spp.)
  - ‘Pacific Mist’
  - Varieties; many species; deer resistant
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• Russian sage (D)  
  (Perovskia atriplicifolia)  
  3-4’H x as wide; deer resistant; attracts hummingbirds

• Blue Mist Spirea  
  ‘First Choice’  
  (Caryopteris clandonnessis)  
  3-4’H x 4’W; attracts Butterflies
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• Lavanders (D)
  (Lavandula angustifolia)

2-4’H x W; many varieties; deer resistant; attracts hummingbirds

‘Munstead’

‘Hidcote’

‘Jean Davis’
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• Penstemons
  (Penstemon spp.)

P. pseudospectabilis 'Coconino County'
1.5-4’H x W; many varieties; all shown here are deer-resistant; attracts hummingbirds

P. ‘Loganberry Ice’

P. barbatus 'Ruby Cunda'

P. mensarum
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• Salvias
(Salvia spp.)

  S. ‘Burgundy Seduction’
  S. ‘Raspberry Delight’
  S. arizonica ‘Deep Blue’

  S. Azurea ‘Santa Fe County’

1.5-4’H x W; many varieties; all shown here are deer-resistant; attracts hummingbirds
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• Salviarias (Salvia spp.)

S. greggii ‘Cold-hardy Pink’

S. reptans

S. penstemonoides

S.’Endless Love’

1.5-4’H x W; many varieties; many deer-resistant; attracts hummingbirds
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• **Salvias**

  (Salvia spp.)

  S. gregii ‘Furman’s Red’

  S. ‘Ultra violet’

1.5-4’H x W; many varieties; many deer-resistant; attracts hummingbirds
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• Agastaches
  (Agastache spp.)

A. ‘Ava’
A. ‘Desert Solstice’
A. ‘Red Happiness’
A. ‘Neomexicana’

1.5-3.5’H x W; many varieties; all shown here are deer-resistant; attracts hummingbirds
DROUGHT TOLERANT SELECTIONS - PERENNIALS

• **Agastaches**
  (Agastache spp.)

  1.5-3.5’H x W; many varieties; many deer-resistant; attracts hummingbirds

  - *A. rupestris ‘Licorice Mint’*
  - *A. ‘Acapulco Orange’*
  - *A. pstessene ‘Coronado Red’*
  - *A. cana*
DROUGHT TOLERANT SELECTIONS - PERENNIALS

- **Mexican marigold (D)**  
  *(Tagetes lemmonii ‘Compacta’)*  
  2’H x 3’W

- **Coreops daisies (D)**  
  *(Coreopsis spp.)*  
  1-2’H x 2’W; attracts butterflies
DROUGHT TOLERANT SELECTIONS - PERENNIALS

- **Yarrow (D)**
  (Achillea spp.)

  - A. filipendulina ‘Goldplate’
  - A. millefolium 'Cassis'
  - A. millefolium californica
  - A. 'Terracotta'

  1-2’H x W; attract beneficial insects
DROUGHT TOLERANT SELECTIONS - GROUNDCOVER

**Creeping Germander (D)**
Teucrium chamaedrys

**Lavender cotton (D)**
Santolina chamaecyparissus

**Bearberry (D)**
Arctostaphylos uva-ursi
DROUGHT TOLERANT SELECTIONS - GROUNDCOVER

Creeping Rosemary (D)
Rosmarinus prostratus

St. John’s wort (D)
Hypericum calycinum
DROUGHT TOLERANT SELECTIONS - GROUNDCOVER

Coyote bush (D)
Baccharis pilularis ‘Pidgeon Point’

Blue wooly speedwell (D)
Veronica pectinata

Creeping Phlox (D)
Phlox subulata

© High Country Gardens
8. BRINGING IT ALL TOGETHER
WORDS TO THE WISE

• Know your hardiness zone.
• Research plants and know their zones.
• Buy small sizes – they transplant more successfully than large ones.
MORE WORDS TO THE WISE

• Learn to speak the language of your plant.
• Learn a little of the language of botany.
• Keep a gardening diary.
• Try new plants and new forms of familiar ones.
• The above suggestions will save you a lot of time – effort – money – frustration.
RESOURCES

Home Landscaping for Fire
Monrovia Nursery
Sacramento Tree Foundation
Sunset Western Garden Book
Trees and Shrubs of California
John D. Stuart, John O. Sawyer, UC Press, 2001
UCCE Master Gardeners
http://ucanr.edu/sites/EDC_Master_Gardeners/
Urban Forest Ecosystem Institute
http://selectree.calpoly.edu/
THANK YOU FOR COMING

Questions?
9. PLANTING, PRUNING AND MAINTENANCE
PLANTING

- Best time to plant
- Planting guide
BEST TIME TO PLANT

- Fall is best!
- Spring is next best.
PLANTING GUIDE

- Hole
- Roots
- Fertilizer
- Amendments
- Backfill
- Water Basin
- Stakes
- Mulch
- Watering
PLANTING - THE HOLE

• Dig twice as wide as root ball or root spread.
• Break in sides of hole.
• Dig no deeper than plant is to sit.
• Root ball should sit 1” to 1 ½” above existing grade.
TREES IN LAWN

- Remove grass at least 2’ from trunk.
- Keep grass from this area for at least 3-4 years or until tree is well established.
How to Plant a Tree

Remove grass and weeds in 48 inch circular or square area.

Planting too deeply or covering the trunk will kill your tree.

Keep the natural leader: do not cut off the top of the tree.

Retain all small branches on lower trunk.

Place the tree crown 1 1/2” above ground level.

Dig a 4-foot-wide round or square hole.

Loosen outside roots from sides and bottom of root ball.

Pedestal of undisturbed soil.
PLANTING - THE ROOTS

- Trim off broken or diseased roots.
- Loosen roots around edge of the bottom of root ball if compacted.
- If bare root, spread roots.
PLANTING - FERTILIZER

- You may use plant tabs 4” deep, near root ball.
- Do not mix granular fertilizers into the back fill.
PLANTING – SOIL AMENDMENTS

• They are usually not necessary.

• Make an exception for heavy clay or loose sandy soil/decomposed granite.

• If you do amend soil, add no more than 1 shovel of amendment to 3 shovels of native soil and mix thoroughly.
PLANTING - BACKFILL

- Refill the hole half full, lightly tamp and water to remove air pockets.
- Finish backfilling, tamp and water.
PLANTING - WATER BASIN

• Create a water basin about 5’ wide and 8” deep.

• In winter, be sure to remove basin or break open for drainage.
Planting and Staking

Build a 4” high ledge, 48 inches in diameter, for watering basin (make opening in winter to drain excess water)

Place stakes 18” from the trunk
Fasten ties loosely around tree
Add course mulch 4” deep (do not touch trunk)
Water thoroughly in basin

Ground level

Fertilizer tablets placed 4” deep and near rootball

Backfill with original soil
STAKING

• Don’t stake if you don’t have to.
• Two stakes about 18” from trunk.
• Tree must be free to move or sway.
• Fasten ties loosely, only as high as you need to keep tree from leaning.
STAKING

• Stakes should be removed after 6 months to one year.
• Do not remove branches on lower trunk immediately.
• Do not cut off the top of the tree (unless it is a fruit tree).
STAKING

Kinds of ties:
• Hose
• Tree ties
• Nylon stockings
• NO wire or rope
MULCHING

• Mulch around base of tree.
• Keep mulch 4-6” from trunk or growth crown.
• Mulch should be 3-4” deep.
WATERING

• First year – give frequent, deep watering until tree is established.

• Gradually decrease frequency as tree becomes established.

• Established trees want infrequent, deep watering, not the opposite.
PRUNING SHRUBS - THE PURPOSE

• Remove dead and diseased branches and crossing branches.
• Shorten branches.
• Shape.
• Prune to thicken or fill out gangly shrubs.
PRUNING SHRUBS – THE BASICS

- Prune just above the leaf bud using an angle cut
- Does the shrub re-leaf on old wood? If not, cut back older branches to ground.
PRUNING TREES

Remove

• Dead and diseased branches
• Crossing or overcrowded branches
• Water sprouts and suckers
• Lower branches gradually until first branch is at desired height
PRUNING TREES

Heading cut - back to a bud
• Used to shorten branches
• Direct growth - thicken

Thinning cut
• Whole branch is removed, back to bark ring color
PRUNING HEAVY BRANCHES

Use this three step method:
1 - Make cut in the bottom
2 - Cut top to remove branch (prevents tearing and splitting)
3 - Remove stub to bark ring collar
MAINTENANCE IS CRUCIAL

Know and follow the state fire code of 100 feet of defensible space. Maintain vertical and horizontal spacing on your property for the:

- Health of your landscape
- Safety of your landscape
- Protection of your house
10. HEDGES

A short overview for those who are interested…
THOUGHTS ON HEDGES

Consider

• Purpose/Use
• Forms
• Qualities
• Planting
• Care
PURPOSE

• Fix the major lines of the design and establish a background.

USE

• Provide enclosure.
• Screen for privacy.
• Farm a barrier.
• Define a border.
• Form a windbreak.
• Provide a background for flowering plants.
FORMS

Informal →

Formal →
QUALITIES

Hedges can
• Be interesting in texture but not obtrusive
• Vary in size from small edging plants (santolina) only 1’ tall to towering trees.

Evergreen hedges provide year-round privacy.

Deciduous hedges are
• Less expensive
• Grow faster
• Generally more hardy
QUALITIES

In theory, hedges can be kept to a desired dimension by pruning, but in practice, you must allow for some growth so the plants can rejuvenate themselves.
PLANTING

• Hedges must have well prepared soil - 1 ton of amendment (manure or compost) per 200 linear feet.
• Place plants close together so individual plants are not distinguishable in the general mass.
• Have good air and light on both sides.
• Hedges under trees or close to walls rarely do well.
• Plants must be absolutely vertical and in line with each other.
• Informal require minimal care; formal ones require a lot.
• When establishing, cut back annual growth by about half until the ultimate height and width are reached.
• Cutting back also encourages dense branches and a strong structure when establishing.
CARE

• Trimming – keeps the hedge neat and within bounds.
• Formal hedges need 1 or more trimming each year.
  – Boxwood = 1
  – Privet = 3-4
• Informal hedges may be trimmed lightly to thicken the mass of foliage.
CARE

- Avoid trimming a hedge that is narrow at bottom and wide at top. Use a string line to ensure neat straight appearance when trimming a formal hedge.

- Clean out seedling trees that try to establish in the hedge early on so their removal doesn’t leave a hole.
A yearly application of a complete fertilizer keeps the hedge growing well and looking good.
SUCCESS WITH HEDGES

To be satisfactory as a hedge, the tree or shrub must:

- Have thick foliage of fine texture
- Be capable of even growth
- Have branches and foliage close to the ground
- Have branches capable of forming new leaves on old wood
- For formal hedges, plants must be able to withstand repeated cutting
THANK YOU FOR COMING

Questions?