



CLIMATE APPROPRIATE PLANTING

how to **plant the right species**
to **increase drought resilience**
and **enhance local ecologies**

for Inland Valleys
in Sonoma County



1

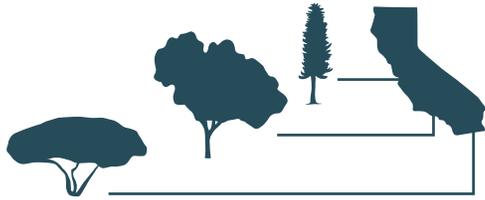
CLIMATE APPROPRIATE PLANTING

what, why, and how to plant species for inland valleys with hot summers to save water and enhance your neighborhood & ecosystem health

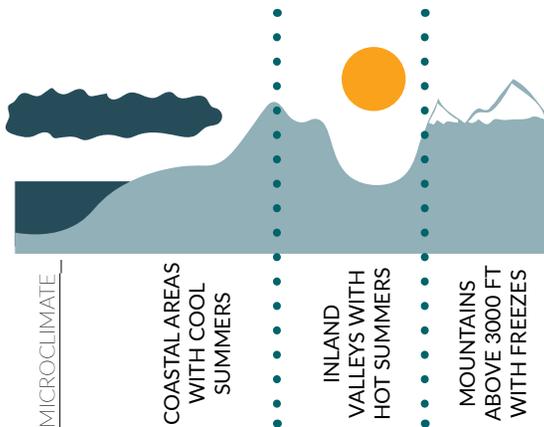


BASICS

California has a number of different climatic, therefore ecologic, zones that range from the desert to the redwoods. Each has a set of native and climate appropriate plants that are best suited to that environment and should be propagated to the benefit of other plant & animal species and water resources.



Along the Californian coast, regional microclimates are defined by coastal fog, which is trapped by coastal mountains. This leaves coastal inland valleys hotter and dryer than regions sandwiched between the ocean and mountains.



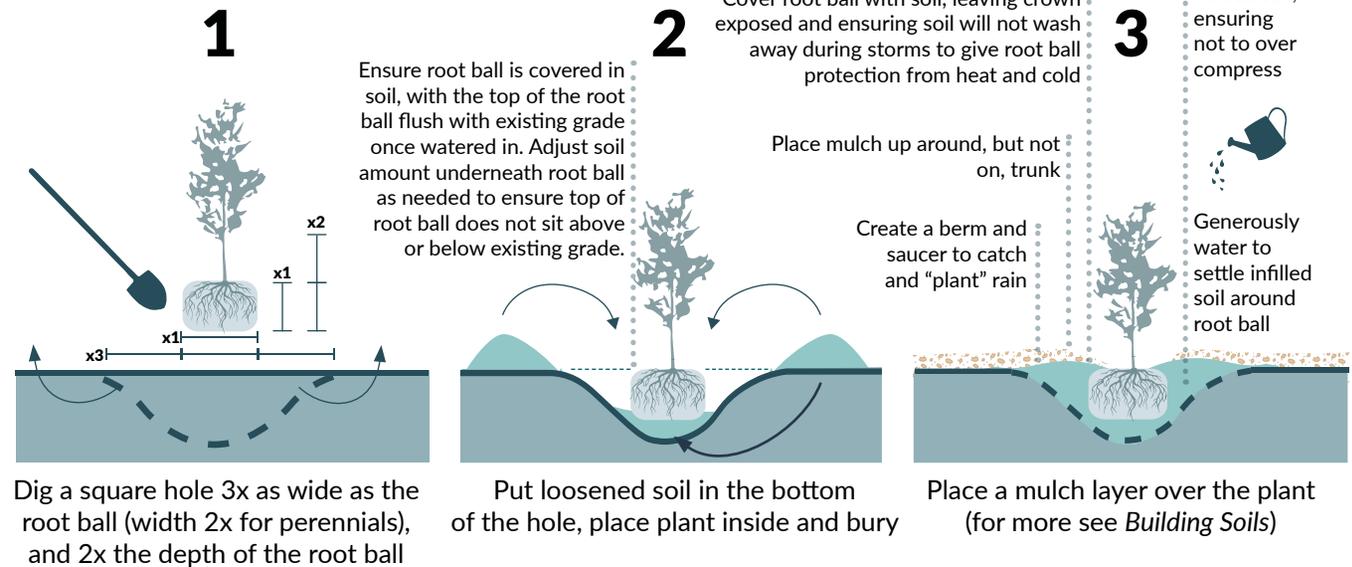
DO

- ✓ DO completely remove lawn and other invasive species before installing Climate Appropriate Planting. Maintain weeding when invasive species re-sprout. [Mulching](#) can help prevent weeds, too!
- ✓ DO consider microclimates: Observe your site. Which areas get sun or shade? Where are steep slopes or wetter drainages? What are the soil conditions? [Test your soils.](#)
- ✓ DO plant native and flowering pollinator plant species: many native and flowering plants provide critical pollinator habitat as food and shelter.

DO NOT

- ✗ DO NOT use potable water to irrigate under-utilized lawn or high water demand plants; replace with Climate Appropriate Plants or reuse rainwater and greywater.
- ✗ DO NOT use pesticides and herbicides! These harm pollinator species.
- ✗ DO NOT remove leaves. Keep leaves on the ground and postpone pruning and cutting back. Instead of removing leaves in autumn and through winter, leave them behind to build soil and for pollinating insects to use for their eggs and pupae.

PLANT IN 3 EASY STEPS!



ADDITIONAL RESOURCES

We will focus here on the climate appropriate plantings of inland valleys with hot summers, such as the Sonoma Valley region.

Calscape www.calscape.org
 Bloom! California www.bloomcalifornia.org
 Incorporating Climate Appropriate Planting into a Holistic Landscape: www.savingwaterpartnership.org

Land Resilience Partnership www.landresiliencepartnership.org
 Daily Acts www.dailyacts.org
 California Native Plant Society www.cnps.org

2

CLIMATE APPROPRIATE PLANTS

DROUGHT TOLERANT SPECIES

all species low water usage



WATER NEEDS

- low
- medium

SOIL DRAINAGE

- fast
- slow
- adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- partial sun / shade
- full shade

OTHER CONSIDERATIONS

- erosion control
- allelopathic: consult [Calscape](#) for context and companion plants

TREES



Quercus agrifolia
Coast Live Oak



Quercus lobata
Valley oak



Quercus wislizeni
Interior Live Oak

SMALL TREES



Cercis Occidentalis
Western Redbud



Arctostaphylos glauca
Big Berry Manzanita



Heteromeles arbutifolia
Toyon

SHRUBS



Trichostema lanatum
Woolly Blue Curly



Diplacus aurantiacus
Bush Monkeyflower



Salvia apiana
White Sage

PERENNIALS



Salvia spathacea
Hummingbird Sage



Achillea mellifolium
Common Yarrow

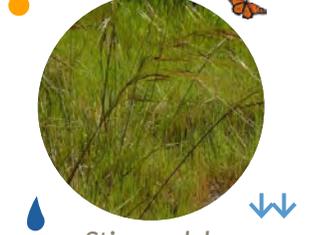


Penstemon heterophyllus
'Margarita BOP'
Margarita Bop Penstemon

GRASSES



Festuca californica
California Fescue



Stipa pulchra
Purple Needle Grass

3

CLIMATE APPROPRIATE PLANTS

DROUGHT and CLAY SOIL TOLERANT SPECIES

all species low water usage and can be planted in clay soils

WATER NEEDS

- low
- medium

SOIL DRAINAGE

- fast
- slow
- adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- partial sun / shade
- full shade

OTHER CONSIDERATIONS

- erosion control

SMALL TREES

Arctostaphylos manzanita
Whiteleaf manzanita

Cercis Occidentalis
Western Redbud

Arctostaphylos glandulosa
Eastwood's manzanita

SHRUBS

Rosa californica
California Wild Rose

Artemisia californica
California Sagebrush

Heteromeles arbutifolia
Toyon

SHRUBS

Corethrogyne filaginifolia
California Aster

Eriogonum grande var. rubescens
Red-flowered Buckwheat

Garrya elliptica
Coast Silktassel

PERENNIALS / ANNUALS

Achillea mellifolium
Common Yarrow

Eschscholzia californica
California Poppy

GRASSES

Muhlenbergia rigens
Deergrass

4

CLIMATE APPROPRIATE PLANTS

POLLINATOR-FRIENDLY SPECIES



WATER NEEDS

- low
- medium

SOIL DRAINAGE

- fast
- slow
- adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- partial sun / shade
- full shade

OTHER CONSIDERATIONS

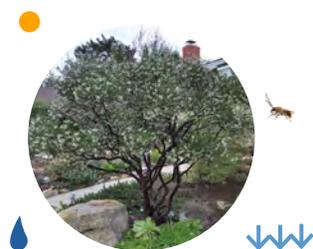
- erosion control

TREES



Aesculus californica
California Buckeye

SHRUBS



Arctostaphylos ssp.
Manzanita

SHRUBS



Carpenteria californica
Bush Anemone

PERENNIALS



Achillea millefolium
Yarrow

GROUNDCOVERS



Arctostaphylos uva-ursi
Bearberry



Cersis occidentalis
Western Redbud



Ceanothus ssp.
California Lilac



Fremontodendron californicum
California Flannelbush



Asclepias fascicularis
Narrow Leaf Milkweed



Ceanothus griseus horizontalis
Carmel Creeper



Salix lasiolepis
Arroyo Willow



Heteromeles arbutifolia
Toyon



Rhamnus californica
Coffeeberry



Eriogonum fasciculatum
California Buckwheat

5

CLIMATE APPROPRIATE PLANTS

POLLINATOR-FRIENDLY SPECIES



WATER NEEDS

- low
- medium

SOIL DRAINAGE

- fast
- slow
- adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- partial sun / shade
- full shade

OTHER CONSIDERATIONS

- erosion control

TREES

Prunus ilicifolia
Hollyleaf Cherry

SHRUBS

Sambucus nigra
Black Elderberry

SHRUBS

Diplacus/Mimulus longiflorus
Sticky Monkeyflower

PERENNIALS

Salvia spathacea
Hummingbird Sage

GROUNDCOVERS

Eschscholzia californica
California Poppy

Quercus agrifolia
Coast Live Oak

Epilobium canum
California Fuchsia

Ceanothus lemmonii
Lemmon's Ceanothus

Monardella villosa
Coyote Mint

Salvia "Bee's Bliss"
Creeping Sage

Quercus lobata
Valley Oak

Lupinus albus
Silver Lupine

Rosa californica
California Wild Rose

Nemophila menziesii
Baby Blue Eyes

6

CLIMATE APPROPRIATE PLANTS

RAIN GARDEN PLANTS



SOIL DRAINAGE

- ↘↘↘ fast
- ↓ slow
- ↘↘ adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- partial sun / shade
- full shade

OTHER CONSIDERATIONS

- erosion control
- edible

TREES



Aesculus californica
California Buckeye

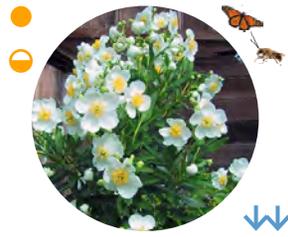


Prunus ilicifolia
Hollyleaf Cherry



Quercus agrifolia
Coast Live Oak

SHRUBS



Carpinteria californica
Bush Anemone



Cercis occidentalis
Western Redbud



Dendromecon rigida
Bush Poppy

SHRUBS



Heteromeles arbutifolia
Toyon



Rhamnus californica
Coffeeberry



Romneya coulteri
Matilija Poppy

SHRUBS



Ceanothus spp.
California Lilac



Diplacus/Mimulus longiflorus
Sticky Monkeyflower



Sambucus nigra
Black Elderberry

SHRUBS



Ribes aureum
Golden Currant

7

CLIMATE APPROPRIATE PLANTS

RAIN GARDEN PLANTS



MEDIUM WATER USE

ZONE 2



SOIL DRAINAGE

- fast
- slow
- adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- partial sun / shade
- full shade

OTHER CONSIDERATIONS

- erosion control
- edible

SHRUBS



Rosa californica
California Wild Rose

SHRUBS



Trichostema lanatum
Woolly Blue Curls

PERRENNIALS



Achillea millefolium
Yarrow

PERRENNIALS



Iris douglasiana
Douglas Iris

GRASSES



Calamagrostis foliosa
Mendocino Reed Grass



Rubus ursinus
California Blackberry



Eschscholzia californica
California Poppy



Monardella villosa
Coyote Mint



Festuca glauca
Blue Fescue



Salvia apiana
White Sage



Solidago velutina
ssp. californica
California Goldenrod



Leymus condensatus
Canyon Prince Wild Rye

8

CLIMATE APPROPRIATE PLANTS

RAIN GARDEN PLANTS



HIGHER WATER USE*

ZONE 1



SOIL DRAINAGE

- ↓↓↓ fast
- ↓ slow
- ↓↓ adaptable

POLLINATOR

- butterfly / moth
- bird
- bee

SUN/SHADE

- full sun
- ◐ partial sun / shade
- full shade

OTHER CONSIDERATIONS

- erosion control
- allelopathic: consult [Calscape](#) for context and companion plants

TREES**

-
- ◐
-
-
-
-
-
- ↓↓↓

Juglans californica
California Black Walnut

-
-
-
-
- ↓↓↓

Platanus racemosa
Sycamore

-
- ◐
-
-
-
- ↓

Salix laevigata
Red Willow

PERRENIALS

-
- ◐
-
-
- ↓↓↓

Fragaria chiloensis
Beach Strawberry

-
- ◐
-
-
-
- ↓↓↓

Heuchera maxima
Coral Bells

GRASSES

-
-
- ↓↓↓

Carex praegracilis
California Field Sedge

-
-
- ↓↓↓

Juncus textilis
Basket Rush

-
- ◐
-
-
-
- ↓↓↓

Sisyrinchium bellum
Blue Eyed Grass

GRASSES

-
-
- ↓

Juncus patens
California Gray Rush

*Plants may require supplemental irrigation

**Trees only appropriate for very large rain gardens

9

CLIMATE APPROPRIATE PLANTS

GREYWATER PLANTS

Plants that can be irrigated by greywater systems

SUN/SHADE

- full sun
- ◐ partial sun / shade
- full shade

OTHER CONSIDERATIONS

- edible
- native

TREES



Acer macrophyllum
Big Leaf Maple



Citrus spp.
Citrus tree



Ficus carica
Common fig

SHRUBS



Acca sellowiana
Pineapple Guava



Diospyros kaki
Persimmon



Punica granatum
Pomegranate

PERENNIALS



Achillea mellifolium
Yarrow



Fragaria chiloensis
Beach Strawberry



Cynara scolymus
Artichoke

GRASSES



Calamagrostis foliosa
Mendocino Reed Grass



Carex barbare
Basket Sedge



Carex praegracilis
California Field Sege

VINES



Actinidia argata
Hardy Kiwi



Humulus lupulus
Hops Vine



Lathyrus odoratus
Sweet Pea Vine

10

CLIMATE APPROPRIATE PLANTS

GREYWATER PLANTS

Plants that can be irrigated by greywater systems

SUN/SHADE

- full sun
- ◐ partial sun / shade
- full shade

OTHER CONSIDERATIONS

- edible
- native

TREES

SHRUBS

PERRENIALS

GRASSES

VINES



Platanus racemos
Sycamore



Rubus ursinus
California Blackberry



Iris douglasiana
Douglas Iris



Juncus textilis
Basket Rush



Selenicereus undatus
Dragon Fruit Vine



Morus alba x rubra
Pakistan Mulberry



Rosa californica
California Wild Rose



Heuchera spp.
Coral Bells



Juncus patens
California Gray Rush



Physalis ixocarpa
Tamatillo Vine



Juglans californica
California Black Walnut



Ribes aureum
Golden Currant



Dicentra formosa
Pacific Bleeding Heart



Festuca glauca
Blue Fescue



Passiflora edulis
Passionfruit Vine