

OUTLINE FOR  
COLORFUL, WATER-WISE PLANTS AND SOIL PREPARATION WORKSHOP

Prepared for the Bay Area Water Supply & Conservation Agency  
By Heidi K Johnson, ACCN-Pro  
8 April 2006

I. INTRODUCTION

- b. Speaker
  - Heidi K Johnson, ACCN-Pro
  - Phone/FAX: (408) 863-0236
  
- B. Topic
  - 1. Why bother?
    - b. Save water - obvious
    - c. Success!
  - 2. Today - How to have a beautiful, healthy garden AND save water
    - a. Soil - the foundation
    - b. Plants - proper plant selection is key

II. SOIL

- A. Affected by Climate (Mediterranean)
  - 1. Drought is normal
  - 2. Winter rains - summer dry
  - 3. We are fortunate - almost anything grows
  - 4. Less water results in > alkalinity and clay
  
- B. Clay Soil
  - 1. Advantages
    - a. Holds moisture
    - b. Holds nutrients
  - 2. Disadvantages
    - a. Poor drainage
    - b. Native (and Med. etc.) can take little or no summer water
  
- C. Amendment
  - 1. Plants native to conditions (some riparian!) need only loosened soil
  - 2. Add compost
    - a. Terminology
      - compost
      - manures (steer, chicken, bat guano ...)
      - mulch (rock, bark, gorilla hair, cocoa hulls ...)
  
    - b. Types of compost

- redwood soil conditioner
- fir bark mulch
- city
- backyard (Master Composters)
- c. Quantity - depends on plant and soil condition

- 3. Other additives
  - a. unnecessary
    - 1. Lime
    - 2. Sand
    - 3. Gypsum
  - b. necessary
    - 1. Starter fertilizer
    - 2. Commonly, iron
  - c. helpful, not necessary
    - 1. Rock powder
    - 2. Epsom salts

#### D. Fertilizer

- 1. Formula explanation
- 2. Deficiencies i.e. these need to be added
  - a. N - most often deficient
    - leaches, volatilizes
    - apply regularly, especially after rains, floods and on fruiting
    - excess - harmful to environment
  - b. P - occasionally deficient
  - c. K - rarely deficient
    - P and K don't move well through the soil - need to be placed near roots
    - apply at planting time = starter fertilizer
- 3. Micronutrients
  - a. Iron - most commonly deficient
  - b. Sulfur - "opposite" of lime, included in most pkgd. fert. for west
  - c. Others - check with CCN-Pro or Soil Test Lab
- 4. Synthetic vs. Organic
  - Synthetic
    - c. Identified and reproduced by science
    - d. "Advantages"
      - In formulations rapidly (variable) available to plants
    - e. Disadvantages
      - Limited to defined nutrients
      - Feast or famine effect
      - Excessive green growth = weak, attractive to pests
      - Excess pollutes environment

#### Organic

- a. Occur in nature e.g. manures, rock dust

- b. Must be broken down by soil organisms
- c. Advantages
  - Feed the soil as well as the plant
  - Slow, even release
  - Gentle, steady supply of nutrients
  - Less likely to pollute
- d. Disadvantages
  - Slower acting (which is actually good!) – requires patience
  - Animal curiosity – dogs may dig

### III. PLANTS

#### A. Design - select the right plants for success

1. Study site
  - a. Sun
  - b. Wind
  - c. Water/drainage/slopes
  - d. Existing plants
2. Create HYDROZONES - group by water needs
  - a. Highest water near house for maximum enjoyment and ease of care
  - b. Transition zone of low-water plants
  - c. No water zone farthest away
3. Many other design elements - see other classes coming up

#### B. When to plant

1. Best in fall, esp. natives, (winter rains)
2. 2<sup>nd</sup> best is spring
3. Summer OK, if water available; trickier
4. Winter - only if soil is friable
5. In years when water is available - i.e. NOW!
6. Water most low-water plants 'til established, 2-3 years.

#### C. References

1. Sunset Western Garden Book
2. EBMUD book
3. Handout booklet
4. Experts
  - a. CCN-Pros
  - b. Master Gardeners
  - c. Other professionals (consultants, designers, architects)

#### C. Examples of Water-Wise and Colorful Plants

## EXAMPLES OF COLORFUL WATER-WISE PLANTS

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### TREES

*Arbutus* 'Marina'

*Callistemon citrinus* = Bottlebrush

*Cercis occidentalis* = Western Redbud

x *Chitalpa tashkentensis* = Chitalpa ('Morning Cloud', 'Pink Dawn')

*Cotinus coggygria* 'Royal Purple' = Purple Smoke Tree

*Lagerstroemia indica* = Crape Myrtle (Cultivars with native American names)

*Lavatera assurgentiflora* = Tree Mallow

*Lycianthes rantonnetii*, standard = Blue Potato Tree

*Rhaphiolepis* 'Majestic Beauty'

*Tristania laurina* 'Elegant' = Elegant Tristania

### SHRUBS

*Abelia x grandiflora* = Glossy Abelia

*Buxus microphylla japonica* 'Green Beauty' = Japanese Boxwood

*Carpenteria californica* = Bush Anemone

*Coleonema* = Breath-of-Heaven (*C. alba*, *C. pulchrum*, *C.p.* 'Compacta', 'Pacific Gold')

*Dodonaea viscosa* 'Purpurea' = Hopseed Bush

*Escallonia* = Escallonia ('Frades' 'Newport Dwarf', 'Compakta')

*Ilex* = Holly

*Leptospermum scoparium* = New Zealand Tea Tree ('Gaiety Girl', 'Ruby Glow')

*Nerium oleander* = Oleander (can also be trained as a tree = standard)

*Pittosporum*, variegated forms

*Rhaphiolepis indica* – India Hawthorn ('Ballerina', 'Jack Evans', 'Springtime')

*Rhaphiolepis umbellata* 'Minor' = Dwarf Yeddo Hawthorn

*Rosmarinus officinalis* = Rosemary ('Blue Spires', 'Tuscan Blue', 'Majorca Pink')

*Sarcococca ruscifolia* = Fragrant Box

*Viburnum tinus* ('Spring Bouquet', 'Dwarf', 'Variegatum')

### FERNS

*Asparagus densiflorus* 'Myers' = Myers or Foxtail Fern

*A. d.* 'Sprengeri' = Asparagus Fern

*Davallia trichomanoides* = Squirrel or Rabbit's Foot Fern

## GRASSES AND GRASS-LIKE PLANTS

*Agapanthus* = Lily-of-the-Nile ('Peter Pan', 'Rancho White', 'Summer Gold')

*Armeria maritima* = Sea Thrift

*Dietes* = Butterfly Iris, Fortnight Lily or African Iris

*Festuca ovina glauca* = Blue Fescue

*Helictotrichon sempervirens* = Blue Oat Grass

*Kniphofia uvaria* = Red-Hot Poker

*Phormium* = Flax ('Maori Maiden', 'Yellow Wave', 'Jack Spratt', 'Tiny Tiger', etc.)

*Pennisetum setaceum* 'Rubrum' = Red Fountain Grass

*Sisyrinchium bellum* = California Blue-Eyed Grass

*Yucca filamentosa* ('Bright Edge', 'Color Guard')

## VINES

*Bougainvillea*

*Clytostoma callistegioides* = Lavender Trumpet Vine

*Hibbertia scandens* = Guinea Gold Vine

*Lonicera japonica* 'Halliana' = Hall's Honeysuckle

*Solanum jasminoides* = White Potato Vine

*Trachelospermum jasminoides* = Star Jasmine

*Wisteria*

## GROUND COVERS

*Aptenia cordifolia* = Red Apple

*Campanula poscharskyana* = Serbian Bellflower

*Drosanthemum* = Ice Plant

*Erigeron karvinskianus* = Santa Barbara Daisy

*Euonymus fortunei* ('Ivory Jade', 'Harlequin')

*Gazania* ('Mitsuwa Yellow')

*Lantana montevidensis* and hybrids

*Rosmarinus officinalis* = Rosemary ('Huntington Carpet', 'Prostratus', 'Irene', 'Variegated White')

*Sedum* = Stonecrop

*Thymus* = Thyme

*Verbena* (Tapien hybrids)

*Veronica* = Speedwell (*V. liwanensis*, *V. repens*, *V. oltensis*, *V. prostrata*)

*Viola odorata* = Sweet Violets

## PERENNIAL FLOWERS

*Achillea* = Yarrow

*Artemisia*

*Bergenia*

*Caryopteris* = Bluebeard

*Centranthus ruber* = Jupiter's Beard  
*Coreopsis*  
*Erysimum* 'Bowles Mauve' = Bowles Mauve Wallflower  
*Euryops pectinatus* = Golden Shrub Daisy  
*Gaillardia grandiflora* = Blanket Flower  
*Gaura lindheimeri*  
*Helleborus argutifolius* = Corsican Hellebore (also *H. lividus*)  
*Iberis sempervirens* = Candytuft  
*Lavandula* = Lavender  
*Limonium perezii* = Sea Lavender  
*Nepeta* = Catmint  
*Penstemon*  
*Perovskia* = Russian Sage  
*Phlomis fruticosa* = Jerusalem Sage  
*Rudbeckia hirta* = Gloriosa Daisy  
*Salvia* = Sage  
*Scabiosa* = Pincushion Flower ('Butterfly Blue', 'Pink Mist')  
*Sedum* = Stonecrop ('Autumn Joy', 'Ruby Glow', *S. maximum* 'Atropurpureum', etc.)  
*Stachys byzantina* = Lamb's Ear  
*Veronica* 'Blue Reflection' = Speedwell  
*Zantedeschia aethiopica* = Common Calla

## BULBS

*Amaryllis belladonna* = Naked Lady  
*Crocasmia x crocosmiiflora* = Montbretia  
*Cyclamen hederifolium* = Ivy-leaved Cyclamen  
*Iris* (*douglasiana*, *foetidissima*, *germanica*, *missouriensis*, Siberian, *Spuria*, etc.)  
*Narcissus* = Daffodil  
*Scilla peruviana* = Peruvian Scilla  
*Zantedeschia aethiopica* = Calla Lilly

## ANNUALS

*Begonia* (semperflorens types) = Bedding or Fibrous Begonia  
*Calendula officinalis* = Pot Marigold  
*Cosmos bipinnatus* = Cosmos  
*Catharanthus roseus* (*Vinca rosea*) = Madagascar Periwinkle  
*Centaurea cyanus* = Bachelor's Button  
*Gomphrena globosa* = Globe Amaranth  
*Lobularia maritima* = Sweet Alyssum  
*Portulaca grandiflora* = Rose Moss  
*Salvia farinacea* = Mealycup Sage ('Blue Victoria', 'Victoria's White')  
*Tropaeolum majus* = Garden Nasturtium