Landscape Trees and the Urban Forest
Selecting the Right Tree Species
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Why Do you want to Plant a Tree?

- First think about what the function of the tree will be:
  - For shade/cooling?
  - Energy savings?
  - To screen undesirable views?
  - To create beauty/ornamental quality/focal point

Your goals will influence your choice!
How much space is there?

- Will the tree have enough room to grow to full size?
- Is there room for its roots?
- Are there power lines overhead or nearby?
- Will it be near a house or other structure?

Choosing a plant of the wrong size results in “horti-torture”
Tree characteristics to consider

- Size at maturity
- Water requirements and irrigation availability
- Form/shape
- Evergreen or deciduous
- Heat tolerance
- Tolerance of poor quality water
The Most Important Limiting Factor is Water Quality

- Davis and Woodland water contains high levels of boron, a toxic ion that accumulates in the trees.
- Salts in the water increase soil alkalinity leading to chlorosis in some plants.
- Acid loving plants will not grow well.
More to consider

- Is the species pest and disease resistant?
- Does it drop fruit, leaves in an area where that will be a problem?
- Is it weedy?
- Are the roots invasive?
- Is it brittle and does it break easily?
There are many recommended tree lists

- Sacramento Tree Foundation
- City of Davis Tree List
- PGE list for tree under power lines
- Yolo County Master Gardern lists on-line
- Many different trees for a variety of uses
Our area is also subject to hot drying winds

- Thin leaves and succulent growth can be dessicated and dried by hot wind
- Brittle wood is subject to breaking and even whole parts of the tree snapping off.
- Avoid brittle trees near parking areas!
Search for species with hard wood and good branch attachment

- Avoid fast-growing trees that tend to be more brittle. (willow, acacia, *Robinia*)
- Avoid species that are known to have poor branch attachment that is more susceptible to break out. (Pyrus calleryana cultivars)
Research species to see if they are susceptible to insects or diseases

- *Fraxinus velutina* Modesto Ash (subject to anthracnose, mistletoe and lilac borer)
- *Acer saccharinum* silver maples (aphids and mistletoe)
- *Malus* (some) (Scab and fireblight)
Avoid invasive plants

- *Ailanthus altissimus*
  Tree-of-Heaven

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Don’t plant invasive plants

- *Sapium sebiferum*, Chinese tallow tree (invasive in riparian areas)
Don’t plant invasive plants

- *Ligustrum*, privet (reseeds aggressively everywhere)
Phase out high water need species to conserve water

- *Magnolia stellata* and hybrids
- *Salix babylonica* weeping willow
- *Liriodendron tulipifera* tulip tree
Avoid species with aggressive roots

- **Acer saccharinum**
  Silver maple (lifts walks)
- **Morus alba**
  (outcompetes for water)
- **Populus spp.**
  (sprouts freely from aggressive roots)
Don’t use trees with moist fruits over sidewalks--messy

- *Sophora japonica*, Japanese pagoda tree (sticky, squishy, fruit stick to shoes)
- *Melia azedarach*, chinaberry (steel ball bearing fruits hazardous)
- *Morus* spp, fruit messy
Trees to avoid because they are damaged by freezing (unless can provide protection)

- *Geijera parvifolia*, Australian willow
- *Jacaranda mimosifolia*, jacaranda
- *Ceratonia siliqua*, carob
- Some *Acacia* species
- Some *Citrus* species
- *Rhus lancea*, African sumac
So what are some recommended trees to use?

- Native oaks where suitable (low water)
- Provide habitat and support wildlife
- Seasonal drop in fall easily cleaned up
  Quercus douglasii (small to medium size)
  Quercus lobata (large)
Deciduous trees for shade and cooling in lawns

- *Quercus macrocarpa*, the bur oak
- *Quercus muehlenbergii*, chinquapin oak
- *Quercus robur*, English oak

Tolerate lawn irrigation
Large deciduous trees

- **Gymnocladus dioecus**, Kentucky coffee tree
  - male clone ‘Capuchino’ has no seeds
  - needs supplemental irrigation
Deciduous trees for shade and cooling

- *Chionanthus retusus.*
  Chinese fringe tree
- medium sized tree to 20'
- beautiful “fringed” flowers
- Females have some fruit
Smaller deciduous trees

- *Cercis canadensis*, *Eastern redbud* more easily trained to single trunk than western.
Smaller deciduous tree

- *Diospyros virginiana*
  - eastern persimmon
  - interesting leaves and bark
  - male selections will not have fruit
  - fall color
Smaller deciduous trees

- *Crataegus phaenopyrum*, Washington thorn
  - White flowers in spring
  - Red ornamental fruit (birds eat it)
  - Fall color
Large shrubs useful as small trees
Crape myrtle
Large shrubs useful as small trees-under powerlines

- Heteromeles arbutifolia
- Toyon

White flowers in spring
Evergreen
Multitrunked
Red ornamental fruit in winter provide food for birds

Needs good drainage.
Some powerline recommendations that don’t like Davis/Woodland water

- **Camellia reticulata**
- **Ilex spp., holy**
- **Magnolia stellata, star magnolia**
- **Hamamelis virginia, witch hazel**
- **Cornus kousa, kousa dogwood**
Recommended small evergreen trees

- *Crinodendron patagua*, Lily of the valley tree
  Tough plant for dry areas
  White bells in spring
  Evergreen for screening
Recommended small evergreen trees

- *Arbutus* ‘Marina’
  - Beautiful pink drooping flower clusters
  - Ornamental red fruit
  - Evergreen foliage
  - Attractive smooth rusty-colored bark
Evergreen for accent and screen

- *Cupressus sempervirens* and ‘Swane’s Golden’
- tough, heat and drought tolerant
- pest free
- good for a small garden
More evergreen trees

- *Eriobotrya deflexa*, bronze loquat
  - attractive evergreen foliage with coppery new growth
  - large leaves give a tropical look
  - white flowers followed by small fruit
More evergreen trees

- *Umbellularia californica*, California bay laurel
  - Attractive evergreen leaves
  - Native in Yolo County
  - Tough and drought tolerant
  - Good for screen
  - Fragrant leaves
Pine trees for along streets and large area

- *Pinus canariensis*, Canary Island pine
  - long needles droop gracefully
  - columnar habit
  - cold hardy in 1990 freeze
Other conifers

- *Abies nordmanniana*  
  Nordmann’s fir  
  - attractive dark green fir  
  - small to medium sized

- *Cedrus deodara*, deodar cedar  
  - large and spreading for big areas  
  - heat and moderately drought tolerant  
  - majestic form
In Summary

- Think carefully about the function and space requirements you need.
- Research the plants: do you want evergreen or deciduous?
- How big should it be?
- Is it pest and disease resistant?
- Is it well adapted to our area?
And make the right choice for the right place

- Helping to create a more sustainable
- And beautiful
- Urban Forest
- For us all.
The End

QUESTIONS?