



# Trees Suitable for Planting in Lawns in Contra Costa County

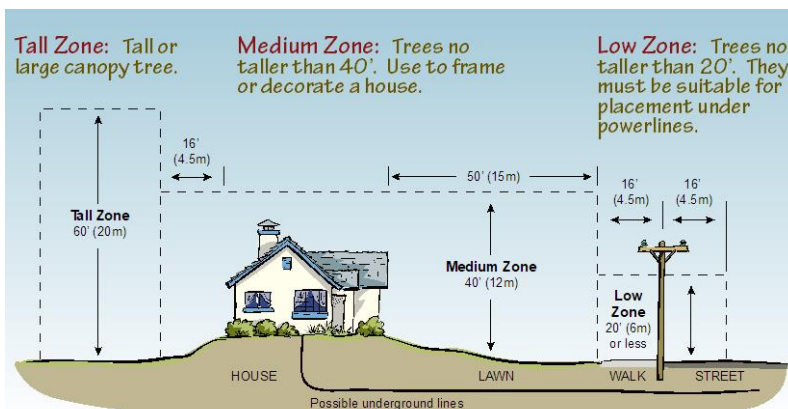
The UC Master Gardener Program in Contra Costa is frequently asked to provide suggestions for trees that are suitable for planting in lawns in our area. Before selecting a tree, there are many things to be considered. The initial investment may be small, but it can cost thousands of dollars to remove a tree and start over.

## WHAT WILL BE THE PURPOSE OR FUNCTION OF YOUR TREE?

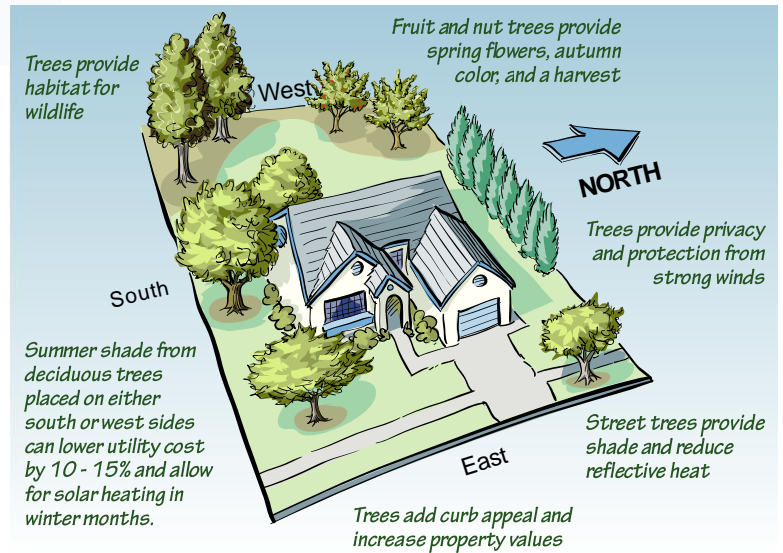
- Is it to be used as a landscape accent, providing blossoms or fall color?
- Is its purpose to provide shade for the home and garden? A deciduous tree planted on either south or west sides can lower utility costs and allow for solar heating in winter months.
- Is it to be used to frame views or screen objectional elements?

## MATURE SIZE AND SITE CONDITIONS:

- Do not plant any tree that at maturity will come within 10' of a power line.
- Avoid planting in close proximity to underground utilities.
- Plant 15' away from permanent structures.
- Select a tree which does not grow to block a view.



## GENERAL TREE PLACEMENT:



## LAWN COMPATIBILITY:

- Select trees which can sustain the frequent watering that is necessary to maintain a lawn. Encourage deep, less frequent watering around trees.
- Locate lawn sprinklers in a way that the trunk will not be hit so that water on the trunk will not promote crown rot.
- Avoid trees with dense canopies. Most lawn grasses require at least 4-5 hours of full sun each day. Choose trees which: provide filtered sunlight; can be pruned selectively to allow sunlight to penetrate; or can be limbed up to 8' to allow direct sun on the lawn in the early morning and late afternoon.



## CLIMATE AND SOIL:

- ▶ Select trees appropriate for your climate zone.

*The New Sunset Western Garden Book* has divided Contra Costa County into four zones: Zone 14 which includes much of central and east county; Zone 15 which includes El Sobrante, Hercules, and parts of Orinda, Martinez, Walnut Creek and Concord; and Zones 16 and 17 which include the west county and areas with more moist air, summer fog, and coastal thermal belts. For a detailed map see the *New Sunset Western Garden Book* or the following website:

<https://www.sunset.com/garden/climate-zones/sunset-climate-zone-bay-area>

Though most of the trees listed are compatible in all zones in Contra Costa County, some cannot take the heat of Zone 14 and others dislike the cool air and fog of Zones 16 and 17.

- ▶ Select trees compatible with your soil pH. Many trees do not perform well in alkaline soil.
- ▶ Select trees which tolerate the drainage characteristics of your soil. Many trees planted in lawns in poorly drained soils are susceptible to root and crown rot.

## PEST AND DISEASE RESISTANCE:

- ▶ Trees vary in pest and disease resistance.
- ▶ Select trees that have known resistance to key local pests.
- ▶ Do not plant species highly susceptible to root and crown diseases in poorly drained soil.

## PERSONAL PREFERENCES AND AESTHETICS:

- ▶ Consider tree characteristics such as shape, bark pattern, leaves and flower and fruit color.
- ▶ Consider possible leaf, flower and fruit litter.
- ▶ Select a tree that will fit your personal taste and landscape needs.
- ▶ Consider deciduous and evergreen characteristics. Deciduous trees drop their leaves at the end of each growing season. Evergreen trees retain leaves or needles longer than one growing season so that some leaves are present throughout the year.

## ADDITIONAL REFERENCES:

*The New Sunset Western Garden Book.*  
Ninth Edition, 2012

*Plants and Landscapes for Summer-Dry Climates of the San Francisco Bay Region.*  
East Bay Municipal Utility District, 2004










*Landscape Plants for California Gardens: An Illustrated Reference of Plants for California Landscapes.*  
Bob Perry, 2010

*SelecTree: A Tree Selection Guide.*  
<https://selecttree.calpoly.edu/>  
Urban Forest Ecosystems Institute  
Cal Poly San Luis Obispo



























## TREE TABLES









The following tables are a quick reference to a few of the more common trees suitable for planting in lawns, divided into deciduous and evergreen trees appropriate to various Contra Costa County climate zones. Trees listed here are generally available at local nurseries, however there are a few trees that may be more difficult to locate.







| Deciduous Trees   | Size<br>-----<br>Growth Rate                 | Zone<br>-----<br>Exposure<br>-----<br>Water Needs  | Comments   |
|---|--|--|--|
|   |  |  |  |
| <p><b><i>Acer palmatum</i></b><br/>Japanese Maple</p>  <p>Deciduous</p>              | <p>20' H<br/>20' W</p> <p>slow</p>           | <p>Z 14-17</p>    | <p>Leaves airy and delicate. Spring growth is red; summer, green; fall, scarlet, orange or yellow. Many varieties available. Protect from hot sun and dry winds in inland areas. Best in areas with summer fog.</p> <p>Resistant to oak root fungus. Susceptible to verticillium wilt.</p>   |
| <p><b><i>Acer rubrum</i></b><br/>Red Maple, Scarlet Maple</p>  <p>Deciduous</p>     | <p>60' H<br/>40' W</p> <p>fast</p>           | <p>Z 14-17</p>   | <p>Leaves 2-4" long with 3-5 lobes, shiny green above, pale beneath, turn brilliant scarlet in fall in frosty areas. Dull red fruit. Tolerates most soils. Requires a constant supply of water. Needs occasional deep watering to keep roots deep.</p>                                       |
| <p><b><i>Celtis australis</i></b><br/>European Hackberry</p>  <p>Deciduous</p>     | <p>40-60' H<br/>30-35' W</p> <p>moderate</p> | <p>Z 14-16</p>  | <p>Tolerates most soils, takes sun, wind, and drought. Roots not invasive. Branches upright, dark green leaves 2-5 inches long. Shorter deciduous period than other hackberries.</p> <p>Resistant to oak root fungus.</p>  |
| <p><b><i>Celtis sinensis</i></b><br/>Chinese Hackberry</p>  <p>Deciduous</p>       | <p>40' H<br/>40' W</p> <p>moderate</p>       | <p>Z 14-16</p>  | <p>Similar growth to European Hackberry, but smaller. Leaves smoother and glossier than other hackberries.</p>   |
| <p><b><i>Chionanthus retusus</i></b><br/>Chinese Fringe Tree</p>  <p>Deciduous</p> | <p>20' H<br/>20' W</p> <p>slow</p>           | <p>Z 14-17</p>  | <p>Multi-stemmed shrub which can be trained as a small tree. 2-4" leaves. Magnificent white blossoms late spring to summer. Handsome gray brown bark. Male plants have larger flowers and no fruit.</p> <p>Resists most pests and diseases. Can get fungal leaf spot and powdery mildew.</p> |
| <p><b><i>Ginkgo biloba</i></b><br/>Maidenhair Tree</p>  <p>Deciduous</p>           | <p>35-50' H<br/>20-30' W</p> <p>slow</p>     | <p>Z 14-17</p>  | <p>Light green fan shaped leaves spring and summer; gold in fall. Plant only male trees as females produce smelly, messy fruit.</p> <p>Resistant to oak root fungus. Susceptible to anthracnose.</p>   |

















| Deciduous Trees  |   | Size<br>-----<br>Growth Rate                | Zone<br>-----<br>Exposure<br>-----<br>Water Needs   | Comments  |
|--|---|---|---|---|
| <i>Koelreuteria bipinnata</i><br>Chinese Flame Tree<br><br>Deciduous                       |    | 20-40' H<br>20-40' W<br>moderate-<br>fast   | Z 14-17<br><br>     | 1-2' long leaves divided into many oval leaflets, hold onto tree until December. Yellow fall flowers turn into 2" long salmon-red-orange seed capsules which resemble little Japanese lanterns. Roots not invasive. Occasional beetle or scale problems.  |
| <i>Koelreuteria paniculata</i><br>Goldenrain Tree<br><br>Deciduous                         |    | 20-35' H<br>25-40' W<br><br>moderate        | Z 14-17<br><br>     | Leaves to 15" with 7-15 lobed leaflets, 1-3" long. 8-14" long showy yellow flowers in summer. Fruit capsules red when young, mature to buff-brown, last into fall. Gawky when young, prune to shape. Tolerates cold heat, drought, wind. Susceptible to verticillium wilt. Pests are beetle, scale.                                       |
| <i>Lagerstroemia fauriei</i> ×<br><i>indica</i> cultivars<br>Crape Myrtle<br><br>Deciduous |    | To 25' H<br>15-25' W<br><br>moderate        | Z 14<br><br>        | Showy red, pink, lavender or white flowers in summer, interesting bark, brilliant fall color. Can be purchased as a multi-trunk tree or trained as a single trunk. Hybrids between L. indica and L. fauriei have been selected for hardiness & mildew resistance.   |
| <i>Magnolia</i> × <i>soulangiana</i><br>Saucer Magnolia<br><br>Deciduous                   |   | To 25' H<br>25' W<br><br>moderate           | Z 14-17<br><br> | Blooms in late winter to early spring before leaves emerge. Striking flowers range from white to shades of pink and purple. Blooms at 3-5 years old. Irregularly branching tree with 5-7" long leaves.  |
| <i>Magnolia</i> spp.<br>Magnolia<br><br>Deciduous  |  | 12-35' H<br>10-25' W<br>slow -<br>moderate  | Z 14-17<br><br> | Magnificent flowering plants featuring blooms in white, pink, red, purple or yellow. Variety of leaf shapes and plant forms. See Sunset Garden Book for varieties; for example M. acuminata, M. Kosar-De Vos hybrids, M. x loebneri, and M. stellata hybrids. Some varieties subject to aphid, scale and spider mite.                     |
| <i>Malus</i> spp.<br>Flowering Crabapple<br><br>Deciduous                                  |  | 15-30' H<br>10-20' W<br>slow -<br>moderate  | Z 14-17<br><br> | Brief, lavish, white pink or red flowers in spring followed by showy red fruit. Susceptible to rust, scab, powdery mildew and fireblight. Select newer more disease-resistant varieties.  |
| <i>Nyssa sylvatica</i><br>Sour Gum, Tupelo<br><br>Deciduous                                |  | 30-50' H<br>15-25' W<br>slow -<br>moderate  | Z 14-17<br><br> | Shape is pyramidal when young, irregular with age. Leaves dark green, glossy 2-5" long, turning yellow and orange then bright red in fall. Female trees set bluish black fruit if male tree is nearby which can be messy.   |
| <i>Pistacia chinensis</i><br>Chinese Pistache<br><br>Deciduous                             |  | 20-35'+ H<br>20-35' W<br>slow -<br>moderate | Z 14-16<br><br> | Medium green divided leaves with 10-16 pairs of 2-4" long leaflets. Small flowers; female trees have blue-black berries. Leaves turn bright orange-red and yellow in fall. Tolerates a wide range of soils and conditions. Resistant to oak root fungus. Subject to verticillium wilt with regular lawn watering in poorly drained soils. |



| Deciduous Trees   |  | Size<br>-----<br>Growth Rate | Zone<br>-----<br>Exposure<br>-----<br>Water Needs                                   | Comments  |
|---|--|------------------------------|---|---|
| <i>Quercus coccinea</i><br>Scarlet Oak<br><br>Deciduous                                     |   | 60-80' H                     | Z 14-17   | Native to eastern U.S. Leaves are 3-6" long with pointed, deeply cut lobes which turn scarlet where fall nights are cold; best oak for fall color. Pyramidal when young; round topped at maturity. Likes deep, rich soil; deep rooted.<br><br>Resistant to verticillium wilt. Fairly pest free.                       |
|   |  | 40-60' W                     |    |   |
| <i>Quercus rubra</i><br>Red Oak<br><br>Deciduous  |   | 60-75' H                     | Z 14-17   | Native to eastern U.S. 5-9" long by 4-6" wide lobed leaves which turn red, orange, or brown in fall. Likes deep, rich soil; deep rooted. High branching habit.<br><br>Resistant to verticillium wilt. Host to fungus that causes sudden oak death. Susceptible to anthracnose, root rot, aphids, caterpillars & gall. |
|   |  | 50' W                        |    |   |
| <i>Sophora japonica</i><br>Japanese Pagoda Tree or<br>Chinese Scholar Tree<br><br>Deciduous |   | 35-60' H                     | Z 14-17   | 6-10" leaves dark green leaves divided into 7-17 leaflets, 1-2" long. 12" long, open flower clusters of 1/2" yellowish white flowers throughout summer; 2.5-3" pods.<br><br>Susceptible to verticillium wilt and spider mites. Resistant to oak root fungus.  |
|   |  | 25-40' W                     |    |   |
| <i>Tilia cordata</i><br>Little Leaf Linden<br><br>Deciduous                                 |  | 35-50' H                     | Z 14-17   | Pyramidal form. Leaves 1.5-3" long and as wide. Small, fragrant, yellowish white flowers in July which attract bees. Best in deep, rich soil. Good lawn tree. Select varieties for size, form and blooming habit.<br><br>Susceptible to root rot, aphids & mildew.  |
|   |  | 15-30' W                     |  |   |
|   |  | moderate                     |   |   |

| Evergreen Trees  |   | Size<br>-----<br>Growth Rate | Zone<br>-----<br>Exposure<br>-----<br>Water Needs                                   | Comments   |
|--|---|------------------------------|---|--|
| <i>Elaeocarpus decipiens</i><br>Japanese Blueberry Tree<br><br>Evergreen                     |  | 30-60' H                     | Z 14-17   | Blooms in summer, producing tiny, scented white flowers in clusters; blue-black olive like fruit in winter. Glossy green foliage. Very ornamental effect from older leaves, which turn bright red before dropping. Needs rich, well-drained soil. Requires little pruning. |
|  |   | 20-30' W                     |  |  |
| <i>Eriobotrya japonica</i><br>Loquat<br><br>Evergreen  |  | 15-30' H                     | Z 14-17   | Leathery 6-12" long leaves, glossy green above, woolly rust colored beneath. Dull white flowers in fall. Orange to yellow fruit in winter to spring. If planted for fruit, select a grafted variety. Plant in well drained soil.<br><br>Subject to fire blight.            |
|  |   | 15-30' W                     |  |  |
| <i>Magnolia doltsopa</i><br>( <i>Michelia doltsopa</i> )<br>Sweet Michaelia<br><br>Evergreen |  | 20-40' H                     | Z 14-17   | Highly, pleasantly fragrant white flowers, 5-7" wide, cover the tree from late winter to early spring. Leaves are dark green above, pale beneath, 6-8" long, and hang in pendulous manner.   |
|  |   | 15-25' W                     |  |  |
|  |   | slow                         |   |  |



| Evergreen Trees   |  | Size<br>-----<br>Growth Rate                   | Zone<br>-----<br>Exposure<br>-----<br>Water Needs  | Comments   |
|---|--|--|--|--|
| <b><i>Metrosideros excelsa</i></b><br>New Zealand Christmas Tree<br><br>Evergreen |   | 15-30' H<br>15-30' W<br><br>moderate           | Z 16,17<br><br>  | Big clusters of dark red flowers cover branch ends in late spring and early summer. 'Aurea' has yellow flowers. Large leathery leaves, dark green above, white woolly beneath. Best suited to areas where there is fog and cool summer temperatures.<br><br>Susceptible to root rot.                           |
| <b><i>Pittosporum undulatum</i></b><br>Victorian Box<br><br>Evergreen             |   | 25-40' H<br>25-30 W<br><br>moderate            | Z 16,17<br><br><br>       | Moderately fast growth to 15', slow to 30-40'. Single or multi-trunked dome shaped tree. Glossy green, wavy-edged, 6" long leaves. Creamy white flowers in early spring; orange-yellow fruit in late spring can be a litter problem. Strong roots become invasive with age.<br><br>Pests are aphids and scale. |
| <b><i>Quercus virginiana</i></b><br>Southern Live Oak<br><br>Evergreen            |   | 40-70' H<br>to 90'W<br><br>moderate<br>to fast | Z 14-17<br><br>  | Best in deep, rich, moist soil. Grows well as a lawn tree with regular moisture; tolerates heat, aridity and winds. Iconic tree of southeastern U.S. Partly deciduous in cold winter regions.<br><br>Resistant to verticillium wilt. Susceptible to oak root fungus and root rots.                             |
| <b><i>Rhus lancea</i></b><br>African Sumac<br><br>Evergreen                       |  | 20-30' H<br>20-35' W<br><br>slow               | Z 14-17<br><br><br> | Graceful weeping outer branchlets. Dark green willow-like 4-5" long leaves. Inconspicuous spring flowers followed by clusters of yellow or red fruit that can be messy. Single or multi-trunk.<br><br>Susceptible to Texas root rot.   |



Low Water



Full Sun



Moderate Water



Part Shade



Regular Water



Full Shade



High Water



*New Sunset Western Garden Book, 2012 ed.—Climate Zones*

### Photography & Illustration Credits

Cal Poly San Luis Obispo Urban Forest Ecosystems Institute, <https://ufe.calpoly.edu/>: *Celtis australis*, *Celtis sinensis*, *Chionanthus retusus*, *Koelreuteria bipinnata*, *Magnolia doltsopa*, *Metrosideros excelsa*, *Pittosporum undulatum*, *Quercus rubra*, *Quercus virginiana*, *Rhus lancea*, and *Sophora japonica* with permission.

Oregon State University Department of Horticulture, Pat Breen, "Landscape Plants, Images and Identification", 1999-2013, <https://landscapeplants.oregonstate.edu/> : *Acer rubrum*, *Eriobotrya japonica*, *Koelreuteria paniculata*, *Lagerstroemia* cv., *Magnolia* × *soulangiana*, *Magnolia* sp., *Nyssa sylvatica*, *Pistacia chinensis*, *Quercus coccinea*, and *Tilia cordata* with permission.

UC Master Gardener Program of Contra Costa County, Martha Lee: *Acer palmatum*, *Ginkgo biloba*.

Photobucket.com, <https://s212.photobucket.com/user/wdwplants/media/Magic%20Kingdom%20trees/99b0.jpg.html>: *Elaeocarpus decipiens*.

University of California, Agriculture & Natural Resources, Will Suckow: Tree Placement Illustrations.



## Trees Not Recommended for Planting in Lawns

Many trees which grow in Contra Costa County have not been included on the list of trees suitable for planting in lawns. They may be intolerant of wet soils, have highly competitive roots, grow to a size which quickly overpowers the average size lawn, or be highly susceptible to pests and diseases. A few examples of common trees not recommended for planting in lawns are:

- Albizia julibrissin*** (Silk Tree, Mimosa) Invasive. Messy leaves, flowers, and pods.
- Betula spp.*** (Birch) Requires ample water at all times and a regular feeding program. Intolerant of drought. Susceptible to aphids and bronze birch borers. Very sensitive to lawn pre-emergent herbicides.
- Cedrus deodara*** (Deodar Cedar) Produces prodigious amounts of pollen, catkins and cone scales. Fast growing and quickly overpowers the average lawn.
- Cinnamom camphora*** (Camphor Tree) Roots are very competitive. Subject to root rot and verticillium wilt.
- Fraxinus modesto*** (Modesto Ash) Susceptible to anthracnose, aphids, bugs, mistletoe. Branches split to due narrow crotch. Lawns do poorly underneath.
- Liquidambar styraciflua*** (Sweet Gum) Heavy surface roots. Seeds pods interfere with mowing.
- Morus alba*** (Fruitless Mulberry) Heavy surface roots. Produces prodigious amounts of pollen. Subject to sooty canker disease, chlorosis, and bacterial blight.
- Platanus acerifolia*** (London Plane Tree) Invasive roots. Susceptible to spider mite, powdery mildew and anthracnose. If used, select for disease resistance: 'Bloodgood' is resistant to anthracnose; 'Yarwood' is mildew resistant; and 'Columbia' is resistant to both.
- Prunus spp.*** (Flowering Cherry) Requires fast draining and well aerated soil. Subject to crown rot.
- Quercus agrifolia*** (Coast Live Oak) and ***Quercus lobata*** (Valley Oak) California native oaks succumb to fungal root diseases if given regular summer watering. However, there are oaks listed which are native to the southern and eastern parts of the U.S. which do well in lawns.
- Sequoia sempervirens*** (Coast Redwood) Loves being in or near a lawn for the water, but overpowers the lawn in 10-20 years.
- Ulmus parvifolia*** (Chinese Elm) Aggressive roots. Branch crotches are narrow and easily split. Subject to bark beetles, leafhopper, aphids and scale. Dutch Elm disease has historically been a problem in California.

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