

# TREES AND SHRUBS FOR CONTAINER GARDENS AND SMALL SPACES

Updated 9/16/19

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## ***Growing trees and shrubs in containers is not easy in Colorado***

- The biggest challenge is to provide the right amount of water!
  - If the plant is over-watered it will die, so good drainage is essential! The pots must have drain holes.
  - If the pots ever dry out completely, plants may die, even if they show no symptoms immediately and are later watered well.
  - Even when watered properly, evergreen trees and shrubs tend to dry out in our excessively dry climate due to loss of moisture through the needles. The root system can't replace the lost moisture fast enough.
  - In winter it helps to spray evergreen plants with Wilt-pruf to prevent moisture loss.
- The next challenge? Temperature!
  - Containerized trees, shrubs, and perennials are subject to extreme cold, drying winds, and frequent freeze-thaw cycles in Colorado winters. Extra protection and care must be provided to ensure root and crown survival.
  - In summer the soil is likely to heat up excessively and in winter it is likely to get too cold.
  - Because pots often don't provide enough insulation, the plants are at risk.
    - The larger the pot, the better the chance for survival. Pots should have a minimum depth of two feet and a minimum diameter of 24 - 30 inches.
- What kind of pots work best?
  - Pots that are porous deteriorate quickly if consistently exposed to moisture and freezing temperatures. Porous containers should be brought inside to prevent cracking during the winter months.
  - Non-porous containers, including glazed pottery, have a longer life span but are often more expensive. They may be stored outdoors in the winter.
  - Use good quality potting soil. Do not use native soil, as most have a high percentage of clay particles that easily compact reducing the oxygen that is available to the roots.
- Overwintering plants in containers
  - In October/November after soils have cooled, homeowners with large pots should choose a protected area in the garden.
    - Sink the plants pot and all into the soil. Make sure the pots are well watered and then mulch six to twelve inches deep with straw, leaves, hay, or shredded bark.
    - The roots will be protected by the moderating effects of surrounding soil. Check the pots monthly throughout the winter and water if needed to prevent desiccation.
  - If sinking the pots in soil is not possible, cluster containers together in a protected site under the house eaves on the north or east side.
    - Place larger pots to the outside and smaller pots to the inside of the cluster.

- Water pots well, then mulch heavily with straw, leaves, hay or shredded bark. Provide a thick layer of mulch or bales of hay around the outer edge of the cluster. Also, mulch over the top of the pots to lessen the impact of root-killing temperature fluctuations.
    - Check every two weeks and water as necessary.
  - Remember next spring to remove all mulching and packing when plants begin to show signs of growth. Remove mulch on a gradual basis as weather warms in late winter to early spring.
  - Another overwintering option is to move containerized plants into an unheated garage or shed. Check soil moisture frequently and water as necessary.
- Plants in containers require more fertilization than those planted in the ground.
    - The frequent watering that container plants require leaches nutrients out of the soil.
    - Diluted solutions applied more frequently reduce the chance for fertilizer burn and keep soil mineral levels more consistent.

***Still want to grow trees and shrubs in containers? The following plants have the best chance for survival. They are also great for small garden spaces:***

Dwarf Japanese Maple (*Acer palmatum*)

- Must have the perfect microclimate – needs protection!
- Available in many different varieties
- Prefers light dappled shade and evenly moist soil. Will not tolerate heavy winds
- Mature height and spread vary by cultivar from 10 to 25 feet

Blue Mist Spirea (*Caryopteris × clandonensis*)

- Upright growing shrub covered with light blue fringed flowers from July to frost
- Very xeric; attractive to bees
- Seed heads provide great winter interest
- Full sun
- Mature height 3', spread 3'



Spanish Gold Broom (*Cytisus purgans* 'Spanish Gold')

- Slender green stems are covered with abundant small bright yellow flowers in the spring
- From the mountains of Spain, a true Zone 4 plant
- Tolerant of a wide range of soil conditions
- Partial to full sun
- Mature height 4', spread 6'



Skyrocket Juniper (*Juniperus virginiana* 'Skyrocket')

- Very narrow columnar habit with attractive silvery blue foliage
- Fast growing, requires very little maintenance
- Full sun
- Mature height 20', spread 5'



Little Gem Norway Spruce (*Picea abies* 'Little Gem')

- Rich green needles form a dense, flat topped globe
- Very slow growing, forms a compact head 18 inches in diameter
- Requires very little maintenance
- Partial shade to full shade
- Mature height 18", spread 18"

Dwarf Alberta Spruce (*Picea glauca* 'Conica')

- Very dense, dwarf cone-shaped spruce
- Dark green; slow grower
- Needs protection from sun and wind
- Partial sun
- Mature height 6', spread 6'

Blue Shag White Pine (*Pinus strobus* 'Blue Shag')

- Powder blue needles
- Protect from winter winds and sun
- Partial shade to full sun
- Mature height 4', spread 5'



***Trees and shrubs for small garden spaces (NOT for container planting)***

DECIDUOUS TREES

Bigtooth Maple (*Acer grandidentatum*)

- Rocky Mountain native
- Small five lobed dark green leaves turn vibrant shades of yellow, orange and red in the fall
- Tolerant of both dry and alkaline soils; prefers full sun but can take partial shade
- Mature height & spread 20 to 30'



Flame Ginnala Maple (*Acer tartaricum* subsp. *ginnala* 'Flame')

- An improved variety of Ginnala Maple with a more consistent fall color.
- Can be grown as a single stem or a clump form – an excellent selection for small spaces.
- Has a more uniform branching habit, with fall color of brilliant orange-red to deep red.
- 20' height, 20' spread



Autumn Brilliance Serviceberry (*Amelanchier* × *grandiflora* 'Autumn Brilliance')

- Fringe-like white flowers in spring, very reliable
- Edible berries mature in June, attractive to birds
- Outstanding orange-red fall color; partial sun to full sun
- 15' height, 10' spread

Purple Smoke Tree (*Cotinus coggygria*)

- Rich, dark purple leaves last throughout the season
- Can take on the form of a multi-stem shrub or tree
- Small pinkish white flowers in airy clusters; full sun
- 15' height, 10' spread



Russian Hawthorn (*Crataegus ambigua*)

- Shrub-like tree with horizontal branching and long thin thorns
- White spring flowers
- Red fruits persist into winter-great source of food for birds!
- Orange to red fall color; partial sun to full sun
- 15' height, 15' spread



Winter King Hawthorn (*Crataegus viridis* 'Winter King')

- ½" white flowers in clusters 2" across
- Shiny green leaves turning orange to scarlet in the fall
- Small, persistent bright red fruit
- Partial sun to full sun
- 30' height, 20' spread



Prairifire Crabapple (*Malus* 'Prairifire')

- Intense, brilliant red-pink flowers; disease resistant
- Purple-red leaves turn to green with a red cast
- Small dark red-purple fruit persists through the winter
- Partial sun to full sun
- 20' height, 20' spread



Sargent Tina Crabapple (*Malus toringo* subsp. *Sargentii* 'Tina')

- Everything about this tree is small – flowers, fruit, leaves – everything except its beauty!
- Smallest crabapple available
- Red flower buds open to white flowers in late spring
- Partial sun to full sun
- Mature height 6', spread 10'



Montmorency Cherry (*Prunus cerasus* 'Montmorency')

- Pink buds open to white flowers
- Cold and frost hardy, bears fruit at an early age
- Fruit is dark red with yellow flesh (June/July)
- Sour pie cherry, self-fertile and a good pollinator; full sun
- 15' height, 10' spread

Princess Kay Plum (*Prunus nigra* 'Princess Kay')

- 2000 Colorado State Plant Select® program selection
- Double white flowers appear before the foliage – pleasantly fragrant
- Open, oval form, green leaves turn red-purple in fall; partial sun to full sun
- Bark is almost black, with white horizontal lenticels
- 12' height, 10' spread

Gambel Oak (*Quercus gambelii*)

- Rocky Mountain native
- Hardy xeric tree with a shrubby growth habit
- Dark green leaves change in fall to yellow with occasional orange to red to bronze
- Tan acorns with a scaly cap develop in summer; full sun
- 15' height, 12' spread



Japanese Tree Lilac (*Syringa reticulata*)

- Large creamy white flowers appear after other lilacs are finished blooming
- Flowers are very fragrant
- Oval to vase shaped crown with an attractive winter fruit display; full sun
- 15' height, 12' spread



## EVERGREEN TREES

### Compact White Spruce (*Picea glauca* 'North Star')

- Dwarf form of Black Hills Spruce
- Densely branched, conical dwarf evergreen tree with short, rich green needles that radiate from the branches
- Partial sun to full sun
- 15' height, 5' to 6' spread



### Iseli Fastigate Spruce (*Picea pungens* 'Iseli Fastigiata')

- Very strong upright narrow form with steel blue needles
- Branches are dense
- Outstanding accent plant where blue color is desired
- Partial sun to full sun
- 15' height, 5' to 6' spread



### Weeping Blue Spruce (*Picea pungens* 'Pendula')

- A beautiful cascading spruce with the lower branches angled downward
- Branches are dense; full sun
- Young terminal growth can be staked upright or it can be allowed to spread out more like a groundcover
- Variable height, 15' spread

### Sherwood Compact Bristlecone Pine (*Pinus longaeva* 'Sherwood Compacta')

- One of the smallest dwarf pines. Slow growing at 1" per year
- Develops a perfectly conical shape and a dense formal appearance.
- Great choice for rock gardens. Partial sun to full sun, deer resistant
- 10' height, 4' spread



### Bosnian Pine (*Pinus heldreichii* var. *leucodermis*)

- Very slow growing (3" to 6" a year)
- Stiff dark green needles hold on 5 to 6 years
- Salt tolerant; partial sun to full sun
- 30' height, 15' spread



### Golden Arborvitae (*Thuja orientalis* 'Aurea Nana')

- Dense oval upright growth habit
- Soft evergreen foliage tipped in bright gold
- Foliage arranged in vertical fans; full sun
- Mature height 6' to 8', spread 4'

## DECIDUOUS SHRUBS

### Golden Nugget Barberry (*Berberis thunbergii* 'Monlers')

- Striking gold leaves with orange tips
- New growth emerges orange-red, changes to gold
- Outstanding border or accent plant; full sun
- Sensational orange fall color
- 18" height, 2' spread



Fernbush (*Chamaebatiara millefolium*)

- 2006 Plant Select®
- Semi-evergreen native shrub with aromatic fern-like leaves
- Clusters of white rose-like flowers cover the branches in summer; full sun
- 4' height, 4' spread



Waxflower (*Jamesia americana*)

- 2003 Plant Select® - excellent for dry shade
- Intensely fragrant and showy clusters of waxy white flowers appear in spring
- Native and tolerant of dry alkaline soils
- Red fall color; partial sun to full sun
- 5' height, 4' spread



Miss Kim Lilac (*Syringa pubescens* subsp. *Patula* 'Miss Kim')

- Dwarf, compact growth habit
- Extraordinarily fragrant pale lilac blossoms appear after other lilacs are out of bloom
- Burgundy fall color; partial sun to full sun
- 5' height, 5' spread



Compact European Cranberry Viburnum (*Viburnum opulus* 'Compactum')

- Outstanding foundation or hedge plant
- Spectacular sterile/fertile flowers in spring
- Persistent scarlet fruit
- Red fall color; partial sun to full sun
- 5' height, 5' spread

EVERGREEN SHRUBS

Globe Blue Spruce (*Picea pungens* 'Globosa')

- Compact rounded dwarf spruce with outstanding silvery-blue color
- Slow-grower, densely branched; partial sun to full sun
- 4' height, 4' spread



Mops Mugo Pine (*Pinus mugo* 'Mops')

- Formal, densely-rounded form of Mugo Pine
- Tight green needles that can go from light green to yellowish in the winter, slow grower
- 5' height, 6' spread; full sun
- Other true dwarf cultivars include 'Slowmound' (3' x 4'), 'Valley Cushion' (2' x 3') and 'White Bud' (3' x 4')

Hillside Creeper Scotch Pine (*Pinus sylvestris* 'Hillside Creeper')

- Undulating prostrate branches with green needles in pairs
- Great groundcover plant, or for cascading over a raised garden
- Fast growing when young, it will go to 2 feet tall and 8 feet wide in 8 to 10 years; full sun
- Growth slows as plant ages