

## Need More Help?

The Colorado State University Extension Office in Douglas County offers a wealth of information to help you with any further gardening questions you may have.

Colorado Master Gardeners (volunteers trained in all aspects of horticulture) are on staff daily, April-October from 8:30 a.m. to 4:30 p.m., Monday through Friday, for the sole purpose of helping the public with any gardening difficulties. The information they offer is the result of recent research done at Colorado State University in Fort Collins. If you are interested in becoming a Colorado Master Gardener, contact the Horticulture Agent for CSU Extension Douglas County at 720-733-6930 x 4807.

Please feel free to call a Colorado Master Gardener at 720-733-6935, or stop by at 410 Fairgrounds Road in Castle Rock.

Douglas County Cooperative Extension programs are available to all without discrimination.

Other sources for Colorado gardening are:

- [www.plantselect.org](http://www.plantselect.org)
- [www.planttalk.org](http://www.planttalk.org)
- [www.denverplants.com/perennials/html/xrated.htm](http://www.denverplants.com/perennials/html/xrated.htm)
- Denver Botanic Garden, [www.botanicgardens.org](http://www.botanicgardens.org)
- Colorado State University, [www.ext.colostate.edu](http://www.ext.colostate.edu)
- Colorado Department of Agriculture, [www.colorado.gov/ag](http://www.colorado.gov/ag)

Compiled by Colorado Master Gardeners of Douglas County



# Welcome to Gardening in Douglas County



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Hours: 8:00 a.m. – 5:00 p.m.

**Welcome** to gardening in Douglas County.

Gardening here is different from most other regions of the United States, and even different from Denver. In Douglas County, altitudes range from 5000 – 8,000 feet, and soils are typically heavy clay or sandy. Growing a successful garden may seem daunting to the newcomer. So, we have put together some advice on soil preparation, mulch and a list of easy-to-grow plants that are especially appropriate for this area.

The great advantage of growing things in Douglas County is the abundant sunshine and cool nights. Some of the disadvantages are the extreme temperatures, the short growing season, and the strong winds. However, many attractive plants have adapted well to these conditions. Many of them have small or narrow leaves, which reduces evaporation in the dry heat or wind. Other plants are shorter and more compact which are methods of coping with the wind.

Reliable trees and shrubs, brightly colored flowers, and some favorite fruits and vegetables are included. There is also advice on lawns and a list of groundcovers for small areas.

## Flowers

Beautiful blooms will encompass your garden. There are flowers that are easy to grow, even in the challenging soil and climate of the Front Range. Some plants that are grown extensively in gardens on the East and West Coasts perform better in the gardens of the Front Range. For instance, lambs ear and cosmos do not “rot out” and bloom more proficiently in the dry heat. Yarrow is not as invasive here as in more moist areas of the country. Fernbush remains compact and manageable without supplemental irrigation whereas with more than 14” of water a year, fernbush is leggy and unsightly.



## Compost and Mulch

Whether your soil is clay or sand, it will benefit from the addition of organic matter – aged manure or compost. Yard debris and vegetable scraps can be composted to create an excellent soil amendment. Never add sand or gravel in an effort to improve drainage. Soils are best improved by adding 1/3 organic matter. The benefits of organic amendments are:

- Increased water-holding capacity
- Increased aeration
- Conserved water

As mulches decompose, they improve soil texture. Mulches can be a layer of wood chips, bark mulch, corn gluten meal, or pine needles placed around plants on the soil surface. Mulches should be 2” – 4” deep. Benefits of mulches include:

- Retarding weed growth
- Keeping soil temperature from extreme fluctuations
- Retarding water evaporation

## Weather

- **Frost:** The average date for last frost is between May 30 and June 10 for Castle Rock at an elevation of 6500 feet. It is tempting to put annuals out too early.
- **Sun:** At this altitude plants can be scorched easily. New plants need to be hardened off by placing them in a sheltered, shaded area, such as a patio for a week before they are planted outside.
- **Wind:** Short, small-leaved plants will withstand the wind better than tall, large-leaved ones.
- **Water:** Average rainfall is 14” in the county. Water conservation needs to be a priority. Practice using less water on your garden and choose plants that live on low moisture.
- **Hail:** If your garden is hit by hail, do not despair. Pull up badly damaged plants; the rest should recover.

## **Shrubs – Height/Spread**

### **Elderberry — 8’/6’**

Arching growth habit, large white flower clusters in spring followed by attractive berries.

### **Saskatoon Serviceberry – 20’/15’**

Three-season interest with white flowers in spring, crabapple-like fruit, and great fall color. Native.

### **Buffaloberry — 10’/6’**

Silvery leaves, edible fruits on female shrub, easy-to-grow native. Perfect substitute for Russian olive.

### **Mountain mahogany — 6’/4’**

Feathery seed heads, open growth form and wedge-shaped leaves. Native.

### **Bluestem Joint Fir — 6’/4’**

Blue-green stems and leaves throughout the year. Adds nice contrast to deciduous and evergreen shrubs. Discrete yellow flowers in early spring followed by bright red berries.

The four shrubs listed above are all plants suitable for a xeriscape garden. Once established, they will not need supplemental irrigation except once throughout the growing season.

## **Lawns**

Poor soil preparation is the major cause of lawn problems. With typical Douglas County soils being composed of either gravelly sand or clay, how can grass be expected to grow successfully? Improve soil before either seeding or sodding a lawn by rototilling in three to four cubic yards of compost per 1,000 square feet of lawn area. Late summer or very early fall is the best time to seed a lawn, but it can also successfully be done in the spring.

Proper irrigation techniques, whether by hand or automatic system, are the key to growing healthy plants. A plant can be damaged by either too much or too little water. Too much water causes plant stress which in turn increases disease and insect pressures as well as increasing root death. Many towns have a watering schedule where residents are allowed to water on specific days. Town of Castle Rock has a program to elude these restrictions by taking a water conservation and plant growth class. Contact your local Utilities Company to see if there are classes in your area. Bluegrass varieties can tolerate watering once a week on a 20 minute interval.

For existing lawns, core aerate on 2” centers in the spring and/or fall to maintain vigor and reduce thatch build-up. Power raking or dethatching is not recommended as a means of removing thatch because it damages the grass, leaving it susceptible to disease. Mow lawns to a height of about 2 to 3” during the summer months, removing no more than 1/3 of the length of the grass at any one mowing. Sharpen your mower blade at least once a year.

All new plantings need well-prepared soil, tilled with peat or organic amendments, unless native plants are used. Native plants do not perform well in amended and well-watered soils. Water thoroughly after planting. Only water in the early morning to avoid water loss through evaporation. Use mulch, like compost or wood chips, to conserve water. The use of mulch is discussed later in this publication.

Place the following in your sunny garden spots:

## **Hardy Perennials**

Perennials should be the foundation for the garden since their early emergence in the spring gives them a head start. Also, perennials, as opposed to annuals, have the ability to renew themselves after a late spring snow. A high altitude flower garden (above 7,000 feet) can be very successful if a few basic ideas are followed. Plants must tolerate intense sun, cold, harsh winds, and a shortened growing season. Drought tolerant plants are recommended and are usually more prolific. Mulching is a necessity to cope with the cold dry winters. Snow can be a natural mulch throughout the winter on north-facing slopes.

### **Davilily**

Clumps of lily-like flowers bloom in succession in many colors. Divide clumps each fall.

### **Lupine**

Vertical flower spikes of yellow, red, pink, purple, or bicolor appear dramatically in the spring.

### **Shasta Daisy**

Robust clumps of leafy stalks with flowers of white petals and big gold centers grow on this large plant.

### **Yarrow**

Yellow, flat-topped clusters of tall, hairy stems bloom well into the summer as will the shorter pink, cream, and red varieties.

### **Coreopsis**

Sunny, yellow, daisy-like flowers bloom profusely in medium height clumps into the summer.

These perennials grow well at altitudes above 7,000 feet as well as 6,000 feet.

### **Alyssum (Basket of Gold)**

Low-growing perennial with gray-green foliage and clusters of bright yellow flowers in spring. It requires full sun and does well on little water once established.

### **Blue Flax**

Sun-loving plant has profuse sky-blue flowers on thin 18" stems. It blooms in June, is drought tolerant, and reseeds readily.

### **Dianthus (Garden Pinks)**

Many varieties of low-growing fragrant flowers related to carnations. Their evergreen foliage forms a dense mat of blue-green leaves and makes a nice edging plant in a rock garden.

### **Penstemon (Beard Tongue)**

Long-blooming flowers contains dwarf plants, as well as those reaching 3'. Their tubular flowers can be red, pink, blue, or orange, and are known to attract hummingbirds. Many are annual at higher elevations but readily seed themselves. A fantastic edition to the Front Range garden.

### **Veronica (Speedwell)**

Colors include many shades of blue and some pinks. They thrive in sun or part shade and bloom June through August depending on the variety.

### **Rudbeckia (Black-eyed Susan)**

Large, daisy-like flowers form an umbrella over the dense green foliage. Perfect plant for a formal or informal xeric or wildflower garden design.

## **Annuals**

### **Callibrochoa**

Cascading petunia-like plant comes in many colors. Good for containers and edges of flower beds.

### **Cosmos**

Bushy habit that grows from 6 – 36", single or double, in shades of yellow, orange, purple, and red flowers up to the first fall frost.

### **Petunias**

In beds or pots, this trumpet-shaped spreader blossoms single or double in a fragrant rainbow of colors.

### **Snapdragons**

Lobed and hooded flower spikes of yellow, red, pink, purple, or bicolor appear dramatically in the late spring.

### **Verbena**

Flowers of pink, red, blue, burgundy, purple, white or apricot are attractive to hummingbirds and butterflies. Does well in hot spots in the garden.

## **Trees and Shrubs**

### **Do's and Don'ts**

- To ensure good drainage, plant trees and shrubs 2" above grade and feather dirt out from top of root ball.
- Match irrigation and fertilization requirements of tree or shrub to turfgrass if planting tree or shrub in turfgrass.
- Water deeply and infrequently.
- Avoid planting aspens under 7,000 feet, as they are prone to diseases and pest problems in Douglas County.
- Dig hole 3 times wider than root ball.
- Dig hole 3/4 the height of the container or root ball roots grow out, not down.
- Don't fertilize for at least two years after planting in the ground.
- Mulch around tree or shrub in a ring at least six feet in diameter.

### **Trees – Height/Spread**

\* = Evergreen

### **Rocky Mt. Juniper \* – 30'/15'**

Native, drought resistant. Dense blue-green to silvery- green foliage. Excellent windbreak tree.

### **Limber Pine \* – 50'/20'**

Oval shape. Does well in most locations and soil conditions. Long needles and loose growth habit.

### **Ponderosa Pine\* – 50'/25'**

Native. Needs good drainage. Does not tolerate over-watering.

### **Bristlecone Pine \* – 20'/15'**

Native. Drought tolerant. Good in rock gardens. Compact needles and growth habit.

### **Kentucky Coffeetree – 50'/25'**

Slow growing but drought and heat tolerant. Gorgeous texture and form. Long seed pods.

### **Ohio Buckeye – 40'/30'**

Attractive fall colors and flowers. Needs moderate water. Perfect for in-lawn plantings.

### **Big-tooth Maple – 30'/18'**

Hardy maple that does not require as much supplemental water as other maples. Not prone to iron chlorosis and winter breakage.

### **Hackberry – 65'/50'**

Drought resistant. Attracts birds. Tolerates alkaline soils and partial shade. Performs well in dry, windy sites. Fruits eaten by a variety of wildlife.

### Raspberries

Raspberries can be classified as *summerbearers* and *everbearers*. *Summerbearers* will produce fruit this season on canes that come up this spring. In the fall they may be pruned to the ground and covered with a 4" – 5" layer of mulch to survive the winter. *Everbearers* produce fruit this year on canes that grew last year. To survive the winter, those canes need to be laid horizontally, weighted down, and then covered with a 4" – 5" layer of mulch. *Everbearers* perform the best in Douglas County because these varieties tend to be more cold hardy.

*Everbearers:* Redwing, Heritage, Fall Red

*Summerbearers:* Pathfinder, Fall Gold, Boyne

### Currants

Hardy, black or gold fruited berries rich in antioxidants and vitamin C. Self-fertile plants with few problems in Colorado's dry climate except it is an alternate host to the white pine blister rust. Gooseberries and jostaberries are similar in appearance to currants and perform well in the Front Range.

*Varieties:* Golden, Red Lake, Viking, Ojybin

### Apricots

Apricots can also be grown in Douglas County but are subject to spring frost injury. If planted on the north side of a building, bud loss due to spring frost is reduced. Apricots have attractive foliage and trunk bark.

*Varieties:* Sungold, Moongold, Scout, Manchu

### Apples

Yes, apples can be grown quite well here. Since Douglas County has climate zones between 3, 4 and 5 (plants recommended for zone 5 will survive temperatures to -20 F., and for zone 4 will survive to -30 F.), we recommend varieties designated as zone 4. Apples need to be cross-pollinated but can be pollinated by crabapples. Apples are susceptible to a number of insects and diseases, and if you should have any questions or problems, contact the Extension Office for further information.

*Varieties:* Honeycrisp, Sweet 16, Honeygold, Red Delicious, Yellow Delicious, Winesap MacIntosh.



## Ornamental Grasses

Ornamental grasses add texture and form to any landscape. Particularly well-suited to Front Range gardens, grasses provide a naturalistic look smoothing out the transition from garden to open space or natural area. Most native grasses and ornamental grasses do not require much water. It is always best to physically check the soil around plants for moisture content before watering.

### Indian grass

Very ornamental native with large seed heads and a golden orange fall color. Has an upright growth habit and may reach a height of 60".

### Alkali sacaton

Robust grass with fine textured leaves. May reach 60" and grows well up to an elevation of 7,500 feet.

### Indian rice grass

Delicate bunchgrass reaching 24 inches with attractive plumes. Performs well up to 9,000 feet.

### Sideoats grama

Bunchgrass with seed heads on one side of the stem. Performs well up to 9,000 feet. May reach 36 " in height.

### Blue grama

Bunchgrass with large flowering spikes resembling eyelashes. Grows to a height of 20" maximum. Performs well up to 8,000 feet in elevation.

### June grass

Growing up to 24", this bunchgrass has an attractive open flower panicle. June grass will grow up to 11,000 feet and can tolerate some shade.

### Western wheat grass

Sod-forming grass with bluish leaves and flower spikes. Likes moist soils but may spread quickly. Reduce irrigation and this grass will grow slower. May reach 40" and performs well up to 10,500 feet.

### Switchgrass

A slow growing sod former that has striking fall color changing from green to reddish-bronze. May reach 48" and will perform well up to 7,000 feet.

### Giant Sacaton

Look for this beauty to reach 7' in height. Gorgeous plumes arrive in late summer to early fall. Grows up to 7,000 feet but performs better at lower elevations. Native to the Southwest United States.

## Groundcovers

The following selections tolerate full sun and only a little watering during the hottest, driest weeks. All are perennial, which means they should survive through several winters.

### Evening Primrose

Incredible drought tolerant plant taking only one season to cover the most unfriendly garden location. Large, yellow blooms all season from June to October and nice grayish-green leaves with a reddish stem. Not really considered a groundcover, but does incredibly as one in Douglas County.

### Sedum 'Dragon's Blood'

Hardy perennial with dark red, shiny leaves in the fall and winter.

### Hen and Chicks

Growth habit consists of round rosettes, like miniature cabbages. It has pretty flowers in summer, overwinters, and is very hardy.

### Wooly Thyme

Procumbent, dense carpet of tiny, antique green leaves creeps across patio pavings and paths. It has minute pinkish flowers in summer and is an evergreen perennial.

### Evergreen Candytuft

Small, dark green plant, about 6" high, with bunches of little white flowers in the spring.

### Wooly Veronica

Rapidly spreading, low groundcover of dark, evergreen leaves and a profusion of bright blue flowers.

### Colorado Manzanita

Woody shrub with a prostrate growth habit. Elegant foliage with silvery undersides and attractive fruits. Hardy, good for soil stabilization.

## Vegetables

Not all vegetables do well in Douglas County. However, after amending the soil, try some early vegetables such as radishes, peas, beets, and spinach. Follow directions on the packets for planting depth.

Later, try green beans, squash, and, of course, very short season tomatoes. Varieties such as Early Girl or Early Pick are best for Douglas County. Short, stocky plants are best and should be planted after Memorial Day. Heritage tomatoes are making a come-back and do well especially if started indoors in March and transplanted into the garden in early June.

## Fruit

Many varieties of fruits can successfully be grown in Douglas County with a little extra care. The main drawback to growing fruits here, however, is the low amount of annual precipitation. We receive 14" annually, much of which comes in the form of snow during winter months. Many fruits, such as raspberries and strawberries, need a minimum of 1" – 2" of water weekly throughout the summer months.

### Strawberries

Choose *Everbearers* or *Day Neutral* rather than *Junebearers*. An erratic late spring freeze could eliminate strawberry flowers. *Junebearers*, in this case would be finished for the year, whereas, *Everbearers* or *Day Neutral* varieties produce more as the season progresses. Fertilize strawberries in early spring as they are beginning to grow, using an all-purpose fertilizer, and then again in early July after you have finished harvesting the first wave of fruit.

**Everbearers:** Ft. Laramie, Ozark Beauty, Quinalt, Superfection, Ogalala

**Day Neutral:** Brighton, Aptos, Tristar, Tribute, Fern

### Grapes

European grape varieties are sensitive to the cold whereas hybrid grapes are hardy to –30F.

#### **Varieties:**

**Table:** St. Theresa, Swenson Red, Interlaken, Skookum, Edelweiss

**Wine:** Foch, Norton, Viognier

### Cherries

Sour cherries, the tart pie-type cherries, do well in this area. They grow vigorously with few pests, except the birds, and produce plentiful fruit without a pollinator. Do not plant them in a lawn area as too much water can be fatal!

**Varieties:** Meteor, Montmorency, North Star

