



**Right Plant,  
Right Place**  
for  
**Low-Water  
Landscapes**

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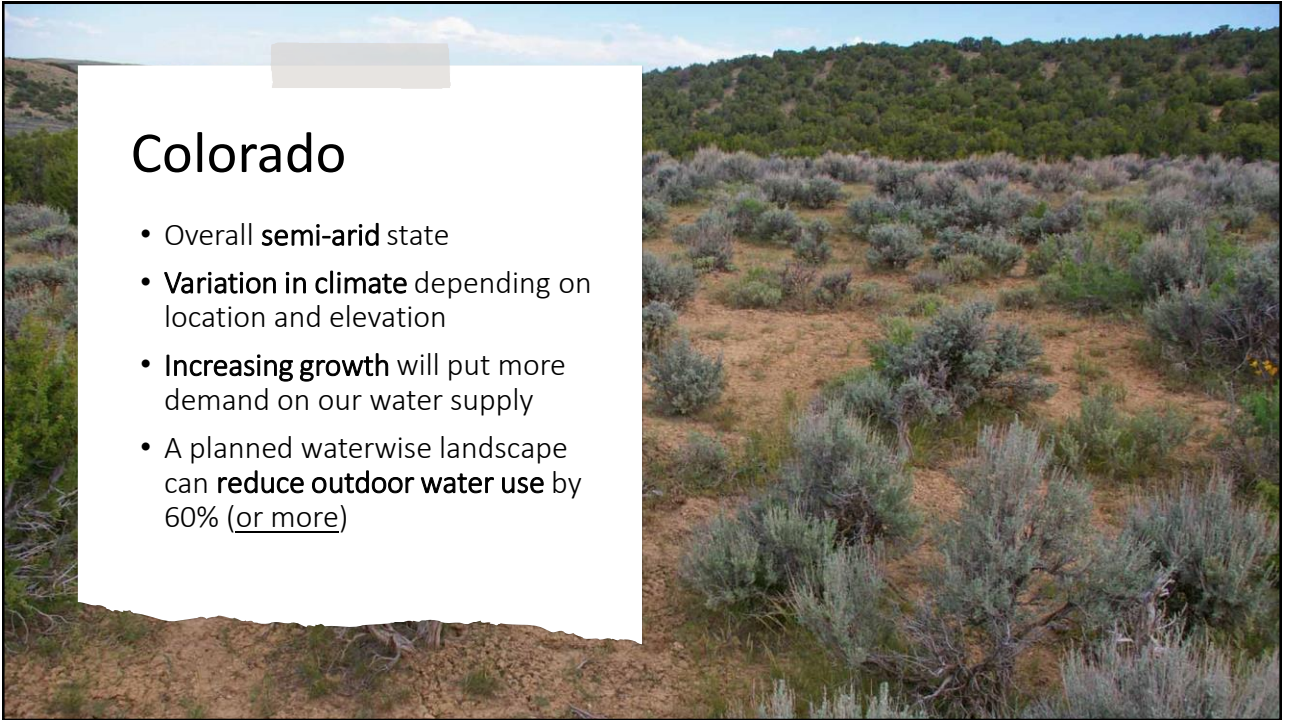
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## Colorado


- Overall **semi-arid** state
- **Variation in climate** depending on location and elevation
- **Increasing growth** will put more demand on our water supply
- A planned waterwise landscape can **reduce outdoor water use** by 60% (or more)


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## Lack of Water

### Average Annual Precipitation

- **Gunnison:** 10.1" per year
- **Pueblo:** 12.4" per year
- **Greeley:** 14.4" per year
- **Colorado Springs:** 17.5" per year
- **Durango:** 19.1" per year
- **Boulder:** 19.7" per year
- **Steamboat Springs:** 23.8" per year



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## Right Plant, Right Place

- Consider plants with low water requirements that are **ADAPTED** to Colorado's climate
- Using appropriate plants reduces the need for fertilizers, pesticides, and pruning

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What does  
"Right Plant, Right Place"  
really mean?

1. Purpose of the Space
2. Plant Selection and Placement
3. Growing Conditions

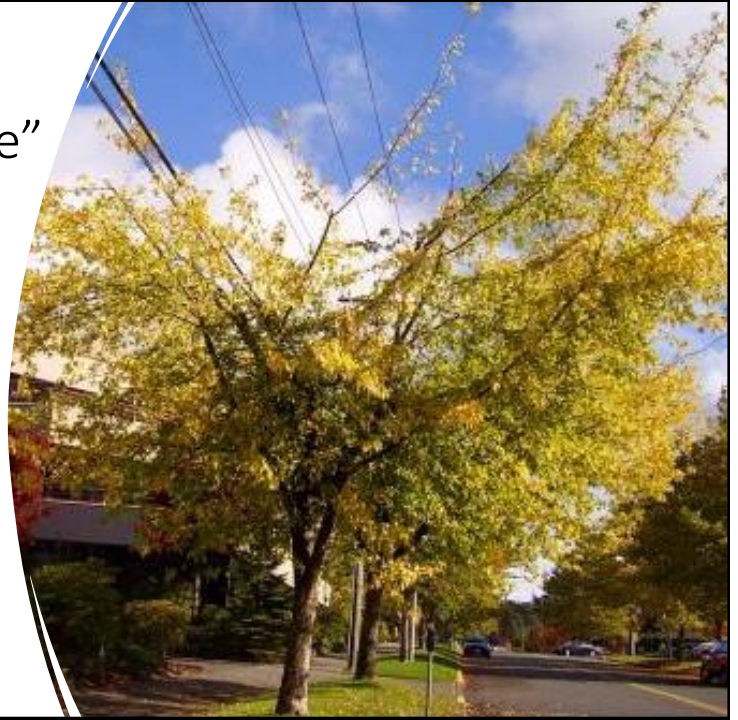


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## What does “Right Plant, Right Place” really mean?

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### Proper Plant Selection and Placement

#### Mature Size

- Height
- Width

#### Growth Habit

- Low and spreading
- Tall and narrow

#### Root System

- Shallow
- Wide
- Surface roots

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## Growing Conditions

### Light Availability

- Sun
- Shade

### Soil Conditions

- Clay
- Sand
- Moist vs. Dry

### Other factors

- Wind Exposure – Protection
- Hardiness Zone
- Humidity
- Slope



Photo credit: Lifescape Colorado – Protect Your Garden from Drought Conditions

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## Improve the Soil?

- Many low-water and native plants actually prefer **un-amended** or only slightly amended native soil that is fairly low inorganic matter.



Photo: UC ANR



Photo: Pikes Peak Area Garden Help

## Hydro-zone plants

- Grouping plants based on their water requirements
- Allows them to be irrigated more efficiently
- This results in healthier plants



Saguaro cactus in a tall fescue lawn?

Not hydro-zoned!



## Mulch for Water Conservation

- Improves soil
- Protects plants
- Helps inhibit weeds
- Say no to weed fabric!
- Can reduce irrigation needs by as much as **50%**



## Consider maintenance

- **Water plants for establishment** - usually one growing season
- Use appropriate mulch (wood or pea gravel)
- Prune as needed, but allow plants to grow into their natural shape and form (especially with shrubs and trees)
- Potentially let plants reseed: coneflower, hyssops, sedums

Allium and 'Mongolian Bells' clematis



## Resources for Colorado Gardeners

- Visit local public gardens!
- CSU Extension Website
  - [extension.colostate.edu](http://extension.colostate.edu)
  - Fact Sheets, PlantTalk Colorado, Master Gardener Garden Notes
- CO-Horts Blog
  - [csuhort.blogspot.com](http://csuhort.blogspot.com)
- Front Range Tree Recommendation List
- PlantSelect®
- CO Native Plant Society
- High Plains Environmental Center
- Resource Central



Treasure Island Demonstration Garden –  
along the Poudre Trail in Windsor

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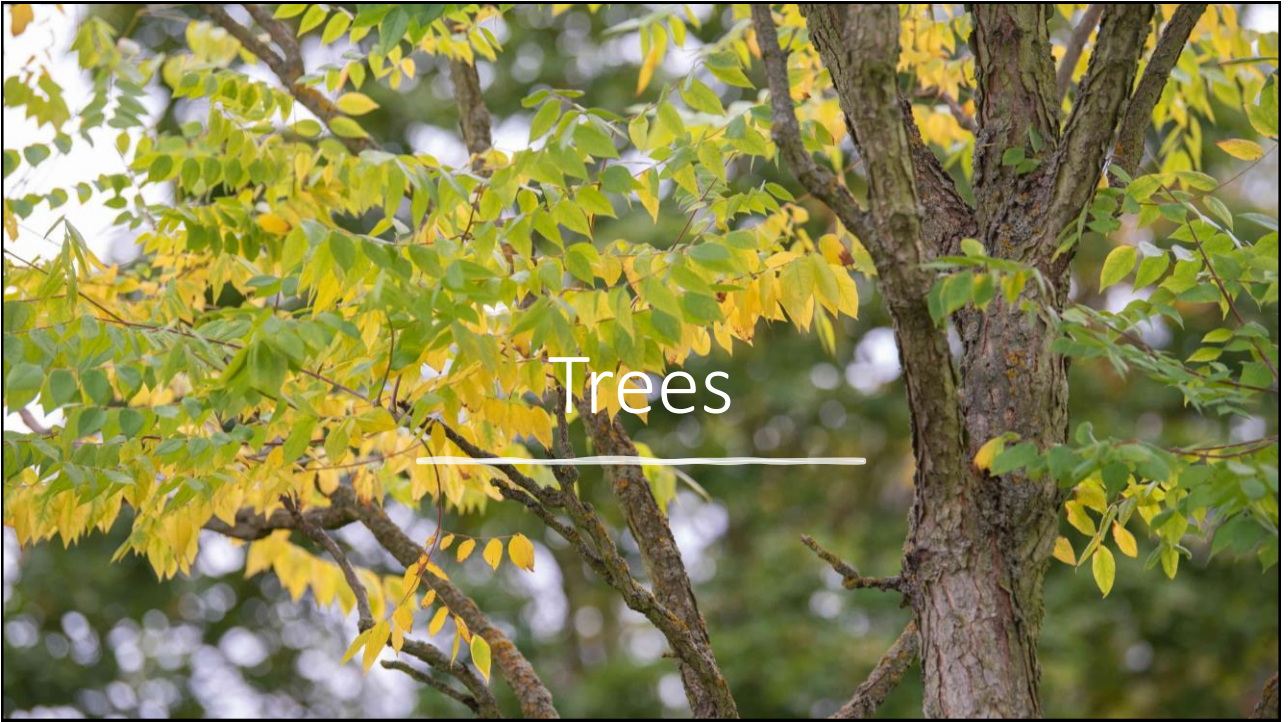
## What can you grow in low water landscapes?

- Trees
- Shrubs
- Perennials
- Ornamental Grasses
- Bulbs
- Groundcovers
- Annuals, too!



'Little Beauty' tulips

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## Trees are an investment!



- Choose the correct trees for dry locations
- Provide irrigation for trees, especially to get them established
- Plan for the future shade your tree will provide
- If you are converting to xeriscape and have mature trees, consider how they will get water or replace with xeric trees.



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# Bur Oak

*Quercus macrocarpa*

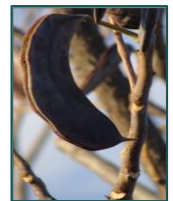
- Large shade tree; adaptable to high pH soils
- 70' H x 60' W
- Interesting acorn fruits
- Provide additional irrigation



# Kentucky Coffeetree

*Gymnocladus dioica*

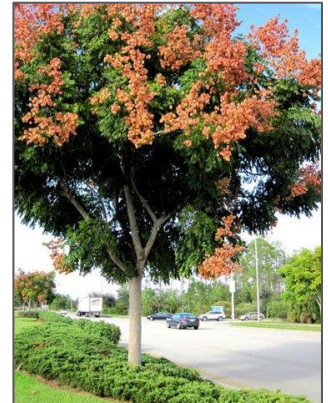
- Large, spreading crown at maturity
- 55' H x 35' W
- Nice fall color
- Can tolerate a wide range of sites



## Goldenrain Tree

*Koelreuteria paniculata*

- Small to medium sized tree, good for smaller locations
- 30' H x 30' W
- Nice yellow flowers in summer
- Interesting lantern-like fruits



## Tatarian Maple

*Acer tataricum*

- Good for smaller locations
- 20' H x 20' W
- Single or multi-stemmed
- Interesting and bright red samara fruits
- Red fall color



# Serviceberry

'Autumn Brilliance' and 'Utah'

- Small tree or large shrub
- 15' H x 15' W at full maturity
- White flowers
- Red to purple fruits
- Drought Resistant
- Tolerates alkaline soil
- Extremely cold hardy
- Autumn Brilliance has nice red-orange fall color



# Other Deciduous Trees for Dry Sites

- **'Bigtooth' Maple**
- Common Hackberry
- Bur Oak
- Western Catalpa
- Thornless Honeylocust
- Purple Robe Locust
- **Sensation Boxelder**
- Apricot
- Ussurian pear
- Gambel Oak
- **Hawthorns**



# Pinyon Pine

## *Pinus edulis*



- Native evergreen
- 60' H x 30' W
- Long needles in bundles of 2-3
- Interesting cinnamon colored plate-like bark



# Other Evergreen Trees for Dry Sites

**Bristlecone Pine**

**Ponderosa Pine**

Arizona Cypress

One Seeded Juniper

Utah Juniper

**Avoid:**

Colorado Blue Spruce

White Fir





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## Rabbitbrush

*Chrysothamnus spp.*

- Full sun to part shade
- Dwarf type: 'Baby Blue'
- 6' H x 6' W; BB = 2' H x 2' W
- Native
- Yellow blooms at the end of the season
- Pollinator plant



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# Viburnum species

*Viburnum spp.*



- Full sun to full shade
- Many types available
  - 'Mini Man'
  - Wayfaring Tree
  - Leatherleaf/Allegheny
- 12 H x 10' W (*depends on type*)
- White flowers
- Thick leaves with deep-set veins

# Manzanitas - *Arctostaphylos* spp.

'Panchito', 'Cheiftain', Mock bearberry and Kinnickinnick



- Broadleaf evergreen shrub
- Full Sun to part shade
- This shrub does not want to be pruned in any way!
- Pink waxy flowers lead to red fruit
- Green leaves are glossy and attractive



## Pawnee Buttes® Sand Cherry

*Prunus besseyi* 'P011S'

- A Colorado native selection
- Shrubby groundcover
- Drought-tolerant and tough as nails!
- 2 feet tall by 6 feet wide, or more
- Plant where it has space!
- Prune it sparingly, or not at all
- Excellent red fall color



## Oregon Grapeholly

*Mahonia (Berberis) aquifolium*

- One of the few evergreens that can tolerate dry shade
- 6' H x 6' W
- Broadleaf evergreen leaves, looks like a holly
- Yellow flowers
- Nice fall color and attractive fruit
- More open habit in shade



## Junipers

*Many cultivars!*

- Hardy
- Versatile
- Drought Tolerant
- Many varieties

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## Other Shrubs for Dry Sites

• Blue mist spirea	• Mugo pine
• Boulder raspberry	• New Mexico privet
• Butterfly bush	• Ninebark
• <b>'Carol Macke' daphne</b>	• Potentilla
• <b>Common lilac</b>	• Red twig dogwood
• Currant	• Rock spirea
• Fremont's Desert Holly	• <b>Snowberry</b>
• <b>Japanese barberry</b>	• Skunkbush sumac
• Littleleaf Mockorange	• Yucca
• Mountain Lover	






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# Sun Perennials

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Photos – Grand Mesa, Pike’s Peak, Firecracker, Carolyn’s Hope

## Penstemon (also known as beardtongue)

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## Penstemon

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- Most bloom in late spring and early summer, different foliage types and flower colors.
- **1 to 3 feet tall**, depending on cultivar.
- More than 250 varieties
  - *Not all hardy in CO so buy local*
- **Hummingbirds**
- Tend to be **DEER RESISTANT**
- Does better in **sandy soils** with lower fertility, even gravelly soils
- **Full Sun**

Photo – Pine leaf Penstemon

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## Salvia

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## Salvia (Ornamental Sages)

### Mint family

- Good to use a mixture of both penstemon and salvia to have **color throughout** the growing season.
- Will handle **clayey soils** if well drained, also sand and loam – wide range of soil types
- Do not overhead water, **keep on the dry side**
- Attractive to **bees**, tend to be **DEER RESISTANT**
- Silver sage, platinum sage, Mexican sage, autumn sage...tons of different types!

Photos – Windwalker Royal Red Salvia, May Night Salvia, Silver Sage Salvia

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## Hyssop

- Have various fragrances, such as bubblegum and anise
- **Water very rarely once established**
- Considered “short lived”
- Cut back foliage in spring before new growth emerges
- Pollinator friendly!
- Many varieties!

Photos –

Sonoran Sunset Hyssop, Blue Hyssop



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## Coneflower (*Echinacea purpurea*)

- Very hardy and cold tolerant (to Zone 3)
- Named after Greek for “hedgehog” because of the prickly flower
- Full sun
- Heat and drought tolerant once established
- Attract bees and other pollinators



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## Unique Coneflowers

Kismet™

'Sombrero® Tres Amigos'

'Cheyenne Spirit'



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## Hopflower Oregano

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- *Technically* a groundcover
- Prolific flowering plant that has unique hop-like lime green bracts accented with purple flowers
- Blooms summer to fall
- Flowers add interest into the autumn as they dry to brown
- A perfect plant when positioned to cascade over the edge of a raised bed or in a rock garden



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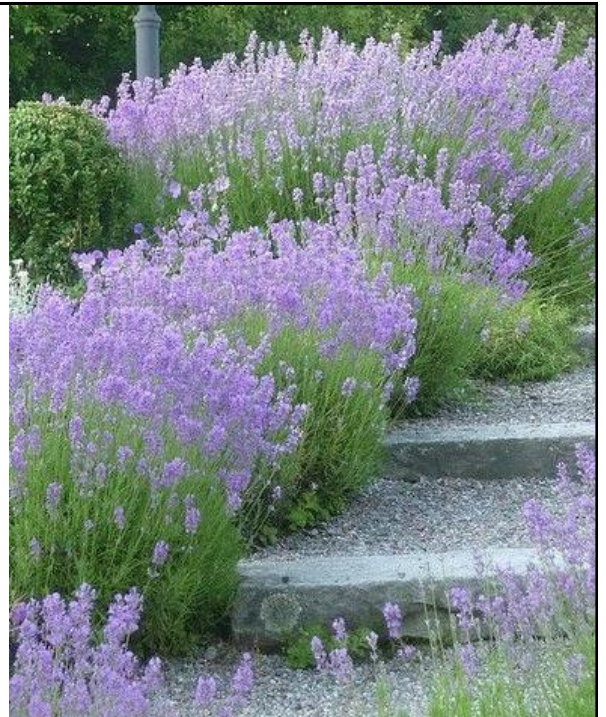
## Hopflower Oregano

- 2004 Plant Select® introduction
- Reaches a height of 14"
- Full to part sun
- Pollinators love it!
- Deer and rabbits seem to avoid

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## Lavender

- A versatile herb
- Prefer full sun and soils not heavily amended with organic matter
- Thrives in alkaline soils
- Drought tolerant, loves full sun
- Colorado is the perfect spot for this plant
- Spring-planted lavender has better winter survival



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## English Lavender

- Hardy to zone 5
- Often blooms twice in one season
- Various colors and sizes
- Cultivars: 'Hidcote', 'Munstead', 'Goldberg' and 'Mitcham Gray'



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## 'Wee One' lavender



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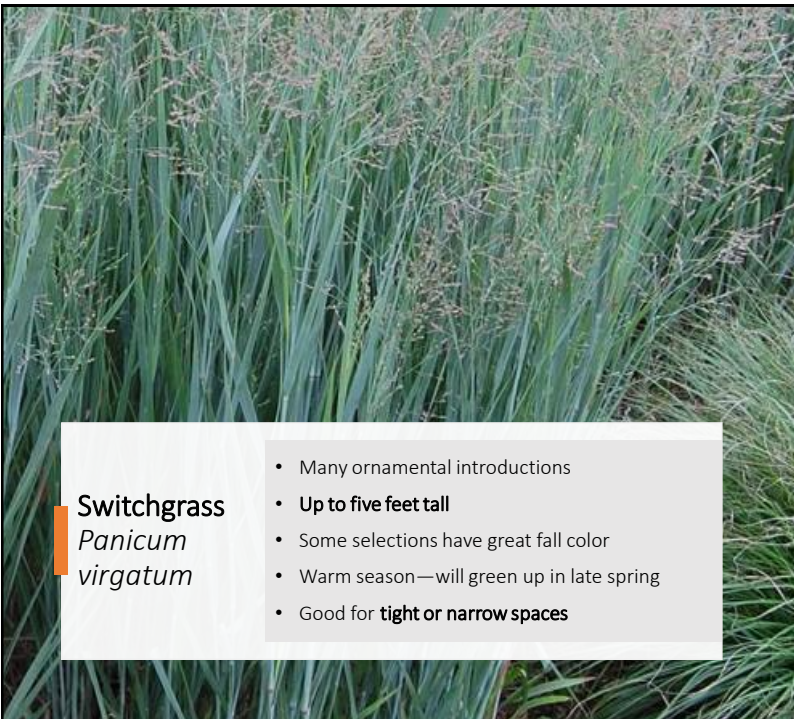
## Blonde Ambition Blue Grama Grass

*Bouteloua gracilis* 'Blonde Ambition'

- A clump-forming grass, **30-36"** tall and wide
- Hardy, native grass
- Use in **unirrigated areas** – drought tolerant
- **All soils**
- **Shade intolerant**
- Plant at elevations up to 9,500 ft.



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**Switchgrass**  
*Panicum*  
*virgatum*

- Many ornamental introductions
- **Up to five feet tall**
- Some selections have great fall color
- Warm season—will green up in late spring
- Good for **tight or narrow spaces**



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# Sun

## ...More Grasses

- Avena, Blue Oat Grass
- Little Bluestem
- Prairie Dropseed
- Indiangrass
- So many more options!



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## Sedum/Stonecrop

- Loves it hot and dry
- Will tolerate poor, rocky soils
- Ranges in height from a groundcover to 24" tall
- Flowers will attract bees
- Deer resistant

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# MORE SEDUMS!

Winter Fire®



'Turquoise Tails'



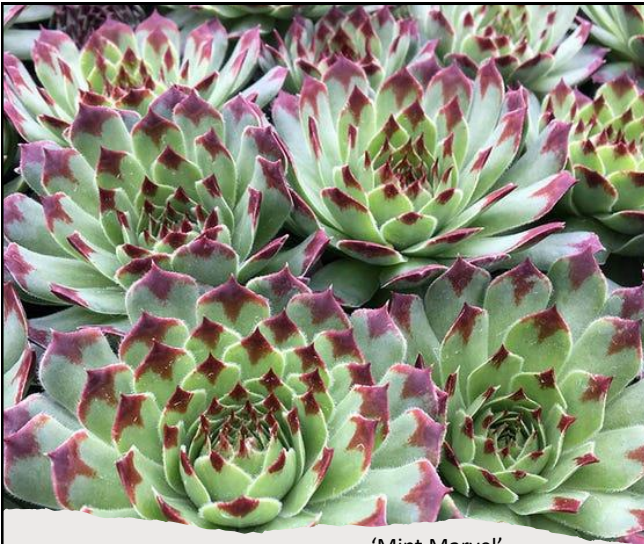
'Autumn Joy'



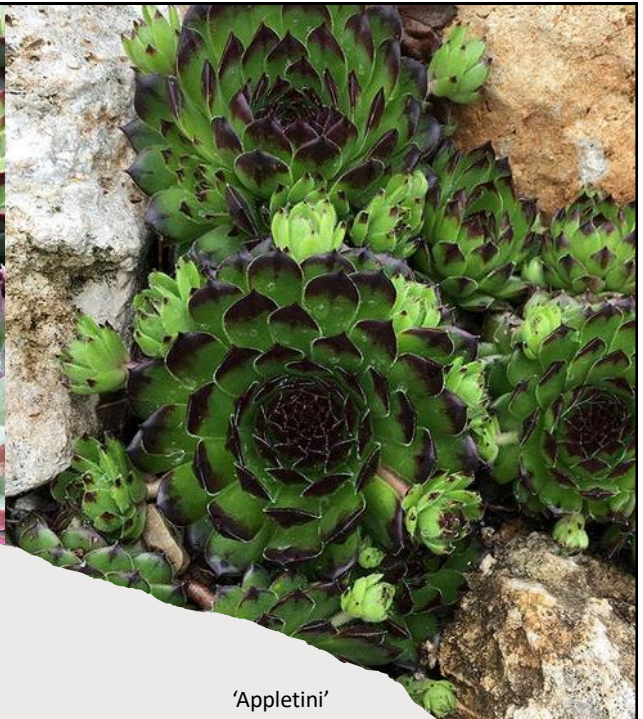
'Angelina'



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'Mint Marvel'



'Appletini'

## Chick Charms®

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## Consider more spring-blooming bulbs!

- After planting in the fall (and watering in), they will bloom with winter moisture
- Care is minimal – once plants have flowered, remove the flower stalk and let the leaves dry down naturally
- Many species can naturalize, like daffodils
- Summer watering needs are minimal (if any)
- They provide us with spring color!



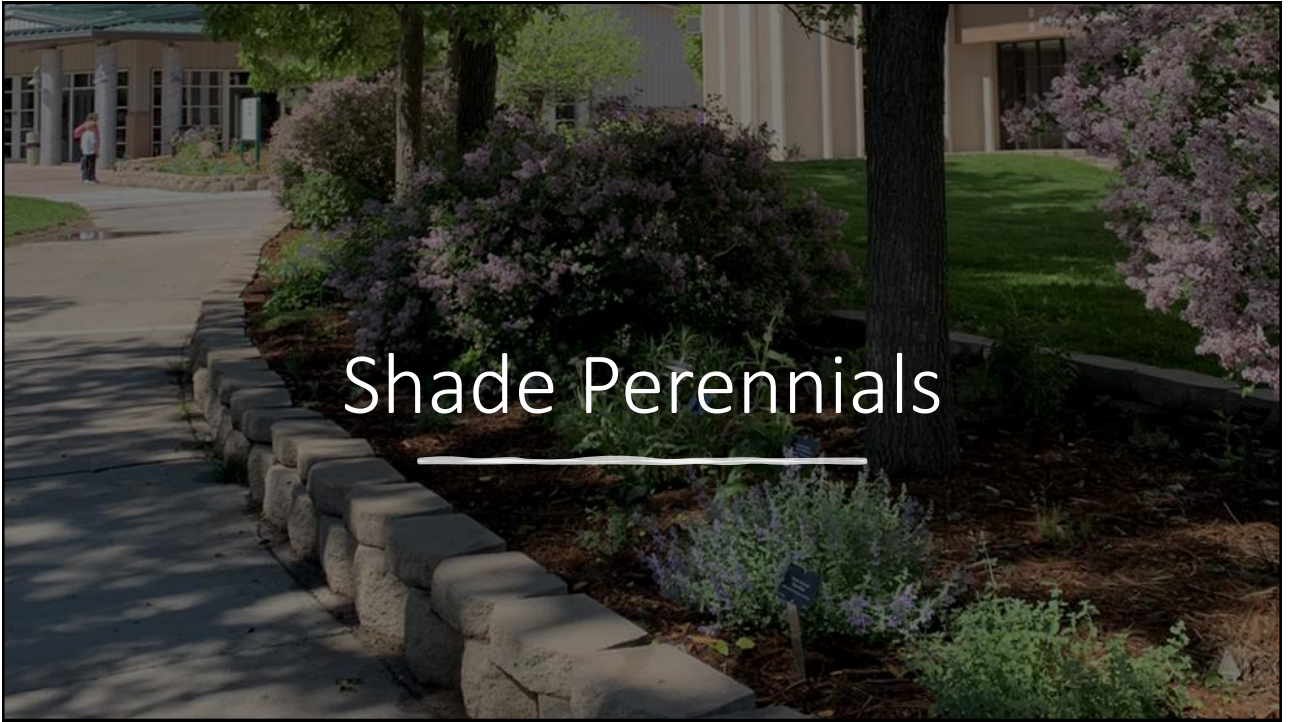
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## Iris (*Iris* sp.)

- Bearded and Siberian iris are most common
- Bearded is the most drought tolerant
- Incredibly easy to grow!
- Needs full sun
- Sword-like foliage
- Flowers in many shapes and colors



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## Denver Gold Columbine

*Aquilegia chrysantha* 'Denver Gold<sup>®</sup>'

- Sun, part shade, shade
- 24" H x 24" W
- Attractive yellow flowers
- Blooms June through September, longer than blue and red columbines
- Cut blooms periodically to extend bloom time
- Native to southwest
- Plant Select<sup>®</sup>



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## Remembrance® Columbine

*Aquilegia* 'Swan Violet and White'

- Part Sun to part shade
- 18" H x 18" W
- Hybrid derived from the Colorado state flower
- Striking flowers
- Benefits from some moisture
- Plant Select®



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## Johnson's Blue Cranesbill

*Geranium* 'Johnson's Blue'

- Full sun to Full Shade
- 14" H x 18" W
- Blooms late spring through early fall
- Periwinkle blue flowers
- Finely cut, divided leaves
- Red to orange fall color
- Prefers normal to sandy soil



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## Coral Bells

*Heuchera spp.*

- Sun to full shade, tolerates dry shade
- 12' H x 12' W, flower sits up to 18'
- Attractive leaves, lots of variety and colors
- Flowers ranging in color from white to amber to purple
- Cut flowers periodically to extend bloom period
- Easy to grow, adaptable

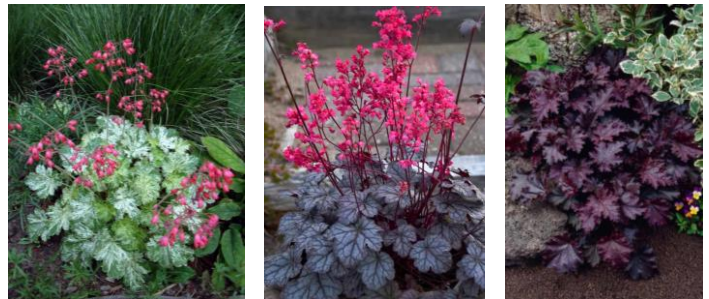


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## Coral Bells

*Heuchera spp.*

- Snow Angel
- Timeless Treasure
- Palace Purple
- Carnival Rose Granita
- Carnival Watermelon
- Lime Marmalade



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## Lenten Rose

*Helleborus orientalis*

- Part to full shade
- 2' H x 2' W
- Basal leaves, 5-11 sharply toothed
- Flowers - pinks, greens, creams or purples
- Prefer richer soils
- Easy to transplant
- Some varieties reseed readily
- Extremely cold hardy and drought tolerant once established



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## Siberian Bugloss

*Brunnera macrophylla*

- Part to full shade
- 12" H x 24" W
- Large, heart-shaped leaves
- Flowers - tiny blue forget-me-not type blooms
- Very hardy
- 'Jack Frost' - silver with green veining
- 'Alexander's Great' - winner of CSU Trial, bigger leaves



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# Lady's Mantle

*Alchemilla mollis*

- Part to full shade
- 18" H x 24" W
- Large, fuzzy leaves light green leaves with serrated edges
- Flowers – chartreuse to yellow
- Blooms early summer
- Raindrops on leaves!



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# Hardy Plumbago, Leadwort

*Ceratostigma  
plumbaginoides*

- Shade
- 18" H x 18" W
- Plant in the spring to establish root system
- Prefers average soils and low water once established
- Upright stems with a woody base
- Blooms summer to fall
- Red fall color!
- Can be grown as a groundcover



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# Grasses for Dry Shade

Most prefer light shade and a bit more water, but will do fine

- **Blue fescues** - partial shade
- **Blue oat (avena) grass** - light
- **Korean feather reed grass** - partial
- **Little bluestem** - light
- **Overdam reed grass** - full
- **Prairie dropseed** - light



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Greeley Xeriscape Demonstration Garden -  
Reservoir Road

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## Questions?

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