

Growing Flowers in the Mountains – Perennials and Annuals

By Alison O'Connor and Claire Hanson

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This article summarizes Alison O'Connor's Zoom program presented June 15, sponsored by Estes Valley Community Garden. Alison is Horticulture Agent, CSU Extension in Larimer County.

Pros and cons of mountain gardening

- + More persistent snow cover, greater potential for summer afternoon rain, historically.
- + Lower humidity, thus fewer disease pressures.
- + Opportunities to use microclimates, “warm” or “hot” areas on protected south sides of buildings, against stone walls, or on south-facing slopes.
- + Having patience.
- Intense sunlight, short growing season, drying winds, clay or rocky soils, wildlife, perhaps limited plant selection.

General tips

Do a site evaluation:

- What is already growing in your space?
- What are your neighbors growing successfully?
- Consider elevation, exposure (sun vs. shade, wind), soil type, wildlife pressure, and water availability.

Choose plants:

- Early to mid-summer blooming perennials, not late summer- or fall-bloomers.
- Varying bloom times keep your garden colorful.
- Look for rabbit, elk and deer resistant plants, although they will try anything once, so no guarantees.
- Zone 2-4 will be hardiest.
- Not all plants work for everyone, even at similar elevations. If you really want it, try a few times in different locations.
- Remember your microclimates to expand plant choices.

Soil preparation:

- Consider the origin of plants - native plants evolved in poor soil conditions. If soils are too heavily amended, natives will likely have a shorter life span or flop over.
- Most mountain soils benefit from amending with organic material.
- If decomposed granite (much of Estes Park), extensive amending is needed.
- If clay, amending with organic material or planting on a berm can help with drainage.
- Consider raised beds, if soil cannot be amended. This can be any planting surface above ground level, from a simple mound of soil (berm) to an elaborate planter box.

When to plant:

- Nursery starts - any time from the soil's spring thaw until fall freeze.
- Fall-planting may bring higher mortality, with less time to develop a good root system.

Native Perennials

- + Use less water and are tougher.
- + Give us a better sense of place – they fit into the landscape.
- + Will never be on the noxious weed list.
- + Provide food or shelter for wildlife.
- + Are less likely to be damaged by hail because they evolved here.

Some suggested native perennials:

- Windflower (*Anemone multiflora*) – Seed heads provide fall interest.
- Columbine (*Aquilegia sp.*) – CO state flower; several other colors, double-flowered varieties.
- Sulphur-flower (*Erigeron umbellatus*) – Diverse species, heights from 3 - 36 inches.
- Pasque flower (*Pulsatilla patens*) – Long-lasting blooms, one of first wildflowers to bloom in spring, likes dry, open, rocky areas.
- Rocky Mountain penstemon (*Penstemon strictus*) – Bright blue spikes. Easy to grow, long-lived, likes well-drained soil, full sun. Colorado's 62 native species have distinct personalities.

Non-native Perennials

- + Great choices, expanding your plant palette.
- Avoid “woodland plants” - better for areas with higher moisture, more loamy soils.

Check out the “plant finder” tool on PlantSelect.org

- Plant Select - a cooperative program with CSU, Denver Botanic Gardens, and the Green Industries of Colorado.
- Research and trial plants for introduction in the semi-arid West.

Some suggested non-native perennials:

- Yarrow (*Achillea sp.*) – Requires little care once established, blooms all summer, attracts pollinators. Keep dry, or it will spread.
- Coralbells (*Heuchera sp.*) – Different foliage colors, heights, textures. Great for morning sun, deer and rabbit resistant. Not truly xeric, needs more moisture.
- Bleeding heart (*Dicentra spectabilis*) – Old fashioned favorite since the 1800's. White or pink early spring blooms. Foliage dies out in very hot summers.
- Oriental poppy (*Papaver orientale*) – Orange, pink, salmon or white flowers. Needs cold winters, may go dormant in summer.

Annuals

Annuals cycle from seed to seed in one year, will not over-winter here. They provide instant color until the first hard frost.

- Marigolds - Easy to grow. African (larger blossoms) and French (smaller blossoms) varieties available. As “companion plants” may help reduce some insect infestations (thrips, cabbage worms.)
- Zinnias - Grow quickly, bloom continuously, great pop of color.

- Petunias -Bloom all summer, tolerate some chill and drought (unlike the smaller *Calibrachoa*s.) New varieties don't need deadheading or pinching back.
- Pansies - Bloom in cool spring through light frost, best in cooler seasons.
- Snapdragons - Great for cut flowers.

For more about flower gardening, check out CSUHort.BlogSpot.com, or email Alison O'Connor at astoven@larimer.org . CSU Extension provides a wealth of information and programs " that safeguard health, increase livelihood and enhance well being", at extension.colostate.edu. Learn about Estes Valley Community Garden at evcg.org.

The following pages are the PowerPoint slides from Alison's

June 15, 2021 Zoom presentation.

Here are the links to referenced websites provided to participants in the Zoom Chat during the presentation:

Native Herbaceous Perennials for Colorado fact sheet <https://extension.colostate.edu/topic-areas/yard-garden/native-herbaceous-perennials-for-colorado-landscapes-7-242/>

Flowers for Mountain Communities fact sheet <https://extension.colostate.edu/topic-areas/yard-garden/flowers-for-mountain-communities-7-406/>

Plant Select website <https://plantselect.org/>

CSU Flower Trial Gardens Best Plants of 2020 <http://flowertrials.colostate.edu/trial-winner/?y=2020&c=Annual>

CO-HORTS Blog and webinar list <http://csuhort.blogspot.com/p/csu-extension-spring-gardening-webinars.html>



Perennials and Annuals for the Estes Valley

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What we'll cover today

- Mountain gardening: pros and cons
- General tips on flowers for the mountains
- Perennials for the Estes Valley
- Annuals for the Estes Valley

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Mountain gardening: Pros

- More persistent snow cover and greater potential for summer afternoon rain
- Lower humidity (fewer disease pressures)
- Opportunities to take advantage of microclimates
 - “Warm” or “hot” microclimates are usually found on the protected south sides of buildings, against stone walls, or on south-facing slopes
- Having patience



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Choosing Plants

- Choose early to mid-summer blooming perennials; never pick late-summer or fall-blooming plants
- Choose plants that have varying bloom times to keep your garden colorful
- When possible, choose rabbit and deer resistant plants
- Zone 2-4 plants will be hardiest
- Remember that not all plants will work for everyone, even at similar elevations – if you really want it, try it a few times in different locations
- Remember your microclimates!

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Soil Preparation

- Consider the origin of the plants you're planting; native plants are used to poor soil conditions
 - If soils are too heavily amended, native plants will likely have a shorter life span or flop over
- Most mountain soils benefit by amending with organic material
- If the original soil is decomposed granite, extensive amending will be necessary
- If the original soil is clay, amending with organic matter or creating and planting on a berm can help create well-drained soils

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Or... Use raised beds!

- If your soils are impossible to amend or plant, then consider building raised beds
- A raised bed is simply any planting surface above ground level
- It can be many things, from a simple mound of soil (berm) to an elaborately constructed planter box



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When to plant

- You can plant container plants anytime from when the soils thaw in spring until they freeze in fall
- Note: Fall-planted plants may have higher mortality



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Native perennial options

Use less water

Tougher, able to survive with less care

Better sense of place

Will never be on the noxious weed list

Provide food or shelter for wildlife

Less likely to be damaged by hail

CSU Extension Fact Sheet #7.242 "Native Herbaceous Perennials"

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Windflower (*Anemone multifida*)

- Finely cut, light green leaves
- Flower color varies, as does the overall robustness of the plant
- 6 inches wide and 9-12 inches tall



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Columbine (*Aquilegia* sp.)

- The Colorado state flower
- Found across the Rocky Mountains: common in aspen groves, open forests, meadows
- Popular in cultivation, with several colors and even double flowers
- Hybridization with other species has produced further cultivated varieties
- 18 inches wide by 36 inches tall



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'Pink Lantern'



'Denver Gold'



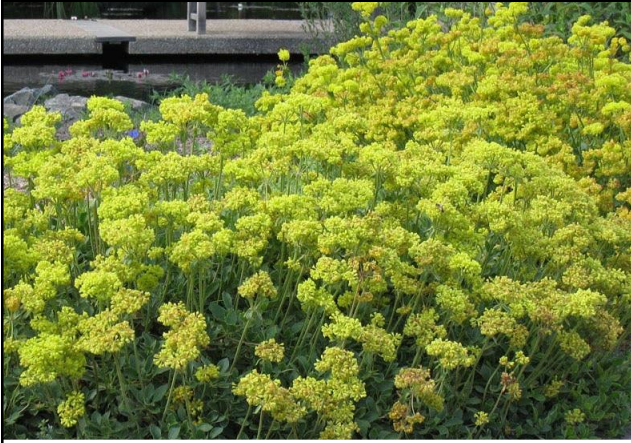
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Sulphur-flower Sulphur buckwheat (*Eriogonum umbellatum*)

- Diverse species
- Plant height varies from 3 inches to 3 feet
- All plants make loose mats of leaves, often green above and gray-woolly beneath
- Tiny, yellow or cream flowers in balls at ends of branches



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Kannah Creek buckwheat

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Pasqueflower (*Pulsatilla patens*)

- One of the first wildflowers to bloom
- Flowers emerge before the leaves and often last for many days
- Blooms best in areas of snow melt
- Summer conditions are dry, open, and rocky areas
- 4-8 inches wide and up to 12 inches tall
- State flower of South Dakota!



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Rocky Mountain penstemon (*Penstemon strictus*)

- Spikes of bright blue flowers and evergreen foliage
- One of the easiest-to-grow
- Long-lived, and thrives in most any well-drained soil with full sun exposure
- 30 inches tall by 36 inches wide



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A note about penstemons

- 62 native species to Colorado
- Different species have distinct personalities
- Mat-forming forms are only a few inches high
- Some are several feet tall



Pineleaf penstemon

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Non-native perennial options



Still great choices and expand the plant palette



Avoid “woodland plants” that are better suited to the east coast and areas of higher moisture (with more loamy soils)



Introduced ornamentals may become weedy (myrtle spurge, oxeye daisy, purple loosestrife) depending on cultural conditions

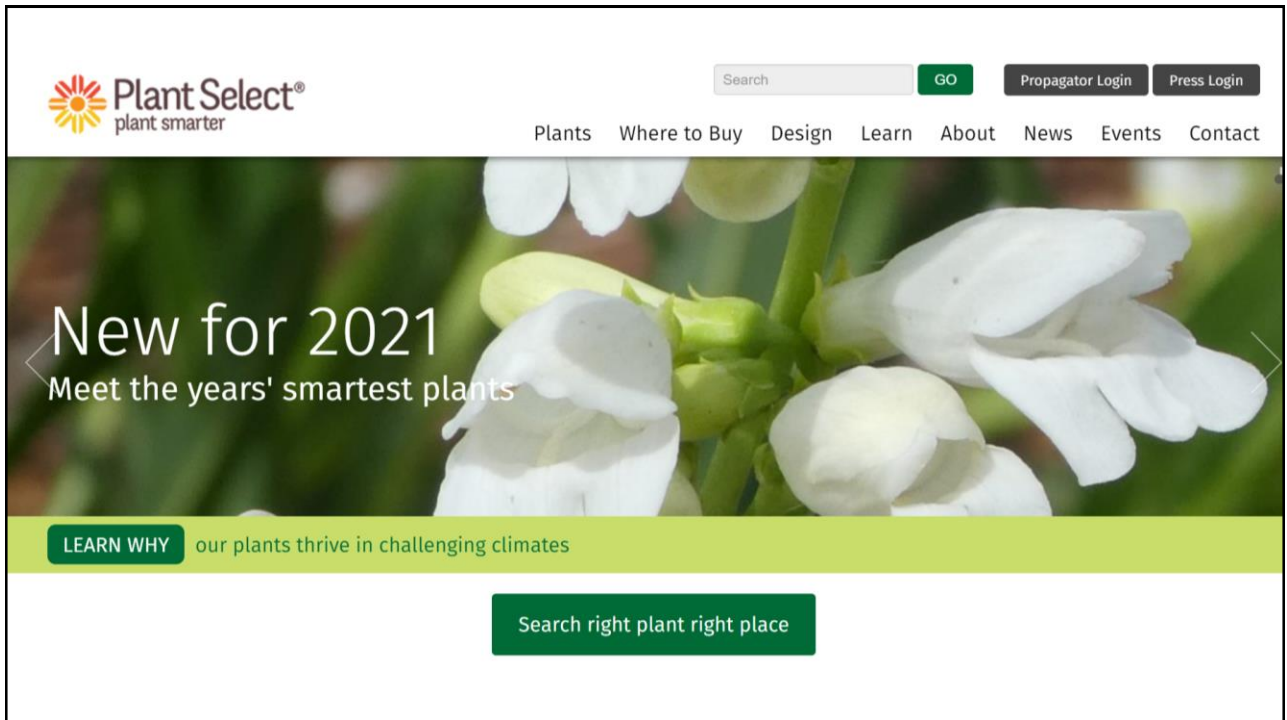
CSU Extension Fact Sheet #7.406: Flowers for Mountain Communities

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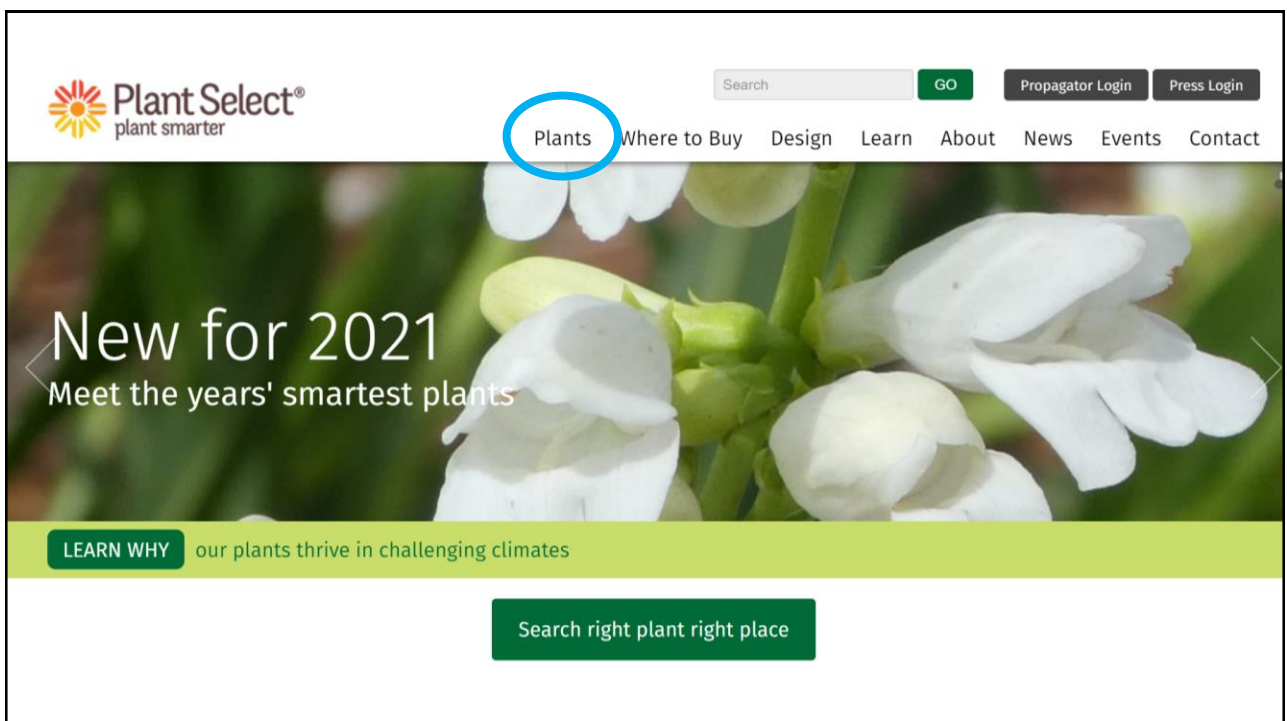


- A cooperative program with CSU, Denver Botanic Gardens, and the Green Industries of Colorado
- These plants have been researched and trialed for introduction in the semi-arid west
- Check out their “plant finder” tool!

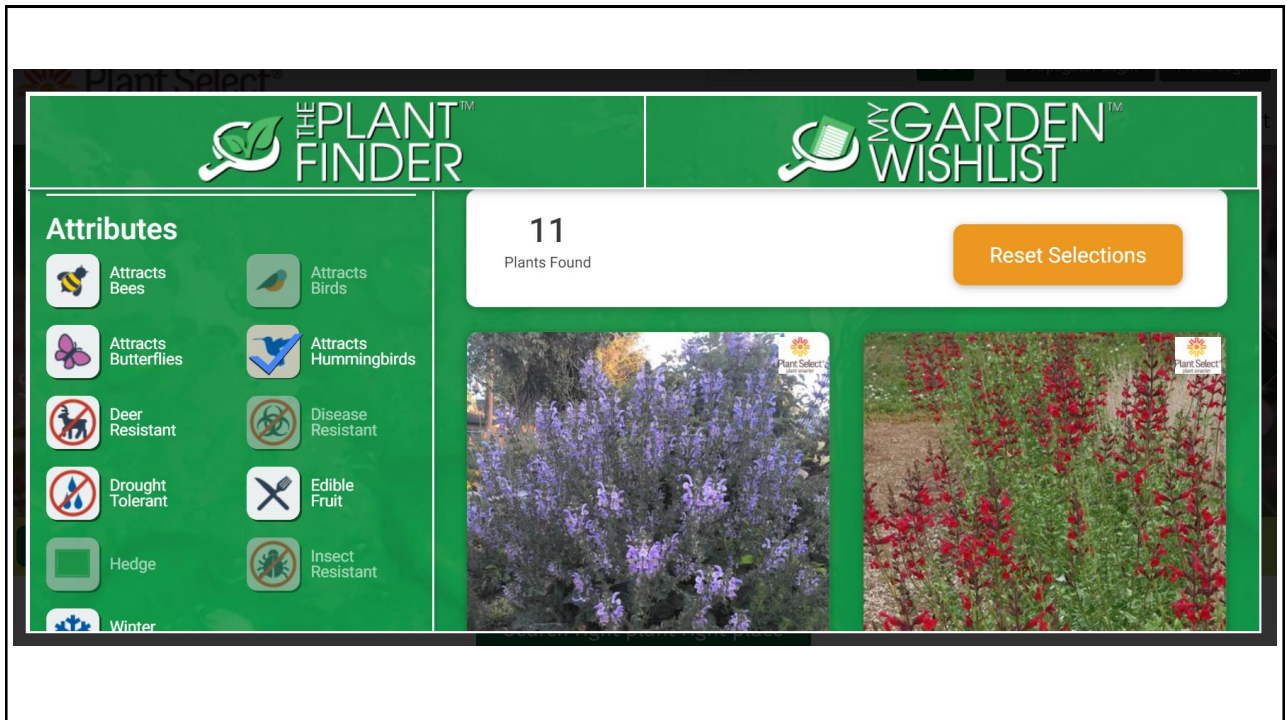
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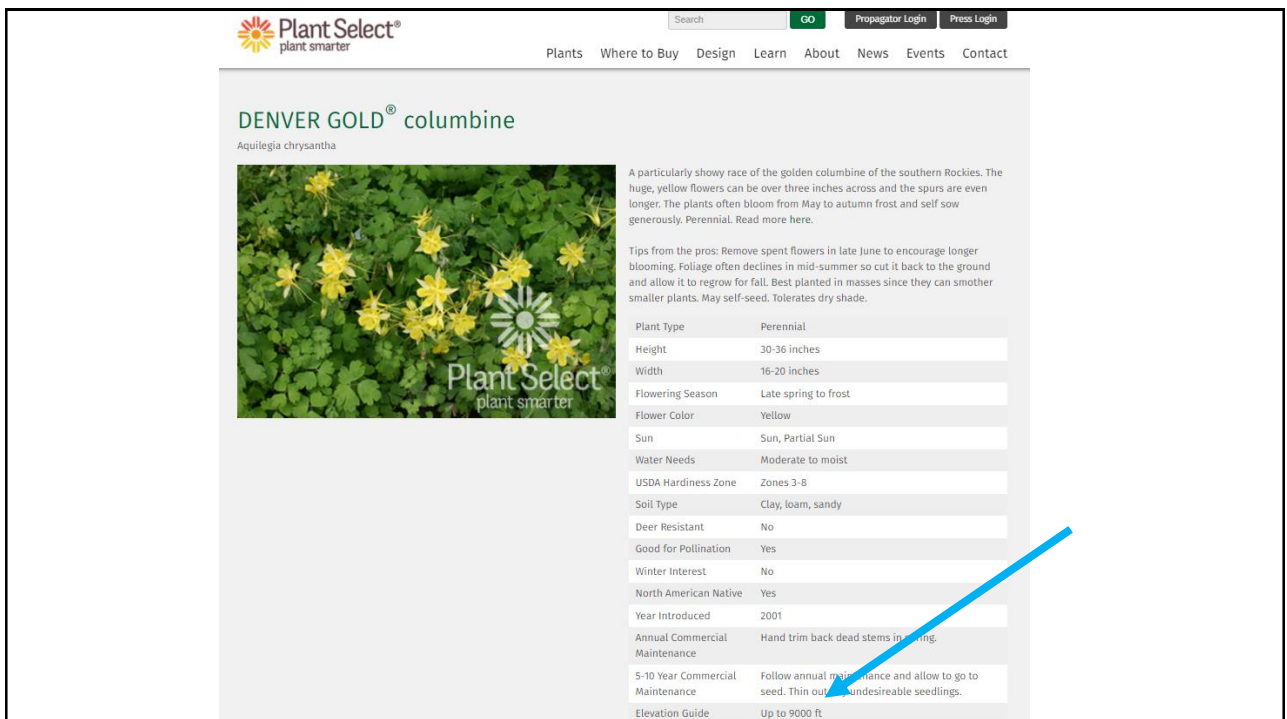
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Yarrow

(*Achillea* sp.)

- Very easy-to-grow perennial that requires little care once established
- Ferny foliage
- Blooms all summer
- Attracts bees and butterflies
- If given too much water, can spread, so keep it dry
- 36 inches x 36 inches



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'Terra Cotta'



'Paprika'

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Coralbells (*Heuchera* sp.)

- Different foliage colors, heights, and textures
- Great for shady spots...or those with morning sun
- Deer and rabbit resistant
- Flowers will rise 12-18" above the foliage
- Needs a bit more moisture (not truly xeric)



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'Southern Comfort'



'Fire Chief'



'Twist of Lime'



'Sugar Berry'

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Bleeding heart (*Dicentra spectabilis*)

- A truly old-fashioned plant that has been in U.S. gardens since the 1800s
- White or pink flowers that bloom in early spring
- In hot areas, the foliage will die out in summer
- 24 inches wide by 24+ inches tall



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Oriental poppy (*Papaver orientale*)

- Brightly colored blooms in spring (orange, pink, salmon, white)
- Foliage is ferny and attractive
- In hot areas, the plant will go dormant in summer
- Needs cold winters!
- 24 inches wide by 36 inches tall

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‘Watermelon’



‘Helen Elizabeth’

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Annual flowers

- Add instant color and will bloom all summer, until the first hard frost

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Reminder: Annuals

- An annual completes its lifecycle in one growing season and will not overwinter in northern climates
- Common annuals include: petunias, coleus, cosmos, marigolds, and zinnias



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Marigolds

- Classic annual flower
- Very easy to grow
- Companion plants? Studies vary, but some do help reduce insect populations (thrips, cabbage worms)
- African and French types are the most common



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African marigolds
(*Tagetes erecta*)



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French marigolds (*Tagetes patula*)



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Zinnias

- Add a great pop of color to the garden
- They grow quickly and bloom continuously
- There are pompoms and giant types

'California Giant'

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'Preciosa Orange'
Zinnia

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Petunias

- Bloom all summer...and have some chilling tolerance too
- Many of the new petunias don't need to be deadheaded or pinched
- Light fragrance
- Tolerant of some drought (much more so than *Calibrachoa*s)

'Night Sky'

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'Night Sky Burgundy'



'Queen of Hearts'



'Purple Tye Dye'

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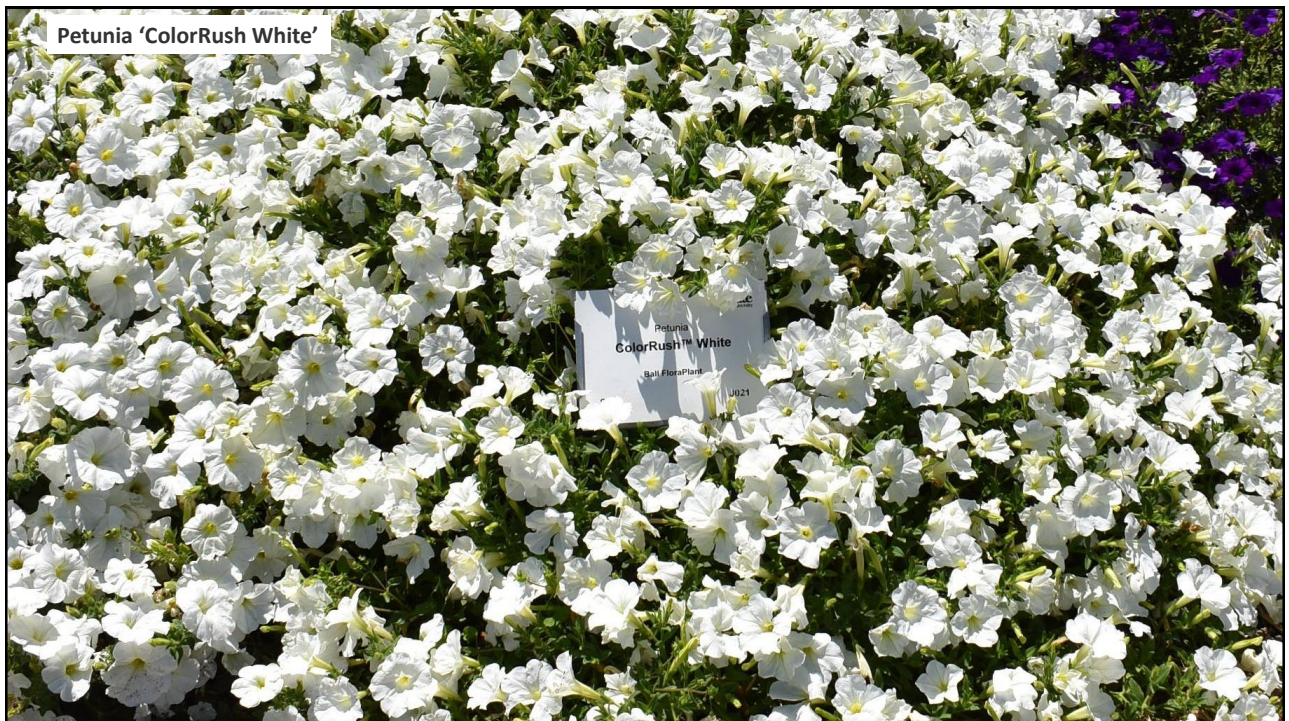
Best Petunia for 2020

‘ColorRush™ White’

- Plants were absolutely covered in blooms!
- Very clean white
- Plants were vigorous and uniform



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Best Container Plant for 2020

Petunia 'Bee's Knee'

- Abundant flowers two-tone yellow color provided exceptional blooms
- Plants were vigorous and well branched
- Best yellow petunia in the trial
- The color held up very well in the high light intensity of Colorado



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Petunia 'Bee's Knee'

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Colors of the Year 2021



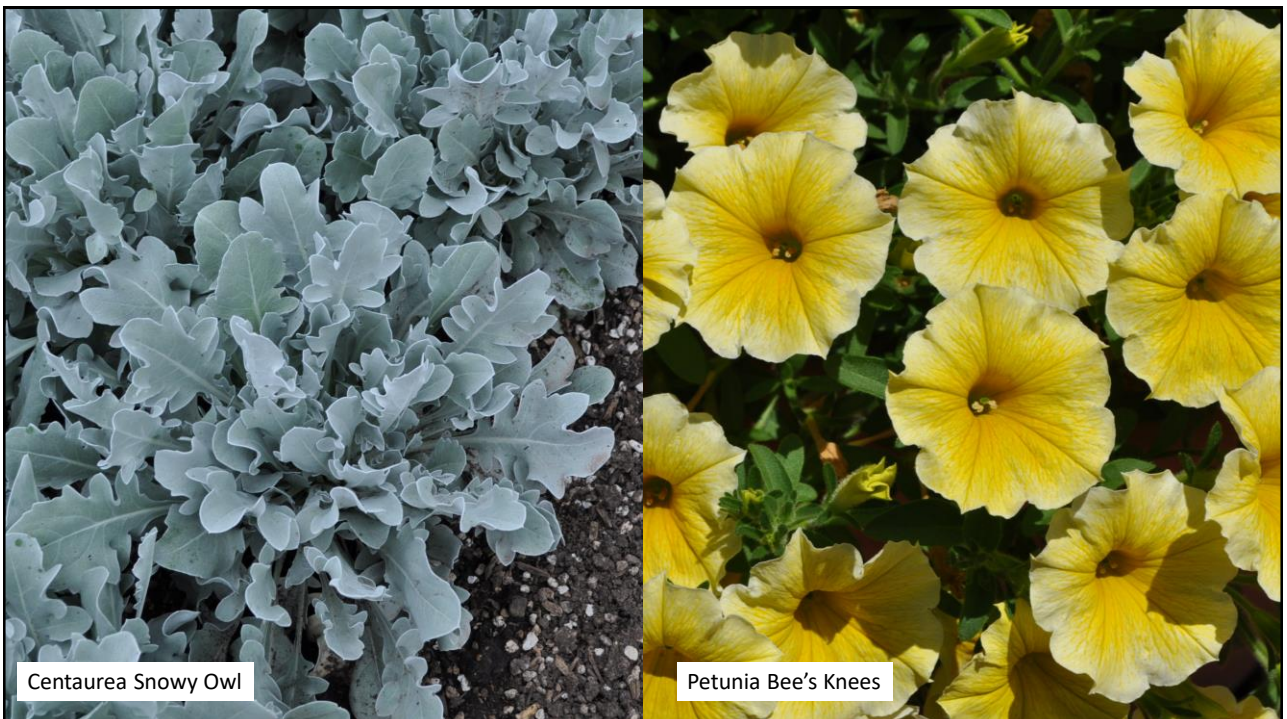
Illuminating

- Aspirational
- Hopeful
- Bright and cheerful

Ultimate Gray

- Everlasting
- Provides a firm foundation
- Natural stone

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Pansies

- A cool season plant; blooms all summer in the Estes Valley
- Cheerful and have “faces”
- Will bloom through a light frost (so you can plant them early in the spring and into the fall)

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Best Pansy of 2020:
Freefall Yellow Blotch

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Snapdragons

- “Talking flowers”
- Excellent cut flowers
- Great for flower borders or as a taller container plant
- White, yellow, pink, orange, peach, purple, violet



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‘Potomac Orange’



‘Circus Clowns Mix’

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CSU Extension Webinars

CO-Horts Blog

CSU Extension Gardening Webinars


Below are the online classes available from CSU Extension. These classes are FREE for the public; registration is required.

UPCOMING CLASSES

Friday, June 25: Celebrate Pollinators for National Pollinator Week!
Learn about Colorado pollinators and how we can best support them.
Time: 12:00pm MST
Instructor: Lisa Mason and Deryn Davidson
Registration required: https://zoom.us/join/join?j=prD4qG9XCw72oynK_ys40ELJBVPYY
After registering, you will receive an email with the class link.

Wednesday, July 14: Troubleshooting Irrigation Issues
Time: 12:30pm MST

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2021 RECORDED CLASSES	
<p>Please fill out our survey for each class you watch; we'd love your feedback: https://www.surveymonkey.com/r/CSUEHortYouTube2021</p> <p>Extension Programs are available to all without discrimination. If you have a need for which you seek an accommodation, please notify the listed presenter and allow at least 14 days to provide the accommodations.</p> <p><u>Orchids for the Home</u> Recorded January 13, 2021 Instructor: Jon Weiss, Master Gardener in Larimer County Recording: https://youtu.be/45rZ_89JzI4</p> <p><u>Alaska Blooms: Peony Production in Alaska</u> Recorded February 3, 2021 Instructor: Dr. Pat Holloway, University of Alaska-Fairbanks Recording: https://youtu.be/j3QKfWWuKKO</p> <p><u>Tree and Shrub Pruning</u> Recorded February 10, 2021 Instructor: Amy Lentz, Weld County Extension Recording: https://youtu.be/z5JPszMTJ5Y</p> <p><u>Nursery Plant Propagation at Bailey Nursery (Yamhill, OR)</u> Recorded February 12, 2021 Instructor: Jeffrey Stoven, Manager of Plant Propagation, Bailey Nursery Recording: https://youtu.be/lfi3xGyi4</p>	<p><u>Cold Hardy Succulents and Cacti</u> Recorded March 10, 2021 Instructor: Tony Koski, CSU Extension Turfgrass Specialist Recording: https://youtu.be/9pM1oC18D9M</p> <p><u>Planeación del Jardín de Vegetales (En Español)</u> Recorded March 13, 2021 Presentadora: Mary Ortiz Castro, Condado de Douglas Recording: https://www.youtube.com/watch?v=z-fd-jwJ_8o</p> <p><u>Seed Starting</u> Recorded March 19, 2021 Instructor: Cassey Anderson, Adams County Extension Recording: https://youtu.be/VjNBeqUibks After watching, please take our survey! https://www.surveymonkey.com/r/Spring2021-FRHortWebinars</p> <p><u>Garden Insects: Friends and Foes</u> Recorded: March 26, 2021 Instructor: Lisa Mason, Arapahoe County Extension Recording: https://youtu.be/-Wrm_khAYk After watching, please take our survey! https://www.surveymonkey.com/r/Spring2021-FRHortWebinars</p> <p><u>Japanese Beetles in Colorado</u> Recorded: March 31, 2021 Instructor: Dr. Whitney Cranshaw, Professor Emeritus, Colorado State University Recording: https://youtu.be/m5XVIGm2ZNA</p> <p><u>Spring Lawn Care</u> Recorded: April 2, 2021 Instructor: Tony Koski, CSU Extension Turfgrass Specialist Recording: https://youtu.be/F9tt_XJpYuE After watching, please take our survey! https://www.surveymonkey.com/r/Spring2021-FRHortWebinars</p>

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Questions?

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