Colorado State University
Extension

Wildflowers in Colorado

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Wildflowers are ideal for a natural, less formal garden. A planting of wildflowers provides a changing palette of color. The word "wildflower" does not necessarily mean that a plant is native to our area. Rather, it refers to an overall look or feel of an informal planting. Many plants in wildflower seed mixes are not native to Colorado, although native mixes are available.

A wildflower planting provides change throughout the growing season as different plants in the mix come into bloom. Due to varying characteristics of plants in a wildflower mix, the appearance of the planting may differ from year to year in response to weather conditions.

Because some wildflowers can be aggressive, the diversity of a wildflower planting may be lost over time. Their aggressiveness can be compounded by site conditions. Some invasive species are now classified as Noxious Weeds by the State of Colorado. See Table 4.

The type of wildflower seed mix chosen depends on site conditions and the desired effect. Consider modeling wildflower plantings after surrounding native-plant communities or use wildflowers to provide
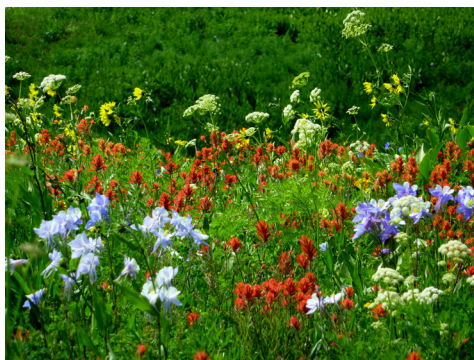

bold splashes of color. Commercial seed mixes may be formulated using a variety of plants with different heights, colors and bloom times. Usually, a mix of self-seeding annuals, biennials and perennials will provide the quickest results and longest bloom season. Wildflower mixes also may contain some grass species, which can fill in spaces around flowers, add texture and color contrast, and provide support and protection to wildflowers. Grasses also can reduce soil erosion and enhance wildlife habitat. See Table 2.
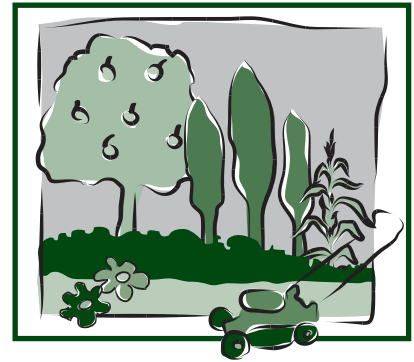
Seed companies often formulate their mixes for different site conditions. Choose a mix suitable for specific site conditions, such as dry, hot, south exposures; cooler, shaded, north and east exposures; moist meadows; or higher elevations. Most wildflowers grow best on well-drained, well-aerated soils.

Site Preparation and Weed Control

On sites with poor or compacted soil or extensive weed populations, considerable soil preparation and weed control are necessary before planting. Before sowing seed, lightly cultivate or break the soil with a rake prior to sowing. If the soil is compacted or heavy clay, incorporate organic matter, such as compost or sphagnum peat moss, into the top 6 inches. Three cubic yards of organic matter per 1,000 square feet, or about enough to cover soil 1 inch deep, generally is sufficient.

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Quick Facts

- Wildflower plantings have a different appearance throughout the growing season.

- Commercial seed mixes are developed to show variation in height, bloom color and time.

- Choose a wildflower seed mix adapted to your site conditions.

- The best site for wildflowers has well-drained and aerated soil.

- Control weeds prior to seeding wildflowers.

- Mid to late fall is a good time to sow seeds.

- Water as needed for germination and maintenance.

- The term "wildflower" does not necessarily mean a native flower.

Table 1. Native wildflowers most commonly available in seed mixes.

Plant Name	Type[a]	Flower Color	Exposure[b]	Moisture[c]	Season of Bloom[d]
Artemisia spp. Sage	P	Gray foliage	S	D	—
Aquilegia spp. Columbine	P	Yellow, red, blue	S/PS	M	SP/SU
Cleome serrulata Rocky Mtn. Bee Plant	A	Pink	S	D	SU/F
Coreopsis tinctoria Coreopsis (plains)[e]	A	Yellow/maroon	S/PS	D	SU/F
Epilobium (Chamerion) angustifolium Fireweed[e]	P	Pink	S/PS	D-M	SU
Eriogonum umbellatum Sulfur flower	P	Yellow	S	D-M	SU
Erigeron speciosus Showy daisy, fleabane	P	Violet	S/PS	D-M	SP/SU
Erysimum spp. Wallflower	P/B	Yellow, orange	S/PS	D-M	SP/SU
Eustoma grandiflorum Prairie gentian	TP	Blue/purple	S	M	SU/F
Gaillardia aristata Gaillardia (perennial), blanket flower	P	Yellow/red	S	D	SU
Ipomopsis aggregata Scarlet gilia	B	Red	S/PS	D-M	SU
Liatris punctata Spotted (dwarf) gayfeather	P	Purple	S	D	SU
Linum lewisii Flax (blue)	P	Blue	S	D or M	SP/SU
Machaeranthera spp. Tansy Aster	A/B	Purple	S/PS	D	SU/F
Monarda fistulosa Pink bergamot, beebalm	P	Pink	S	D-M	SU
Oenothera caespitosa White evening primrose	P	White	S	D	SU/F
Penstemon spp. Penstemon, beard tongue	P	Varies	S	D	SU
Penstemon strictus Penstemon (Rocky Mountain)	P	Blue	S/PS	D	SU
Pulsatilla patens Pasque flower	P	Purple	S/PS	D	SP
Ratibida columnifera Mexican hat, prairie coneflower	B/P	Yellow/red	S/PS	D	SU
Rudbeckia hirta Black-eyed Susan[e]	A/P	Yellow	S/PS	D-M	SU/F
Thermopsis montana Golden banner, false lupine	P	Gold	S	D-M	SP/SU
Viguiera multiflora Showy goldeneye	P	Yellow	S/PS	D or M	SU/F

[a]Type: A = Annual, B = Biennial, P = Perennial, TP = Tender Perennial
[b]Exposure: S = sun, PS = partial shade, SH = shade
[c]Soil moisture preference: D = dry, M = moist (needs supplemental irrigation)
[d]Season of bloom: SP = spring, SU = summer, F = fall
[e]Very aggressive, may eventually dominate planting

Tilling the soil will increase weed seed germination, as new seeds are brought to the surface. Eliminating weeds prior to planting wildflowers is easier and less expensive than identifying and controlling them in newly seeded sites.

After incorporating organic matter, water the area to germinate any existing weed seeds. Pull, hoe, or spray these weed seedlings with an appropriate herbicide. As with any pesticide, read and follow label directions. Remove dead weed debris prior to planting wildflowers. The number of times needed to repeat this water/spray process depends on the degree of weed infestation and types of weeds prevalent. It may take up to a year to control weeds before planting wildflowers.

Consider terracing steep slopes or use jute mats on the soil surface to help establish wildflowers.

Seeding

Mid to late fall is a good time to sow wildflower seed because subsequent winter cold and snow (moisture) will promote seed germination the following spring. If sowing in spring or summer, check with the seed company if they have pre-treated the perennial seeds.

Water in the spring to germinate seeds if winter moisture is insufficient. For spring or summer seeding, water to germinate seeds if rains are insufficient. Seedlings emerging in late summer may not become well established and may be killed by fall frosts.

Follow recommended seeding rate on seed packet. Exceeding recommended seeding rates may result in poor stands. For an even distribution of wildflower seed, mix six parts dry sand with one part seed. For small areas, spread the mix by hand, lightly rake the seed in and tamp the soil with your feet to ensure good seed contact with soil. On larger areas, use a cyclone-type fertilizer/seed spreader followed by pulling a section of chain-link fence behind a tractor. To ensure good soil contact, use a sod roller to press in the seeds. Another option for large areas is to have it hydroseeded.

Table 2. Native grasses suitable for wildflower plantings.

Plant Name	Exposure[a]	Moisture[b]	Season of Bloom[c]
Oryzopsis hymenoides Indian rice grass	S	D	SU

Bouteloua gracilis
    Blue grama,
    eyelash grass
	S/PS	D	SU

Festuca arizonica Arizona fescue	S/PS	D-M	SP/SP
Koeleria macrantha June grass	S/PS	D-M	SU
Schizachyrium scoparium *(Andropogon scoparius)* Little bluestem	S	D	SU/F

[a]Exposure: S = sun, PS = partial shade, SH = shade
[b]Soil moisture preference: D = dry, M = moist (needs supplemental irrigation)
[c]Season of bloom: SP = spring, SU = summer, F = fall

Table 3. Non-native wildflowers most commonly available in seed mixes.

Plant Name	Type[a]	Flower Color	Exposure[b]	Moisture[c]	Season of Bloom[d]
Aster novae-angliae Aster (New England)	P	Violet	S/PS	D-M	F
Achillea millefolium Yarrow (white)	P	Blue	S	D-M	SU
Campanula carpatica Carpathian harebell	P	Blue	S/PS	M	SU
Centaurea cyanus Cornflower[e]	A	Blue	S/PS	D	SU
Clarkia unguiculata Clarkia	A	Pink, lavender	S	D-M	SP/SU
Consolida ambigua *(Delphinium consolida)* Larkspur[f]	A	White, pink, violet, blue	S/PS	M	SU
Coreopsis lanceolata Coreopsis (lanceleaf)[e]	P	Yellow	S/PS	D-M	SU/F
Cosmos bipinnatus Cosmos[e]	A	Pink, white, red	S/PS	D	SU/F
Dianthus barbatus Sweet William	B/P	Pink, red, white	S/PS	D-M	SU
Dimorphotheca aurantiaca African daisy	A	White, orange	S	D	SU/F
Echinacea angustifolia Narrowleaf Coneflower	P	Pink	S	D-M	SU
Echinacea purpurea Purple coneflower	P	Purple	S/PS	D-M	SU
Eschscholzia californica California poppy[e]	TP	Yellow/ orange	S	D	SP/SU
Gaillardia pulchella Firewheel	A	Yellow/red	S	D	SU
Gypsophila elegans Showy baby's breath[e]	A	White	S/PS	D	SU
Iberis umbellata Candytuft	A	Pink, white	S/PS	D-M	SU
Leucanthemum x superbum *(Chrysanthemum x superbum)* Shasta daisy	P	White	S/PS	M	SU
Linaria maroccana Snapdragon (spurred)	A	Pink, yellow, violet	S/PS	D	SP/SU

Maintenance

After wildflowers are established, pull or spot spray weeds as soon as they can be identified and before they set seed.

During extended dry spells, supplemental water helps wildflowers look their best. If initial soil preparation was done, little if any fertilizer is required. If fertilizer is necessary, use a mild, balanced fertilizer.

After plants brown from killing frost, mow wildflower areas to distribute seeds set by plants. Cut stalks to 4 to 6 inches and leave clippings on the ground. Another option is to leave them in place all winter, and trim back in the spring.

In the second and succeeding years, the appearance of the wildflower planting may differ due to bloom of biennial and perennial species. Additional seeding can be beneficial if the wildflower stand is not satisfactory or plant growth was spotty or poor.

Table 3. Non-native wildflowers most commonly available in seed mixes (continued).

Plant Name	Type[a]	Flower Color	Exposure[b]	Moisture[c]	Season of Bloom[d]
Linum grandiflorum rubrum Flax (scarlet)	A	Scarlet	S/PS	D-M	SU
Linum perenne European blue flax[e]	P	Blue	S/PS	D-M	SP/SU
Lobularia maritima Sweet alyssum[e]	TP	White, lavender	S/PS	D-M	SP/SU
Lupinus spp. Lupine[f]	A/P	Blue, pink, red	S/PS	D-M	SP/SU
Myosotis sylvatica Forget-me-not[e]	A	Blue	PS	M	SP/SU
Oenothera missouriensis Ozark sundrop	P	Yellow	S/PS	D	SU
Papaver rhoeas Poppy (corn), Shirley poppy	A	White, pink, red	S/PS	D	SU
Phacelia campanularia California bluebell	A	Blue	S	D	SP/SU
Silene armeria Catchfly	A/B	Pink	S/PS	D	SU
Solidago rigida Goldenrod	P	Gold	S	D-M	SU/F
Viola spp. Johnny jump-up	P	Purple/yellow	S/PS	M	SP/SU/F

[a]Type: A = Annual, B = Biennial, P = Perennial, TP = Tender Perennial
[b]Exposure: S = sun, PS = partial shade, SH = shade
[c]Soil moisture preference: D = dry, M = moist (needs supplemental irrigation)
[d]Season of bloom: SP = spring, SU = summer, F = fall
[e]Very aggressive, may eventually dominate platingl
[f]Toxic to grazing livestock

Table 4. Avoid seed mixes containing these noxious weeds.

Plant Name	Type[a]	Flower Color	Season of Bloom[b]
Cichorium intybus Chichory	P	Blue	SP/SU
Hesperis matronalis Dames' rocket	P	Violet	SP/SU
Leucanthemum vulgare *(Chrysanthemum leucanthemum)* Oxeye daisy	P	White	SU
Linaria vulgaris Yellow toadflax	P	Yellow	SU

[a]Type: A = Annual, B = Biennial, P = Perennial, TP = Tender Perennial
[b]Season of bloom: SP = spring, SU = summer, F = fall