

TEN ROCKY MOUNTAIN NATIVES YOU CAN GROW

Susan Winslow

Research has provided commercially available flowers that are relatively easy to establish, produce lots of flowers, attract numerous pollinators, and yield high amounts of seed.

Scientists at the USDA-NRCS Bridger Plant Materials Center (BPMC) have examined seed germination and plant growth of more than 50 species native to Montana and Wyoming since the early 1990s.

Choosing the right wildflowers can bring you beauty without the hassle of a lot of watering and maintenance.

The following wildflowers are fairly common in the wild and can be found growing on a variety of sites with well-drained soils in areas receiving a minimum of 10 inches of annual precipitation. Ten of the star species meeting all of the above criteria are listed below arranged from early spring to late summer flowering:

- fuzzytongue penstemon *Penstemon eriantherus* PEER
- silverleaf phacelia *Phacelia hastata* PHHA
- Lewis flax *Linum lewisii* LILE3
- western yarrow *Achillea millefolium* ACMIO
- blanketflower *Gaillardia aristata* GAAR
- upright prairie coneflower *Ratibida columnifera* RACO3



Fuzzytongue penstemon

- white prairie clover *Dalea candida* DACA7
- Maximilian sunflower *Helianthus maximiliani* HEMA
- Rocky Mountain beeplant (an annual) *Cleome serrulata* CLSE
- dotted gayfeather *Liatris punctata* LIPU

Important plant growth characteristics, as observed at the BPMC, are shown in the table on page 12. All superior-performing NRCS plant materials undergo a rigorous approval process before being made available under a release name to certified seed and plant growers for production and sale on the commercial market.

Species Code	Seeding Time	Average No. Seeds/Oz.	Height inches	Flower Color	Bloom Period	Pollinator Friendliness	Release Name
PEER*	Fall	22,375	12 to 16	Lavender	May to June	Very good	Old Works
PHHA	Fall	28,375	12 to 14	Purple	May to June	Excellent	none
LILE3	Spring/Fall	17,375	12 to 36	Lavender	May to Sept.	Good	Maple Grove
ACMIO	Spring	281,250	24 to 36	White	May to July	Very good	Great Northern
GAAR	Spring	13,794	12 to 20	Yellow	June to Sept.	Good	Meriwether
RACO3	Spring	37,500	12 to 36	Yellow	June to Sept.	Very good	Stillwater
DACA7	Spring	17,375	18 to 24	White	July to Aug.	Excellent	Antelope
HEMA	Spring/Fall	15,625	36 to 72	Yellow	July to Sept.	Very good	Medicine Creek
CLSE	Spring/Fall	4,063	24 to 60	Purple	Aug. to Sept.	Excellent	none
LIPU*	Spring/Fall	4,875	12 to 24	Purple	Aug. to Sept.	Good	none

* Remain in a small rosette stage and do not flower in the establishment year.



Western yarrow and wasp



Swallowtail butterfly on a penstemon



Center enhances plant performance, establishment for conservation efforts

The USDA-NRCS Bridger Plant Materials Center (BPMC) began operating in 1959 and has become a leader in providing plant-based solutions for a variety of conservation challenges.

The soil and water conservation districts of Montana and Wyoming own the land and most of the buildings. NRCS, in cooperation with Montana State University, the University of Wyoming, and the Agricultural Experiment Stations in Montana and Wyoming, staffs, equips, and maintains the program.

Serving all of Montana and Wyoming, the 140-acre facility near Bridger, Montana, is dedicated to enhancing the performance and establishment of plants for conservation uses. Early studies focused on improving revegetation success on disturbed areas or disturbed land caused by coal mining, road construction, logging, and farm-related activities. Recent efforts study the characteristics and suitability of wildflower species.

Also see “Wyoming hosts many native pollinators” page 8

Consider several critical issues well in advance of planting no matter the wildflowers chosen or project scope:

1. The area must be weed-free to reduce competition for water and nutrients.
2. Prepare the site so the seedbed is firm and the soil is moist to ensure good seed-to-soil contact. Without firm contact with moist soil, the seed will germinate, and then seedlings may die.
3. Wildflower seed is often extremely small and in general, under optimum site conditions using a mechanical planter, should be planted at the rate of 30 to 50 seeds per square foot to a depth of ¼ inch. A narrower row spacing width than recommended may lessen weed invasion but will likely increase plant competition for soil resources.
4. When planting wildflowers with native grasses, alternate-row or cross-seeding configurations may enhance establishment by reducing competition with grasses.
5. Double the seed when using a broadcast seeding method. If a mixture of species is desired, determine the percentage of each component to calculate individual quantities. Consult your supplier about calculating quantities to plant.
6. A grass component of not more than 25 percent in a mixture is recommended for pollinator

habitat to enhance the nesting and shelter requirements for bees.

The good news is wildflowers will attract a variety of pollinators. Many pollinators need dry ground in which to build their nests, so supplemental irrigation is not always advisable. Beware when wildflowers are in full bloom because many of the pollinators are sensitive to intrusion while feeding and will sting when disturbed. Use most caution while moving about in plots of wildflowers during the warmest part of the day when insects are most active.

A few of the more common insects seen visiting wildflowers at the BPMC include honey bees, several different types of bumble bees, golden digger wasps, sweat bees, sand wasps, ants, miscellaneous flower flies, and butterflies such as white, sulphur, tortoiseshell, and tiger swallowtail.

Increased insect populations may draw birds such as ringed-neck pheasant, sage-grouse, mourning doves, American goldfinches, sparrows, and other insect-eating birds. Wildflowers attract browsing wildlife as they are a desirable food source for rabbits, antelope, and deer.

By following these recommendations, you will increase success in establishing a wildflower garden that will beautify surroundings, provide food and shelter for pollinators and other wildlife, conserve water, and lower energy consumption with less fertilizer and mowing.



Digger wasp on prairie clover

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