Native wildflowers: Just as beautiful for less money, less work

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Spectacular displays of wildflowers are an annual delight in Texas. Wildflower trails are publicized and hotlines are set up to direct people to the best displays week to week during the blooming season.

Many people want to re-create wildflower meadows at home, on urban and suburban lots, and not only because they are beautiful. Meadows can be a low-cost, low-maintenance and low-water-use alternative to traditional, needy flower gardens. They can replace high-maintenance turf grasses.

Wildflowers are not the effortless panacea, however, that a "meadow in a can" promises. Prairie plants – flowering species as well as grasses – require full sun. Almost any other site characteristic can be accommodated by careful selection of species. Soils of different texture, drainage, pH and moisture content have their own meadow species. Furthermore, meadows do not need to be large to be successful; 100 square feet is enough for an eye-catching display, but smaller beds can be satisfying, too.

Plants for meadows should be adapted to the existing soil and moisture conditions.

One can take the shotgun approach by indiscriminately throwing out buckets of seed mix. This method eventually can work, but it is wasteful, frustrating and costly. Many commercial wildflower mixes contain foreign species, and those foreign species pose two problems.

The first is that many do not thrive and reproduce, eventually dying out and leaving gaps in the garden.

The second is that some do too well. These dreaded exotic weeds displace natives and escape into natural habitats.

Another important characteristic of a seed mix is its geographic origin. Purple coneflower occurs naturally from North Texas to Minnesota. Although these coneflowers are the same species, you can be certain the ones from Minnesota do not tolerate heat and drought the way seeds harvested from Texas-grown coneflowers do.

Mixes are useful only if you use one that is tailored to your site and region. It is difficult to predict which species will prove most successful on a specific property, so a reasonable mix gives a better chance of success.

Planting season
The life cycles of prairie species correspond to normal weather cycles. Perennial grasses are warm-season plants. Their seeds germinate best in warm, humid weather and grow well in hot, sunny conditions. Mid-spring is the best time to plant these species.

Wildflowers operate on a different schedule. Many species are cool-season plants, meaning they germinate in fall and grow during warm spells in winter and early- to mid-spring. Gardeners usually think of annuals as plants that are killed by frost. Our common annual wildflowers germinate in the fall, spend the winter growing small leaves and a large root system and then flower and set seed before hot weather arrives in late spring.

Thus, a meadow can be seeded in two stages: grasses in the late spring, wildflowers in the early fall.

Weeds are the enemy

Inadequate pre-planting weed control is the most common cause of failure in creating a meadow. The best advice sounds like the title of a slasher movie: "Kill, and kill again!"

The problem is super-adapted foreign grasses. These rogues include Bermuda grass, Johnson grass, and Dallis grass. These noxious weeds spread easily by seed, but it is their incredibly tenacious and invasive rhizomes that make them plagues of the prairie.

There are several ways to kill these persistent weeds.

The first is a glyphosate herbicide, also known as Round-Up, Clean-Up and others. Wait until the weeds are actively growing (usually mid-spring), then spray them. Let the glyphosate work; it is absorbed by the leaves, so do not cut the foliage before it yellows.

Let the weed grasses resprout, and then spray them again. Repeat until you do not see them come back.

Another method is solarization. Cover the entire site of your proposed meadow with black or clear plastic sheeting. Carefully overlap the plastic and weight it down with stones or soil to keep it in place. Leave it through part of the hottest summer weather. Weeds are killed by depriving them of water and oxygen and by increasing soil temperature to lethal levels.

Do not attempt to kill these perennial grasses by tilling. You will only chop the rhizomes into small pieces, each of which will grow into new plants.

Soil prep and seeding

If the edges of the meadow are not surrounded by barriers to invasive grasses, establish a defensible perimeter. Concrete paving, planting areas, steel edging, mulch, even a strip of mowed grass will work as long as it is not Bermuda, Johnson or Dallis grass. Buffalo grass is a good choice.

Do not fertilize or amend the soil. Do not plow or till deeply. Do not remove the stubble of dead grasses. Do not cover the seed with soil or mulch.

If the site has dead vegetation, mow it close and remove the clippings. If the surface of soil is bare and compacted, roughen it with a rake or till very lightly – no more than 1 inch deep.

You may broadcast the seed by hand or with a mechanical spreader. It is helpful to mix small, fluffy seeds with damp sand to make them easier to distribute.
Drag the back of a rake over the soil or lightly roll the area after seeding. This puts the seed in contact with the surface of the soil to improve germination. Do not bury the seed.

Water the newly seeded meadow thoroughly and carefully: thoroughly, to soak the soil deeply, and carefully – gently – so that you do not wash the seed away or start erosion.

Post-planting care

Monitor soil moisture and irrigate if necessary. Look for any weeds that evaded your efforts to eradicate them.

Keep the top layer of the soil moist to speed germination and increase survival of seedlings. After the initial watering, you may need to irrigate briefly two or three times a day in drought conditions. As soon as the grasses germinate, reduce to once a day. When they are 2 to 3 inches tall, it is time to stop watering automatically and only irrigate as the seedlings need it.

Under any conditions, the most effective tools for determining the need for water are your own eyes, fingers and brain. Look at the plants and touch them. Poke your fingers into the soil and feel how much moisture is present. Think about the age of the plants, weather patterns and soil conditions. Do not rely on the irrigation controller to make decisions for you.

Wildflowers are usually easier to germinate because fall weather is cooler, and the seedlings have more time to grow roots before hot weather occurs. Wildflower seeds respond more strongly to natural rainfall than to irrigation, often remaining dormant until they get the real thing.

Watering makes invasive weeds grow much more rapidly than natives. Any young grass plant that is markedly more vigorous than surrounding seedlings is suspect. An invader will reveal itself quickly. If you can, pull or dig it out. If not, spray it!

Meadows do not require much maintenance, but they do require some. All gardeners must weed, and that includes meadow mavens.

Mowing is the common method used to manage meadows. Late summer or fall mowing encourages wildflowers. Late spring mowing encourages grasses. Winter mowing has a neutral effect on both. Most meadow owners mow once a year to remove untidy dead foliage, but you can wait several years between mowing if you like.

Michael Parkey is a Dallas landscape architect who specializes in native plants and sustainable landscapes.

Seeds to sow

In my landscape classes and for clients, I recommend only one mail-order seed company's mixes, those of Native American Seed. The company is based in Junction, Texas, but it was founded in Argyle in Denton County in 1989 (1-800-728-4043, www.seedsource.com). Most other Texas-based companies include nonnative species such as California poppies and European coneflowers in their mixes.

**Native Texas Mix.** Favorite Texas wildflowers suited to any soil in our region. Something should be in bloom from March to November.

**Blackland Prairie Mix.** A diverse assortment of wildflowers and grasses native
Shade-Friendly Wildflowers. Good for a spot under trees, but do not expect these species to grow under your live oak or magnolia. These thrive in sun, too.

Prairie Starter Mix. Tall grass species to which you can add wildflower species.

Native Sun Turfgrass.

Blue grama and buffalo grasses for a no-mow, drought-tolerant lawn.

Parkey's Custom Mix. A meadow of short wildflowers and grasses with a few tall accents and a very long season of bloom.

Pink evening primrose (*Oenothera speciosa*). A low-growing, spreading perennial with white, pink or pale lavender flowers in spring.

Winecup (*Callirhoe involucrata*). A low-growing, spreading perennial with deep-purple flowers in spring and summer.

Bitterweed (*Helenium amarum*). A compact annual with bright yellow flowers for spring, summer and fall.

Standing cypress (*Ipomopsis rubra*). A tall, vertical biennial with scarlet flowers in spring and early summer; it's a hummingbird magnet.

Azure sage (*Salvia azurea*), a tall perennial with brilliant, sky-blue flowers in summer and fall.

Buffalo grass (*Buchloe dactyloides*). A perennial sod-forming grass that can be mowed or left to grow to its natural height of 8 to 10 inches.

Blue grama (*Bouteloua gracilis*). A perennial bunch grass that grows to 12 inches. The seed heads are deep red to slate blue in late summer and fall.

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