



STOVER SEED®

Teaming confidence with nature since 1922

Technical Guide

ESTABLISHMENT AND CARE OF WILDFLOWERS

Wildflowers are beautiful, useful and inexpensive additions to any home landscape. Their colors span the rainbow, and their varying heights, forms and flower shapes will spark your imagination. Many are fast growing, hardy and drought tolerant once established. Furthermore, by using seeds instead of bedding plants, you'll get healthier, more robust plants at maturity-and save money too!

Use wildflowers for:

- Borders and edgings
- Beds in small spaces, such as courtyards and side yards
- Spot color in rock gardens
- Meadows
- Quick color near new shrubs
- Erosion control on slopes
- Replacement for thirsty lawns
- Containers, window boxes and hanging baskets
- Cut flower arrangements
- Wildlife habitats

The following information is designed to give you helpful tips for growing wildflowers.

When To Plant. The best time to plant depends upon watering and soil temperatures. Determine whether the area will be watered by a sprinkler system (irrigated) or other form of supplemental irrigation or whether it will be watered only by rainfall (non-irrigated). Irrigated sites can be established once the soil temperatures reach 65 to 70°F. Non-irrigated sites are best planted just before the rainy season. Generally, in southern and western portions of the U.S., planting should be done in the fall. In northern and eastern regions, planting should be done in the spring. Annual wildflowers develop leaves and stems during the cool periods and begin flowering during warmer temperatures. The longer plants are allowed to develop, the more substantial the root and leaf structures are and the longer and more spectacular the flowering period.

Where to plant. Most species of wildflowers require six to eight hours of sunlight. Less sunlight will produce

plants that are leggy, weak and without flowers. A few species, and one of our mixtures, will tolerate partial shade (at least four hours of sunlight). Do not attempt to seed areas that have dense shade.

Providing good drainage. Good drainage is essential for the best plant growth. If water doesn't soak in, runs off quickly or keeps the soil continually soggy, you may need to till the soil and add amendments to improve drainage. On slopes, use low-volume irrigation such as mini- or micro-sprinklers to minimize surface runoff and erosion of the seed and soil.

Controlling weeds. Weeds are a great threat to the success of your wildflowers. Weeds generally grow taller and faster than wildflowers, robbing the soil of moisture and nutrients and eventually sunlight. Therefore, it is important to remove weeds before seeding. Clear the area of existing weeds with a fast-acting, non-selective systemic herbicide, such as glyphosate (Roundup). For a non-chemical approach you can try soil solarization. Information can be found at: <http://ipm.ucanr.edu/PMG/PESTNOTES/pn74145.html> If tilling is necessary to improve soil structure, it should be done before weed control. If tilling is not necessary, move on to watering.

Tilling. It is best not to heavily till the area as it may bring dormant weed seeds to the surface where they will germinate and compete with the wildflowers. However, if there is soil compaction or poor drainage, you should till. When tilling, incorporate organic material, such as humus mulch or compost, and then grade the soil into a firm seed bed.

For large areas, it might be necessary to use a flail mower or tractor to rough up the soil surface and remove existing vegetation. It is important to remove enough vegetation to ensure that the seed is in firm contact with the soil. If the seed is not in direct contact with the soil, it will germinate and die because the root will be unable to obtain water and nutrients essential for growth.

For small areas, lightly rake to scalp or scarify the soil, loosening as much as two inches of the soil surface.

Practice weed germination and removal as described in "Controlling weeds."



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Watering. After weeds have been removed and the soil has been tilled, water the area frequently for two to three weeks to allow weed seeds to germinate. Once the weeds have germinated, apply the non-selective herbicide but do not disturb the soil any further as this could cause new weed growth. Seeding should take place about two weeks after applying the herbicide. Consult the instructions on the herbicide package for specific waiting periods.

Determine the seeding rates. Carefully measure the area to be seeded and check your seed package or product sheet for the seeding rate, such as ounces to square feet of area. Check each package or species you purchase as coverage can vary considerably. Be sure that you have enough seed to cover the entire area all at once.

Make good contact with soil. We can't overemphasize the importance of seed-to-soil contact. Be sure that the surface is clear of vegetation and that it is roughed up a bit so that seeds have direct contact with the soil.

Distribute seed evenly. It is important that you distribute the seed evenly over the planting area. It is often helpful to mix the seed with sand or vermiculite to help spread the seed more evenly. Usually a mixture of one part seed to two parts sand is best, although more sand is fine. Mixing with sand also helps to mark the area that you have seeded. Divide the seed/sand mixture into two equal parts and apply one half of the seed in one direction over the entire area and then the second half in the opposite direction over the entire area. For small areas, seeding by hand will work, however you'll need to use a hand-held rotary spreader for larger areas. For very large areas or slopes, hydroseeding or drill seeding is the best method. Consult a professional contractor for more information.

Cover the seed. Once the seed has been broadcast, press the seed into the soil either by foot, a sheet of plywood, or a roller in order to insure good contact with the soil. The seed should then be covered with no more than 1/8 to 1/4 inch of mulch which will hold moisture better than soil. Problems with germination are typically the result of burying seeds too deep.

Irrigating with sprinklers. Wildflower seeds usually need four to six weeks of ample, consistent moisture to germinate and begin establishment. A new seeding must not be allowed to dry out! The irrigation schedule for a new planting site should be light and frequent until the first signs of germination, which is usually two to four weeks after initial watering. In warmer arid regions, the frequency of light irrigation can be up to three times daily. Once plants reach one to two inches in height, the daily frequency of irrigation can be reduced. Established wildflowers will need supplemental

irrigation when they exhibit signs of wilting or during periods of high temperature and/or low rainfall. In arid regions of the country without consistent rainfall, supplemental irrigation of up to half an inch a week may be necessary for plants to perform their best.

Irrigating with rainfall. If you are relying solely on Mother Nature to provide irrigation, you'll need to time your planting to coincide with the rainy season. However, you'll have a better chance of germination and establishment if you can provide some supplemental irrigation, particularly during periods of high temperature.

Controlling weeds. Periodic weed control helps maintain a steady show of wildflowers. It is much easier to eliminate weeds when they are young, rather than fully grown plants. Weeds can be eliminated by pulling, hoeing or spot spraying with an herbicide. Be careful to keep spray away from desirable plants.

Mowing. After flowering and seed has been set, your wildflower garden can be mowed. Mow no lower than six inches. This technique will encourage any perennials that you may have.

Fertilizing. Wildflowers do best in soils with low fertility. High nitrogen soils only encourage the growth of weeds and vegetative growth at the expense of flowering. Fertilizing should be only done on soils with no nutrients. Use organic fertilizers with very low nitrogen (five percent or less) content.

Reseeding. To enable your wildflowers to reseed, leave the flowers on the plants after blooming and allow them to develop seeds. After seed development, wildflowers can be mowed or cut down which will help to scatter the new seed. If you have planted a wildflower mixture, you may want to reseed some of the annuals in the mixture. Although some will reseed, you will get a better show of flowers if you do some additional re-seeding yourself.

Enjoying. If you're new to wildflower gardening, you may not have realized that wildflowers are not a throw-and-grow proposition. Only the best seed combined with the proper choices, preparation, planting and maintenance will ensure a successful experience with wildflowers. You'll relish the experience and the resulting beauty wildflowers will bring to your gardens!

We guarantee that the seed we offer has been tested by a certified seed-testing laboratory and conforms to federal and state seed laws. We make no other guarantees, either express or implied. Because of varying factors beyond our control, there is no guarantee of establishment.



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