

How to Build and Maintain a Meadow

What is a Meadow?

The term “meadow” refers to uncultivated areas featuring herbaceous plants and soils that aren’t wet year-round. Unlike grasslands which are defined as having more than 50% grass cover, meadows have more than 50% forb cover. Most forbs are wildflowers, although the term also includes non-flowering plants like ferns.¹

Benefits

Returning lawns to meadows can have the following ecological, environmental, and economic benefits:

1. **Water Absorption:** Meadows are more effective than lawns at absorbing stormwater and preventing flooding. Most lawns are prone to runoff due to their compacted soils and shallow-rooting turf grass; in contrast, the looser soil and extensive root systems of meadow species increase rainwater infiltration.¹
2. **Pollution Control:** Meadows improve water quality by intercepting pollutants that are not absorbed by turf.
3. **Water Conservation:** Turf lawns consume massive amounts of water. The EPA estimates that landscape irrigation accounts for a third of all residential water use nationwide, totaling nearly 9 billion gallons per day. As much as 50% of this water is wasted due to evaporation or runoff from inefficient watering methods.¹
4. **Wildlife Habitat:** When grasses are mowed less often, vegetation diversity increases. As the number and types of plant species increase, the meadow attracts different insects and other invertebrates, providing a habitat for a wide variety of species.¹
5. **Cost Effectiveness:** In the United States, lawn care is a \$30 billion-a-year industry; the average American spends 70 hours a year working on their lawn. By converting some or all of their lawn into meadow, a person can save time and money.¹

¹ Source: https://conservationtools-production.s3.amazonaws.com/library_item_files/1439/1514/CT_From_Lawn_to_Meadow_170412.pdf?AWSAccessKeyId=AKIAIQFJLILYGVDR4AMQ&Expires=1561733738&Signature=Zz7bQQT8sHCjHAMtyEAV16vYPkk%3D

Meadow Creation

The creation of a natural meadow requires a good sense of timing, careful planning, and consistent maintenance up front. As time passes and wildflowers begin to achieve a natural advantage, the meadow will require less maintenance and weeding will be limited to occasional spot treatments.

Below is a seasonal three-year outline to help guide new meadow creation. The steps required after year three are dictated the success an owner has fostering native seedlings and keeping invasive plants at bay.

YEAR ONE

- Spring: Choose a suitable location, preferably an open, sunny site that gets six hours of sun daily. An already cultivated site such as field, garden plot or lawn is ideal. Before seeding, removing weeds and smothering other vegetation may be required. When selecting plants for the meadow, choose perennial plants species rather than annuals. Perennials will take a longer time to become established, but they will return yearly and out-compete many weeds. Many reputable dealers create site-specific seed mixes. Scatter the seeds following the directions provided by the supplier. Compress the seedlings (do not bury) and water so that the soil is consistently moist until the plants are 4-6" tall. After that, the plants will survive off natural rains. The frequency of mowing will depend a great deal upon the amount of rainfall in the first growing season, but mowing (close to ground level) may need to be done up to once a month.^{2 3}
- Summer: For the first two years, intensive weed control is necessary. Do not pull weeds, as this may disturb wildflower seedlings. Do not use herbicides, as this will also kill adjacent wildflower plants. Keep weeds cut back to at least four to six inches, and never let weeds grow over one foot in height.⁴
- Fall: Do not mow late in the season, since it is important to allow the young grasses to grow before winter. Continue removing established weeds.^{2 3}
- Winter: No actions.

² Source: http://www.phillywatersheds.org/whats_in_it_for_you/residents/wildflower-meadow

³ Source: <https://www.americanmeadows.com/wildflower-seed-planting-instructions>

⁴ Source: <https://pecpa.org/wp-content/uploads/Water-Resources-How-to-Create-a-Meadow.pdf>

YEAR TWO

- Spring: Mow one final time in the early spring (during March or April) of the second year. After the first year, avoid mowing during grassland bird nesting season, from early May to mid-July.⁴
- Summer: Continued weed management is necessary. Again, avoid pulling weeds out so as to not disturb seedlings.
- Fall: Do not mow late in the season, since it is important to allow the young grasses to grow before winter.⁴
- Winter: No actions.

YEAR THREE

- Spring: In the third year, mow the meadow close to the ground in the early spring or late fall, and remove debris after mowing. This will expose the soil to rapid warmth from the sun in the spring, encouraging wildflowers over cool-season weeds.²
- Summer: Now that grasses are more established, significant weeding may not be as necessary. It is important to stay vigilant, however, as weeds may still be able to overcome native grasses.
- Fall: No actions.
- Winter: No actions.