

Wildflower Meadows

DEFINITION:

- A meadow is a **mixture of grasses and wildflowers growing in a sunny, open area.**
- Meadow plants are typically **drought tolerant sun lovers** that can thrive in **sterile conditions.** New construction sites where soil is poor and compacted are ideal, as are slopes where erosion is a problem and mowing is difficult.
- Most meadows are a transitional stage that eventually will be invaded and replaced by shrubs and trees unless they are managed.
- Requires neither watering nor feeding, as opposed to lawns.
- Nonpolluting (no weekly chemicals needed), as opposed to lawns.
- Low maintenance landscape (but not “no maintenance”), as opposed to lawns.
- Pretty to the eye!
- Hugely beneficial to wildlife, as opposed to lawns which are anything but wildlife-friendly. Offer nectar (for butterflies, bees, and other pollinators), offer seeds (for birds), offer cover (for birds, insects, rabbits, turtles, and much more).

GRASSES

Ideally a meadow should have **50-80% native grasses (our native warm-season grasses grow well in 75-90° and even over 100° F).** So, one needs to learn to recognize native grasses and to tell them from aggressive, non-native, cold-season grasses (which are sod-forming). Native bunch grasses form clumps, leaving open spaces or pockets for wildflowers to flourish and they crowd out weeds. Lawn grasses are mat forming, sending out rhizomes (horizontal roots). If a prairie is failing, it is often because weeds have won (cold-season, mat-forming grasses). **Some native grasses follow:**

Switchgrass, *Panicum virgatum*

Coastal Panicgrass, *Panicum amarum*

Pink Muhly Grass, *Muhlenbergia capillaris*

Little Bluestem, *Schizachyrium scoparium*

Purpletop, *Tridens flavus*

Big Bluestem, *Andropogon gerardi*

Indiangrass, *Sorghastrum nutans*

Broomsedge Bluestem, *Andropogon virginicus*
(also known as Virginia Beardgrass)

WILDFLOWERS

Native herbaceous prairie / meadow wildflowers common to our area. **AVOID CULTIVARS: may contaminate native gene pool.** Can put in **plugs** of desired plants (in addition to seeds) and plant them in a wavy pattern, much like wind would naturally disperse seeds. Some examples follow:

Aster, New England

Asters (other natives)

Beebalm, Spotted (Horsemint)

Blazing Star / Gayfeather / Liatris

Boneset

Cardinal Flower (wet meadow)

Columbine, Wild

Coreopsis, Lanceleaf

Goldenrod, Seaside

Goldenrod, Gray (avoid Canada

Goldenrod: TOO aggressive)

Ironweed, New York

Joe-pye-weed

Milkweeds

Butterfly Weed

Common Milkweed

Swamp Milkweed (wet)

Mistflower

Mountain Mint

Partridge Pea

Phlox

Purple Coneflower

Queen Anne's Lace

(nonnative “old field” plant)

Sunflower, Tall (or Giant)

Turtlehead (wet meadow)

Thistle, Yellow

Wild Bergamot

“MEADOW IN A CAN” – a gimmick. Meadow may look nice 1st year because seed mix full of showy annual seeds, but many won't reseed, so meadow will peter out after first year and even worse each following year.

WHAT YOU ALREADY HAVE GROWING – might be lots of desirables. *Weeds of the Northeast*, by Richard Ulva, Joseph Neil, Joseph DiTomaso, has excellent photos of seedlings, mature plant, and flower.

FOUNDATION of Creating a Meadow or a Backyard Habitat – MUST READ books!!!

- *Urban and Suburban Meadows, Bringing Meadowscaping to Big and Small Spaces*, by Catherine Zimmerman: **(1) BOOK** (Matrix Media Press, 2010) **and (2) DVD** (The Meadow Project, 2012; www.themeadowproject.com). Step-by-step process detailed and explained; emphasizes natives. Powerful read & visuals (DVD) for all gardeners, not just those wishing to create a meadow.
- Larry Weaner, Larry Weaner Landscape Associates, article, “Wildflower Meadows: Let’s Get Real”
<http://lweanerassociates.com/?p=1203>
- Two **very educational catalogues (below)**. Each offer NATIVE grass and wildflower seed mixes for different soils and situations (like septic fields, detention basins, clay soil, savanna & woodland areas, etc.). Each catalogue DOES NOT INCLUDE CULTIVARS (for good reason). **Each company includes excellent information about the creation and maintenance of meadows on their websites.**

Prairie Nursery, PO Box 306, Westfield, WI 53964; 800-476-9453; www.prairienursery.com

Seed Mix Establishment GUIDE (how to create and maintain a meadow):

<http://www.prairienursery.com/resources-and-guides/seeds-and-seed-mixes/>

Prairie Moon Nursery, 32115 Prairie Lane, Winona, MN 55987; 866-417-8156; www.prairiemoon.com

How to Grow a Prairie From Seed (how to create and maintain a meadow):

<https://www.prairiemoon.com/blog/resources-and-information/how-to-grow-a-prairie-from-seed>

- RETHINKING THE AMERICAN LAWN: Any of Sara Stein’s books: *Noah’s Garden (Restoring the Ecology of our own Back Yards)*, *My Weeds (A Gardener’s Botany)*, *Planting Noah’s Garden (Further Adventures in Backyard Ecology)*. Sara Stein also wrote 2 excellent articles in *American Butterflies* (Summer 1995 & Fall 1995).
- NATIVE PLANTS ARE KEY: *Bringing Nature Home, How Native Plants Sustain Wildlife in Our Gardens*, by Douglas Tallamy. Timber Press, 2007. Powerful & compelling read about how we impact the diversity of insects, birds, and all wildlife when we plant and nurture natives as opposed to non-natives. If you ever have the chance to hear Doug Tallamy speak, BE THERE. In the meantime Google: Doug Tallamy Youtube, sit back, listen, & learn.

IMPORTANCE of meadows (mix of grasses and wildflowers):

FOOD

- Grasses are the host plant (or caterpillar food plant) for many butterflies (satyrs, wood nymphs, skippers). Butterflies may nectar in the garden, but lay their eggs in the meadow. So, a meadow compliments formal butterfly gardens.
- When grasses and wildflowers go to seed, birds and other wildlife feed on these seeds.
- Insects (in the grasses and wildflowers, even in winter when the meadow is left standing) provide additional important food. Bluebirds and Purple Martins nest in insect-rich meadows, not lawns.
- Many wildflowers that grow in a meadow are important nectar plants and important caterpillar plants.

COVER - A meadow left standing through winter provides important cover for wildlife, including overwintering insects (as opposed to a mowed lawn).

BEAUTY, INTEREST, OPPORTUNITY TO EXPLORE & LEARN

- Diversity as opposed to monoculture (lawn).
- Color, attractive, countless visitors (butterflies, hummingbirds, spiders, dragonflies, Bluebirds, Purple Martins, Phoebes, swallows, warblers, turtles . . .) – in other words, a Living Landscape !

CREATION / MAINTENANCE OF MEADOW

(this is largely from Denise Gibbs, formerly of Gaithersburg, MD, and now living in Arizona, and from Catherine Zimmerman's book and DVD, *Urban & Suburban Meadows*)

Prepare the site:

1. Leave a ten-foot-wide buffer area / path mowed between your meadow and the woods. This will help keep vines, shrubs, and trees from encroaching.
2. remove tree and shrub seedlings in meadow
3. SMOTHER proposed meadow area for 3 months (or longer) until vegetation dies off – smother vegetation with material that will decompose = newspaper (4 - 5 sheets or 1 sheet of newspaper plus cardboard). Wet newspaper to keep in place and cover with 2" - 4" of weed-free mulch (like grass clippings, salt hay, leaves, pine needles). DO NOT USE clear or black plastic (will not decompose and will kill important soil organisms).
4. OR – define the area you want to become a meadow & simply let the grass grow up. See what comes up & enhance it with plugs or pots of native wildflowers and grasses.
5. OR – during the active growing (mid-spring or early fall) treat with an organic herbicide like Scythe (made from geraniums) or Burn Out (made from concentrated lemon juice and vinegar) or Phydura All Natural Herbicide (sold by Prairie Moon Nursery). If you plan to use a broad spectrum, non-persistent glyphosate-based herbicide, such as “Roundup,” be sure to 1st read Beyond Pesticides’ “Chemical Watch Factsheet” at: <https://www.beyondpesticides.org/assets/media/documents/infoservices/pesticidesandyou/Spring%2001/Chemical%20Watch%20Factsheet%20on%20Glyphosate.pdf>
6. NEVER DEEPLY ROTOTILL OR PLOW to prepare your meadow site – this brings zillions of dormant weed seeds to the surface where exposure to sun allows them to germinate and fill your “meadow” with a bumper crop of weeds for years to come. Instead, if preparing a meadow area to seed it, till soil no more than 1-2" deep or use tractor disc to break up soil for planting / seeding. OR if you are seeding a meadow site that is vegetated with desirable plants, mow the vegetation as short as possible and rake up the thatch. Rough up bare areas to allow seeds to make contact with the soil.

Seeds:

- It takes three years for a meadow to become established from seed. It will have few to no flowers the 1st year, a few flowers the 2nd year, and your meadow will really start to flower the 3rd year. Each year after it will diversify as different plants mature.
- Select seeds suitable for your region. Buy from reputable nurseries that do not wild-collect their seeds – companies like Prairie Nursery & Prairie Moon Nursery.
- Seeding a meadow is most successful if done in the spring (early to mid-April), with the exception of seeds that need cold-moist stratification, and these should be planted in fall (late Sept. to mid-Oct). Seed to soil contact is crucial, so if possible, use a roller to press seed into soil.
- During a meadow workshop with Larry Weaner he shared: “A nurse crop, usually composed of fast germinating clump forming grasses such as Canada Rye or Annual Rye, should also be included to help secure the site from weed invasion and erosion during the first season, a volatile phase when the longer-lived perennials and grasses are not yet well enough established to control the site.”

Plugs (young plants):

- If you create your meadow with plugs (plants), you have an instant meadow the 1st year and can control the look of it by planting waves of certain plants through the meadow.
- Planting wildflower “plugs” is most successful if done in fall (late September to mid-October).
- Seedlings and wildflower plugs should be watered until roots are well established.

Meadow Creation HELP – if your meadow is sizable, like a schoolyard or a former horse pasture, US Fish and Wildlife Service’s Partners for Fish and Wildlife Program may be able to assist you. They have helped landowners convert horse pastures to native, warm-season grasses. CONTACT: Eric Schradling, 609-646-9310, x-46; <http://www.fws.gov/northeast/njfieldoffice/landowners.html>

Maintenance of your meadow:

- Succession: if left alone, your meadow will slowly be seeded (by the birds) with trees and shrubs and eventually it will become a forest. So, to maintain your meadow MOW IT ONCE A YEAR (6-8 inches high) in late winter – late February thru early March. This favors native warm-season grasses, eliminates the previous season’s growth, and makes room for the next season’s growth. Too, mowing in late winter is the most wildlife-friendly time to mow.
- OR – Another way to maintain your meadow is to BURN IT EVERY OTHER YEAR (i.e. have it burnt by your state forest fire service), also in late winter. But, be aware that burning crisps butterfly caterpillars, chrysalises, etc. If your meadow has lots of non-natives, burning it in late winter for 2-3 years might help get ahead of non-natives and their mat of thatch (which could be keeping natives from thriving). To apply for a “prescribed / controlled burn permit” in Cape May County (where the NJ Forest Fire Service does the burn) contact: Bill Love, Forest Fire Control Technician, State of New Jersey, Department of Environmental Protection – 609-625-1121 (office), 609-209-2489 (direct line).
- Several times through the year, hand eliminate unwanted (tree & shrub seedlings, invasive plants).

Be patient. It takes three years for a meadow to become established from seed. Consider putting up signage designating your meadow as a wildlife habitat.

LAWN

Even if we embrace meadows & let some of our lawn areas evolve into meadows or turn them into gardens, we all will probably retain some lawn areas, however minimal. There is great advice in Catherine Zimmerman’s book, *Urban and Suburban Meadows*, about lawns and how to “go organic” with your lawn.

- My own lawn has always been a mix of various grasses (including Crabgrass), clover, Dandelions, and other weeds. When I get bare spots I sprinkle clover seeds (prior to a rainy stretch so they have a chance). The blooming clover and Dandelions are great nectar plants and complement my gardens. Plus clover is a legume and fixes nitrogen, so makes surrounding grassy areas happier.
- If you have a non-native existing lawn, **GO ORGANIC !** The *NOFA Organic Lawn and Turf Handbook*, published by the Organic Land Care Committee of the Northeast Organic Farming Association, is your best resource; it is one of the most detailed and practical guides available. Visit www.organiclandcare.net for more information and to obtain the handbook.

Good luck with your meadow!!! May this fact sheet be helpful, Pat Sutton