

Meadows: Alternatives to the Typical Lawn

Introduction:

It is important to understand that what our neighbors in the watershed do affects the quality of our water and the health of the watershed. Invasive species, stormwater run-off, erosion, and aquifer depletion are major concerns in terms of watershed health. One way we at the Gorge have decided to try to combat the problem is to provide our neighbors with alternatives to what we feel is a continual threat to the quality of our watershed - the expansive manicured lawn. While we recognize that the moderately sized lawn is often an important part of the American household, those with large lawns may be interested in a meadow as an alternative.

The typical American lawn is an intensively managed monoculture of non-native grasses and possibly a few non-native and highly invasive shrubs. These exotics continually invade our more natural landscapes pushing out the diverse community of natives. There are also incredible amounts of water used for maintaining lawns, drawing down our aquifers and reducing the flow of our streams, thereby threatening aquatic invertebrates and trout habitat. Additionally, fertilizers are added that quickly run off of the relatively impervious lawn into our surface water supplies. Lawns have been shown to be roughly equivalent to pavement in the amount of water that runs off the surface rather than seeping into the soil. Also, two-cycle lawn equipment pollutes much more than the cars we drive every day.

But there are relatively simple ways to deal with all these problems, and they require much less of our time and resources. One is to let our lawns grow into meadows. Meadows require less input of money, water, fertilizers and time than lawns. Meadows also allow more infiltration of storm water, are more biologically diverse, and enhance the aesthetic attributes of a property. The first step is to understand that there are different types of meadows and they exist on a continuum from a high-cut lawn or

greensward, to a treed savannah. If you are interested in alternatives to the typical lawn there is probably a type of meadow to meet your needs and desires. Remember, meadows are not suited for every situation. They can be sensitive to compaction and are not appropriate for areas of high use. For detailed information on mowing meadows please refer to the flow chart on the back of this brochure.



Coral Hairstreak on Butterfly Weed

High-Cut Lawn or Greensward:

This type of simple alternative to a manicured lawn is advantageous in a few ways. By cutting your lawn at 5 inches in height, the lawn becomes less dependent on irrigation because the taller stems keep the soil from drying out too quickly, and by cutting and leaving the clippings the need for fertilizers can be reduced or eliminated. Also, by cutting the lawn high, native low-growing wildflowers like bluets may be able to persist and flower. This type of grassland may require mowing many fewer times a year as well. To keep the grass at 5 inches in height may require about 5 mowings a season.

Hay Meadow:

Traditionally hay fields are cut twice a year, once in late spring and again in the late summer. This strategy results in a meadow that is predominated by grasses, many of which are of the non-native type, but at the same time requires only two

mowings and no watering or fertilizer. Many people enjoy the aesthetic appearance of the grasses of hay fields. Some of the disadvantages are that the early season mowing may have a negative effect on wildlife like nesting birds and other animals that use such fields. There also are few wildflowers to offer color and attract wildlife.

Natural Meadows:

This type of meadow historically has existed as an ephemeral part of the forests of eastern North America. They were typically the result of some type of natural disturbance like fire. The grasses and forbs (herbaceous plants other than grass) that come in after such a disturbance are then quickly overtaken by trees and shrubs during the process of natural succession. While land managers use fire to maintain natural meadows, these types of meadows can best be mimicked and maintained by the home owner through mowing. Mowing once every year to five years in the early spring or late fall will arrest the process of succession back to forest by continually knocking back the woody growth. Mowing in the fall may be especially effective for wet meadows, by discharging the seeds of native cool season grasses and forbs. It also impacts the native wildlife to a lesser degree. On upland sites, where warm season grasses and forbs would be found, mowing should be done late in fall after native species have gone



to seed, or better yet in the spring just as non-native cool season grasses begin their predominance. It is also beneficial to try and rake away the thatch so that native seeds can get the warmth of the sun they need to germinate. Most meadows of this type still have a component of non-native grasses but by managing the meadow in this way the number of natives in the meadow will be increased, especially if you seed or interplant with natives. Another benefit of this type of meadow is that it will generally have a larger component of native wildflowers that attracts butterflies and offers aesthetic diversity. Native grasses also tend to be more colorful throughout the seasons than the common lawn grasses.



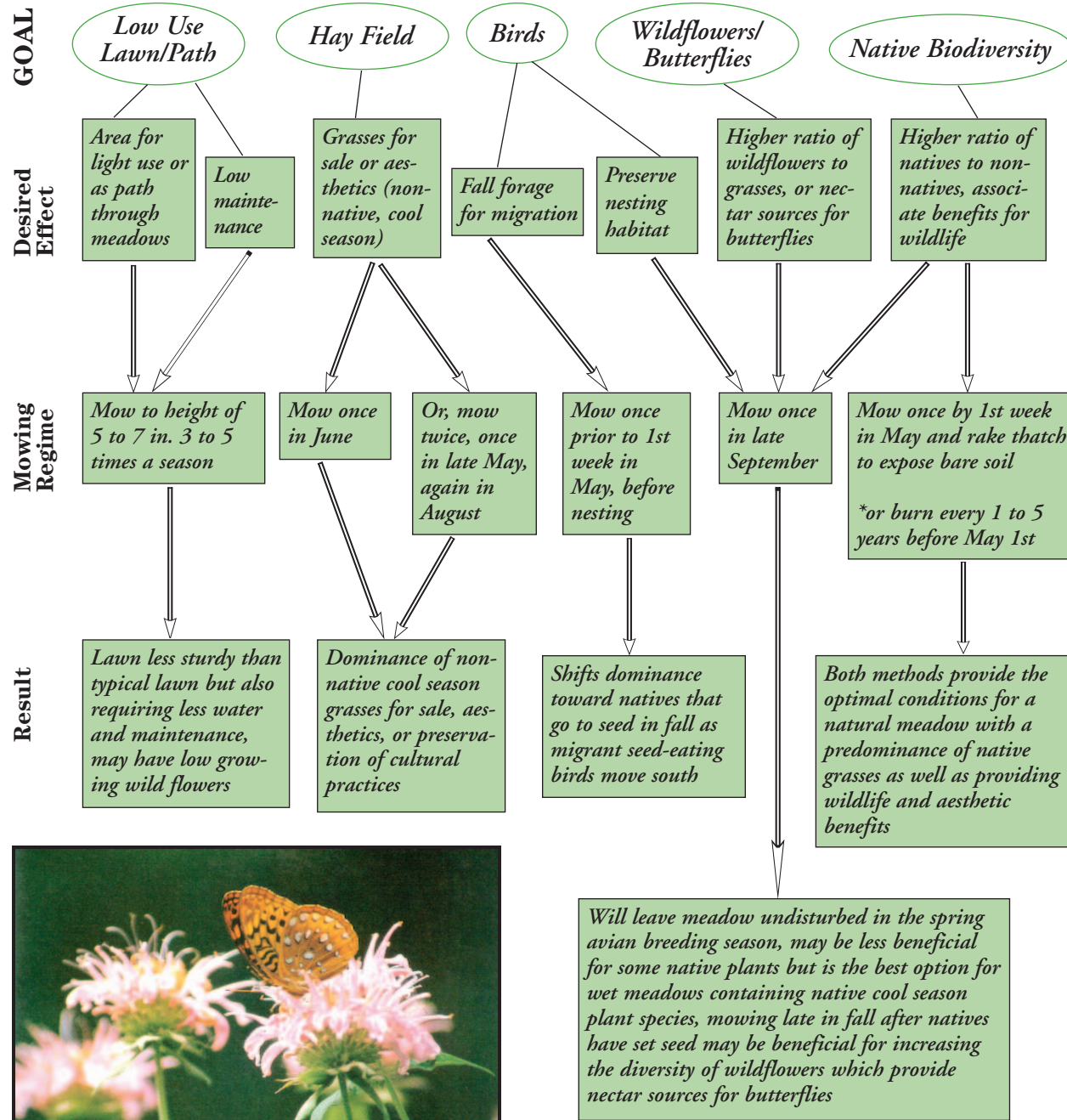
Wood Lilly a meadow edge species

For more information or if you would like assistance in planning for a meadow, please contact our staff at the address below:

*Mianus River Gorge Preserve
Gibb House
167 Mianus River Road
Bedford, NY 10506*

914-234-3455

Use this flow chart to determine the mowing strategy for your particular goal.



Great Spangled Fritillary on Wild Bergamot

*Burning may require permits from your county, town, or local fire department and a planning document or professional assistance.



References and additional sources of information

The Once and Future Forest. Leslie Jones Saur, 1998. Island Press, Washington D.C. Chap. 25 Meadow Management

Redesigning the American Lawn, a Search for Environmental Harmony. Bormann, Balmori, and Geballe, 1993. Yale University Press, New Haven CT.

Noah's Garden: Restoring the Ecology of Our Own Back Yards. Sara Stein, 1993. Houghton Mifflin Co., New York. Chap. 9 To Plant a Prairie

Planting Noah's Garden: Further Adventures in Backyard Ecology. Sara Stein, 1997. Houghton Mifflin Co., New York.

See also:

The New American Lawn. William Niering, Ph.D and Garden Club of Darien. Garden Club of America Brochure.



Meadow Management a simple way to protect our watershed



Mission: To preserve and protect, and promote appreciation of, the natural heritage of the Mianus River Gorge and the quality of its watershed.