

# NH Horticulture Endowment

Supports Meadow Establishment Research

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The diverse mix of herbaceous perennials and grasses that make up a wildflower meadow can be very attractive and provide habitat for insects, birds, and other wildlife. Established meadows require fewer inputs, less energy and less intensive maintenance in comparison to turf or other landscape options. Sustainable meadows are mowed only once or twice per year and require no irrigation or fertilization once established. They may also provide valuable naturalized areas for capturing and infiltrating stormwater.

So, meadows are beautiful and environmentally beneficial, but how do you plant and establish a wildflower meadow? It's not as easy as most

people think, and many of us have been disappointed with the lack of results from scattering wildflower seeds from a can or packet.

Weed competition is one of the biggest problems during the two or three years it takes a meadow planting to take hold. One of the challenges is distinguishing weeds versus wildflowers or native grasses in the seedling and vegetative stages of growth. Since many wildflowers may take two or more years before they bloom, it's hard to identify which plants to keep and which to pull out during the crucial first years.

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the *Grapevine* ...

### ADVANCING COMMUNICATION

NHPGA will be improving their communication with its members. It was decided at the December meeting that eBlasts will be formatted and delivered through MailChimp. 'It is time that the overall aesthetics of our communication be improved'.

There will be an opportunity during the January Winter Meeting, for members to obtain the information necessary to sign up to receive eBlasts from the organization. Note that at anytime, you have the ability to remove your name from the mailing list.



The New Hampshire Horticulture Endowment Committee is pleased to announce that Dr. Catherine Neal of the University of New Hampshire Cooperative Extension is the recipient of the 2010 Grant. Dr. Neal will evaluate wildflower meadow establishment in New Hampshire in response to different methods of soil preparation and the use of seeds versus young plants as starting material. She noted there is growing interest in the replacement of existing turf areas with native wildflowers. Doing this can carry aesthetic, environmental,

## 2010 NHHE Grant Recipient



and financial benefits. In her application Dr. Neal wrote, "The diverse mix of perennial flowering plants and grasses that make up a wildflower meadow provide visual interest as an ever-changing landscape of colors and textures and provides habitats for insects, birds, and other wildlife. Environmental and financial benefits come in the form of fewer inputs, less energy and less intensive maintenance in comparison to turf or other landscape options, and in providing naturalized areas for capturing and infiltrating storm water. Sustainable meadows are mowed only once or twice per year and require no irrigation or fertilization once established." Currently there has been little research done on meadow establishment in New England. The results of this study will

*continued on p16 ...*



Meadow research plots.



Students helping seed in plot. Spring 2009

## ...NHHE

*continued from p8*

Dr. Cathy Neal, UNH Cooperative Extension Specialist, and research assistant Amy Papineau were recently awarded \$4000 from the NH Horticulture Endowment to develop guidelines for the establishment of sustainable wildflower meadows in northern New England. The NHHE grant will be used to purchase seeds and plugs for establishing field plots and an identification garden and pay for a small amount of hourly labor. These funds are leveraged by UNH Agricultural Experiment Station facilities costs and UNH Cooperative Extension faculty and staff time.

We will compare methods of soil preparation and spring versus fall planting dates. Preliminary field work comparing pre-plant site preparation techniques, such as repeated glyphosate sprays, repeated tillage, and smothering with black plastic, showed that each has advantages and disadvantages. Weeds seemed to be most numerous in the tilled plots whereas plastic mulch was most effective in suppressing weeds. Many wildflower species failed to germinate or survive in this competitive environment, leading us to think that starting small meadows from plugs might be surprisingly effective and economical compared to weeding and maintaining seeded areas. Some plots in the new trial will be started from plugs rather than seed for comparison.

One goal of the project is to create a web-based guide to the identification of common New England wildflower species at all stages of development. Jessica Spaulding, a UNH senior majoring in Environmental Horticulture, will be growing 75 species of native wildflowers and grasses in the greenhouse this spring and photographing them as seedlings and young plants. The plants will then be transplanted into a reference garden and allowed to grow on into mature plants. Once completed, gardeners, landscapers, landowners and other property managers will have access to the photos and information on UNH Cooperative Extension's website, <http://extension.unh.edu/Agric/AGNLT.htm>.

If you can distinguish the wildflowers from the weeds, it will make first year meadow management a little bit easier. ■