

**Participant Questions and Answers**

1. **How much, if any, mowing do these meadows get? require?**

Once established, a meadow will only need to be mown once in late winter/very early spring before new growth emerges. This is largely to prevent succession woody plants from encroaching.

But while a young meadow planting is developing, Larry Weaner suggests:

“…mowing the meadow every 6 weeks to a height of 4-6″, you will not only prevent the annual weeds from seeding, but insure that the young perennial plants growing below your mow height receive enough light for strong establishment. These perennials will emerge the following year far stronger than if they had been buried under 4 feet of annual foliage the first year. This is why the inclusion of annual wildflowers in your seed mix can be detrimental to the long term health of the planting. Annual wildflowers are included for their ability to bloom the first year. In order for this to occur you will be prohibited from mowing, this will allow annual weeds to go unchecked and deprive the emerging perennials of the light needed for optimal growth.”

Graham Glauber adds:

“Mowing late winter/early spring when the soil warms slightly is important because it allows for a lot of the natural seed drop and dispersal to occur, and can help to provide a food source, and in some cases shelter for local wildlife over the winter months.”

1. **Does mowing risk insect nests?**

There are certainly some insects that are disturbed by mowing, but compared to mowing turfgrass with few beneficial insect populations once per week seems the lesser evil. That and if a meadow is left unmown, it will quickly become a successional forest of shrubs, then trees.

1. **What about a controlled burn to kill weeds and provide a good new surface for meadow planting?**

As Graham Glauber mentioned, with his experience as a gardener and a Volunteer Fire Chief in Bedford, NY, controlled burns can be a horticulturally acceptable method of control, but completely illegal in Westchester County and most of the Hudson Valley. These burn restrictions are governed by the New York State Department of Environmental Conservation. Please check with your local fire department and ensure that you can fully control your burn before proceeding.

1. **Would you say this meadow approach would work for street tree beds in the city? Or are the soil patches too small? I’m imagining how beautiful a row of mini meadows would be as you walk along a street! Q2: For tree pits discussion - wouldn’t a ground-covering planting (Carex and small flowering forbs) be helpful? both for maintaining moisture and organic matter, and for processing dog waste and other city stresses…? I think more might be helpful to keeping that soil healthier.**

Cathy Ludden and Graham both touched on planting meadow species in “hell strips” and tree pits. While one may not be able to capture the scale of an open meadow, there is no reason some of the native meadow species couldn’t be included in these or any other plantings.

1. **Any differences or distinctions one might make between Meadows and Prairies? I know some folks make a distinction and get itchy about the terms. Thanks much.**

While the terms meadow and prairie can be somewhat synonymous, prairies are (or more accurately were) vast natural landforms of temperate grasslands accompanied by forbs growing on varied, but mostly deep soils, while meadow is a more general term and often emerge from openings in a forest canopy or previously cultivated fields. To completely oversimplify, think prairie elk and bison vs. songbirds and pollinators.

1. **Can you comment on collecting seed locally to grow into plugs for a meadow?**

While potentially laborious, but certainly rewarding, responsible and timely seed collection and propagation can be done. You’ll need to research each species and their germination requirements and if you aren’t direct sowing, you’ll need a growing space. Lot’s of good information can be found here: https://www.wildflower.org/learn/collect-store-seeds

1. **I know this is something you’ve heard over and over, but what about ticks?**

I believe the symposium covered this to some extent and Graham presented some nifty new ideas. I think the key in any outdoor situation with the potential for tick borne diseases is to go protect yourself going in and check yourself coming out.

1. **How about partial and dense shade?**

As Larry stated in regards to plant selection, it’s all about researching what plants do well in each condition, whether that be sun exposure, soil texture, soil moisture, etc. While most meadow plants are sun lovers, there are plenty of native plants that do well in the shade to part shade conditions, so instead of thinking “meadow”, perhaps we should think “native woodland.”

1. **When initially planning how do you determine number of plants by season or do you attempt to fill the entire plot each season and see who wins?**

The goal is to have a dense, multilayered planting, where all plants are comingled laterally and vertically.

1. **Also, how many pounds of forb/grass seed per acre do you recommend and would you suggest more if there was previously a dense presence of Mugwort?**

There is no fixed lbs per acre rate. If the seed mix is heavy on small seeds the lbs per acre will be higher than a mix that is heavy on larger seeds. Use your seed house (a good native oriented one) to determine the amount needed for your acreage.

To help with previously mugwort-infested areas, yes use a higher seed count. Also select only the most competitive species that are adapted to the specific conditions of your site.

1. **What plants will beat out mugwort??**

I think we all agreed that mugwort is a true nemesis and will require some chemical control, but two plants that I’ve seen go toe to toe with almost any invasive are Baptisia austalis and Monarda fistulosa.

1. **Larry, where does one find lists of native plants that grow in local plant communities?**

The Ecological Communities of NY State, NY Department of Environmental Protection/"The Biota of North America Project" website, [bonap.net](http://bonap.net/)

1. **There were several questions about tarping: What time of year did you begin the tarping? How long should a 6mil black plastic sheeting be left in place to be reasonably sure you've killed the Mugwort rhizome system underneath? How long for non-mugwort eradication?**

Graham says “We started tarping in August and we left it until the following June, with good results – 100% of the organics had broken down and loose soil remained. Mugwort may require longer for tarping, and because of its extreme aggression, tolerance of tough conditions, and a rhizomatous root system; so this could take a year or longer.”

Larry adds “I have never tried to eradicate mugwort with black plastic. For lesser weeds I have kept it on for one growing season but I think Mugwort could easily require more.

Highly Competitive Species include *Heliopsis helianthoides*, *Monarda fistulosa*, *Pycnanthemum tenuifolium*, *Vernonia noveboracensis*, *Eupatorium maculatum*, *Euthamia graminifolia*, *Solidago rugosa*, *Aster noveboracensis*, *Helianthus angustifolius*.” [Click here to open a .pdf of the full list.](https://www.untermyergardens.org/uploads/2/5/8/5/25851288/native_perennials_by_competitive_level.pdf)

1. **What if the ‘turf’ is a fescue that isn’t that bad looking? Can you plant live plants with deep roots?**

While many of the short rooted, monocultured turfgrasses, including fescues, can look nice if left to grow and flower beyond mower height, Cathy touched on her experiences planting into turf with Larry following up, and they intimated that while this method can be successful, the goal is to remove all turf grasses from the meadow ecosystem.

Graham adds “just FYI, we used a mix that was predominately creeping red fescue (*Festuca rubra*) in our small stone fruit orchard meadow, and we love how it established and turned out.”

1. **Could you try, at Untermyer, to intensively plant small islands of natives where the invasives have been removed (mix of live plants and seeds)? Then over time you could make more islands?**

Yes, it is likely that all the different approaches to meadow making will be staged over time at the upcoming Untermyer meadow, from this small “island” approach, to using seed mixes, small plugs and likely even some container plants.

1. **Would the love triangle at the bottom of the Rock & Stream Garden be a small sample of an intermingled plant grouping?**

Sure, the lower section of the Rock and Stream garden at Untermyer, affectionately known as the “love triangle,” could be described as such. While certainly not a true ecological meadow (containing some non-natives and woody plants) it is a densely planted bed with a backbone of native perennials, grasses, shrubs and trees, along with a handful of ornamental introduced species.

1. **What do you use for nurse crops?**

Oats during the growing season and Winter Rye if planted in fall. Plant either at 1/2 the recommended rate to avoid suppressing seed germination.

From Graham: “As per meadow expert and Prairie Nursery owner Neil Diboll, he only recommends using oats (*Avena sativa*) and NOT rye – to be sown at a rate of 50 lbs/acre.”

1. **What is the product you spray on Artemisia?**

From Graham “We have done spot controls with a product called Stinger, which is a selective postemergent herbicide for broadleaf weeds. We use a dye (so we can see where we have sprayed), and a back pack sprayer to apply. Works best if you cut the plant, either with pruners or a string trimmer, immediately before application. Recommended to do these applications in May and June before the plant gets several feet tall and hardens off.”

Larry is not comfortable recommending specific herbicides to a general audience.

**19) How can you find out about the weed suppressing ability of a particular native plant when making a choice of seed?**

Larry has provided a list of native species divided by competitive level. It is posted online here: <https://www.untermyergardens.org/uploads/2/5/8/5/25851288/native_perennials_by_competitive_level.pdf>

1. **What about deer pressure? We want to start a meadow but we have a large resident deer population in northern Westchester deer are a huge issue.**

Planting primarily grass species (which is almost the definition of a meadow) is a good start as deer avoid most if not all grass species.

1. **What is the tick box company?**

For more info on bait boxes:

<https://www.consumerreports.org/pest-control/bait-boxes-are-a-safe-way-to-keep-ticks-out-of-your-yard/>

<https://www.pestexinc.com/services/select-tcs-tick-boxes/>

1. **Will a list of North East meadow seed venders be shared on line and will a list of meadow plants mentioned in the lecture?**

If you would like to review the symposium to re-listen for specific plants and sources, please refer to the on-demand link that was sent out on February 14. And take a look at this great article from Larry’s website with a nice list of recommended meadow plants:

<https://lweanerassociates.com/wildflower-meadows-lets-get-real/>

Tip from the audience: [Hilltop Hanover Farm](https://hilltophanoverfarm.org/what-we-do/native-plant-nursery.html), Yorktown is an ecotype center, collecting local seed and growing plugs and offering seeds. Also, try [The Hickories in Ridgefield](https://www.thehickories.org/conservation-agriculture), CT.

**22) How are you going to remove the Japanese knotweed? There was info on removing mugwort by cutting back and applying an herbicide with dye. What approach will you be using for these two resistant invasives?**

At Untermyer we will employ any method that will work. Digging out entire root systems, constant mowing and some use of herbicide are all still on the table.

**23) How do you walk through the meadow without trampling the plants while doing maintenance, since a meadow is densely packed and you can’t step between the individual plants?**

You're correct, there is no way to avoid stepping on plants when working in a meadow landscape. We'll rely on individual resistance by the plant to bounce back from very infrequent foot falls, as well as the multilayered surrounding community to fill in any space left behind. No doubt plants will get damaged, but rarely will they be truly injured and certainly an occasional impact should not cause death.

**Keeping in Touch:**

**From Larry Weaner**: New Directions in the American Landscape (NDAL) our educational series has just begun it's winter programs on Ecology Base Landscape Design. Course offerings can be found at the NDAL website [ndal.org.](http://ndal.org/)

**From Graham Glauber**: Instagram [@plantsofinstagraham](https://www.instagram.com/plantsofinstagraham/)

**From Cathy Ludden**: Greenburgh Nature Center <https://greenburghnaturecenter.org/>

Here’s that link to the list of Native Perennials by Competitive Level:

<https://www.untermyergardens.org/uploads/2/5/8/5/25851288/native_perennials_by_competitive_level.pdf>

Native Perennials by http://weebly-file/2/5/8/5/25851288/native\_perennials\_by\_competitive\_level.pdf