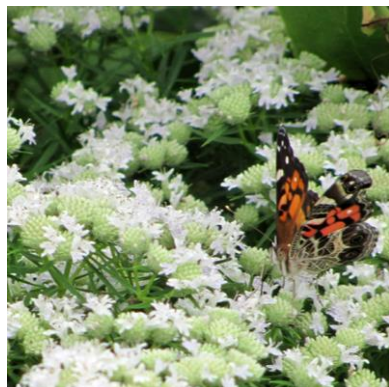


Deer Resistant Kit

2024 Owner's Manual



Five native species that bloom from Spring to Fall to provide beauty in your yard and critical habitat for pollinators

Great Swamp Watershed Association Native Plant Program 2024

Kit Contents

While many native perennials are adapted to herbivore browse, there is no denying that some species are less favored than others by deer and other native herbivores. In this kit, we have assembled some of these unpalatable plants to make a more deer resistant kit; however, ***if hungry enough, deer may still browse on these plants***. In spring, the long, tubular white flowers of foxglove beardtongue will be sure to appease hungry spring pollinators. During the summer months, your garden will be buzzing from the bee-magnet flowers of narrowleaf mountain mint and the purple blooms of anise hyssop. As fall approaches, your garden will burst with yellow and white blooms of stiff goldenrod and parasol whitetop. This kit does best in dry to moist soils with sun to part-sun.

Your 25-plant plug kit includes five species that thrive in sunny gardens (6 hours of sun per day minimum) and average to moist soil conditions. The kit includes:

- Anise Hyssop, *Agastache foeniculum*, 5 plugs
- Foxglove Beardtongue, *Penstemon digitalis*, 5 plugs
- Narrowleaf Mountain Mint, *Pycnanthemum tenuifolium*, 5 plugs
- Parasol Whitetop, *Doellingeria umbellata*, 5 plugs
- Stiff Goldenrod, *Solidago rigida*, 5 plugs

Important: Once you get home, check to see if your plugs need water. Keep their soil moist to the touch (but not soaked) until you are able to plant them in the ground.

Designing your garden: Design Considerations

Your Landscaping Style

These plants can fit any style from a formal garden to a naturalistic garden (like this design) to a wild garden with clumps. Pollinators will be equally happy with any of these.

Your Garden






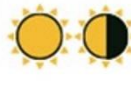



















This design can be easily altered to fit a deeper, wider, or curved garden bed. These designs use moderate 10-12-inch center-to-center plant spacings to easily fill a 80 or 50 square foot area. The goal is to eventually have plants pressing shoulder to shoulder for easier maintenance. Tightly spaced plants create a “green mulch” reducing the opportunity for weeds to sprout so that annual mulching is no longer required. You can choose to plant on a tighter spacing. A larger spacing will require more maintenance and mulching to manage weeds, until plants establish.

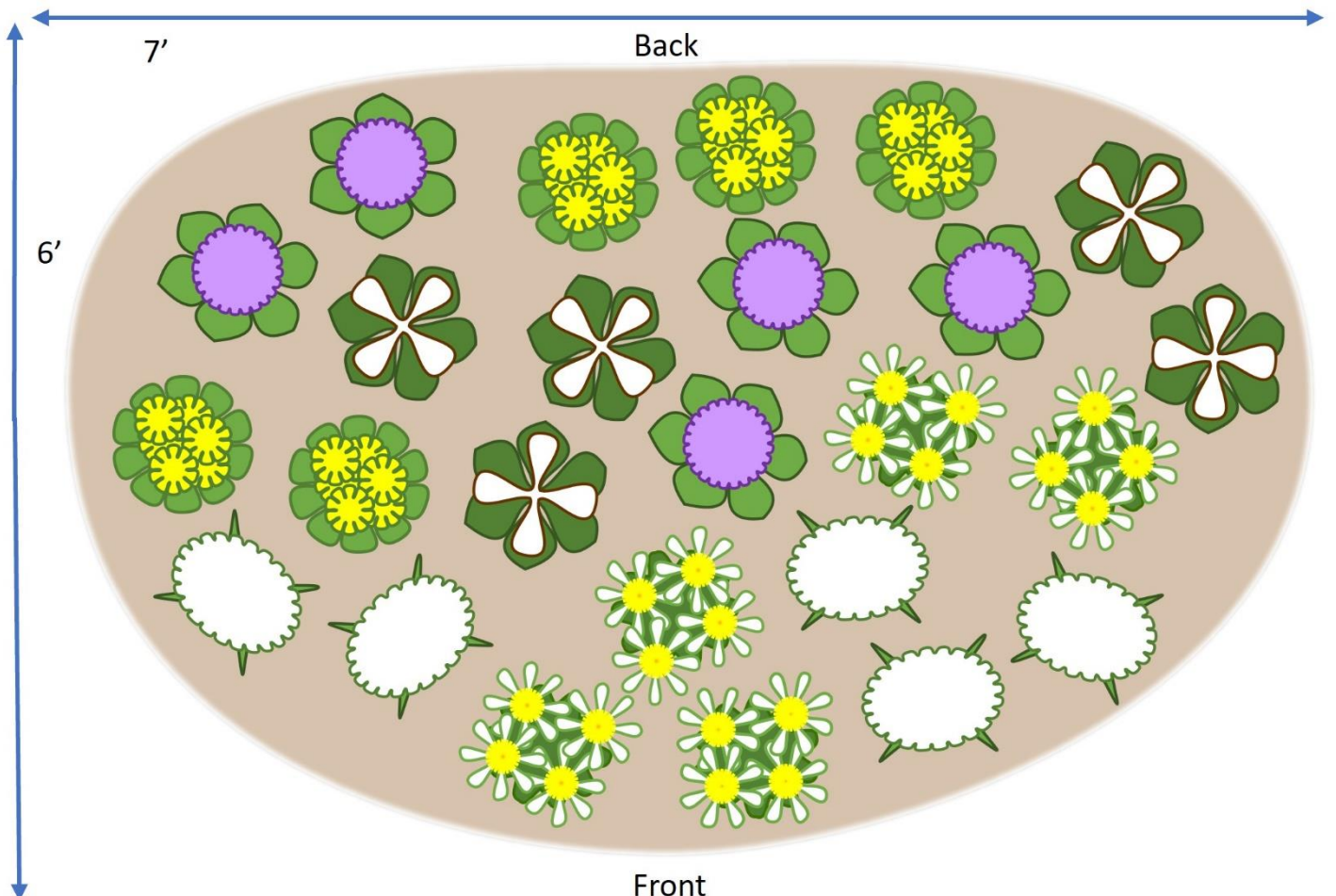
Add On!

These species can be planted alone or can be combined with other sun-loving kits or your favorite individual species to make a larger planting.

Designing your garden: Sample Design

Can be used as is or easily modified to fit your chosen space and your gardening goals. The deer icon indicates deer resistance; however, no plant is deer proof and **deer still may browse these species.**

<p>Anise Hyssop  </p>					<p>Foxglove Beardtongue  </p>				
			Jul - Sept	2-4'				May- Jun	3-4'
Color	Light	Moisture	Season	Height	Color	Light	Moisture	Season	Height
<p>Narrowleaf Mountain Mint  </p>					<p>Parasol Whitetop  </p>				
			June - Aug	2-3'				Aug - Sept	2-3'
Color	Light	Moisture	Season	Height	Color	Light	Moisture	Season	Height
<p>Stiff Goldenrod  </p>									
			Aug - Sept	3-4'					
Color	Light	Moisture	Season	Height					



Site Preparation

Know your sun, moisture, and soil conditions

The plants in the Deer Resistant Kit need 6 hours of sunlight per day, but more sun is always better.

These species grow well in average to moist soil conditions. You may need to water your plants during dry summer periods during the first season, after that they should only need watered during drought. Once their roots are established, they will generally not suffer permanent damage even without watering.

These native plants are selected for the clay-silt-loam soils typical for our piedmont or highlands region.

Prepare the bed

If planting in a prepared bed, remove grass and any other unwanted plants that may compete with your new native garden while establishing. Minimize soil disturbance.

To prepare a new native plant bed replacing previous plantings:

Sheet mulching is a great way to start! It is a back-saving “no-dig” strategy that kills unwanted weeds and grass by blocking out sunlight, allowing everything to die and decompose, minimizing soil disturbance and avoiding stirring up the weed seed bank.

- Mow the area you’d like to transform. Use a garden hose or a length of rope to create the garden outline.
- Cover the area with tapeless clean cardboard or 5 to 8 sheets of newspaper (don’t use glossy pages.) Overlap the edges to prevent gaps so that the turf is solidly covered. Wet down as you go.
- Cover cardboard with 3-4” of composted mulch. No soil amendments, no fertilizer. Native plants grow best in simple, nutrient poor soils.
- Poke many small holes through the cardboard to maintain rainwater infiltration.

During spring and summer, this will take at least a month, usually two, to kill enough weeds and turf. Dig spot planting holes straight through to plant plugs.

For more information, go to [The Lasagna Method \(Sheet Mulching\)](#) on our resources page.

If not planting immediately

- Keep plugs in a sheltered spot with enough sun and protect from frost/wind.
- Keep them moist but do not over-water.
- Trim plants back to 6-12” and pinch off flowers if they will not be planted for more than a month. With proper care, landscape plugs should stay healthy for many weeks.

Planting your plugs

- The only tool you need is a garden knife, trowel, or lightweight one hand pick.
- Extract each plug gently from its socket. Squeeze the sides to loosen. Push up from the bottom or use a narrow spatula to ease the plug out. Avoid pulling on the plant's stem!
- Lay out where you want to place each plug. Dig a hole large enough for the plug.
- Plant so the top of the plug is even with the top of the soil. Tamp soil firmly.
- Water the plugs in well.

Pollinator Garden Management

Native plants are low maintenance, but every garden requires management.

Over-watering can be harmful. Through the first year, water them when the soil surface is dry. The second year and beyond you should only need to water during a drought.

Insects may chomp on plants, but these plants are larval hosts to butterflies and will recover.

Undesirable insects like Japanese beetles or aphids may become a problem. Find a caterpillar-safe way to mitigate the problem (Rutgers agricultural extension hotline 609-989-6853 can help). Even "organic" insecticides can kill desirable insects like Monarch caterpillars or butterflies.

- Healthy pollinator gardens host beneficial insects like ladybugs that eat pests.
- Mechanical removal, eg. spraying, wiping, or picking off large bugs works well.

Deer may also chomp some of these plants. Some species are more deer resistant than others.

- Plants are most palatable when young and don't have deep roots to recover.
- Organic deer repellents successfully repel deer and rabbits but require re-applications
- Cages and fences can be effective physical barriers but check local ordinances.
 - Deer fences should typically be 7-8' tall but for small enclosures 5' is effective.

Shortening up giants. If your soil is rich, tall-growing bushy plants may grow taller than wanted and can flop over. Avoid this by cutting back by $\frac{1}{3}$ - $\frac{1}{2}$ from Memorial Day to July 4th to shorten plant height.

A slightly messy garden is the best habitat! Leaving the stalks through the winter provides food and shelter for wildlife as well as visual interest. Cut the stalks in early spring after insects are active. In the fall, leave the autumn leaves to protect overwintering pupae and firefly eggs in your yard. The leaves decompose, enriching the soil, but ensure they are removed in the spring to protect basal rosettes.

Monitor your garden as it changes. Remove invasive plants and weeds little and often. If species prove too prolific, divide and share. Diverse yards incorporate multiple layers and support more wildlife.

Experiment and have FUN!

About each plant

Anise Hyssop



Flowers: July - Sept
Light: Sun to Part Sun
Moisture: Dry to Moist
Height: 2-4 ft

Long blooming lavender-bluish flower spikes begin in mid-summer and persist as beautiful seed heads into winter. 2-4 ft. tall plants are excellent for pollinators, and finches eat winter seeds. Fragrant leaves are deer resistant and can be used to make herbal teas. Sun to part shade, average to moist soil.

Foxglove Beardtongue



Flowers: May - June
Light: Sun to Part Sun
Moisture: Dry to Moist
Height: 3-4 ft

Tubular white flowers with pale pink throat on elegant 3- 4 ft. stalks from April to June. Important species for bees, as well as specialist species like the pollen collecting moth and species of mason bees. Hummingbirds and hummingbird moths can also be seen collecting nectar. Host to the chalcedony midget moth. Low basal rosette when not in bloom. Full sun, part shade, dry to moist soil.

Narrowleaf Mountain Mint



Flowers: June - Aug
Light: Sun to Part Shade
Moisture: Dry - Moist
Height: 2-3 ft

A pollinator magnet of the highest order, narrowleaf mountain mint is beloved by numerous native bee and other insect pollinators and larval host to the wavy-lined emerald moth. With minty fragrant leaves on a clumping form reaching 1-3 ft, and tiny whitish-cream flower clusters on the tips of stems, this plant, is unpalatable to deer and rabbits. Spreads through rhizomes and at times may be aggressive. Sun to part sun, dry to moist soils.

Parasol Whitetop



Flowers: Aug - Sept
Light: Sun
Moisture: Average to Moist
Height: 2-3 ft

Also known as flat-topped aster, in fall bunches of daisy-like white flowers sit atop a dark red stem reaching up to 3 ft tall. Pairs well with other meadow plantings or as a standalone in a more formal garden setting. This perennial provides food for both songbirds and pearly crescent larva. Grows in moist soils and full sun.

Stiff Goldenrod



Flowers: Aug - Sept
Light: Sun
Moisture: Dry to Moist
Height: 3-4 ft

Reaching 3-4 ft and blooming in late summer, the yellow flowers of stiff goldenrod provide pollen and nectar for numerous species of pollinators. Host to the wavy-lined emerald and other moths, as well as many gall wasps. In late fall, songbirds and small mammals eat its seeds. Also goes by *Oligoneuron rigidum* with the recent reclassifications. Prefers dry to moist soils and full sun.

Your native garden throughout the year

Emerge, Bloom and Seed Timeline													
Species Name	Spring		Summer			Fall		Winter					
Anise Hyssop													
Foxglove Beardtongue													
Narrowleaf Mtn Mnt													
Parasol Whitetop													
Stiff Goldenrod													
<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20%;">Key:</td> <td style="width: 20%; background-color: #c8e6c9;">Emerge</td> <td style="width: 20%; background-color: #fff9c4;">Bloom</td> <td style="width: 20%; background-color: #ffe0b2;">Seed</td> </tr> </table>										Key:	Emerge	Bloom	Seed
Key:	Emerge	Bloom	Seed										

Garden Maintenance Timeframe				
Species Name	Spring	Summer	Fall	Winter
Anise Hyssop	divide and replant, cut back last year's stalks to 8-15"		leave seedheads for wildlife leave stems for habitat	
Foxglove Beardtongue	cut back last year's stalks to 8-15"		leave stems for habitat	
Narrowleaf Mtn Mnt	cut back last year's stalks to 8-15"		leave stems for habitat	
Parasol Whitetop	cut back last year's stalks to 8-15"		leave seedheads for wildlife leave stems for habitat	
Stiff Goldenrod	cut back last year's stalks to 8-15"		leave seedheads for wildlife leave stems for habitat	

Some native pollinators that frequent these plants

Species Name	Pollinators, Larval Hosts, and Specialist Species
Anise Hyssop	<p>Bees: bumble, leafcutter, long-horned, small resin Butterflies: great spangled fritillary, Peck's skipper, silver spotted skipper Others: bee flies, soldier beetles</p>
Foxglove Beardtongue	<p>Bees: bumbles, diggers, green sweats, leafcutters, masons, small carpenters, sweats Birds: ruby-throated hummingbird Butterflies: skippers Moths: clearwing hummingbird Others: syrphid flies Specialist Species: mason bee, pollen-collecting moth Larval Host Species: chalcid midget moth</p>
Narrowleaf Mountain Mint	<p>Bees: bumbles, carpenters, green sweat, leafcutters, long-horned, small resin, sweats, yellow-faced, Butterflies: American lady, common buckeye, eastern tailed-blue, hairstreaks (gray, banded and juniper), northern crescent, sachems, tiger swallowtail Moths: ailanthus webworm Wasps: beewolves, black, cuckoo, grass-carrying, great, great gold digger, paper, potter, sand, thynnid, Others: conopid fly, delta flower scarab, Formicidae ants, hairy flower chafer, soldier flies, syrphid flies, wedge-shaped beetle Larval Host Species: wavy-line emerald butterfly</p>
Parasol Whitetop	<p>Butterflies: buckeye Larval Host Species: brown-hooded-owlet</p>
Stiff Goldenrod Stiff Goldenrod (continued)	<p>Bees: bumble, green sweat, long-horned, small carpenter, sweat, yellow-faced Butterflies: crescent, monarch Moths: scapes Wasps: carrot, grass-carrying, great golden digger, mason, paper, potter, square-headed, thread-waisted, yellowjacket Others: bee flies, greenbottle flies, goldenrod soldier beetle, locust borer beetle, syrphid flies, tachinid flies Specialist Species: mining bees Larval Host Species: brown-hooded owlet, dart moth, goldenrod gall fly</p>

Put your garden on the Map

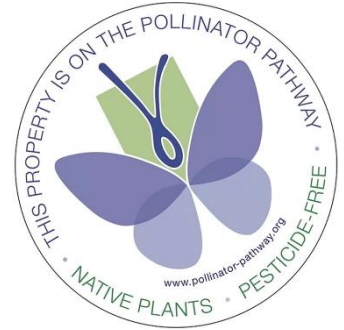
Each new native planting adds to the Pollinator Pathway that renews and extends wildlife habitat across our neighborhoods and region, whether it is one container on the patio or a fully native backyard.

If you plant it, the pollinators and birds really will come!

Please take a minute to [Register Your Pollinator Garden](#) on the map to encourage the growing sustainable landscaping community.

To encourage your neighbors, we also recommend attractive explanatory garden signs.

You can purchase a Pollinator Pathway Garden sign through the GSWA plant sale.



If you have questions about your native plant garden

Feel free to email us at plantsale@greatswamp.org We want your pollinator garden to get a good start so it will provide you with years of enjoyment!



Great Swamp Watershed Association

The Passaic River **WATERKEEPER**® ALLIANCE Affiliate

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