Penfield Rec & Library Sunny Pollinator Garden



Plants are social creatures



A designed garden that evokes natural habitat



Seed heads are food for birds and habitat for pollinators





Prepping your site



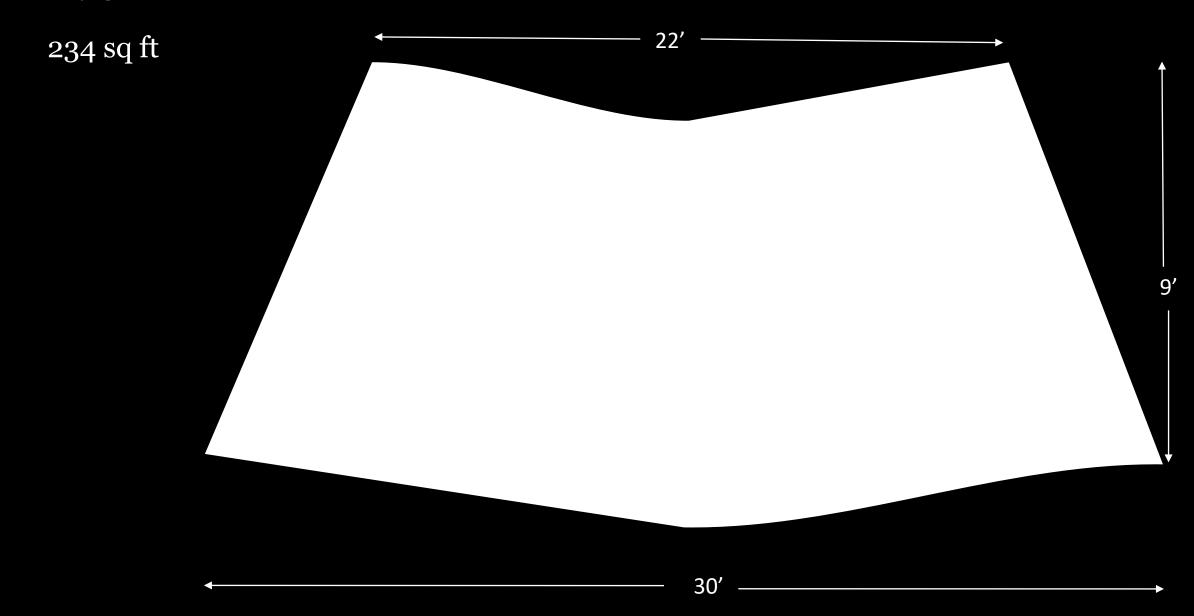
Prepping your site

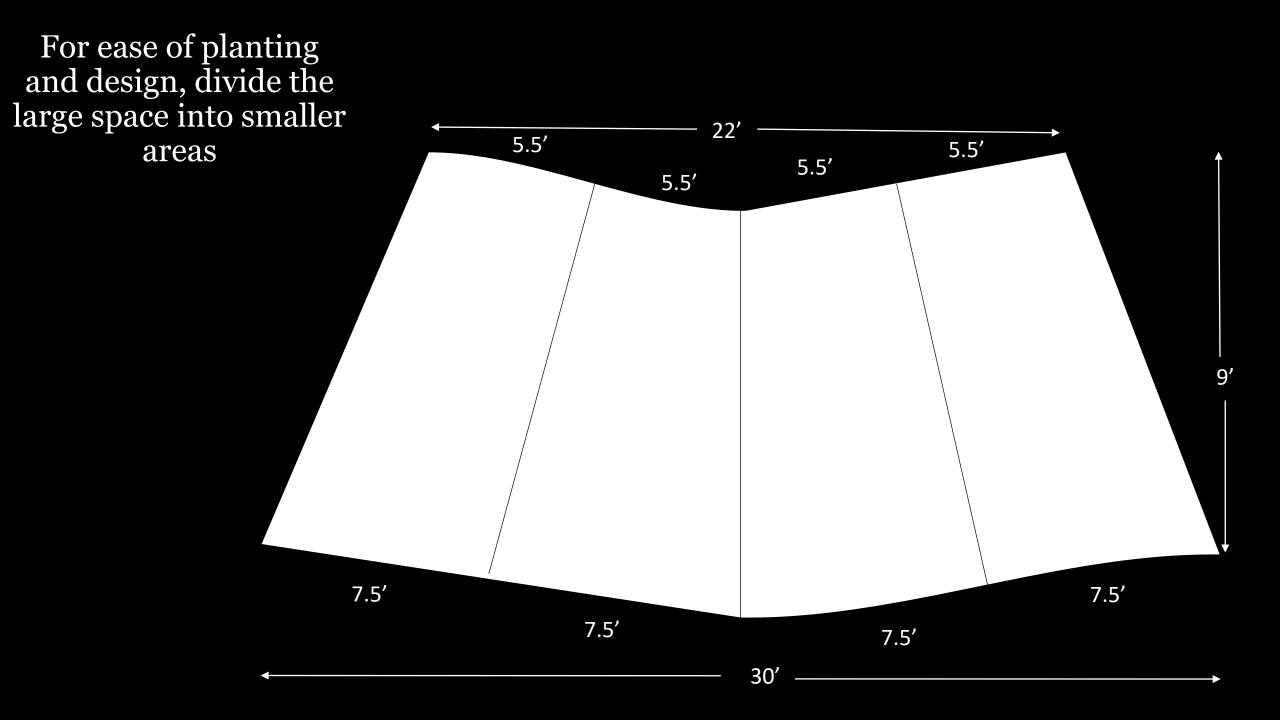


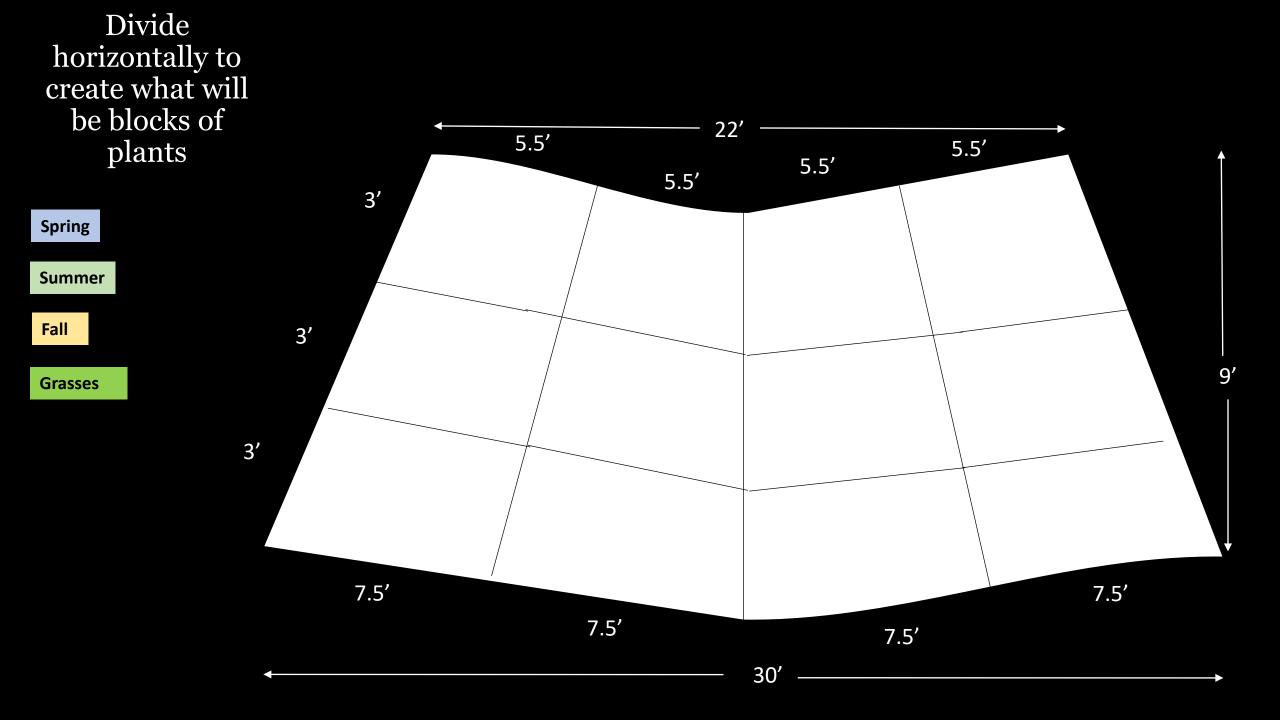
Prepping your site



dimensions of the sunny garden







Spring

Ba *Baptisia australis* Blue False Indigo Za *Zizia aurea* Golden Alexanders Pd *Penstemon digitalis* Foxglove Beardtongue

Summer

At Asclepias tuberosa Butterfly Weed
Ai Asclepias incarnata Rose Milkweed
Epu Echinacia purpurea Coneflower
Epe Eupatorium perfoliatum Boneset
Lp Liatris pycnostachya Prairie Blazing Star
Md Monarda didyma Red Monarda
Mf Monarda fistulosa Pink Monarda
Pm Pychnanthemum muticum Clusteered Mountain Mint
Pv Pychnantheemum virginianum Virginia Mountain Mint

Fall

Sri Solidago rigida Stiff Goldenrod Sru Solidago rugosa 'Fireworks' Wrinkle Leaf Goldenrod Sl Symphyotricum leavis Smooth Aster Sd Symphiotrichum divaricatus White Wood Aster Sna Symphyotrichum novae-anglae New England Aster

Grasses

- X Schizachyrium scoparium Little Bluestem
- X Deschampsia cespitosa Tufted Hair Grass
- X Eragrostis spectabilis Purple Love Grass

Spring

Start filling in

Ba Baptisia australis 1 gal your plants!

3'

Pd Penstemon digitalis 12

Summer

At Asclepias tuberosa Butterfly weed
Ai Asclepias incarnata Rose Milkweed
Epu Echinacia purpurea Coneflower
Epe Eupatorium perfoliatum Boneset
Lp Liatris pynchnostachya Blazing Star
Md Monarda didyma Red Beebalm
Mf Monarda fistulosa Pink Beebelm
Pm Pychnanthemum muticum
Clustered Mountain Mint
Pv Pychnantheemum virginianum
Virginia Mountain Mint

Fall

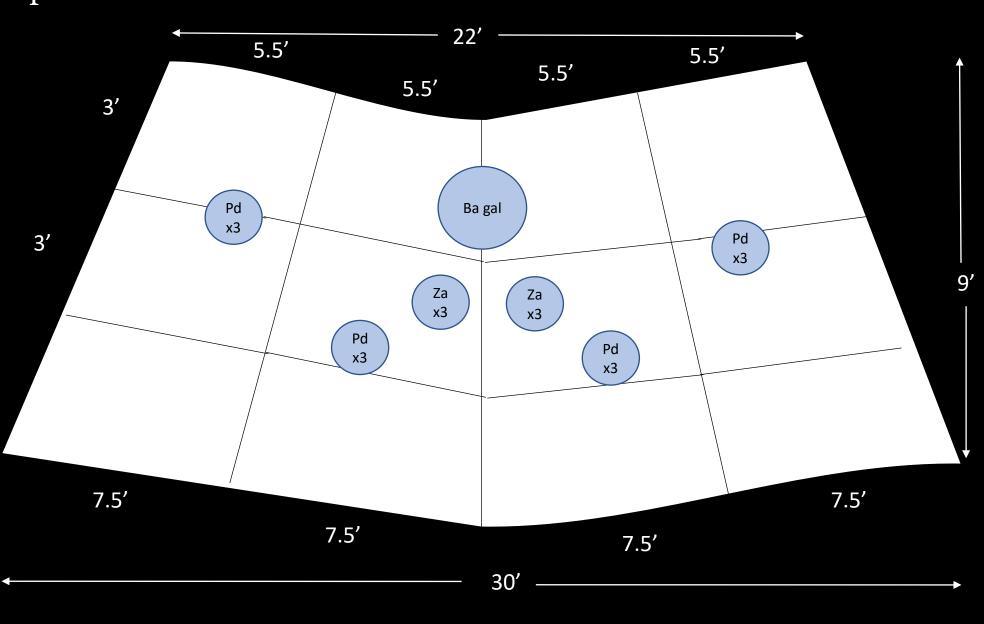
Sri Solidago rigida
Sru Solidago rugosa 'Fireworks'
Sl Symphyotricum leavis
Sd Symphiotrichum divaricatus
Sna Symphyotrichum novae-anglae

Grasses

Schizachyrium scoparium

★ Deschampsia cespitosa

X Eragrostis spectabilis





Ba <u>Baptisia australis</u> 1 gal Za <u>Zizia aurea</u> 6 <u>Pd Penstemon digitalis</u> 12

Fill in your plants!

Summer

At Asclepias tuberosa 6
Ai Asclepias incarnata 6
Epu Echinacia purpurea 6
Epe Eupatorium perfoliatum 6
Lp Liatris pynchnostachya 6
Md Monarda didyma 3
Mf Monarda fistulosa 3
Pm Pychnanthemum muticum 3
Pv Pychnantheemum virginianum 3

Fall

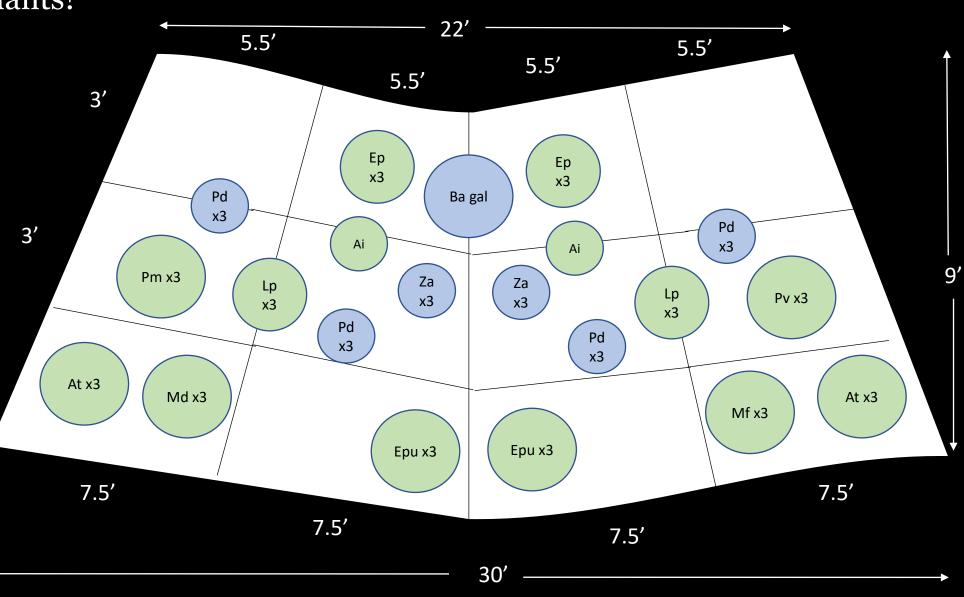
Sri Solidago rigida
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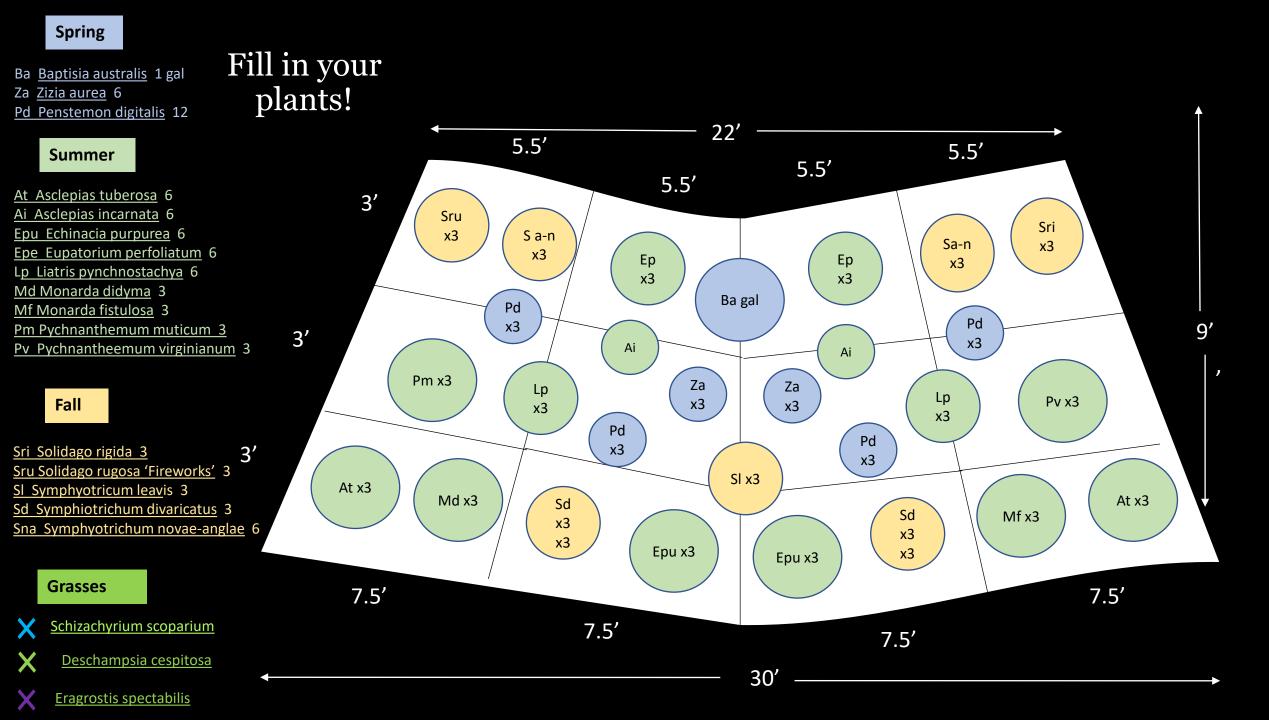
Grasses

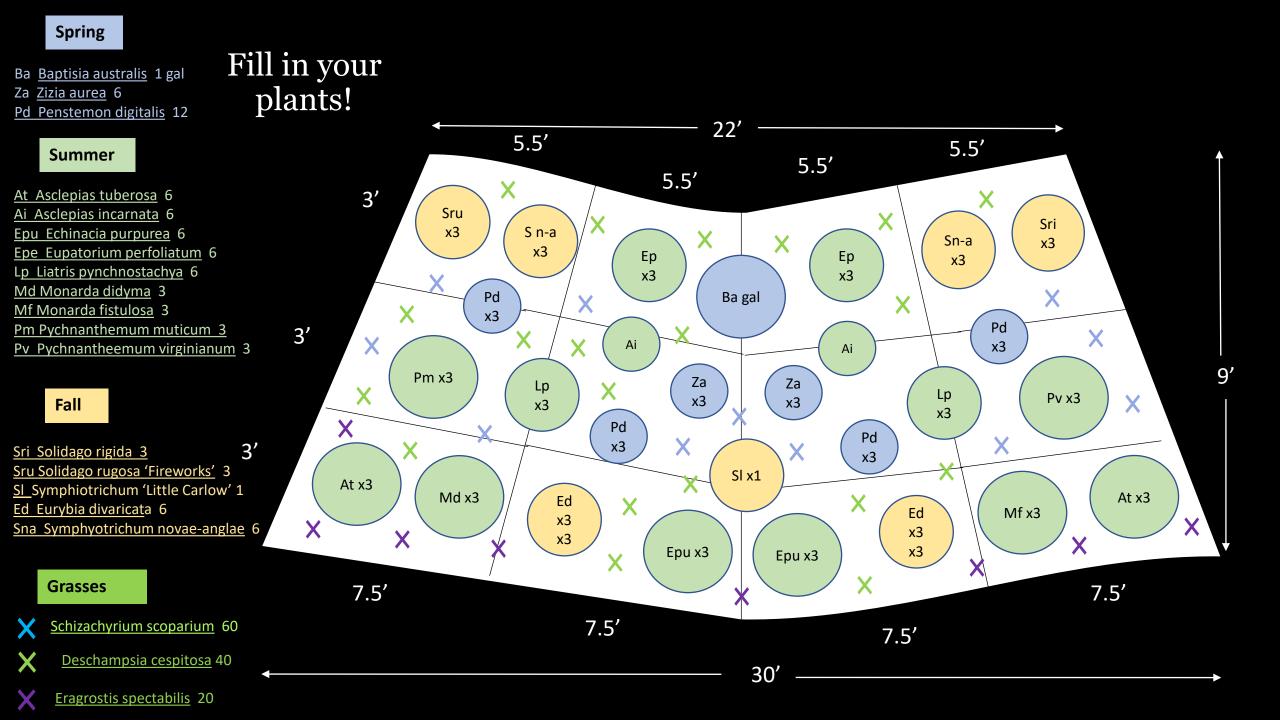
X Schizachyrium scoparium

Deschampsia cespitosa

Eragrostis spectabilis













Registration Starts March 9

Apr 22 and 29 or May 6 and 13

Get involved! healthyyardsmc@gmail.com

Baptisia australis & Zizia aurea

Baptisia australis Blue False Indigo Zizia aurea Golden Alexander

Bloom Time: early June

Bloom Time: early June

Height: 36 - 48"

Height: 1.5 - 3'

Width: 36 - 48"

Width: 1.5 - 2'

Host Plant

Host Plant



Penstemon digitalis

Penstemon digitalis Foxglove Beardtongue

Bloom Time: late June

Height: 18 - 24"

Width: 12"



Asclepias Tuberosa

Asclepias tuberosa Butterfly weed

Bloom: June

Height: 2 - 3"

Width: 1 - 2'

Host Plant



Asclepias incarnata

Aesclepias incarnata Swamp Milkweed

Bloom: early July

Height: 3 - 4'

Width: 2 - 3'

Host Plant



Echinacea purpurea

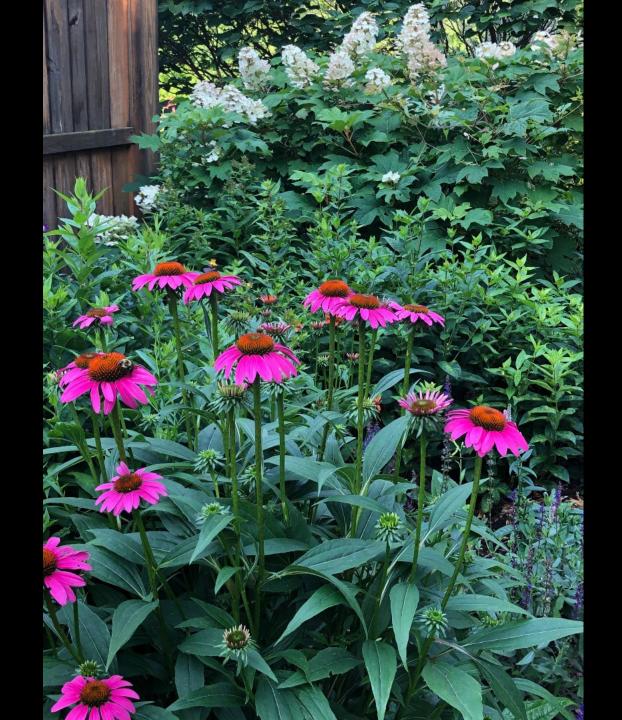
Echinacea purpurea Purple Coneflower

Bloom Time: July - August

Height: 18 - 22"

Width: 15 - 18"

Host Plant



Eupatorium perfoliatum

Eupatorium perfoliatum Boneset

Bloom: July -August

Height: 4-5'

Width: 2-3"





<u>Liatris</u> <u>pynchnostachya</u>

Liatris pynchnostachya Prairie Blazing Star Bloom: July -August

Height: 4'

Width: 12-18"

Valuable nectar source





Monarda didyma

& Monarda fistulosa





Monarda didyma Red Beebalm

Bloom: July -August

Height: 4'

Width: 2'



Monarda fistulosa Pink Beebalm Bloom: July - September

Height: 4'

Width: 2'

Pychnanthemum muticum & P. virginianum





Pychnanthemum muticum Short toothed Mountain Mint Bloom: July-Sept

Valuable nectar source

Height: 2-3'

Width: 2'



Pychnanthemum
virginianum
Virginia Mountain
Mint
Bloom: July-Sept

Height: 2-3'

Width: 1'



Solidago rigida & S. rugosa 'Fireworks'



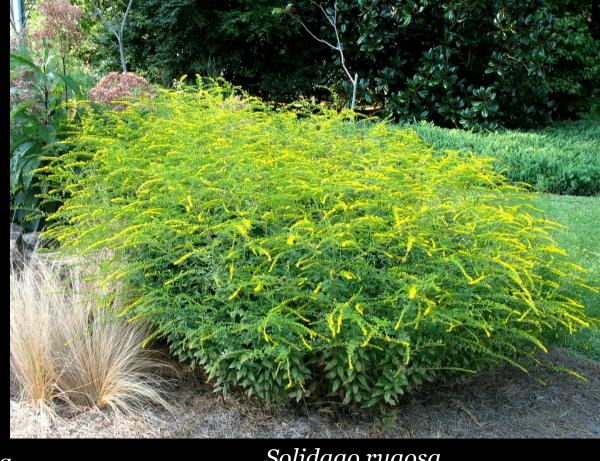
Keystone Species

> Solidago rigida Stiff Goldenrod

Bloom: Aug-Sept

Height: 4-5'

Width: 1-2'



Solidago rugosa 'Fireworks'

Bloom: Sept- Oct

Height: 3-4'

Width: 2-3'

Symphyotrichum divaricatus





Keystone Species

Symphyotricum divaricatus White Wood Aster

Bloom: Sept-Oct Height: 1-2' Width: 2-3'

Symphyotricum laevis

Symphyotricum laevis Smooth Blue Aster

Bloom: September

Height: 2-3"

Width: 2-3'

Keystone Species





Symphyotrichum novae-anglae

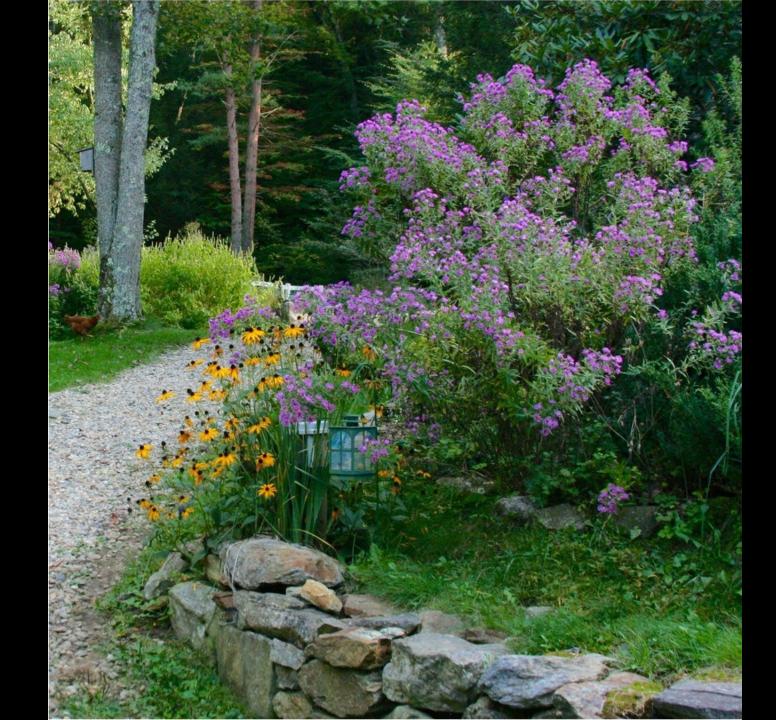


Symphyotrichum novae-angliae New England Aster

Bloom: Aug - Sept

Height: 4-5' Width: 2-3"

Keystone Species



Schizachyrium scoparium

Schizachyrium scoparium Little Bluestem

Bloom: July -Octobeer

Height: 3'

Spacing: 2-3"





Deschampsia cespitosa

Deschampsia cespitosa Tufted Hair Grass

Bloom: July

Height: 2-3'

Width: 1-2"



Eragrostis spectabilis

Eragrostis spectabilis Purple Love Grass

Bloom: Sept - Aug

Height: 1-2"

Width: 1-2"





Baptisia australis & Zizia aurea

Baptisia is a native host plant for the Wild Indigo Duskywing, Eastern Tailed-Blue, Orange Sulphur, Clouded Sulphur, Frosted Elfin, and Hoary Edge butterflies. These species lay their eggs on the leaves of the plant, which provide the first food for the caterpillars.

Zizia aurea, also known as Golden Alexanders and Golden Zizia, is a native wildflower normally found east of the Rocky Mountains. **It is a host plant of the Black Swallowtail butterfly (Papilio polyxenes) and the Ozark Swallowtail butterfly (Papilio joanae)**.

Penstemon digitalis

Foxglove Beardtongue's attractive white blooms appear in June-July and attract honeybees, bumblebees, Miner bees, Mason bees, and hummingbirds. Penstemon digitalis is also one of the host plants for the Chalcedon Checkerspot and Edith's Checkerspot.

Host Plants: Milkweed

Planting milkweed is a one of the many ways you can help the monarch butterfly. Milkweed is the sole host plant to the monarch butterfly's caterpillar, but keeping milkweed as part of our landscape is important to more than just monarch butterflies. Here some species that also use milkweed in various ways.

What Feeds on Milkweed Nectar? Bees:

- •Bumblebees (*Bombus* spp.) these are one of the few native social bees, although their colonies are much smaller than those of the non-native honeybee; and only the queen overwinters.
- •Carpenter bees Carpenter bees resemble bumble bees, but the upper surface of their abdomen is bare and shiny black
- •Yellow-faced bees, *Hylaeus* sp.
- •Plasterer bees, Colletes sp.
- •Sweat or Halictid (family name) bees these are often bright metallic colors (e.g., iridescent green)
- •Leaf-cutting bees (Family name: Megachildae) so called because they cut pieces of leaves to use in their nests

<u>Echinacea purpurea</u>

Coneflower: Many different species of butterflies including monarchs, tiger swallowtails, skippers, American ladies, red admirals, and fritillaries will also feed on the nectar. In addition, purple coneflower is a host plant for the caterpillars of the silvery checkerspot butterfly which feed on the plant's foliage.

Eupatorium perfoliatum

Boneset is a host plant for butterfly and moth larvae (caterpillars), including Lined Ruby Tiger Moth (Phragmatobia lineate), Burdock Borer Moth (Papaipema cataphracta), Three-lined Flower Moth (Schinia trifascia), Blackberry Looper (Chlorochlamys chloroleucaria), Geometrid Moth (Semiothisa continuata) and Clymene Moth (Haploa clymene).

Monarda didyma and Monarda fistulosa

Beebalm are **larval host plants for the orange mint and hermit sphinx moths**. They are also a
nectar source for hummingbirds, native bees
(including bumble bees), honey bees, butterflies, and
moths. The name Oswego Tea comes from the fact that
the leaves were used for a tea by the Oswego Indians of
New York.

Valuable Nectar Source:

Liatris pynchnostachya

Just about any blazing star that's native to your region will be attractive to all manner of pollinators, but *L. pilosa*, *L. scariosa*, *L. aspera*, *L. pychnostachya*, *L. spicata* and *L. punctata* are amongst the species that are recommended as monarch nectar sources on our guide lists. Liatris species are host plants for the flower moths *Schinia gloriosa* and *Schinia sanguinea*, both of which feed exclusively on the genus. The plants are of course visited by all manner of bees, hover flies, and other insects as well.

Best for: Providing nectar sources for monarchs and other butterflies. Xerces Society

Valuable Nectar Source:

Pychnanthemmum Muticum & P. virginianum

The abundant nectar of Mountain Mints attracts a dizzying array of insects. Mountain Mint draws bees, wasps, butterflies, moths, ants, flies and beetles. I cannot think of another plant genus that attracts such a diversity of insects. I have seen some extraordinarily large predatory wasps on Mountain Mints – not to worry, though, these wasps are highly effective predators of many insect pests. Kim Eierman Eco-Beneficial

Keystone species:

Solidago

Tallamy's studies show that golden- rods provide food and shelter for 115 butterfly and moth species in the U.S. Mid-Atlantic alone. More than 11 native bee species feed specifically on the plants, and in fall, monarch butterflies depend on them for nectar to fuel their long migrations. Even in winter, songbirds find nourishment from goldenrod seed heads long after the blossoms have faded.

WHEN MANY ALLERGY SUFFERERS hear the word "goldenrod," they think, "Achoo!" But the truth is these plants are innocent victims of a long-standing myth.

Keystone species:

Solidago

Goldenrods bloom at the same time and in many of the same places as <u>ragweeds</u>. Both are members of the daisy family, but there's a significant difference. Pollinated by wind, ragweeds' dull green flowers release lightweight pollen that travels for miles in all directions. A single plant can propel as many as 1 billion irritating pollen grains—bad news for the 50 to 60 million Americans who suffer from seasonal hay fever.

By contrast, goldenrods' bright yellow blossoms produce pollen too heavy to be carried by wind. "They rely entirely on animal pollinators," says University of Delaware entomologist <u>Doug Tallamy</u>.

Keystone species:

Symphyotricum species

A diverse genus that supports 112 species of insects, asters are a valuable late-season (September – November) source of pollen for bees and nectar for bees and butterflies. During the summer, the asters are host plants to the caterpillars of some of the crescent and checkerspot butterflies. As summer wanes, asters start blooming with colors of white, purple, and pink depending on the species. Fall provides a unique challenge for pollinators and asters help with both migration and overwintering butterflies and bees. Dyck Arboretum

Schizachyrium scoparium

When most people plant a pollinator garden, they rarely think of native grasses, opting instead for the showy flowers and obvious food sources provided by wildflowers. Few realize that many native grasses serve as the larval host plants for a diversity of skipper butterflies.

The world just wouldn't be the same without these tiny creatures, and you'll surely miss them if they are absent from your garden. Little bluestem serves as a larval host for 9 skipper species. In addition to these benefits to butterflies, native bunch grasses provide overwintering habitat for a variety of other insects and wildlife as well. Female bumble bee queens nest at the base of bunch grasses where they will be protected until they emerge in the spring.



Deschampsia cespitosa

Beyond ornamental uses, tufted hairgrass is a premier restoration species, tolerating partial shade, poorly drained sites, and even polluted soils and polluted air. It's an ideal species for use in rain gardens, bioswales, roadsides, streambanks and riparian area plantings.

caterpillars of dozens of species of butterflies feed on the foliage of this plant, especially skippers



Eragrostis spectabilis

Purple lovegrass is a tough plant for tough places. This warm season, low-growing bunchgrass has flat, coarse, and mostly basal leaves throughout the growing season. In late summer, the blue-green tufts are topped by airy, delicate blooms that create a hazy, purple layer above, particularly striking when this grass is planted in masses.

Wildlife Benefits: Supports the paradoxical grass moth as a larval host plant; this grass is exceptionally popular with insect herbivores such as leafhoppers. Birds use the dry panicles for nesting.

