SACRED GROUNDS®

TOLEDO

Native Plant Pollinator and Rain Garden Design Packet

The National Wildlife Federation's Sacred Grounds program engages diverse communities in building healthier habitats and neighborhoods through the process of installing native plant gardens/wildlife habitats at houses of worship.

Together we work to:

- **Create a network of wildlife habitats and rain gardens** using native plants to improve ecosystem services including water quality.
- **Strengthen social ties** by providing usable green space for community fellowship and gatherings.
- **Develop new community partnerships** and extend our reach to grow a diverse, grassroots environmental movement.
- **Establish pathways for youth and adults to connect with the numerous benefits and power of nature** in their neighborhood.

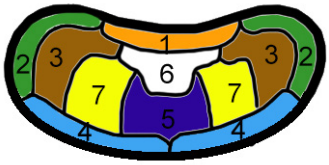
The Sacred Grounds Toledo team is a partnership of organizations focused on expanding Sacred Grounds work and increasing the greater network of native plant ecosystems such as pollinator and rain gardens throughout the Toledo area. Sacred Grounds Toledo organizations include:

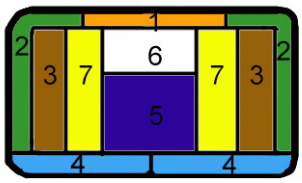
This native plant pollinator garden design packet provides the basic information needed, including sample garden templates, to start a pollinator garden in the Toledo area. The native plants featured in the designs can typically be found at local native plant nurseries and native plant sales in the area.

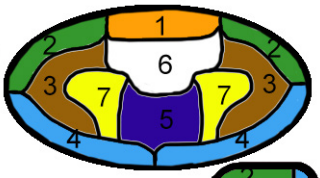
For up to date information about where to purchase native plants and information about local events, visit www.sacredgroundstoledo.org.

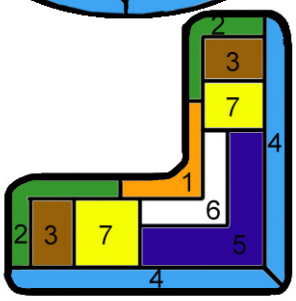
For additional information about the NWF Sacred Grounds program, visit www.nwf.org/sacredgrounds.

The sample garden designs, or templates, in this packet have been modified from the BluePrints provided in the appendix of *The Blue Thumb Guide to Raingardens* by Rusty Schmidt, Dan Shaw and David Dods ©2007. Like the authors who helped train the first rain garden enthusiasts in the Toledo area, we hope to provide ideas for rain gardens and pollinator gardens for drier soils that will work well in most landscapes and be beautiful and easy to maintain. We have used one basic template, but the same planting areas can be used in gardens with a variety of shapes.







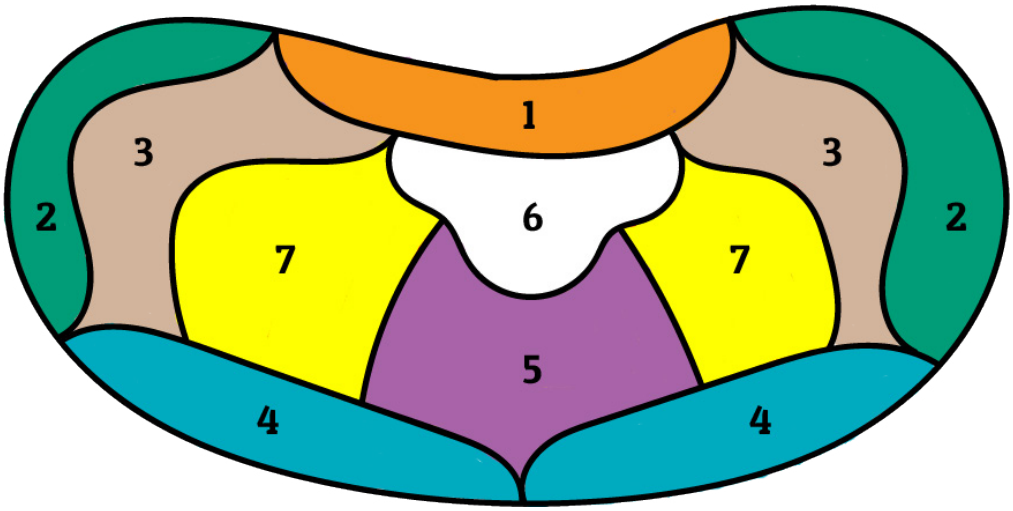


There are four templates in this packet: a rain garden and pollinator garden with drier soils in full sun and a rain garden and pollinator garden with drier soils in part shade to shade. All of the gardens have been designed for clay, the most common soil type in our area, but substitutions that prefer sandy loam are indicated with sand in parentheses. We have limited each garden to seven kinds of native plants to make the plants easy to learn and weeds easier to discern, but you can use two different plants in the paired planting areas (2,3,4,7), if you like, to increase the diversity. Just select a native plant from the list of substitutions provided or another of your choosing that likes the conditions of the planting area and will be visible from the front of the garden. Shrubs can be added to back, sides or even middle of the garden. For a pollinator garden in drier soils, the tallest plants will generally be at the back and the soil moisture will be average to dry across the garden. In a rain garden, which is shaped liked a dish and will collect water during rain events, the need for height and moisture conditions will vary quite a bit. Here are some things to consider:

- **Planting Area 1 (Orange)** is the back edge of the garden and will have dry to average soil moisture and shallow water levels. Tall plants will work best.
- **Planting Areas 2 (Green)** are the side edges of the garden and will have dry to average soil moisture and shallow water levels. Medium height plants will work best.
- **Planting Areas 3 (Brown)** are the side slopes of the garden and will have average to moist soil conditions with medium water levels. Medium height plants will work best.
- **Planting Areas 4 (Blue)** are the front edge of the garden and will have dry to average soil moisture with shallow water levels. Shorter plants will work best.
- **Planting Areas 5 and 6 (Purple and White)** are the center of the garden and will have moist soil conditions and the deepest water levels. Medium to tall plants will work best.
- **Planting Areas 7 (Yellow)** are the lowest part of the sides of the garden and will have average to moist soil conditions and medium to deep water levels. Medium height plants will work best.

When you have finished picking your native plants, use the worksheet provided to look at the colors and bloom times across your garden to make sure you will have lots to enjoy through the growing season and the grid to estimate how many plants you will need. The pictures of the most commonly used plants at the end of this packet can help. Happy planting!

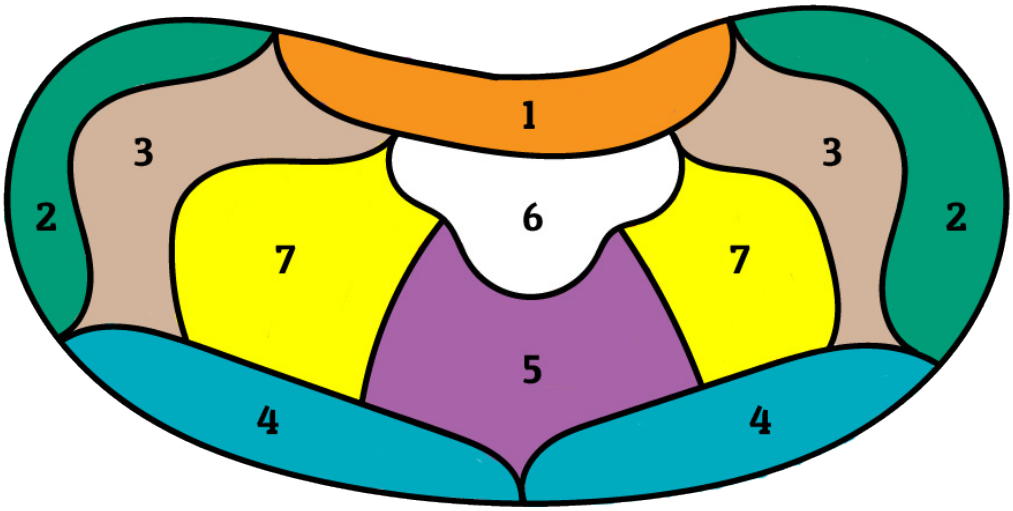
Wet Pollinator Garden/Rain Garden – Full Sun



Zone	Native Plant	Color	Height	Bloom Time
1	Stiff Goldenrod (*Solidago rigida*)	Yellow	4’	August-October
2	Dense Blazing Star (*Liatris spicata*)	Purple	5’	July-September
3	Swamp Milkweed (*Asclepias incarnata*)	Pink	4’	June-August
4	Butterfly Milkweed (*Asclepias tuberosa*)	Orange	2’	June-August
5	Cardinal Flower (*Lobelia cardinalis*)	Red	4’	July-September
6	Wild Bergamot (*Monarda fistulosa*)	Purple	4’	July-September
7	Golden Alexander *(Zizia aurea)*	Yellow	3’	April-June
	Substitutions			
1	Brown-Eyed Susan (*Rudbeckia triloba*)	Yellow	5’	August-October
1	New England Aster* (Can Flop) (*Aster novae-angliae*)	Purple	5’	August-October
2	Foxglove Beardtongue (*Penstemon digitalis*)	White	3’	June-July
2	Little Bluestem (Grass) (*Schizachyrium scoparium*)	Green	3’	July-October
3	Virginia Mountain Mint* (*Pycnanthemum virginianum*)	White	3’	June-September
4	Lanceleaf Coreopsis (Sand) (*Coreopsis lanceolata*)	Yellow	2’	May-August
4	Black-Eyed Susan (*Rudbeckia hirta*)	Yellow	2’	June-October
5	Great Blue Lobelia (*Lobelia siphilitica*)	Blue	3’	July-October
6	Blue Vervain (*Verbena hastata*)	Blue	5’	July-September
6	Purple Coneflower (*Echinacea purpurea*)	Purple	4’	July-September
7	Blue Flag Iris (*Iris versicolor*)	Blue	3’	May to July

** Indicates an aggressive plant that will likely spread significantly*

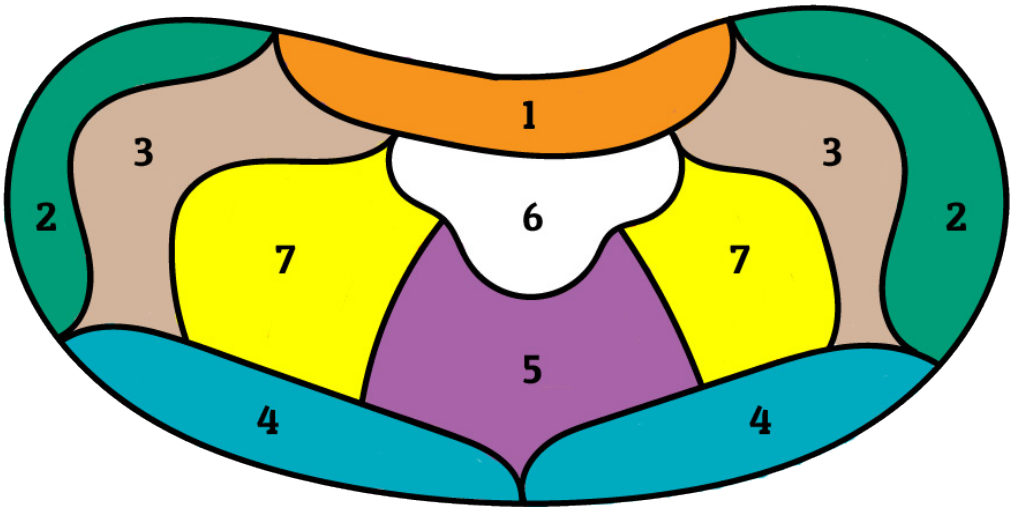
Wet Pollinator Garden/Rain Garden – Partial Shade



Zone	Native Plant	Color	Height	Bloom Time
1	Little Bluestem (Grass) (*Schizachyrium scoparium*)	Green	3’	July-October
2	Wild Bergamot (*Monarda fistulosa*)	Purple	4’	July-September
3	Swamp Milkweed (*Asclepias incarnata*)	Pink	4’	June-August
4	Pennsylvania Sedge (*Carex pennsylvanica*)	Green	8”	June-August
5	Blue Flag Iris (*Iris versicolor*)	Blue	3’	May-July
6	Cardinal Flower (*Lobelia cardinalis*)	Red	4’	July-September
7	Black-Eyed Susan (*Rudbeckia hirta*)	Yellow	2’	June-October
	Substitutions			
1	Green- Headed Coneflower (*Rudbeckia laciniata*)	Yellow	6’	July-October
2	Virginia Mountain Mint* (*Pycnanthemum virginianum*)	White	3’	June-September
3	New England Aster* (Can Flop) (*Aster novae-angliae*)	Purple	5’	August-October
4	Butterfly Milkweed (*Asclepias tuberosa*)	Orange	2’	June-August
5	Turtlehead (*Chelone glabra*)	Cream	5’	July-September
6	Solomon’s Seal (*Polygonatum biflorum*)	Cream	4’	May-June
6	Jacob’s Ladder (*Polemonium reptans*)	Blue	1’	April-June
7	Great Blue Lobelia (*Lobelia siphilitica*)	Blue	3’	July-October

** Indicates an aggressive plant that will likely spread significantly*

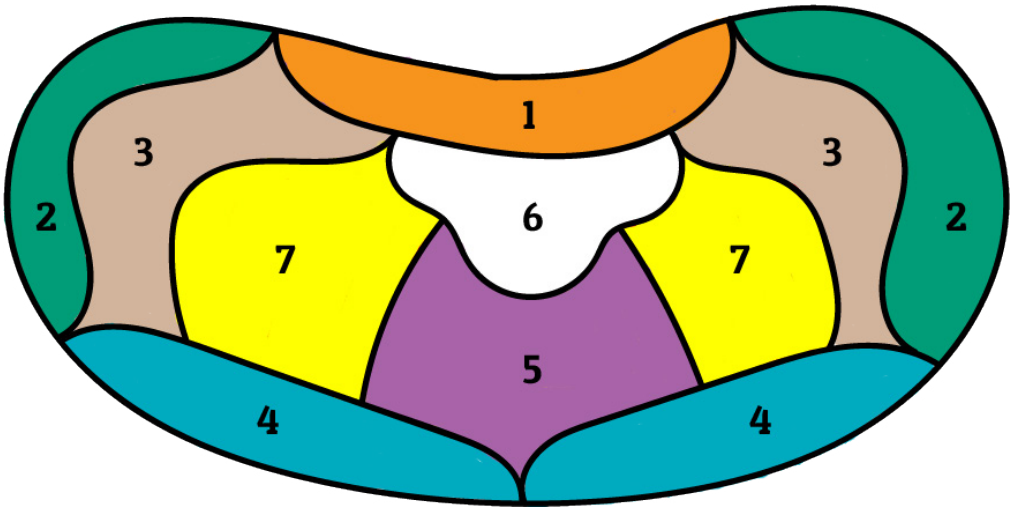
Dry Pollinator Garden – Full Sun



Zone	Native Plant	Color	Height	Bloom Time
1	Stiff Goldenrod (*Solidago rigida*)	Yellow	4’	August-October
2	Great Blue Lobelia *(Lobelia siphilitica)*	Blue	3’	July-October
3	Wild Bergamot (*Monarda fistulosa*)	Purple	4’	July-September
4	Butterfly Milkweed (*Asclepias tuberosa*)	Orange	2’	June-August
5	Virginia Mountain Mint* (*Pycnanthemum virginianum*)	White	3’	June-September
6	Dense Blazing Star (*Liatris spicata*)	Purple	5’	July-September
7	New England Aster* (Can Flop) (*Aster novae-angliae*)	Purple	5’	August-October
	Substitutions			
1	Black-Eyed Susan (*Rudbeckia hirta*)*	Yellow	2’	June-October
2	Purple-Headed Coneflower (*Echinacea purpurea*)	Purple	4’	July-September
3	Foxglove Beardstongue (*Penstemon digitalis*)	White	3’	June-July
3	Sky Blue Aster (*Aster azureus*)	Blue	3’	August-October
4	Hoary Vervain (Verbena stricta)	Blue	2’	June-September
4	Lanceleaf Coreopsis (Sand) (*Coreopsis lanceolata*)	Yellow	2’	May-August
5	Swamp Milkweed (*Asclepias incarnata*)	Pink	4’	June-August
6	Grey-Headed Coneflower (*Ratibida pinnata*)	Yellow	5’	July-October
7	Little Bluestem (Grass) (*Schizachyrium scoparium*)	Green	3’	July - October

** Indicates an aggressive plant that will likely spread significantly*

Dry Pollinator Garden – Partial Shade

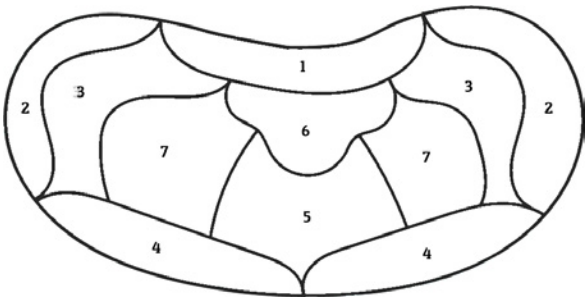


Zone	Native Plant	Color	Height	Bloom Time
1	Purple Joe Pye Weed (*Eupatorium purpureum*)	Pink	6’	July- September
2	Wild Geranium (*Geranium maculatum*)	Purple	1’	April-July
3	Ohio Spiderwort (*Tradescantia ohiensis*)	Purple	3’	May-July
4	Butterfly Weed (*Asclepias tuberosa*)	Orange	2’	June-August
5	Early Goldenrod (*Solidago juncea*)	Yellow	4’	July-September
6	Woodland Sunflower (*Helianthus strumosis*)	Blue	6’	June-August
7	Columbine (*Aquilegia canadensis*)	Red	2’	April-June
	Substitutions			
1	Showy Goldenrod (*Solidago speciosa*)	Yellow	5’	August - October
2	Prairie Thimbleweed (*Anemone cylindrica*)	White	2’	Jun-July
3	Golden Alexander (*Zizia auera*)	Yellow	3’	April-June
4	Dotted Horsemint (*Monarda punctata L.*)	Purple	2’	July-Sept
5	White Snakeroot (*Eupatorium rugosum*)	White	2’	July-October
6	Tall Bellflower (*Campanulastrum americanum*)**	Yellow	4’	August-October
7	Rough Blazing Star (*Liatris aspera)*	Purple	3’	July-October

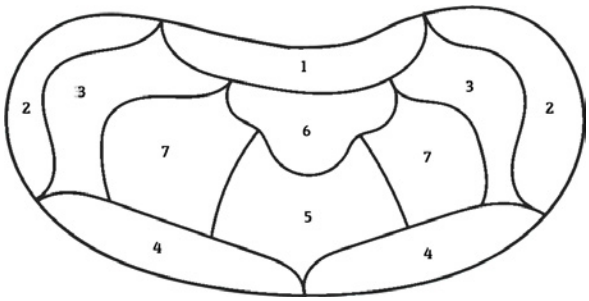
** Indicates an aggressive plant that will likely spread significantly*
*** This plant is an annual or biennial*

Pollinator Garden Color and Bloom Time Worksheet

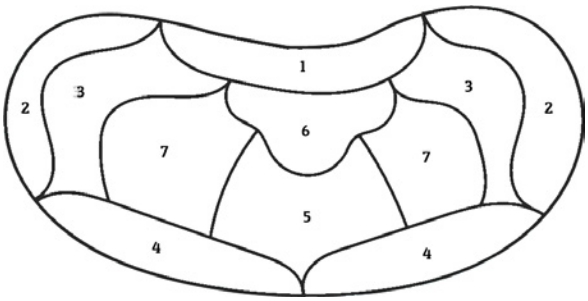
Color in each planting area in the first template with the colors of its blooms. Then, using the remaining templates, color just the planting areas that are blooming during each month of the growing season. Use the scaled garden templates and/or the grid on the following pages to design your pollinator garden layout. You can use each grid square to represent one square foot of garden to estimate the number of plants you will need.



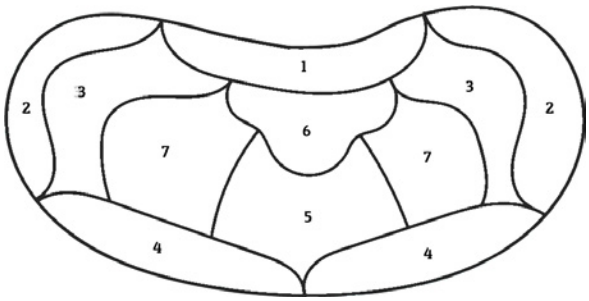
COLORS



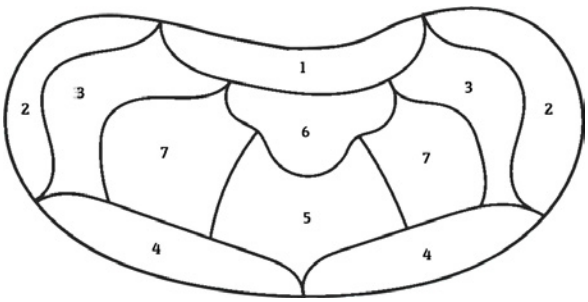
JULY



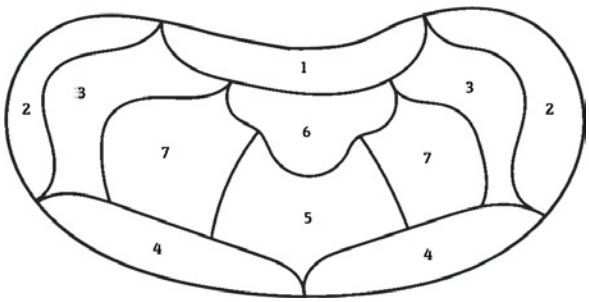
APRIL



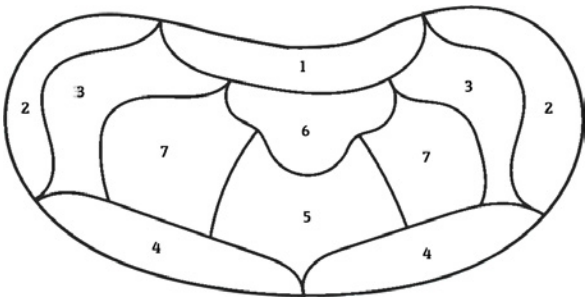
AUGUST



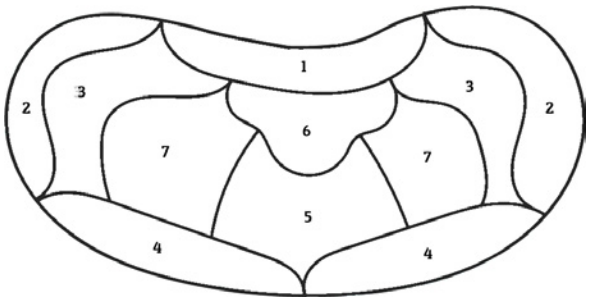
MAY



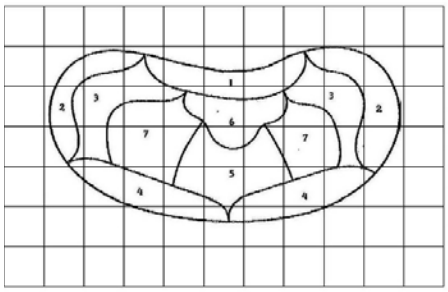
SEPTEMBER



JUNE

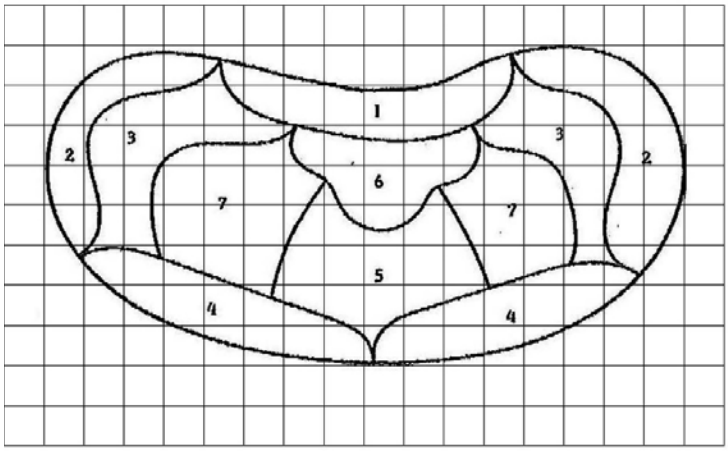


OCTOBER

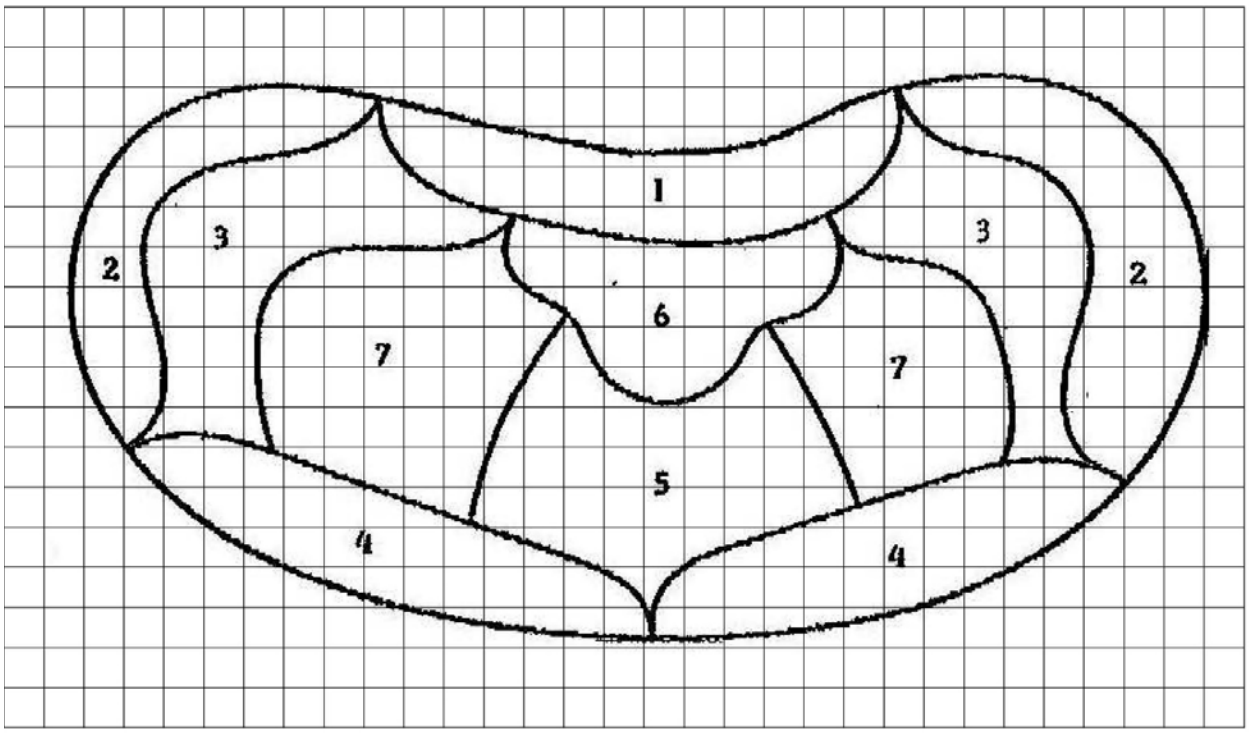


BEAN AT 30 SQUARE FT.

These garden templates are already drawn to scale for a small, medium or slightly larger pollinator garden. They may be cut and pasted on the planning grid for your landscape or just used as is to estimate the number of plants you will need for your desired garden size.



BEAN AT 100 SQUARE FT.



BEAN AT 300 SQUARE FT.

1 SQUARE = 1 SQUARE FOOT

Commonly Used Native Plants and Shrubs

Black-eyed Susan

Blue Vervain

Cardinal Flower

Blue Lobelia

Brown-eyed Susan

Columbine

Blue Flag Iris

Butterfly Milkweed

Dense Blazing Star

Dotted Horsemint

Great Blue Lobelia

Joe Pye Weed

Early Goldenrod

Green-Headed Coneflower

Lance Leaf Coreopsis

Foxglove Beardtongue

Grey-Headed Coneflower

Little Bluestem

Golden Alexander

Hoary Vervain

Monkey Flower

New England Aster

Purple Milkweed

Sky Blue Aster

Ohio Spiderwort

Purple Stemmed Aster

Stiff Goldenrod

Prairie Thimbleweed

Rough Blazing Star

Swamp Milkweed

Purple Cone Flower

Showy Goldenrod

Tall Bellflower

Virginia Mountain Mint

White Snakeroot

Wild Geranium

Wild Bergamot

Woodland Sunflower

Red Osier Dogwood

Buttonbush

Elderberry

Black Chokeberry

Ninebark

Serviceberry

Hazelnut/American Filbert