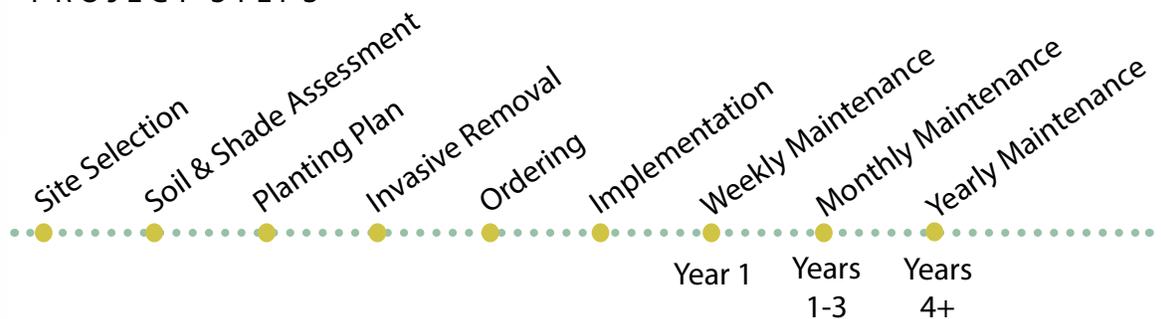


NATIVE PLANTING

Native plant sites can be a peaceful and beautiful addition to your community while providing many environmental and ecological benefits. By planting species native to Michigan, you can create a natural habitat that attracts and provides food and shelter to wildlife such as birds, butterflies, and bees. A native planting site also provides many opportunities for people to learn about native species, including seed collecting and plant identification. The site will take some effort to get established, but after the initial work it will require little maintenance; a great alternative to mowing grass on vacant lots week after week!



PROJECT STEPS



LAND TENURE

- Legal ownership or a lease with the property owner is recommended since native plants are a long-term treatment.

IDEAL LOCATION

- At least one full lot (30 by 100 feet).
- Plants may be easier to establish in sunny locations.
- Near vegetable gardens and/or beehives to maximize pollination benefits.

SOIL REQUIREMENTS

- Native plants prefer poor soil, so no soil amendments are necessary.
- Both clay and sandy soils are suitable, however plant selection will vary.
- Loose, aerated soil will be easier to plant than heavily compacted soil.

WATER REQUIREMENTS

- A water source should be located on-site or nearby because regular watering is needed while plants are establishing.

NATIVE PLANTING

SUPPLIES & EQUIPMENT

- Weed removal supplies: herbicide or cardboard and woodchips
- Seeds and/or transplants
- Woodchips, if planting transplants
- Straw, if planting seeds
- Shovels, if turning sod
- Trowels if planting transplants
- Wheelbarrows
- Dibbles, which cut through cardboard easily to make holes for transplants, if using cardboard and woodchips method
- Fencing (optional)
- Signage (optional)
- Lawn mower (optional)

PLANNING

- Use soil and sun characteristics at the site to determine what plants can be planted and their ideal locations within the site. Create a map of the site which identifies areas where the sun and soil are different from other areas. Use this to create a planting plan. See the Native Plant Appendix for recommended varieties.
- Order plants 2 to 3 months before the scheduled planting to ensure availability of selected varieties.
- Determine which method of unwanted plant removal to use: sod-turning, herbicide, or cardboard and woodchips. For detailed instructions on each method, see the Native Plant Appendix.
- Transplants can be purchased as plugs or as 1-gallon pots. Plugs are less expensive than 1-gallon pots, however 1-gallon pots establish more quickly. Plugs' growth will catch up to the 1-gallon pots within a couple seasons, but they require more frequent watering.
- Make sure to mark which wildflowers are planted in each section to help with identification while plants are young or not in bloom. Consider planting plugs in clusters of at least seven plants of the same type or intermixing a couple species in each section.

IMPLEMENTATION

- To plant transplants, place each plug about 18 inches apart. Dig a hole with a depth that will allow the base of the transplant to be even with the ground. Be sure to pack firmly with soil to ensure winter freezes and thaws don't push the transplants out of the ground. Follow with a 2 inch layer of woodchips to prevent weeds from growing and to keep the soil moist.
- If planting seeds, loosen the soil and drop the seeds. Cover with a layer of straw to hold the seeds in place.
- Immediately after planting, water seeds or transplants.
- Split rail or branch fencing along the sides or corners can help delineate the planting site. This can be installed before or after planting occurs, but be sure to not step on plants as you work.
- Mow the front 4 to 8 feet of the lot for a more maintained look, if desired.
- Add signage to identify the site and the different species that are planted there.

ON-GOING CARE

- Weekly maintenance: In the first year, plants require watering once a week during the growing season from April to October. If planting in the fall, weekly watering is not necessary until the following spring.
- Monthly maintenance: During the growing season, remove any weeds to ensure plants are not competing for nutrients. This is especially important when natives are 6 to 8 inches in height because the weeds can overtake the native plants. Once natives are over 8 inches, they will outcompete weeds.
- Yearly maintenance: Each spring, mow over all plants (weeds and natives) to remove the previous year's growth. Reapply woodchips as needed.



NATIVE PLANT APPENDIX

DEFINITIONS

Native plants have evolved or developed over many years in a particular region or ecosystem. Plants that are native to Michigan are those that existed here before European settlers came to the area in the 1600s.

Non-native plants were introduced with human help (intentionally or accidentally) to a place or habitat where it was not previously found. Note: Not all non-native plants are invasive.

Invasive plants are both non-native and able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities or ecosystems, causing environmental or economic harm.

Weeds are plants (native or non-native) that are unwanted in the place they are growing.

Light is the light needed for the plant to thrive. "Sun" means direct light for almost the entire day. Part sun means direct light for more than half of the day. Light shade means shade for more than half of the day. Shade means shade for almost the entire day.

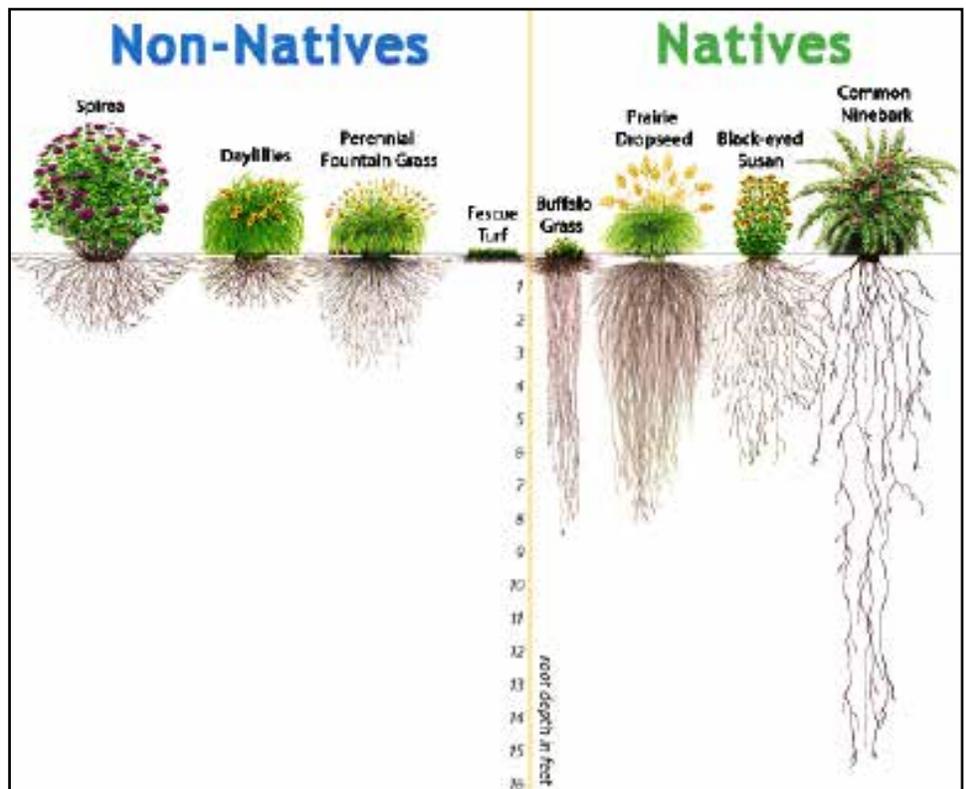
Soil moisture is the ideal wetness of the soil. Plants that prefer Dry areas likely receive a lot of sun and are located in soil that does not hold moisture well, such as sand. Plants that prefer Wet areas are likely to be found in wetlands.

Bloom time is the peak season for the flowers to bloom.



WHY NATIVE PLANTS?

- Native plant communities preserve the balance and biodiversity of our fragile ecosystems. These plants serve as essential host, habitat, and food sources for many unique wildlife species.
- The deep, fibrous root systems of native plants protect our valuable topsoils and provide natural erosion control. Used as an important stormwater management tool, native plantings capture stormwater runoff, mitigate flooding, and protect our streams, rivers, and lakes from harmful contaminants.
- If planted properly, native plants are typically more hardy, drought tolerant, and require less care than non-native perennials or annuals once they are established. Native plants are also more likely to withstand extreme weather conditions.



As you can see above, the root depth of native plants is much deeper, which is why they are able to provide better erosion control than non-native species.

NATIVE PLANT APPENDIX

WEED CLEARING METHODS

- In order to prepare for your native planting site, preparation is required to kill off unwanted non-natives. Removing these unwanted plants is important because it lowers the number of competitors for water and nutrients while plants are establishing.
- Three methods can be used, which are described below. Controlled burns can be effective but are not appropriate for residential areas.

CARDBOARD & WOODCHIPS

This method uses a layer of cardboard and woodchips to kill any weeds. Mow over any existing plants at least one season before planting. Remove all tape from cardboard and place a layer over the area, making sure to overlap the edges so there are no cracks. Cover with a 2 to 3 inch layer of woodchips. If you have extra materials, you can do multiple layers of cardboard and woodchips. This will block the sunlight from reaching any living plants, effectively killing them off and preparing the land for new plants. Depending on how long you wait to plant after laying down the cardboard and woodchips, a dibble may be needed to plant plugs in the ground.

- Pros: Cardboard can often be found for free, which helps cut back on costs. Cardboard and woodchips decompose over time and are an extra source of nutrients. Because they take a couple years to decompose, it provides protection from new weed growth while natives are getting established.
- Cons: Only transplants should be planted where this method is used. If there are cracks in the cardboard, weeds may need to be hand-pulled. Because cardboard breaks down after a couple years, weeds may return.

HERBICIDE

This method involves a series of chemical sprays on the planting area. Depending on the types of weeds present, different strengths and types of herbicide are required. Any existing plants should be tilled or mowed prior to applying herbicide.

- Pros: Both seeds and transplants can be planted after this treatment, and it gets the job done quickly.
- Cons: It's a chemical and causes damage to microorganisms in the soil. Spraying occurs multiple times and may need to be done by a professional depending on the strength. It also must be done on calm, dry days to be most effective.

SOD-TURNING

This method is done by using a shovel to cut sod into pieces which are then turned grass-side down on the ground. This leaves the roots of the grass and other plants severed and exposed.

- Pros: This method does not require any additional costs and is very effective in killing weeds. Both transplants and seeds can be planted if this method is used.
- Cons: If planting a large area, this can be tiresome and labor-intensive work. If you have a lot of people to do the work but few other resources available, this is a good option.

RESOURCES

BOOKS:

The Meadow Project
by Catherine Zimmerman

Perennials for Michigan
by Nancy Szerlag & Alison Beck

ONLINE:

Brooklyn Urban Meadow
www.urbanmeadowbrooklyn.blogspot.com

Christensen's Plant Center
(888) 454-8733
www.christensensplantcenter.com

Going Native
www.ncsu.edu/goingnative

JFNew
(574) 586-2412
www.cardnojfnew.com/nursery

Lady Bird Johnson Wildflower Center
www.wildflower.org

Michigan Native Plant Producers Association
www.mnppa.org

Native Plant Nursery
(734) 677-3260
www.nativeplant.com

Native Plants & Wildlife Gardens
www.nativeplantwildlifegarden.com

Native Seed Farm
www.greenbeanchicago.com/native-seed-farm-transforms-vacant-lot-urban-prairie-garden/

Wildflower Association of Michigan
www.wildflowersmich.org

Wildtype
(517) 244-1140
www.wildtypeplants.com

Vacant lot treatment guides in the series include clean + clear, creative mowing, cut flower stand, tree stand, tree nursery, community garden, market garden, orchard, native planting, and pocket park. Treatment guide appendices for cut flowers, trees, orchards, native plants, and hardscape are also available. For more information contact Keep Growing Detroit at keepgrowingdetroit@gmail.com.

NATIVE PLANT APPENDIX

RECOMMENDED NATIVE PLANTS

Common Name	Latin Name	Light	Soil Moisture	Bloom Time
Butterfly Weed	<i>Asclepias tuberosa</i>	Full Sun	Dry-Medium Dry	Summer
Grey Goldenrod	<i>Solidago nemoralis</i>	Full Sun	Medium Dry	Fall
Indian Grass	<i>Sorghastrum nutans</i>	Full Sun	Medium to Med. Dry	N/A
Little Bluestem Grass	<i>Schizachyrium scoparius</i>	Full Sun	Medium Dry to Dry	N/A
Mountain Mint	<i>Pycnanthemum virginianum</i>	Full Sun	Medium to Med. Wet	Summer
New England Aster	<i>Aster novae-angliae</i>	Full Sun	Medium to Med. Wet	Fall
Rough Blazing Star	<i>Liatris aspera</i>	Full Sun	Medium to Dry	Late Summer
Showy Goldenrod	<i>Solidago speciosa</i>	Full Sun	Medium to Med. Dry	Fall
Smooth Aster	<i>Aster laevis</i>	Full Sun	Medium to Med. Dry	Fall
Swamp Milkweed	<i>Asclepias incarnata</i>	Full Sun	Wet to Medium	Summer
Yellow Coneflower	<i>Ratibida pinnata</i>	Full Sun	Medium to Med. Dry	Late Summer
Wild Lupine	<i>Lupinus perennis</i>	Full Sun to Pt. Sun	Medium Dry to Dry	Spring
Wild Strawberry	<i>Fragaria virginiana</i>	Full Sun to Pt. Sun	Medium to Med. Dry	Spring
Hairy Beardtongue	<i>Penstemon hirsutus</i>	Full Sun to Lt. Shade	Medium Dry	Spring
Purple Coneflower	<i>Echinacea purpurea</i>	Full Sun to Lt. Shade	Medium Dry	Mid to Late Sum.
Sand Coreopsis	<i>Coreopsis lanceolata</i>	Full Sun to Lt. Shade	Medium to Med. Dry	Early Summer
Yarrow	<i>Achillea millefolium</i>	Full Sun to Lt. Shade	Dry Medium	Early Summer
Great Blue Lobelia	<i>Lobelia siphilitica</i>	Full Sun to Full Shade	Medium to Med. Wet	Late Sum. to Fall
Black Eyed Susan	<i>Rudbeckia hirta</i>	Part Sun to Full Sun	Medium Wet to Med. Dry	Summer
Wild Bergamot/Beebalm	<i>Monarda fistulosa</i>	Part Sun to Full Sun	Medium	Summer
Common Cinquefoil	<i>Potentilla simplex</i>	Light Shade to Full Sun	Medium to Med. Dry	Spring
Wild Columbine	<i>Aquilegia canadensis</i>	Light Shade to Full Sun	Medium to Dry Med.	Spring
Cardinal Flower	<i>Lobelia cardinalis</i>	Light Shade to Pt. Sun	Medium Wet	Late Summer
Short's Aster	<i>Aster shortii</i>	Full Shade to Pt. Sun	Medium	Fall
Wild Geranium	<i>Geranium maculatum</i>	Full Shade to Pt. Sun	Medium to Dry Med.	Spring
Wild Ginger	<i>Asarum canadense</i>	Full Shade	Medium	Spring



Grey Goldenrod



Indian Grass



Little Bluestem



Mountain Mint



Yellow Coneflower



Wild Lupine



Wild Strawberry



Purple Coneflower



Great Blue Lobelia



Black Eyed Susan



Wild Bergamot



Common Cinquefoil



Wild Columbine



Short's Aster