Shrink Your Lawn

Native Alternatives to Lawn

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Ohio Prairie Nursery
- High Maintenance
- Little wildlife benefit
- Minimal biodiversity
- Very similar to an impervious surface
Support for *Shrinking* your lawn

- American lawns cover an area 3X larger than any irrigated crop in the US (about the size of Texas)
- 7 billion gallons of water used daily for irrigation
- **Yearly Lawn Inputs**
  - 3 million tons of fertilizers
  - 30,000 tons of pesticides used on lawns annually
    - 10:1 ratio of pesticides used by homeowners vs farmers
  - 800 million gallons of gasoline used in caring for lawns
  - 17 million gallons of gas spilled annually by refilling gas mowers
    - 10.8 million gallons of gas spilled by Exxon Valdeez
Lawns and Water Usage

- Water usage
  - 29 billion gallons of water used daily by households in US
  - 30% (8.5 billion gallons) devoted to outdoor water use
  - Turfgrass uses the highest percentage of irrigation water in traditional landscapes

Source: American Water Works Association Research Foundation
Good News!
What is considered Native?

• A species that was indigenous to the region prior to European settlement (350 years)

• Pure natives (open pollenated) are not manipulated for specific attributes – correct for open areas – high genetic diversity
Benefits of native plants

• Increased storm water control
  • Allow for increased percolation
  • Allow for increased filtration
  • Reduces amount of fertilizers and pesticides runoff

• Resource minimization
  • No fertilizers, pesticides, minimal watering, reduced or zero mowing and overall reduced maintenance time

• Habitat creation
  • Pollinators, birds, mammals, reptiles, amphibians
  • Sub soil habitat creation
Plant root depth comparison

**Introduced Grasses**
- Smooth brome
- Kentucky bluegrass

**Native Grasses**
- Sideoats grama
- Big bluestem

- 1 ft
- 4 ft
- 8 ft
Resource comparison

**Introduced Grasses**

Require:
- frequent mowing
- water
- fertilizer
- pesticides

**Native Grasses**

Require:
- mowing 1st year or two only
- no water
- no pesticides
- No fertilizer
- minimal invasives management
- annual mowing or burning
Native Plants
Native Plants – applications
Rain Gardens
Residential Garden Traditionally Designed With Native Plants
Native Plants – applications
Native meadows

Native Wildflower Meadow Planting

This meadow area has been seeded with indigenous Ohio native plant species. Most of these species are perennials and will take time to mature, please be patient. Seed and nectar from these plants provide food sources for many bird and insect species. Deep root systems will help water to percolate into the soil and recharge the local ground water table. This area will provide an ever-changing beauty and an opportunity to explore a native ecosystem.

This native seed mix was designed and planted by Ohio Prairie Nursery in November 2006. For more information, please contact the City of Lyndhurst Service Department (440 473-5100) or Ohio Prairie Nursery at ohoprairienursery.com
Native Plants – applications
Wet area habitat creation
Native Plants – applications
Prairie Grassland Ecosystem creation
Before Starting:
Set Realistic Expectations

- First year - annuals bloom
- Second year - biennials bloom (annuals may if they have reseeded)
- Third year - perennials bloom
- Final appearance - variable. Weather conditions will favor different species, making each year different.
- Timing: Can take 3 years + to reach see a mature planting from seed.
How to Begin...Site Selection

• Define your objectives: rain garden, monarch habitat, pollinator garden, bird habitat

• Define existing conditions
  • Sun, wind, moisture, etc.

• Make sure your objectives can be met with your existing conditions
  • Example: pollinators do not like windy spots, birds prefer to have trees / shrubs nearby, local code regulations?

• Don’t start with more than you can manage

• Remember that native plants can be taller- leave a border so they do not fall into driveway / sidewalk
Native Plants – considerations

• Sun, shade or in between
• Moisture requirements- some of the natives do not do well in moist soil
• Normal garden soil- do not need rich, amended soil
• Height requirements
• Bloom time
• Architecture in the plant
First Step: Site Preparation

• Isolate small areas from existing seed bank
  • Paper, cardboard, soil medium
• Identify and evaluate existing seed bank
  • What is in the soil now that will compete with your seeding
• Vegetation control
  • Allow seed bank to germinate and manage as necessary
• Earthwork
  • Contouring (rain garden), leveling, shaping, clearing etc.
Simple Solution for Small Gardens: Cardboard / Newspaper Method

1. Place cardboard or 10 layers of newspaper over area
2. Cover with 2-3” wood chips (hardwood mulch)
3. Seed directly into mulch
4. May want to incorporate hardscape border
Ways to apply seed

• Broadcast by hand
• Use sand as carrier so you can see where you seeded
• Do not need to ‘plant’
• Just spread on top of soil / mulch - may tamp down with back or rake
• Straw only if sloped site for erosion control
Seeding timing

- Seed (after seed bank in controlled)
  - Spring seeding
    - After ground thaws until June 15
  - Dormant seeding
    - After soil temperatures are below 50F
    - Before freeze thaw cycle begins
  - Frost seeding
    - From beginning of freeze thaw cycle until spring
    - Take into account *stratification* requirements
Seed *Stratification*

- Process that seeds go through in nature prior to germination
- Different seeds require different stratification practices to maximize quicker germination
- Not every seed will germinate at the same time – open pollinated native seed not selected for germination characteristics
- Mimics natural cycles
- We store seed cool dry
What to expect during the first season

• Depends some on site
• Typically annuals will bloom first year, perennials will have green growth
• Biennials bloom second year
• Perennials bloom third year
- Site was a clean lawn
- Herbicide applied
- Thatch removed
- Frost seeded 11/06
• 10 months after initial seeding
• A drought year- favored native plants
• Results vary year to year and site to site
Maintenance during first 3 years

- Removing undesirable species
  - (Key is to start with sterile medium)
  - Physically remove
  - Kill with herbicide
- Cutting seed heads of nearby species you don’t want to seed into your bed
Site Management

- No fertilization
- Only water in extreme circumstances
- Cut back in fall or early spring and remove debris (unless you mow with flail mower)
Purchase Seed Tonight....

- **Mesic Woodland Edge**
  - Great for partial shade
  - Grasses and wildflowers
  - No annuals

- **Rain Garden**
  - Full sun
  - Grasses and wildflowers
  - No annuals

- **Annual Mix**
  - Use with other mixes
  - 1-3’
  - In containers etc.

- **Eastern Great Lakes**
  - Huge diversity of wildflowers, 3 grasses
  - Includes annuals

- **Mesic Annual / Perennials Forbs**
  - Only wildflowers
  - Includes annuals

- **Butterfly / Hummingbird**
  - Grasses & wildflowers
  - 3 milkweed species
  - No annuals
Thank You!
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