



REWILD YOUR LAWN

A Workshop on Establishing Natural & Bee Lawns

Meet Your Presenters!



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SUN PRAIRIE

Presentation Overview



- 01. NATURAL LAWN DEFINITION + BENEFITS**
- 02. OVERVIEW: BEE, NATURAL, LOW-MOW LAWNS**
- 03. NATURAL LAWN REGISTRATION PROCESS**
- 04. LAWN PLANNING ACTIVITY**
- 05. LOCAL SPOTLIGHT**
- 06. ANNOUNCEMENTS + Q&A**

Why are you
here today?





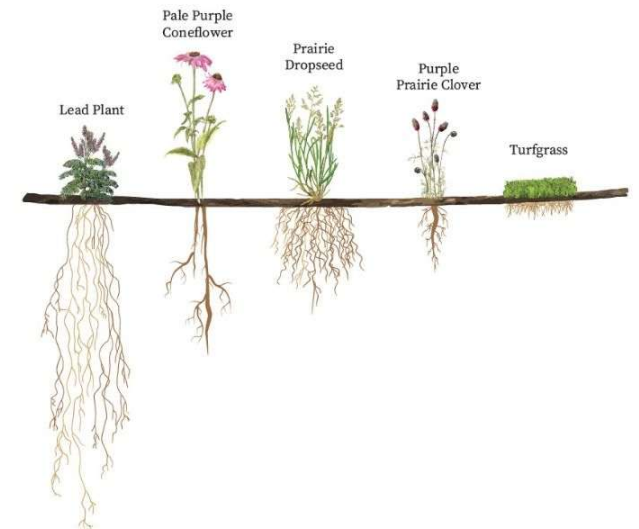
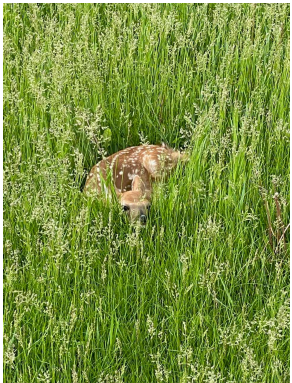
NATURAL LAWN

Definition & Benefits



Benefits of Natural Lawns

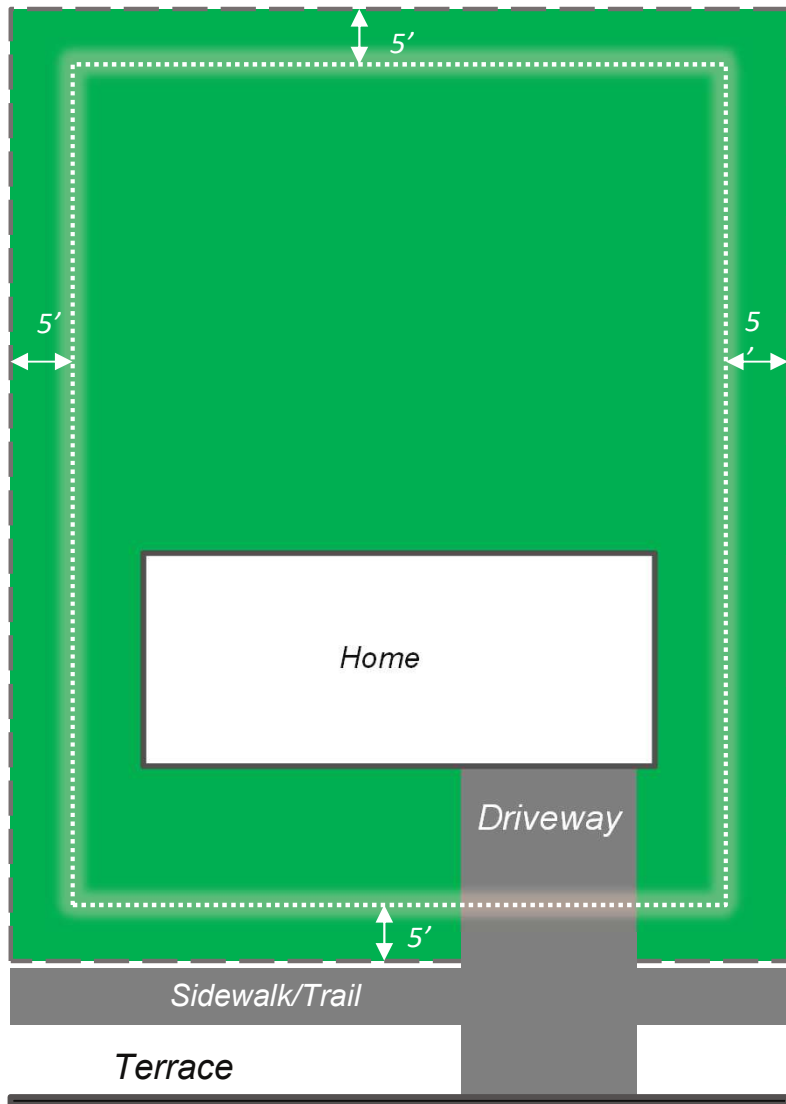
- Provides food and habitat to local wildlife and pollinator species
- Conserves water and reduces energy usage and emissions
- Reduces use of fertilizer, herbicide, or pesticide use
- Increases biodiversity and provides alternative avenues for residents to support wildlife and pollinators outside of No Mow May program
- Aligns with goals of Sustainability Task Force Report



Natural Lawn Definition



- Sun Prairie Ordinance 8.28.010
- Includes species of grasses and wildflowers that are designed and purposely cultivated to exceed 8 inches in height from the ground
- Excluded in natural lawns are:
 - noxious grasses and weeds (identified in Section 8.36.010 Sun Prairie Ordinances)
 - invasive plant species (WI Admin Code Chapter NR 40)



Natural Lawn Location

- Set back 5-feet from all property lines and 3-feet from any public sidewalk or trail.
- No setback is required on the side and rear lot lines where the following apply:
 - a fence has been permitted along the lot line;
 - a natural lawn abuts a preserved green space;
 - a natural lawn abuts another registered natural lawn.
- Not permitted within the terrace.
- Shall not further obstruct vision for intersecting streets, driveways, sidewalks, or other traffic areas.



OVERVIEW

Bee, Natural, Low-Mow Lawns





Bee Lawns, Low Mow Lawns and Natural Lawns



Photo by Hannah Ramer

Lisa Johnson
Dane County Extension Horticulture Educator



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UNIVERSITY OF WISCONSIN-MADISON
DANE COUNTY



Photo credit: Eric Lee,
St. Louis Public Radio



Overview

- Bee Lawns
 - Definition
 - How to Install and Maintain
 - Resources
- Low Mow Lawns
 - Definition
 - How to Install and Maintain
 - Resources
- Natural Lawns
 - Multiple Definitions
 - Range of Options
 - Resources



https://pollinators.msu.edu/sites/_pollinators/assets/File/Flowering%20Bee%20Lawns%20UMN.pdf



Bee Lawns



Bee Lawns Definition

- A mix of traditional lawn grass (fine fescues) and some low-growing flowering (usually non-native) broadleaf plants that can be treated similarly to a bluegrass lawn but offer floral resources for pollinators
- Can be mowed to 3-4" tall



<https://extension.umn.edu/landscape-design/planting-and-maintaining-bee-lawn>



Bee Lawns

- Typical bee lawn seed mix includes
 - Fine fescues (grasses)
 - White Dutch clover or mini-clover
 - Selfheal (mint family)
 - Creeping thyme
 - Some mixes include native plants like Yaak yarrow (western U.S. native), blue-eyed grass (not a grass, but has 'grass-like' leaves) and blue wood violet

Percent Composition:

- 23.5% Boreal Creeping Red Fescue
- 23% Intrigue Chewings Fescue
- 23% Gladiator GT Hard Fescue
- 23% Blue Mesa Sheep Fescue
- 4.5% White Dutch Clover
- 2.7% Self Heal
- 0.3% Creeping Thyme

Seeding Rates:

New Turf - 5 lbs/1000 sqft
Overseeding - 5 lbs/1000 sqft

Establishment:

Germination in 7-15 days
under ideal conditions.



Twin City Bee Lawn Seed Mix



Bee Lawn How-to's: Location and Methods

- Location:
 - Best in lawn areas that are not heavily used for recreation
 - Slopes
 - Terrace area
 - Signage good in very public areas
- Two methods to start
 - Overseeding
 - 'Fresh' start on killed lawn or former landscape bed



<https://twincityseed.com/product/bee-lawn-mix/>



Bee Lawn How-to's: When to Seed

- When to seed
 - Conundrum: turfgrass establishes best in early fall, but flowering plants (forbs) establish best when planted in spring
 - Early spring right after snow melt
 - Early fall (September) (regular time for turf grass)
 - Late fall as 'dormant seeding'



http://www.alibaba.com/product-detail/31-Handheld-Broadcast-Hand-Seed-Fertilizer_62236077624.html



<https://www.acehardware.com/>



Bee Lawn How-to's: Mix Type

- Which Mix to Use?
 - Depends on soil type and light
 - Neither grasses or forbs will grow in heavy shade
- If soil is heavy clay, creeping thyme will not survive

Shady Bee Lawn Mix

Twin City Seed Company
7265 Washington Ave. S., Edina, MN 55439

AMS	7238
Test Date	1-23
Net Weight	1 LB.
Lot	TCSSHDYBLWN-0123

Common Name	Genetic	Mix %	Germ %	Hard %	Total
Boreal Creeping Red Fescue	CAN	22.61%	90.00%	0.00%	90.00%
Intrigue Chewings Fescue	OR	23.17%	90.00%	0.00%	90.00%
Gladiator Hard Fescue	OR	23.05%	90.00%	0.00%	90.00%
Blue Mesa Sheep Fescue	WA	22.98%	90.00%	0.00%	90.00%
White Dutch Clover	OR	2.90%	87.00%	10.00%	97.00%
Blue-eyed Grass	OR	1.49%	91.00%	0.00%	91.00%
Self-Heal	OR	2.47%	98.00%	0.00%	98.00%

Purity	98.67%
Inert	1.33%
Other Crop	0.00%
Weed Seed	0.00%
Noxious Weed	None

A detailed black and white illustration of a bee, shown from a side profile, facing right. It has a segmented body with dark and light stripes, four wings, and antennae.

Two detailed black and white illustrations of bees, shown from a side profile, facing right. They are positioned side-by-side, with the one on the left slightly behind the one on the right. Both have segmented bodies with dark and light stripes, four wings, and antennae.

MEETS SPECIFICATIONS FOR THE LAWN TO LEGUMES GRANT

*



Bee Lawn How-to's: Sun and Soil Type

Bee lawn flowers - sun and soil conditions

Forb	Full sun	Part sun to part shade	Sandy soil	Silty/Clay/Loam soil
Dutch white clover	x	x	x	x
Creeping thyme	x		x	x
Self-heal		x		x

Soil pH range 6-7, white clover down to 5.5

Kristine Moncada, University of MN Bee Lab

Note that creeping thyme does poorly in heavy clay/moist-wet soils



Bee Lawn How-to's: Installation

- **Overseeding method**
 - Mow lawn very short, about 1" tall
 - Rake or remove grass clippings and expose as much bare soil as possible – seed to soil contact is critical!
 - Dormant seeding with overseed in spring, use hydroseed mat to cover
 - Early fall, overseed in spring
 - Ideally, aerate before seeding
 - Roll the area after seeding for good seed to soil contact



<https://mowing.expert/when-to-mow-after-overseeding/>



<https://www.thelawnforum.com/threads/first-mow-after-overseed.32212/>



Bee Lawn How-to's: Installation

- **Overseeding method**
 - Spread seed, ideally with a lawn seed spreader (push type or hand-held)
 - Water regularly till established
 - Keep up with removing weeds!



<https://www.amazon.com/Scotts-Builders-EdgeGuard-Broadcast-Spreader/dp/B002YPS1KK?th=1>

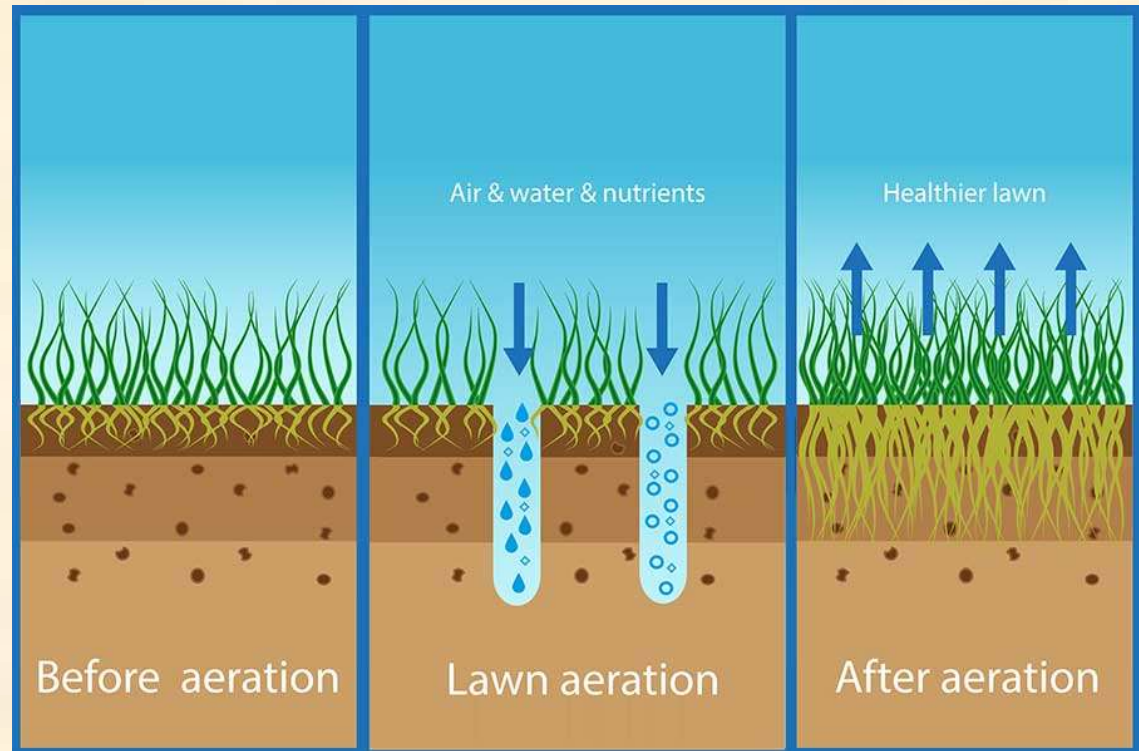


<https://www.lowes.com/pd/Scotts-Turf-Builders-5-lb-Broadcast-Hand-Spreader/1058067>



Bee Lawn How-to's

- **Aerating**
 - Aerating is done on traditional lawns to relieve compaction and reduce thatch
 - For bee lawn overseeding it creates more area for good seed to soil contact and areas for new root growth

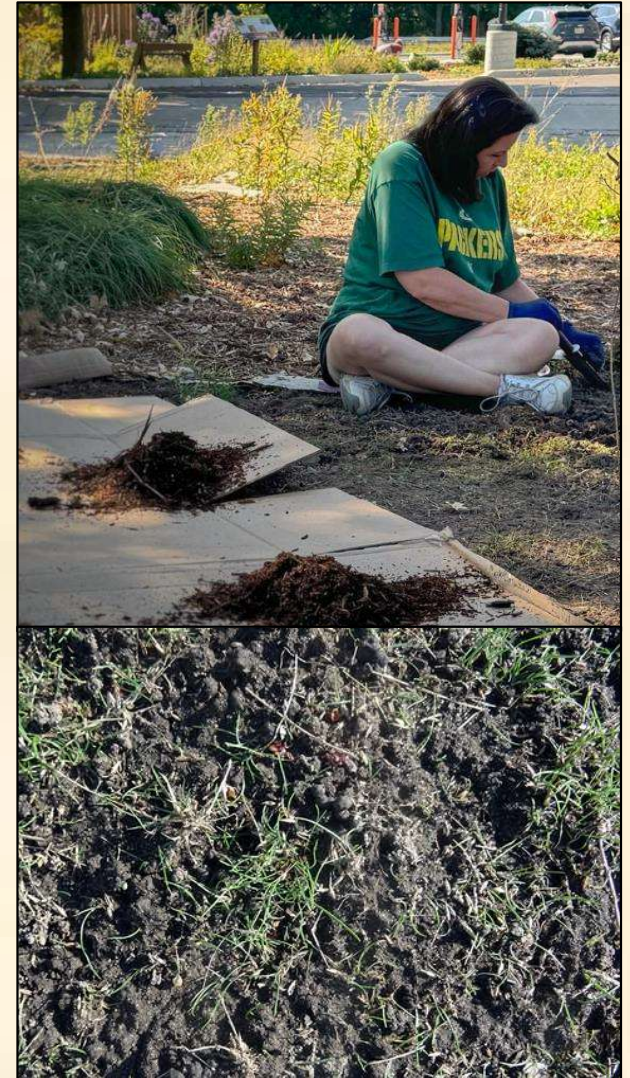


<https://www.landscapepros.com/lawn-aeration-and-overseeding-why-and-when/>



Bee Lawn How-to's

- **'Fresh Start' method**
 - Must remove existing grass/vegetation
 - Smother lawn with cardboard and put 3" of topsoil on top for a planting bed
 - Herbicide not recommended due to potential residue issues and pollinator harm
 - Can solarize small areas with clear plastic and put 2-3" of topsoil over the killed grass



<https://extension.umn.edu/landscape-design/planting-and-maintaining-bee-lawn#when-to-establish-a-bee-lawn-2941610>



Bee Lawn Maintenance

- First two seasons must be vigilant and remove weeds promptly
- Water at least first two months to encourage germination and root growth
- Mow at 3-4" tall, ideally after sunset or during cloudy weather to avoid harming pollinators
- No fertilizer needed due to clover, which harvests atmospheric nitrogen



Photo: Kristine Moncada



Bee Lawn Resources

- University of MN Extension
 - <https://extension.umn.edu/landscape-design/planting-and-maintaining-bee-lawn>
- Twin City Seed Native Bee Lawn Mix
 - <https://twincityseed.com/introducing-the-new-twin-city-seed-native-bee-lawn-seed-mix/>
- Iowa State University Extension
 - <https://yardandgarden.extension.iastate.edu/how-to/how-create-pollinator-lawn>



Low Mow Lawns



Low Mow/No Mow Lawn Definition

- A mixture of fine fescue grasses, grama grass needing fewer inputs than a traditional lawn
 - Less water once established
 - Reduced mowing, 2-3x
 - No fertilizer needs
 - Shades out most weeds
- Creates a more 'flowing' or 'lumpy' look



<https://www.kglandscape.com/low-mow-bee-friendly-lawns>



Low Mow Lawns

- Typical species are cool season native and non-native grasses and sedges
- Fine fescues, buffalo grass, sedges, grama grass depending on soil type and light exposure



<https://jcmg-thymes.com/2022/09/21/how-to-establish-a-no-mow-lawn/>



Low Mow Lawn How To's: Where to Plant

- Where to plant
 - Steep slopes
 - Part shade (NOT deep shade)
 - Areas not used heavily where longer grass will not impede foot traffic
 - Not recommended for most terrace plantings
- How to make 'socially acceptable'
 - Signage
 - Back or side yard vs front yard

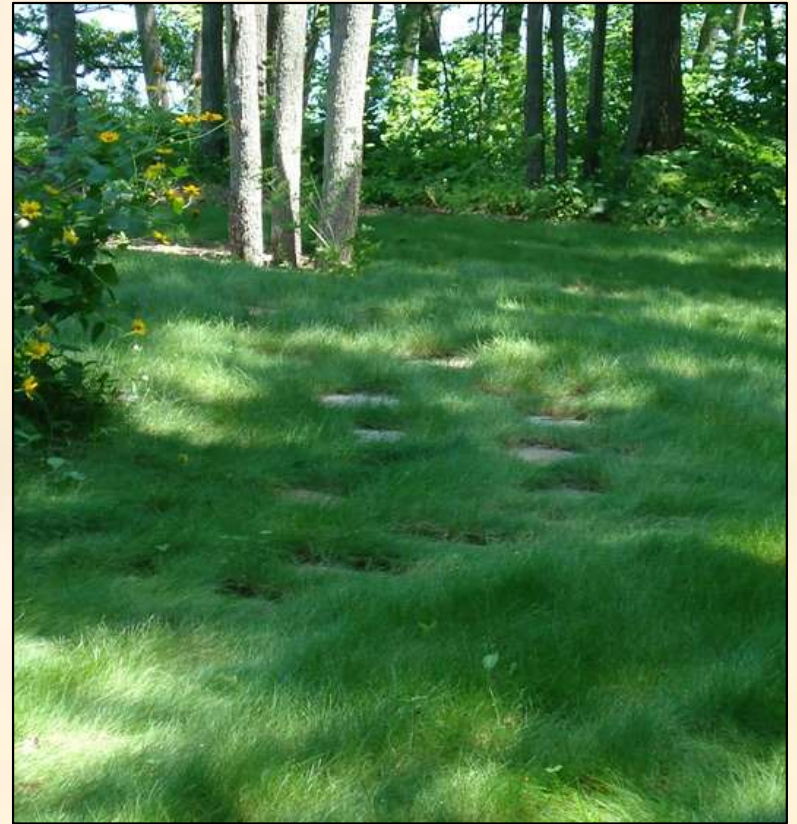


<https://www.prairienursery.com/resources-guides/no-mow-image-gallery/>



Low Mow Lawns How To's: Best Soil Types

- No Mow grows in any moderately well-drained soil, but not damp or wet soils or heavy clay (be especially careful of this in shadier sites)
- Best on dry, sandy or rocky soils with low nitrogen levels in sun.



<https://www.prairienursery.com/resources-guides/no-mow-image-gallery/>



Low Mow Lawns How To's: When to Plant

- Fall is best for seeding; between the end of August and mid October (but before Oct 20).
- Much less weed competition in fall vs spring seedings, plants mature faster, and fill in faster.
- Second best time to seed is early to mid-spring, between March 15 and May 15, but are more weeds, and more need for watering
- Don't seed Low Mow in summer



Photo: Kristine Moncada



Low Mow Lawns How To's: Site Preparation

- To prepare your site for seeding, all existing vegetation must be killed or removed.
- All perennial weeds must be eliminated prior to seeding.
- Methods
 - Smothering
 - Sod cutting
 - Tilling
 - Herbicide (not recommended unless there are a lot of perennial weeds)



Low Mow Lawns How To's: Site Preparation

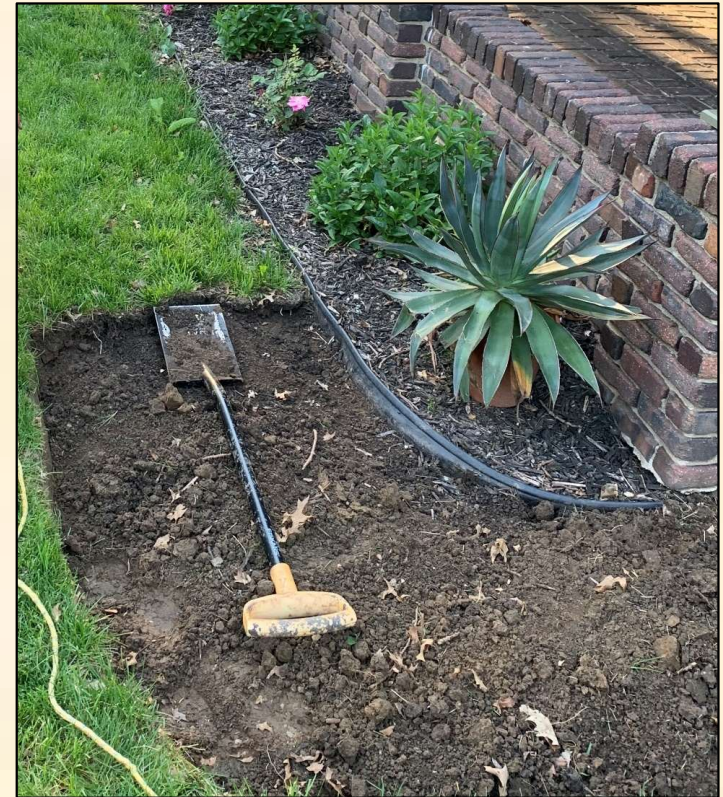
- Smothering Option
 - In early spring (or fall), cover the site with a layer of cardboard and cover it with mulch or a thick layer of leaves. Leave in place till fall or the following spring.
 - Plant into the prepared bed in fall, between August 20 - October 20.





Low Mow Lawns How To's: Site Preparation

- Sod Cutting Option
 - Remove top 2-3" of grass and soil with a sod-cutter.
 - Not a good option if there are lots of perennial weeds
 - If few weeds, till lightly into remaining soil and plant into a prepared bed (need to add topsoil to bring to level).



<https://yardandgarden.extension.iastate.edu/how-to/how-kill-grass-create-new-garden-bed>



Low Mow Lawns How To's: Site Preparation

- Tilling (Cultivating) Option
 - Do not use if there are a lot of deep rooted perennial weeds!
 - Till 2-3 times at one week intervals to kill the lawn. This option is not good for soil structure!
 - If perennial weeds are present, cultivate all growing season every 2-3 weeks and plant into a prepared bed in fall or the next spring





Low Mow Lawns How To's: Site Preparation

- Herbicide Option
 - Apply a kill-all herbicide when the lawn is actively growing (in fall or spring). Don't use a product with a long residual period.
 - Till the sod under when the grass has turned brown, and break up the thatch to create a smooth seedbed.
 - Plant in fall between August 20 and October 20, or in spring between March 15 and May 15.



<https://plantforsuccess.com/kill-lawn-weeds/>



Low Mow Lawns How To's: Seeding Process

- Seeding requires a freshly spread or tilled seed bed free of rocks or clumps greater than one inch diameter.
- Use a broadcast spreader or drop seeder or hand-held unit. Some seeders list a seeding rate for fescue. Seed should be spread at 5 lbs. per 800 sq ft (or 6 lbs per 1000 sq ft).
- Cover seed with 1/8 to 1/4" of soil. Use a roller for good contact and mulch lightly to prevent erosion on gentle slopes, and retain moisture in sandy soils.



<https://www.lowes.com/pd/Scotts-Turf-Builder-5-lb-Broadcast-Hand-Spreader/1058067>



Low Mow Lawns How To's: Seeding Process

- Hydroseeding: can rent a hydroseeder or hire an applicator. Two basic methods to apply.
- Method 1: Mix seed with water only, and “shoot” the mix onto a prepared seedbed of loose, weed-free soil. Apply hydromulch in a 2nd pass afterward. Seeding rate of 6 lbs. per 1000 sq ft
- Method 2: Mix seed with water and hydromulch, & “shoot” the mix onto the seedbed in one pass. Increase seeding rate to 9 lbs. per 1000 sq ft





Low Mow Lawns Maintenance: Watering

- Watering for the first 2 months after seeding is essential to increase germination rate and seedling survival.
- Water every other morning for 15 to 30 min. during the first 4-6 weeks after planting especially on dry soils, or in late spring when temperatures are higher.
- Once established in the first year, only water during dry periods. Occasional thorough soakings are better than frequent, light sprinklings for deep root growth; increases drought resistance.



<https://www.modbee.com/news/local/article288727585.html>



Low Mow Lawns Maintenance: Mowing

- Don't mow shorter than 3.5-4". This damages the roots, weakens turf. Maintain mostly at 6" tall during the season
- Low Mow produces seed heads up to 2 ft tall in early to mid-June; for a more manicured look, mow at 4" when seed heads appear.
- Never mow off more than one-third of the height. This will severely harm the grass
- Only mow closely (to 2") in mid-late Nov. for winter; mulches tree leaves, reduces thatch and creates a denser lawn in



Seed heads June 15, & after mowing to 4" on June 28



<https://jcmg-thymes.com/2022/09/21/how-to-establish-a-no-mow-lawn/#ip-carousel-1029>



Low Mow Lawns Maintenance: Fertilizing

- Fertilizing is not recommended for Low Mow fescue turf.
- Don't use nitrogen fertilizer on your Low Mow turf.





Low Mow Lawns Resources

- Prairie Nursery
 - <https://www.prairienursery.com/no-mow-lawn/no-mow-lawn-seed-mixes/no-mow-lawn-seed-mixes.html>
- Johnson County Master Gardeners of Iowa
 - <https://jcmg-thymes.com/2022/09/21/how-to-establish-a-no-mow-lawn/>



Natural Lawns



Natural Lawns

- Wide variety of possibilities!
- Natural Lawn Ordinance 8.28.010 definition in Sun Prairie: “Includes species of grasses and wildflowers that are designed and purposely cultivated to exceed 8 inches in height from the ground”
- A lot of these plants should ideally be natives
 - Excludes noxious grasses and weeds and invasive plant species in DNR NR40 list



<https://awaytogarden.com/cornells-take-on-the-native-lawn-with-todd-bittner/>



Natural Lawns

- Can include areas of longer grass and wildflowers or pollinator gardens with some grass species and more!
- Activity will include an opportunity to design a lawn/garden area with tokens representing grasses, sedges and forbs on a paper grid scaled to the mature spread of the plants
- Think about your sun/shade conditions, soil type and moisture level and what height of plants you would like to have

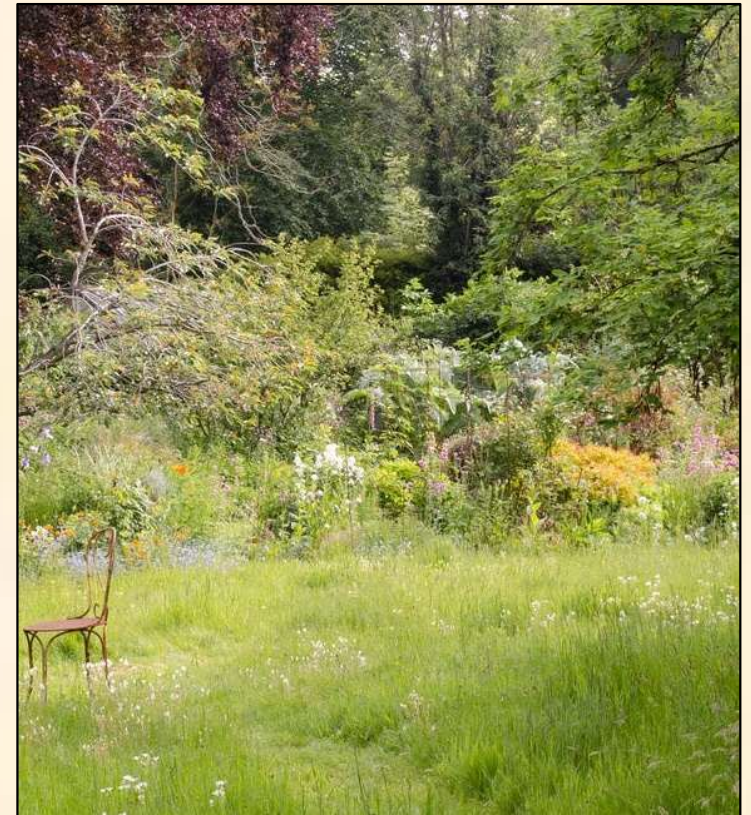


<https://awaytogarden.com/cornells-take-on-the-native-lawn-with-todd-bittner/>



Natural Lawns

- Natural lawns
 - Support insect biodiversity
 - Support functional ecosystems
 - Do not use herbicides, fertilizers or fungicides
 - Use gas-powered or electric mowers or weed whips only infrequently
 - Provide better water infiltration and retention (reduce runoff)



<https://www.housebeautiful.com/uk/garden/a38747169/mow-lawn-cut-grass/>



Natural Lawns Purposes

- Natural lawns
 - Support insect biodiversity
 - Support functional ecosystems
 - Do not use herbicides, fertilizers or fungicides
 - Use gas-powered or electric mowers or weed whips only infrequently
 - Provide better water infiltration and retention (reduce runoff)



Natural Lawns Resources

- Doug Tallamy
 - “Bringing Nature Home”
 - “Nature’s Best Hope”
- A Way to Garden - Rethinking the Lawn
 - <https://awaytogarden.com/rethinking-the-lawn-with-ecological-horticulturist-dan-wilder/>
- Kelly Norris, New Naturalism
 - <https://www.kellydnorris.com/>



Thank you!

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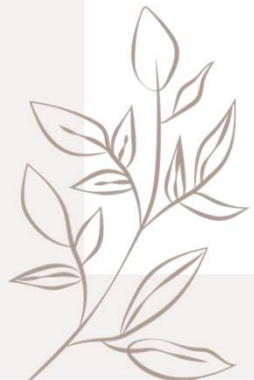
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NATURAL LAWN REGISTRATION PROCESS



Natural Lawn Registration Process



Any property owner or occupant (upon signed written consent of the owner of the property) can participate

- **Submit a natural lawn management plan & filing fee**

- *Link to register (in progress!), if you are interested email cburtley@cityofsunprairie.com to be notified when link is live!*

- **NATURAL LAWN MGMT PLAN:**

- Written plan relating to the management and maintenance of a lawn upon which the planted grasses and flowers will exceed 8 inches in length.
 - Includes:
 - Planned site diagram
 - Detailed description of vegetation types, plant species, and plant succession timeline
 - Specific management and maintenance techniques (if you plan to use a prescribed burn, you must obtain a burn permit)

Example Site Diagram:

123 Butterfly Lane, Sun Prairie WI 53590

Legend:

-  2025 Area 1* (low mow grass mix)
-  2026 Area 2* (tall grass with some wildflowers)
-  2027 Area 3* (prairie, lots of wildflowers)
-  5ft mowed buffer

**see management plan for additional details on plant species planned*



“PLANTS ARE HARD” QUIZ



- LET’S START WITH SOME DEFINITIONS:

- **WEED** – Any plant growing where it is not wanted.
- **INVASIVE SPECIES** – an introduced, nonnative organism (disease, parasite, plant, or animal) that spreads/expands its range in an area it did not evolve. It has the potential to cause harm to the environment, the economy, or to human health.
 - They have no natural enemies to limit their reproduction and spread.
 - Can produce significant changes to vegetation, composition, structure, or ecosystem function.
- **NOXIOUS WEED** – a legal term (designated by a government entity), any plant designated as harmful or injurious to agriculture, ecosystems, or human/livestock health.









RAGWEED vs GOLDENROD



Green Flowers

Lobed Leaves

Common Ragweed
Ambrosia artemisiifolia



Yellow Flowers

Unlobed Leaves

Goldenrod
Solidago sp.





WILD PARSNIP
(*PASTINACA SATIVA*)



COMPOUND LEAF



FLAT-TOPPED
FLOWER CLUSTER

**GOLDEN
ALEXANDER**
(*ZIZIA AUREA*)



LEAVES MORE
SERRATED, NARROW



BLOOMS MUCH
EARLIER

GROWITBUILDT.COM

GROWITBUILDT.COM



Wild parsnip is most commonly found along road and rail rights-of-way.



LAWN PLANNING ACTIVITY





LOCAL SPOTLIGHT

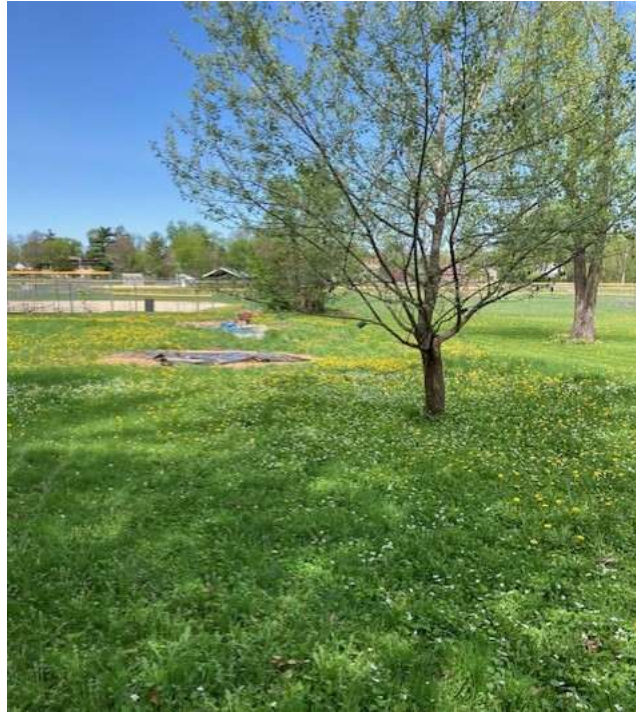




Hannah Best

Sustainability Program Coordinator
for the City of Sun Prairie
and Garden/Pollinator/Craft/DIY Enthusiast





Enjoy the process!



Starting from Seed: Soil Preparation

- Soil quality: shallow grass roots vs native's deep roots
 - Improve compacted soil creating pathways for air, water, nutrients
- Solarizing soil: covering soil for a duration of time to terminate existing vegetation (grass) using heat from sun
 - No till: minimize weeds, minimize soil disruption
- Top photo is clear plastic ground cover (*not recommended*) bottom photo is black tarp
- Other methods include using a spade to cut the top layer of grass of however it can be difficult to remove all roots and may deplete topsoil





Year 1: Early Growth

- Native perennial seed mixes that include annuals!!!!!!
- Most cost-effective option if you're willing to be patient
- Varying quality (Dollar Store vs. Jungs)





Once established...

You'll have beautiful perennial flowers & don't be surprised if you start to see visitors in your garden! Long grasses also invite wildlife.

Timeline for Solarizing and Seeding

- Early Summer: cover soil with heavy duty dark colored weighted tarp
- Mid-late Summer: let heat from solarize grass and its roots
- Fall or Spring: remove tarp when you are ready to lay down seed and water seed in as needed (not much if you are using native perennial seed and potentially none if you seed in Fall)
- Seeding-1st year: let grow undisturbed
- Following seasons: maintain as needed with weeding/watering/mowing or burning and enjoy!

If you are looking for a faster and more manicured option...
Mulch garden from starts!



Lay down plain cardboard
to prevent weeds



Chip drop or landscape supply
company for bulk mulch



Olbrich native plant sale 1-gallon
starts (top May; bottom August)

What to consider...

- Set yourself up for success: scale/timeline/method/budget/maintenance commitment
- Placement: water/sun/shade/pests/flow and other uses of your yard
- Let yourself experiment, try things that don't work out, try again, succeed, and change your mind
- Process can be used to improve soil for future food garden

Don't let the
dirt scare
you



Happy
gardening!





ANNOUNCEMENTS





Thank You!

Any questions?

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 cityofsunprairie.com/sustainablesunprairie

4-Question Feedback Survey



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