



## Newsletter March 2023

### Welcome to the new BCSL!

Supply chain disruptions, increasing severe weather events, illness and disease, pollinator loss... In a world of continuing uncertainty we want to offer something to empower each individual to have some control: Not just over their food today but over their food supply in the future. Seeds grown locally gain tolerance to our area's unique conditions, thus improving the likelihood of survival and good growth from seed to seed. As a community we can grow and harvest more of our own food here, lessening the impact of negative events on our food supply and our well-being.

The seed library is to be a place where individuals can get free seed for growing their own food. It is also an access point for knowledge and resources in our area. We want to provide free seeds but also teach you how to save your own. We want to offer options for gardening in your space, be it in ground, raised beds or container gardening. Or perhaps you want to utilize community garden space. We want to teach adaptive techniques for those with mobility issues. We want to help everyone be aware of the food pantries in the area who can take your excess harvest and pass it along to those who can use it. Online classes, in person classes, assistance with installing garden beds, locally produced compost, locally harvested seeds, mentorship and planting for a purpose are all things already available. The BCSL will work to make those resources easier to find and utilize. We want to improve our community's overall food sovereignty, stability and independence.

Thank you to everyone who has been able to dedicate their time and resources to getting the seed library off the ground. This is such an awesome opportunity for our community to work together in creating a better tomorrow! The launch party had so many people eager to participate that we are doing a new seed order to replenish our supplies. New Leaf Foods is having a seed sorting event this Saturday at the Botanical Gardens from 10-1 and have

kindly offered to help the Seed Library package more seeds at their event. If you would like to volunteer, you can come to the Botanical Garden anytime between 10am and noon and once we are done with seed sorting you can walk around and enjoy the garden free of charge.

## Calender of Local Garden Related Events:

**March 7, 7-8:30pm: Food Sovereignty for Indigenous People**  
Fort Howard Hall at the Weidner Center (free)  
[Rebecca Webster Event Information](#)

**March 9th, 5-6:30pm: Introduction to Installing a Rain Garden**  
Bay Beach Wildlife Sanctuary: D.R.C (free)  
[Register here](#)

**March 10, 10am-3pm: New Leaf Foods Seed Sorting and Garden Walk**  
Green Bay Botanical Gardens (free)  
<https://fb.me/e/2lchOIPKj>

**March 15: 8 weeks until estimated last frost date in Green Bay!**

**March 20, 7:30-8:30pm: Shoreline Restoration and Rain Gardens**  
Located at Kress Library in DePere (free)  
<https://facebook.com/events/s/shoreline-restoration-and-rain/571020498190168/>

**March 22, 12 - 1 pm: Spring Activities on an Herb Farm**  
Located at Green Bay Botanical Gardens (\$)  
<https://www.gbbg.org/events/spring-activities-herb-farm/>

**March 29: 6 weeks until estimated last frost date in Green Bay!**

**April 5, 6;30 - 8 pm: Survival/Necessity Gardens**  
Located at Green Bay Botanical Gardens (\$)  
<https://www.gbbg.org/events/survival-gardens/hi ju>

**April 12: 4 weeks until estimated last frost date in Green Bay!**

**April 15th, 10 - 11:30 am: NEWMG Insider Info on Peonies**  
Located at STEM Center, UWGB (\$)  
<https://docs.google.com/forms/d/e/1FAIpQLSciQSLnG2e0THXQjKoy2LI5NNrZlN-mj4PZjPQq-cvAZecAw/viewform>

**April 19th 6-7:30 A Guide to Raised Garden Beds:  
Selecting Veggies & Flowers for the Best Productivity  
Located at Central library (free)  
Library Events**

**April 26: 2 weeks until estimated last frost date in Green Bay!**

**April 29th: Stem day  
Located at STEM Center, UWGB  
More info coming soon**

## One Seed, One Community

We are launching the One Seed, One Community program to encourage, guide and share the fun of saving seeds as a community. We will be giving out Dragon Tongue Bean packets with specific instructions to the first 200 people.

The goal is to have a large collection of locally harvested Dragon Tongue Bean while working at getting an earlier producing seed pod. This particular variety of bean was selected for various reasons: 1. It does not need trellising, as it is a bush bean with a high yield. It will grow nicely in raised beds, containers or in garden rows. 2. It has great taste and can be eaten fresh or cooked, and the beans may be dried and cooked. 3. This large bean looks beautiful with a yellow pod, and it has amazing purple streaks. The Dragon Tongue bean is a great choice to add to anyone's garden.

If you would like to plant some Dragon Tongue beans this growing season, look for the special yellow seed packets after March 4 at the Brown County Seed Library located at the downtown Brown County Library, or contact us at [seedsaver@newmastergardeners.org](mailto:seedsaver@newmastergardeners.org). What a great way to come together as a community.

Submitted by Peggy, NEW Master Gardener

## One Seed, One Community

Seed saving can be easy or complicated. This section of the newsletter will give you some monthly basic seed saving tips to start out easy. Seeds naturally grow on plants. As a seed steward, we just need to learn what, when and how to harvest seeds.

What seeds should I save? It is important to select open-pollinated varieties. Open-pollinated varieties, which include heirloom plants, will produce seeds that resemble the parent plant. Conversely, F1 hybrid plants will produce a seed mixture of plant types, most of which will be inferior to the parent plant. It is not recommended to save seeds from hybrids.

Plants are pollinated in three ways; self pollinated, wind pollinated, and insect pollinated. Plants that self-pollinate, like beans, peas, peppers, tomatoes, and lettuce are easiest to save seeds from because they rarely cross-pollinate. Consider seed saving by starting with one of these species. There are lots of varieties within these species.

As you select seeds to plant this summer, consider planting open-pollinated varieties. Try seed saving with self pollinating plants. Join us in preserving local seeds.

Next month, read to find out how to collect seeds.

Submitted by Peggy, NEW Master Gardener

## Seed Starting

A big thank you to Lynn and the NEW Master Gardeners for their education on seed starting at the launch! Seed starting indoors is helpful for getting a jumpstart on the growing season, especially in climates like ours where the number of frost free days is limited. If you missed the launch party or want to verify info, the University of Minnesota Extension has an awesome guide to starting seeds indoors!

[Seed Starting Indoors](#)

We will be including in our calendar the estimated number of weeks until the last frost date in zone 5A, which is where Green Bay falls in the USDA plant hardiness zone map. Attached is a guide for indoor and outdoor planting times for the seeds featured in our collection.

[☰ Planting Times for BCSL Seeds](#)

## Living Soil and Planning Your No-Till Garden

I wanted to talk about some things I've learned from one of my favorite gardening books: *The Living Soil Handbook* by Jesse Frost. He covers so much information in his book, I can't fit it all in one newsletter. For this article I will briefly touch on the basic principles of no-till gardening, the interaction of living soil with our garden plants, and how to set-up a garden bed for no-till.

There is a lot of hype about no-till gardening, and for good reason. We are learning now how much the soil ecosystem impacts the health and nutrition of the plants that grow in it. Living soil is soil with a diverse community of microbial life and plants exchanging nutrients, and tillage can break down that community each time it happens and force the soil to start again. But how do you garden without tilling your garden?

Jesse Frost's book gives realistic guidelines to work towards this type of gardening.

1. Disturb the soil *as little as possible*.
2. Keep the soil covered *as much as possible*.
3. Keep the soil planted *as much as possible*.

Humans don't grow food; plants do. However we can steward their growth by providing ideal conditions for crop plants to grow and thrive. This means we need to nurture the ecosystem present in our soil. Plants in a living soil release substances called exudates from their roots that communicate with the microbial life in the soil. Some exudates attract microbial life to the plant. Those microbes eat the exudates and in exchange release nutrients in plant-available form. The plant can change its exudates based on what it needs to attract. Some exudates attract fungi that, over time, build vast underground networks of fungal hyphae (the fungal equivalent of plant roots) that can extend far past what the plant roots are able to reach. Without using artificial fertilizers, these are efficient ways for plants to get nutrients from their surroundings. Some exudates keep less desirable soil microbes and diseases away. Soil microbes are also important in the soil for their role in soil aggregation. Soil aggregates are groups of soil particles held together by organic compounds released from microbial life. Soil aggregates provide stability to the soil structure but have pore space to allow for good draining and air exchange, allowing carbon dioxide to exit the soil and nitrogen and oxygen to enter.

University of Minnesota Extension has an excellent page going over information on how to steward living soil in your garden:

<https://extension.umn.edu/managing-soil-and-nutrients/living-soil-healthy-garden>

Wisconsin Pollinators has a wonderful article explaining the symbiotic relationship between fungi and plants, known as mycorrhizae network.

[https://wisconsinpollinators.com/Garden/Know\\_BeneficialFungi.aspx](https://wisconsinpollinators.com/Garden/Know_BeneficialFungi.aspx)

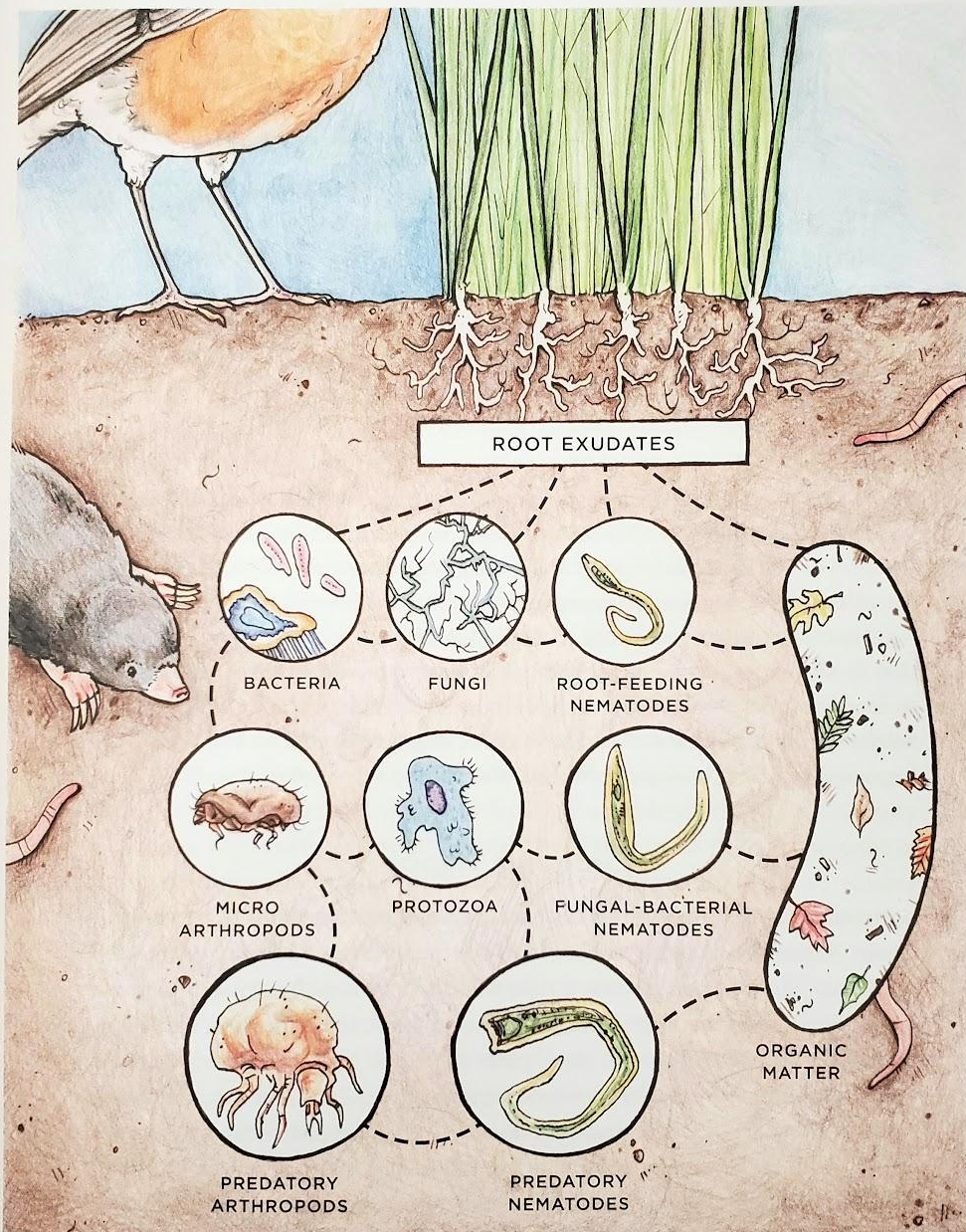
Ohio State University Extension has an awesome fact sheet that goes into greater detail of the role soil fungus plays in the ecosystem.

<https://ohioline.osu.edu/factsheet/anr-37>

Below is a visual guide to the soil food web provided from the book.



## THE BASIC SCIENCE OF LIVING SOIL



**Figure 1.5.** The unique food web in the soil branches out from plant roots: Microorganisms consume root exudates, larger organisms such as nematodes and arthropods feed on the microbes, and animals and birds feed on large soil organisms. All of those creatures also produce waste matter, which ends up as a food source for plants and contributes to soil organic matter.

Now, to plan the garden to succeed with minimal tillage. First, kill the existing grass by covering it with cardboard or a plastic tarp for a few weeks (in summer) up to a few months (in winter). Then the soil needs to be loosened, either by motorized tiller or hand tools such as a broadfork. This will deal with compaction issues and break up the sod. If you are converting an existing garden those tasks should already be complete.

Next you form your bed spaces. Instead of planting crops in rows where you have walking space next to each row, plant in 36-48" wide beds. This reduces the amount of walkways you need to maintain, thereby reducing the amount of compaction to the soil. Remember to factor in walkways on both sides of the bed. I like to dig my walkways 2-4 inches below the soil surface level and approximately 18-24" wide. Then I fill them in with wood chips, which act as a mulch that is slow to break down. When we get heavy rains, the excess water flows into the pathways and doesn't drown my plants but stays in the garden to be absorbed slowly. Pathways should be wide enough for you to comfortably walk in, harvest in, and cultivate in. If you will be using a wheelbarrow or wagon to haul to and from your beds, make the pathways wide enough to accommodate it.

My planting beds I have raised several inches above the surface level, done so by adding mulch, soil from the walkways and compost. If you choose to add fertilizer or other soil amendments, this is where you would do it. Then you do your planting. If transplanting started plants, just dig with a trowel a small space for each plant. If doing rows in the garden bed, you can lightly drag a hoe or hand tool across to make a furrow (trench) deep enough for your seeds, then cover lightly with soil to the depth specified on the seed packet. Most seed packets, including ours, tell you recommended plant spacing. Plan for the plant to need at least that much space on all sides once it is mature. Look at the space required between plants, but consider that if the plant is a vining plant it will need extra ground space or a trellis to climb.

Once I plant a bed, I cover the bed with mulch, leaving around a centimeter on each side of a row of seeds uncovered. Weeds will still sprout, but they should be less populous because of the mulch. And if you pull them before they go to seed, they will be much less each season, as instead of tilling the beds and bringing buried weed seeds to the surface you add a layer of compost and mulch on top of the beds. So you only need to deal with new weed seeds brought in by the wind or visiting critters.

No-till is a method of soil stewardship that promotes the health of the soil ecosystem first.



1. Disturb the soil as little as possible. (Try to only use tools when needed, in the smallest area needed. Have designated areas for walking to avoid soil compaction. If not harvesting the roots, leave them in place to rot.)
2. Keep the soil covered as much as possible. (Coverage can be by mulch or plants.)
3. Keep the soil planted as much as possible. (Because the soil food web depends on plants, it is important to keep living plants in your garden beds as often as possible. Utilize succession planting or cover cropping to assist with this.)

Often transitioning from more conventional gardening methods to no-till is a process that takes time to figure out. If you are interested in seeing some no-till in action, we are utilizing it at some plots in the Veterans Garden at 920 Emmet St. Last year was our first year, I am excited to see how this season goes!

## Featured Local Organization

Thank you to Greener Bay Compost for providing samples of their locally produced compost during the Seed Library Launch event. For those of you unfamiliar with Greener Bay Compost, they are a small local company that in their first year open has diverted approximately 30,000 lbs of organic waste from landfills and converted it to nourishment for our soil! They accept organic waste from residential or commercial settings, and offer pick up or drop off options. By using a hot composting method, they are even able to process food items like cheese and meat, which the typical at home composter cannot safely do.

For more information about this amazing company, visit their website at <https://www.gbcompost.com/>.

## Plant Profile: Yarrow

Yarrow is native flowering plant that comes back every year. It has an incredibly long bloom time once it's established, blooming up until fall frosts. This makes it very important for the pollinators because it provides food when a lot of other plants are not flowering. It is also drought tolerant once established and fairly hardy. If not deadheaded it can self sow, and it also spreads by underground rhizomes, so that should be taken into consideration when deciding where to put it.

It is easy to start from seed either indoors and transplanted or directly sown in the garden. It does need light to germinate, so sprinkle the seeds on top of your soil and water gently with a mister. It makes a pretty fresh or dried cut flower, and also has historical medicinal uses.

Be aware, eating yarrow can cause digestive issues and skin rashes for dogs, cats and horses.

## Featured Recipe

### Roasted Butternut Squash Soup

#### *Ingredients*

- 4 pounds whole butternut squash (about 2 medium), halved lengthwise and seeds removed
- 2 tablespoons unsalted butter (1/4 stick)
- 1 medium Granny Smith apple (about 8 ounces)
- 1/2 medium yellow onion
- 8 fresh sage leaves
- 2 1/2 cups low-sodium vegetable or chicken broth
- 2 1/2 cups water
- 1 1/2 teaspoons kosher salt, plus more as needed
- 1/4 teaspoon freshly ground black pepper, plus more as needed
- 1/3 cup heavy cream
- 1/2 cup toasted pumpkin seeds, for garnish (optional)

#### *Instructions*

1. Heat the oven to 425°F and arrange a rack in the middle. Line a baking sheet with aluminum foil. Place the squash pieces cut-side up on the baking sheet. Melt 1 tablespoon of the butter and brush all of it over the tops and insides of the squash halves (alternatively, you can rub it on evenly with your fingers). Season generously with salt and pepper. Roast until knife tender, 50 minutes to 1 hour.
2. Meanwhile, peel, core, and cut the apple into medium dice. Cut the onion into medium dice. Melt the remaining tablespoon of butter in a large

- saucepan or Dutch oven over medium heat. Add the apple, onion, and sage, season with salt and pepper, and cook, stirring occasionally, until softened, about 7 minutes. Remove the pan from the heat and set aside.
3. When the squash is ready, set the baking sheet on a wire rack until the squash is cool enough to handle. Using a large spoon, scoop the flesh into the saucepan with the sautéed apples and onions; discard the skins.
  4. Add the broth, water, and measured salt and pepper, stir to combine, and bring to a boil over medium-high heat. Reduce the heat to medium low and simmer, stirring occasionally and breaking up any large pieces of squash, until the flavors meld, about 15 minutes. Remove the pan from the heat and stir in the cream.
  5. Using a blender, purée the soup in batches until smooth, removing the small cap (the pour lid) from the blender lid and covering the space with a kitchen towel (this allows steam to escape and prevents the blender lid from popping off). Alternatively, use an immersion blender. Taste and season with salt and pepper as needed. Serve garnished with the pumpkin seeds.

Made by Eileen Rueden, 2022 spring N.E.W. Master Gardener open house