SOUTH DAKOTA STATE UNIVERSITY EXTENSION
Master Gardener

Minnehaha Master Gardeners

WINTER SOWING: A SIMPLE WAY TO START YOUR SEEDS OUTDOORS

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What is Winter Sowing?

Winter sowing is a simple and inexpensive way to sow seeds in jugs or other containers. Once the seeds are sown in the containers, just set them outside in the cold until the seeds begin to germinate and grow. You can winter sow perennials, annuals, herbs, and vegetables. In our zone 4 (4a or 4b depending on your location in SD), you can winter sow between now and about the end of March; possibly into early April for some if our weather remains colder. You should usually plan on starting about 4-6 weeks before our last frost date.



How Does Winter Sowing Work?

Over the winter, the soil in the jugs freezes and thaws repeatedly until the warmer temperature is consistent. This process helps loosen the seed coat and prepares the seeds for germinating. The seeds will remain dormant until the soil warms and conditions are right for the seeds to germinate according to their genetic coding. The jugs or plastic containers act as mini greenhouses as the seeds begin to grow. You can open/close the container as needed once the seeds have begun to grow. Winter sowing allows the plants to be planted in the ground sooner since you don't have to harden them off. They've been outside as they germinated and grew so are already used to the outside climate. This is a huge time saver for spring planting.

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The Benefits of Winter Sowing

- You don't have to fuss over tender seedlings for months on end.
- You don't need to buy any special equipment or grow lights.
- There's no need to sterilize seedling trays.
- Winter sown seedlings don't need to be hardened off, they are already growing outside.
- The seedlings are hardier, and more robust, which means they have a much higher survival rate.
- You can start planting your seeds much earlier.



How To Choose the Best Seeds for Winter Sowing

The best seeds to use for winter sowing are those that are cold hardy. If you're unsure, check the seed packets for terms such as "self-sowing", "direct sow outside in the fall", "direct sow outside in early spring", or "cold stratification required". Many of our native plants require stratification (a cold period that helps seeds germinate) and winter sowing is a great way to accomplish this prior to spring planting. We've all noticed a pepper or tomato plant that popped up from the previous season's crop and over-wintered under the snow, in the cold, and germinated when nature told it that it was time. So why not try even those that you might not think could be winter sown…you might be surprised!

Supplies:

- Containers for planting
- Potting mix - NOT seed starting mix-dries out too fast
- Duct tape or any heavy-duty tape
- Heavy duty scissors
- Philips screwdriver or drill for drainage holes
- Paint/permanent marker
- Plant tags for labeling - optional
- Seeds of your choice



Rules for Choosing Winter Sowing Containers:

- Winter sowing containers should be made of plastic or foil
- Should have transparent lids so sunlight can shine through, but ideally, the entire container should be clear
- Should be deep enough to hold 3-4 inches of soil
- Should be tall enough to allow for a few inches of headspace for seedlings to grow

Types of Containers for Winter Sowing:

- Large gallon or ½ gallon milk jugs, soda, juice, or water bottles
- Old food Storage containers (Tupperware type)
- Disposable food containers
- Ice cream buckets with clear lids if possible
- Restaurant take-out containers
- Food containers from the grocery store deli or bakery

****Winter sowing containers can be made of just about anything, as long as you follow the guidelines above.**



Instructions Using Gallon Milk/Water Jugs

- Drill holes in the bottom of the jugs and a few along the lower side at soil level for drainage and a few at the top for air. A heated Phillips screwdriver is easiest since it melts the plastic as you push it in. Do about 6-8 on the bottom, 1-4 around the lower sides and 4 near the very top.
- Cut open the jug around the lower middle leaving a section below the handle to form a hinge. The cut should be at least 4 inches from the bottom of the jug to allow for 3-4 inches of soil.
- Remove the cap. You can save it if you think you might need to prevent excess water from entering, but in general, you don't need the cap.
- Add 3-4 inches of pre-moistened soil (no need for moisture retention additives) to the jug.
- Sow seeds according to seed packet directions.
- Label the jug on the outside and can add plant tag on inside if you wish. Rather than labeling the jug with the plant name, I use a number system and list the jug number with the corresponding plant on a sheet of paper.
- Place jugs outside away from wind or puddles but where it will get some sun. You can bury jugs in snow up to the opening if you wish.
- Check jugs as snow melts and add small amount of water if soil becomes too dry.
- As seeds germinate and grow, and weather permits, remove the tape to open jugs during the day then close if nights are too cool.
- Transplant seedlings when they begin to outgrow the container. You can transplant into larger containers if needed or plant directly in the garden if the garden soil is warm enough for planting.







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