

Winter Sowing: An Easy, Low-Cost Technique for Starting Seeds



Winter sowing is a seed-starting technique where seeds of certain vegetables, flowers, and herbs are started outdoors in containers in late autumn or winter. The cold weather stratifies the seeds and prompts germination when the time is right. Many native perennials require stratification, a treatment that uses temperature and moisture to soften the seed coat and break seed dormancy. Winter sowing is an easy technique and results in healthy, strong seedlings.

There are many benefits to winter sowing and one of the biggest advantages is that you don't need to fuss with indoor seed starting. Winter sowing is also an easy way to start seedlings without grow lights. This process uses natural sunlight.

Use recycled items like milk jugs or plastic salad containers for winter sowing. You don't need to spend money on seed starting supplies like pots, trays, heating mats, and plastic humidity domes. Winter sowing seeds for onions, scallions, and leeks produces stocky, strong seedlings.

As the name suggests, winter sowing is done during the cold winter months. You can start seeding anytime from December through February, depending on your location and climate. If you sow seeds too early in autumn the seeds may sprout and not survive winter. Wait too long and there may not be enough cold weather to effectively stratify the seeds. Most types of seeds need several months of cold, moist conditions to trigger germination.

The containers you use for winter sowing act as mini greenhouses and should be clear or opaque to allow light to enter. There are many types of containers you can use; you can buy clear plastic bins with clear lids, or you can recycle plastic items. I recommend using food grade containers that can hold 3 to 4 inches of potting mix and are tall enough to accommodate seedlings. My go-to containers for winter sowing include water jugs or milk jugs, plastic salad containers, 2-liter soda bottles, and large take-out containers.

Jugs make excellent containers for winter sowing as they're deep enough to hold several inches of potting mix and tall enough to accommodate seedling growth. I typically use gallon-sized jugs, but you can also use half gallon jugs.



Whatever container you choose should be able to hold at least 3 to 4 inches of potting soil.

Winter sowing doesn't require a long list of supplies. Obviously, you need containers, which should be clean for planting and have drainage holes poked in the bottom. Below is a list of other items to gather when you're ready to winter sow seeds:

- **A high-quality potting soil or seed starting mix** – Most commercially available potting mixes are peat-based, but you can also make your own from materials like coir or other seed-starting mix recipes. Pre-moisten the growing medium before adding it to the containers as moisture is necessary to soften seed coats.
- **Labels and a waterproof marker** – I use the marker to jot down the name of the plant and the sowing date on the label as well as on the outside surface of the container. I do both because placing a label inside the container is insurance as the winter weather may wash the marker off the container leaving you with a bunch of mystery plants.
- **Duct tape and scissors** – A pair of scissors, or a utility knife, is used to cut the jugs open to allow for planting while the duct tape re-secures the tops to the bottoms after seeding to create the mini greenhouses.
- **A pointed screwdriver or old steak knife** – This item is used to poke drainage holes in the bottom of the containers and ventilation holes on the tops or sides of the containers.



Place milk jugs or plastic containers in a sunny, but sheltered site. Don't worry about snow and winter weather because the seeds need the cold temperatures and moisture to prompt germination.

How to turn water or milk jugs into mini greenhouses for winter sowing seeds.

- **Step 1** – Begin by poking drainage holes in the bottom of the container using a pointed screwdriver or an old steak knife. To do this, turn the jug over, bottom side up, and carefully add 5 to 6 holes to the bottom of the container. Next, turn the jug right side up and add 3 to 4 ventilation holes to the ‘shoulders’ of the jug. Again, use caution when making the drainage and ventilation holes. I wear safety glasses.
- **Step 2** – Next, using scissors, make a cut about 4 inches up from the bottom of the container and cut horizontally almost the whole way around the jug, leaving a ‘hinge’ at the back. The hinge allows you to open and shut the jug. Cut in a direction away from yourself.
- **Step 3** – Add 3 to 4 inches of moist potting mix to the bottom of the container. Plant the seeds at the depth recommended on the seed packet. I aim to space the seeds about an inch apart. Germination rates vary among plant species so sowing more seeds than you need can help ensure you get the number of plants you want. I jot down type of seed, name of variety, and sowing date.
- **Step 4** – Close the jug and use duct tape to seal the top and bottom halves together. Once the jug is securely taped, label the outside surface with the waterproof marker.
- **Step 5** – You can leave the cap on the jug or remove it. I often leave it on until the seeds germinate. At that point, removing the cap allows better air flow inside the jug.



Plastic salad containers are also handy to winter sow seeds.

Planting seeds in plastic containers like salad containers or take out containers is quicker and easier than using milk jugs because you don't need to cut them in half. That said, they aren't as tall as milk jugs, so you'll need to grow more compact plants or transplant seedlings before they reach the top of the container.

- **Step 1** – Turn the plastic container upside down and carefully poke drainage holes in the bottom using a pointed screwdriver or an old steak knife. I also add a couple of ventilation holes to the sides of the plastic container – use caution when making the holes and wear safety glasses.
- **Step 2** – It's time to add the potting soil, so place 2 to 4 inches of pre-moistened potting mix in the container.
- **Step 3** – Sow the seeds, planting them at the recommended depth and spacing and then add a label to the inside of the container.
- **Step 4** – Snap the lid of the container closed and, using the waterproof marker, write the type of seed on the top or side of the container.



By mid-spring the containers are full of seedlings that can be moved to the garden once the conditions are right.

When you're finished sowing seeds in the jugs or containers, place them in a sheltered but sunny spot. You can group them on a deck or patio, place them near a garden shed, or anywhere they'll be protected from gusty winds and have access to sun. That said, if the only sunny site you have is exposed to winds, place the jugs in a milk crate or tray to ensure they stay upright.

As the weeks and months pass, the jugs and containers will likely be covered with snow, ice, and other winter weather. That's ok, as snow is a great insulator, and the cold weather is working its magic to stratify the seeds. You shouldn't need to water the jugs or containers during the winter. If there is, however, a prolonged warm spell, remove the caps from the jugs or open the plastic containers to make sure the soil is still moist. If it seems dry to the touch, add some water, and then close the containers up again.

Using winter sowing to start vegetable seeds allows you to work with Mother Nature to get a head start on the growing season. This technique is best paired with cold hardy types of vegetables like onions, broccoli, kale, and lettuce. Onions, and onion family crops like scallions, shallots, and leeks are great choices for those new to winter sowing as they're reliable and very easy. Read more about winter sowing onions in this article.

I have experimented with winter sowing tender crops like tomatoes and ground cherries which often re-seed in garden beds. However, a lot of fussing is required as spring approaches because the young seedlings are susceptible to cold damage. The jugs or containers may need to come inside at night if a freeze is forecast. For this reason, stick to the seeds of hardy plants.



A bird's-eye view of yellow coneflowers seedlings that germinated in a milk jug.

Many vegetable, perennial, annual, and herb seeds can be winter sown. It's a great way to start seeds on a budget and get plenty of seedlings for your vegetable or flower garden. Here are some of the best seeds for winter sowing.

Perennials to winter sow:

- Lupine
- Milkweed
- Coneflower
- Black-eyed Susan
- Salvia
- Yarrow
- Daisy
- Perennial geranium
- Turtlehead
- Catmint
- Baptisia
- Columbine
- Delphinium
- Foxglove
- Hyssop



Winter sowing is a great technique for starting seeds of perennials like milkweed, coneflowers, and Black-eyed Susans.

Annuals to winter sow:

- Snapdragon
- Pansy
- Poppies
- Marigold
- Cosmos
- Bachelor's buttons
- Love-in-a-mist
- Sunflower
- Calendula

Vegetables to winter sow:

- Kale
- Broccoli
- Cauliflower
- Onions
- Scallions
- Brussels sprouts
- Cabbage
- Kohlrabi
- Beets
- Spinach
- Lettuce
- Swiss chard
- Bok Choy

Herbs to winter sow:

- Dill
- Parsley
- Oregano
- Lavender
- Cilantro
- Sage
- Chives