



in Closed Containers

What Is winter sowing?

Winter sowing is a method of starting seeds outdoors during winter, taking advantage of natural temperatures to break dormancy and allow seeds to germinate at the right time in the spring. It works best in regions that experience freezing or near-freezing temperatures for several months of the year. While this method may be used with many types of seeds, it is particularly well suited to those that require periods of cold in order to germinate (a.k.a. cold stratification). The practice of winter sowing is ideal for native plants since it closely mimics how mother nature prepares them to grow.

Why winter sow in a container?

In nature, not every seed that is produced will germinate. Seeds get eaten, washed away, or often don't have access to appropriate conditions needed for them to grow. By using containers, we are increasing the germination and seedling survival rates by protecting them from challenging conditions. This method also requires simple supplies – no need for heat mats or grow lights. Winter sown seedlings do not require hardening off and are stronger and sturdier than those grown under artificial means.

When should I winter sow?

In Northeast Ohio, the best time to winter sow is December through February. The exact timing for sowing a particular species is based on its germination requirements, or what the seed needs to experience in order to break dormancy. Each species of plant has its own growing "code" associated with it which helps gardeners to know what to do. The code is a letter, and is sometimes followed by a number. For example: Butterfly Weed (*Asclepias tuberosa*) is coded with C(30), which means it needs cold-moist stratification for at least 30 days. Wild Bergamot (*Monarda fistulosa*) is coded with 'A', which means it requires no stratification. You will be most successful if you understand the needs of the seeds you want to grow and proceed accordingly. For example, sowing a species that is coded C(90) in late February will probably yield poor results as there isn't sufficient time for the seeds to experience the necessary cold temperatures needed to stimulate germination.



You can find more detailed information about germination codes on our website at

<https://greatercleveland.wildones.org/seed-guide/>

Supplies needed

Containers:

Plastic; milk jug, lettuce clamshell, etc. Containers should be large enough to hold at least 4 inches of soil, have drainage holes in the bottom and the top should be clear/translucent with ventilation holes.

If using a milk jug or other closed translucent container that does not already have a lid, it will need to be cut in order to create a bottom and top portion. You can leave a portion uncut to create a hinge. (best choice for milk jugs)

Containers should also be sturdy enough to withstand weather, allow room for both root and shoot growth and have easy to access for checking on, watering and transplanting seedlings.



Soil:

A good organic potting mix that is sterile (peat based and coconut coir based are most popular)

Pre-moisten your soil. You want it damp enough that it feels wet and it isn't crumbly but not dripping wet

***do not use straight compost or top soil or re-use old potting soil*

Seeds ~ Scissors or knife ~ Plant labels ~ Waterproof Permanent Marker (garden, laundry, wax China) ~ Duct tape or zip ties or wire ~ drill or awl or sharp nail



Directions

1. Using a drill, awl or sharp nail – poke drainage holes in the bottom of your container. Make at least 4 to 6, depending on the size of your container. If using a milk jug, leave the cap off for top ventilation. If using a container with a lid like a clamshell, poke holes in the top for ventilation.
2. If using a container that needs to be cut, like a milk jug, cut it so that you have at least 4" on the bottom for soil depth and leave about 1.5" uncut at the base of the handle to create a hinge.
3. Fill the container with your soil medium. Tap the container on a hard surface a few times to settle soil and remove air pockets.
4. Sow the seeds by sprinkling them around the surface of the soil – avoiding the edges of the container. Lightly press seeds into soil with your palm. Refer to seed germination codes for how deep they need to be and cover with more soil mix. As a rule, seeds should be covered only as deep as they are wide. Very small seeds (Germination code D) should be surface sown and covered with sand instead of soil.
5. Create a plant label with name of species and date sown. Place in soil so that it is mostly covered. You may also want to label on the inside of the jug. ****SPECIAL NOTE** – even permanent garden markers fade after being exposed to sun and rain, so it is a good idea to label your containers in several ways to ensure you will have some way of knowing what they are come spring. You could also try a color/number coding system with a written key that you keep indoors.
6. Seal the container. If your container has been cut, seal it shut using duct tape or punch holes to use zip ties, wire, pipe cleaners, etc.
7. Place the container in an area that receives winter sun and will be exposed to the elements. Do not place the container under eaves or on a covered porch, but do place them in such a way that they are protected from blowing over in the wind or being knocked over by animals. (up on a table, inside a milk crate, etc.)
8. Check on your containers once temps begin to warm during the day to ensure they are staying moist. You shouldn't need to water them for several months. Once the seeds have sprouted and temps are around 50 or so during the day, begin opening your containers during daylight hours, but close them back up if temps drop much below that at night. Native seedlings are hardy but can still be killed by frost.
9. Once seedlings have several sets of leaves and the container is becoming crowded, separate into clumps of 3 to 4 seedlings and plant up into a larger container or directly into your planting area.