

Introduction to Winter Sowing: Vegetables and Herbs

UNIVERSITY OF
MARYLAND
EXTENSION

MASTER
GARDENER 





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Pre-Class Survey

- Are you new to winter sowing?
- Have you attended a previous winter sowing session?
- If you have practiced winter sowing in the past, what plants have you sown?

Welcome



- The mission of the University of Maryland is to connect Maryland residents to trusted, science-based resources to grow healthy gardens, landscapes, and communities.
- Master Gardeners teach classes and workshops, develop demonstration gardens, and educate the public about safe, effective and sustainable horticultural practices.

Questions to Cover

- What do Seeds Need?
- What is Winter Sowing?
- How to setup Winter Sowing?
- What Vegetables and Herbs you may Winter Sow?
- What are the challenges and benefits of Winter Sowing?

What do Seeds Need?

Water

Without water, seeds will remain dormant. The amount of water is critical; too much causes seeds to rot, and too little causes embryos to die.



Image: Univ Of Georgia Extension

Oxygen

Seeds respire - consume oxygen and release carbon dioxide, more as germination proceeds. Seed-starting media needs to drain well enough to meet this need for oxygen.

Temperature

Temperature affects the number of seeds that germinate as well as how fast the seeds germinate.

Light

Some seeds require light to germinate, while others require darkness. Some seeds have no preference at all.

What and Why Is Winter Sowing?

- An incredibly easy way to grow seedlings in the middle of winter, protected from wind and critters.
- Plant seeds in a container with an opening in the top, holes in the bottom for drainage, creating a mini-greenhouse.
- Put outside in a sunny spot and wait for them to sprout.
- Budget and eco-friendly
- No need for indoor seed starting equipment such as heat mats, grow lights or plant trays.



Getting Ready

- Containers
- Potting mix
- Tape for sealing/labeling
- Popsicle stick/label
- Permanent marker for Labeling (grease/paint pen)
- Scissors, sharp knife or drill
- Coffee filters
- Seeds
- Water



Growing Medium

SEED STARTING MIX VERSUS POTTING MIX

Seed Starting Mix

- usually composed of vermiculite and peat, without any true soil
- sterile, lightweight and free from weed seeds, with a texture and porosity especially suited to germinating seeds indoors

Potting Soil (or Mix)

- can contain organic material -compost, peat, sometimes fertilizer. Read the label
- use good quality Potting Mix for Winter Sowing.

Proper Moisture

- moisture of growing medium is important
- too wet and seeds can rot; too dry and they won't germinate

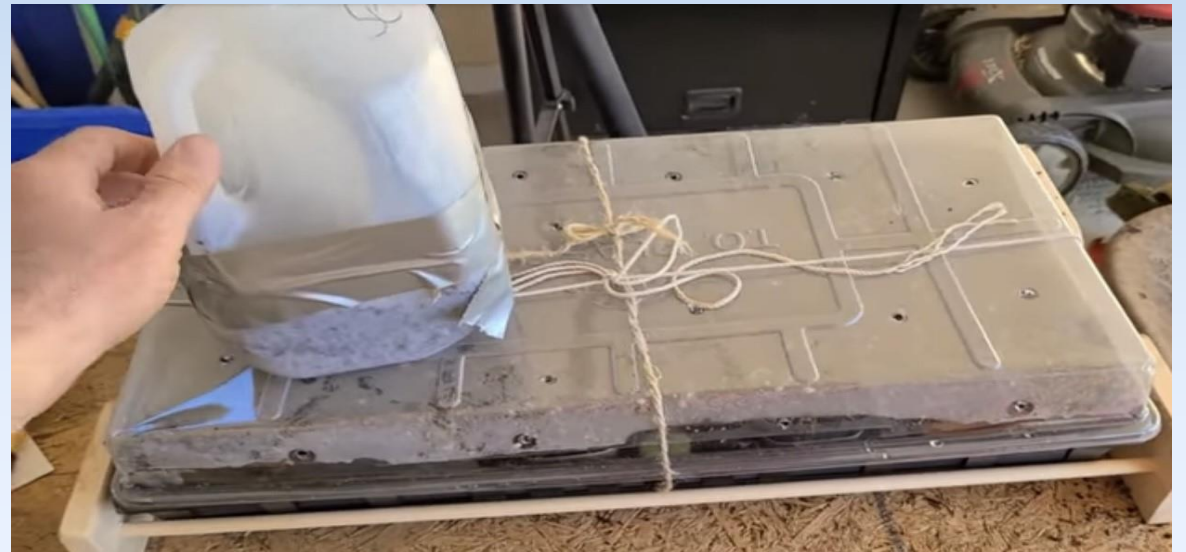
Like a wrung-out sponge



Image: University of Maryland Extension

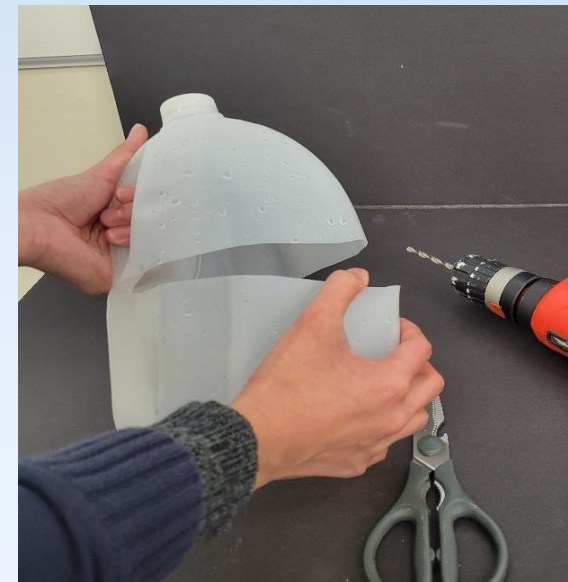
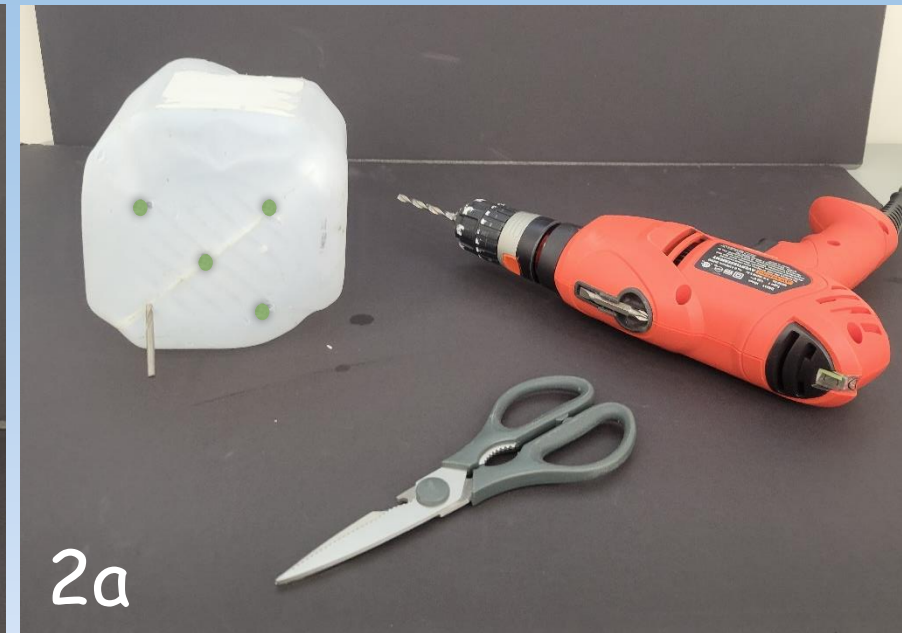
Containers

- Variety to choose
- Translucent - not opaque
- Deep enough for 3 inches of soil



Winter Sowing - 10 Easy Steps

1. Collect and wash containers
2. Cutting
 - a) Make drain holes in bottom of jug
 - b) Cut hinge
3. Add coffee filter/newspaper
4. Add water to potting soil & mix
5. Prepare labels
6. Plant seeds
7. Seal container
8. Care of jugs and containers
9. Open in spring on warm days
10. Transplant seedlings



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6. & 7. Planting Your Seeds

- Plant only one type of seed per container
- Mark your containers—inside and out
- Mix tiny seeds with coarse sand or vermiculite and sprinkle on top of mixture
- Larger seeds— use a pinch per container
- Lightly press seed in and cover with thin layer of growing medium, good contact with seed and soil is key
- Spritz with water lightly and seal



Methods of Planting



Placing seeds versus hunk of seeds

Care of Jugs and Containers

- Do not put caps on jugs
- Place in protected area safe from pets, wild animals, and strong winds but be sure they are exposed to the elements
- Place in direct sun
- Monitor dampness. Bottom water only if soil dries out
- Resist the urge to meddle with Mother Nature



When To Sow: February - March

Cold Weather Vegetables

Kale

Lettuce

Broccoli

Spinach

Arugula

Collards

Cabbage

Swiss Chard

Green Onions



Photos Univ of MD Extension

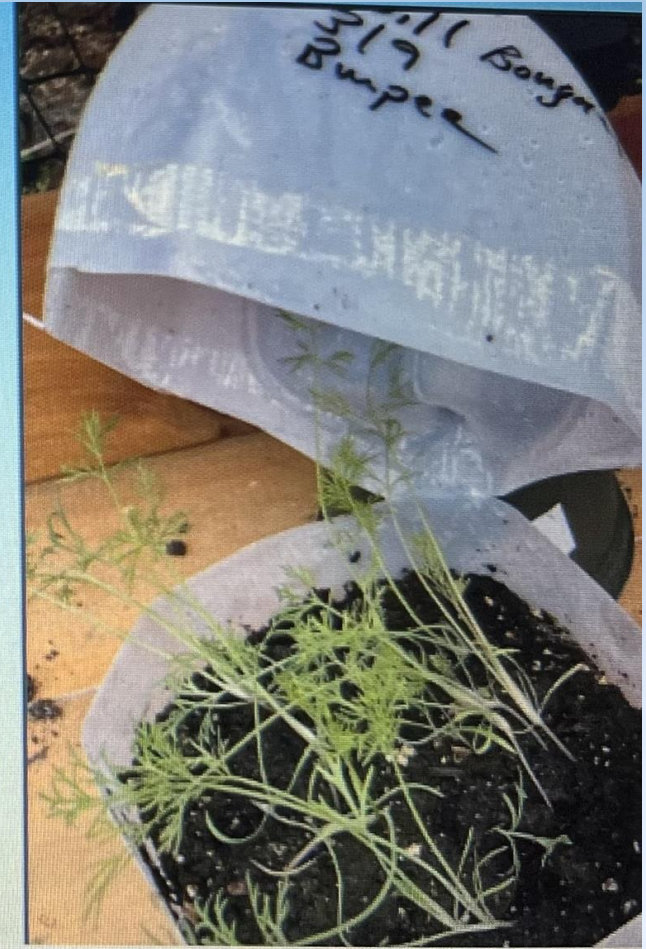


Photo Univ of MN Extension

Late February - March

Herbs

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



2025 -Year of the HERBS

This year in the Master Gardener Grow It Eat It program, we are celebrating all things herbs!

Herbs are obtained from the leaves of herbaceous (non-woody) plants. They are used for savory purposes in cooking and some have medicinal value.



Spices are obtained from roots, flowers, fruits, seeds, or bark of woody or herbaceous plants. Spices often are more potent and stronger flavored than herbs

Some plants are both herbs and spices. The leaves of *Coriandrum sativum* are the source of cilantro (herb) while coriander (spice) is from the plant's seeds. Dill is another example. The seeds are a spice while dill weed is an herb derived from the plant's stems and leaves.

Mid-March to April - Heat lovers



- Tomatoes
- Peppers
- Okra
- Squash
- Pumpkins
- Watermelon
- Cucumbers
- Basil



Whether to Direct Seed or Transplant?

Best to Direct seed

Root vegetables: beets, radish, turnips, carrots - transplanting can damage roots

Start Seeds for transplants

Plants that have a long period from seed to harvest should be started indoors and transplanted outside as seedlings. These include Fruiting vegetables: late season tomatoes, eggplant, peppers.

Starting Seeds for transplants:

Winter Sowing or starting Indoors?

Both Winter Sowing and Starting seeds indoors provide seedlings a controlled environment with protection from wind, flooding rains and pests.

Winter Sowing requires less equipment (grow lights, etc.) and generally less monitoring, and it uses materials that are inexpensive and can be recycled.

Spring

Seeds have germinated - Now What?

- Open container during the day after 1-2 sets of true leaves appear and the weather is warm
- Make sure young seedlings are getting enough water and enough air flow
- Unexpected warm spell after germination - open container and move into the shade. Excessive heat building up in the jug can harm tiny seedlings
- Unexpected cold spell after germination - if temperature drops below freezing, you may need to temporarily cover the jugs with a sheet, blanket or row cover.



Transplanting Seedlings - After Danger of Frost is Over

- Open containers to acclimate 2-3 days before transplanting
- Transplant after seeds sprout at least two sets of true leaves
- Pull individual plants apart gently Roots are very fragile!
- Use sharp knife to cut hunk 'o seeds brownie-style
- You can pot up or direct plant
- Water thoroughly as any other transplant



Winter Sowing Challenges

- Improper seed sowing or containers
- Improper watering
- Humidity levels - can get too high, can cause damping off (open container to dry out)
- Unpredictable weather
- Letting plants get too big
- Location & security
- Pests and critters - may damage or destroy containers



Photo Tina Webster UME MG Washington Co

Benefits of Winter Sowing -

Okay, gardeners, this is the best part!
Why winter sow?

- It's crazy EASY!
- Get a head start on spring growing
- It takes up no space indoors.
- There are no grow lights, heat mats, etc.
- It's inexpensive
- The plants don't have to be hardened off.



Mother Nature does all
the work!


Winter Sowing

Questions?


Resources - Vegetables and Herbs


 [Charles County Master Gardener's Grow It Eat It webpage](#)

 [Vegetable Planting Calendar | University of Maryland Extension \(umd.edu\)](#)


 [Starting Plants From Seed for the Home Gardener | UGA Cooperative Extension](#)


 [Food gardening with the CC Master Gardeners and the University of Maryland Extension](#)

 [Germination Requirements for Annuals and Vegetables | Horticulture and Home Pest News \(iastate.edu\)](#)

 [All the Dirt on Winter Sowing - YouTube](#)

 [UMDHGIC - YouTube](#)

 [Poor Germination of Vegetable Seeds | University of Maryland Extension \(umd.edu\)](#)

 [Care of Herbs and Starting Herbs from Seed | University of Maryland Extension /](#)

 [Ask Extension | University of Maryland Extension](#)

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