



All the Dirt on Winter Sowing

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What is Winter Sowing?

- **USDA definition:** A propagation method used throughout the winter where temperate climate seeds are sown into vented containers and placed outdoors to foster naturally timed, high percentage germination of climate-tolerant seedlings.
- **In other words:** An incredibly easy way to grow seedlings. In the middle of winter, plant seeds in a container with a hole in the top, holes in the bottom for drainage and wait for them to sprout.
- Winter sowing was introduced in 2000 by **Trudi Davidoff** on GardenWeb.com



Why Winter Sow?

- Easy!
- Fun!
- Inexpensive and environmentally friendly
- No hard and fast rules
- Produces strong, healthy plants!
- Grow unusual plants you can't find at the nursery





More reasons to winter sow

- Protects seeds
- Eliminates competition from weeds
- Provides natural stratification
- Eliminates need for “hardening off”
- Reduces need for watering

What can you winter sow?

- Native plants
- Perennials
- Herbs
- Annuals
- Vegetables



When to Sow

December-January-February

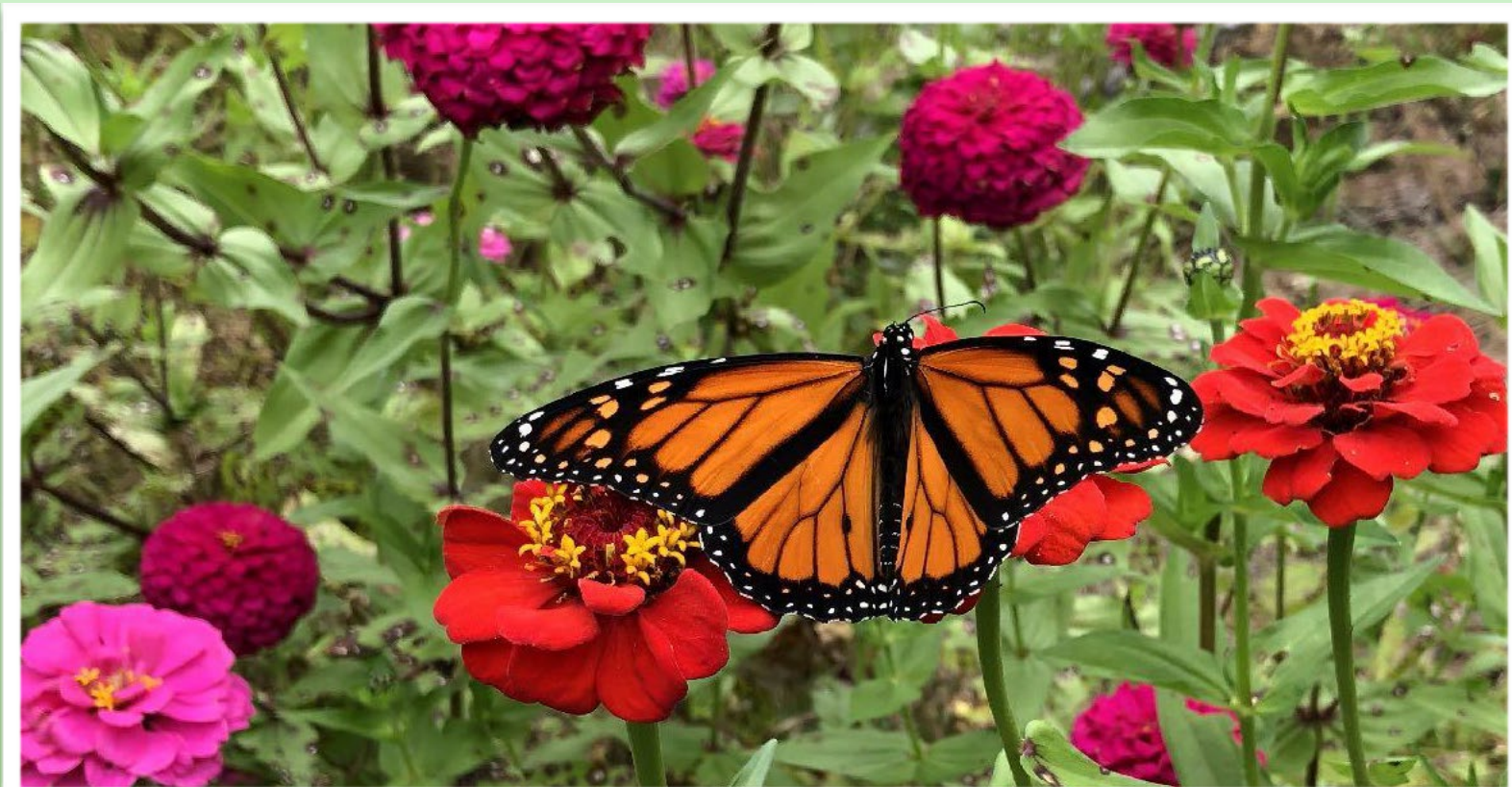
- All native plants that need cold stratification—lobelia, butterfly weed, milkweed, liatris, coneflower
- Other perennials requiring stratification—lavender, catmint, hellebores, Chinese lantern
- Native grasses, vines & trees
- Cold weather veggies—spinach, kale Brussel sprouts
- Herbs—thyme, oregano, parsley
- Hardy Annuals—pansies, ornamental kale



Sow these a little later

March-April

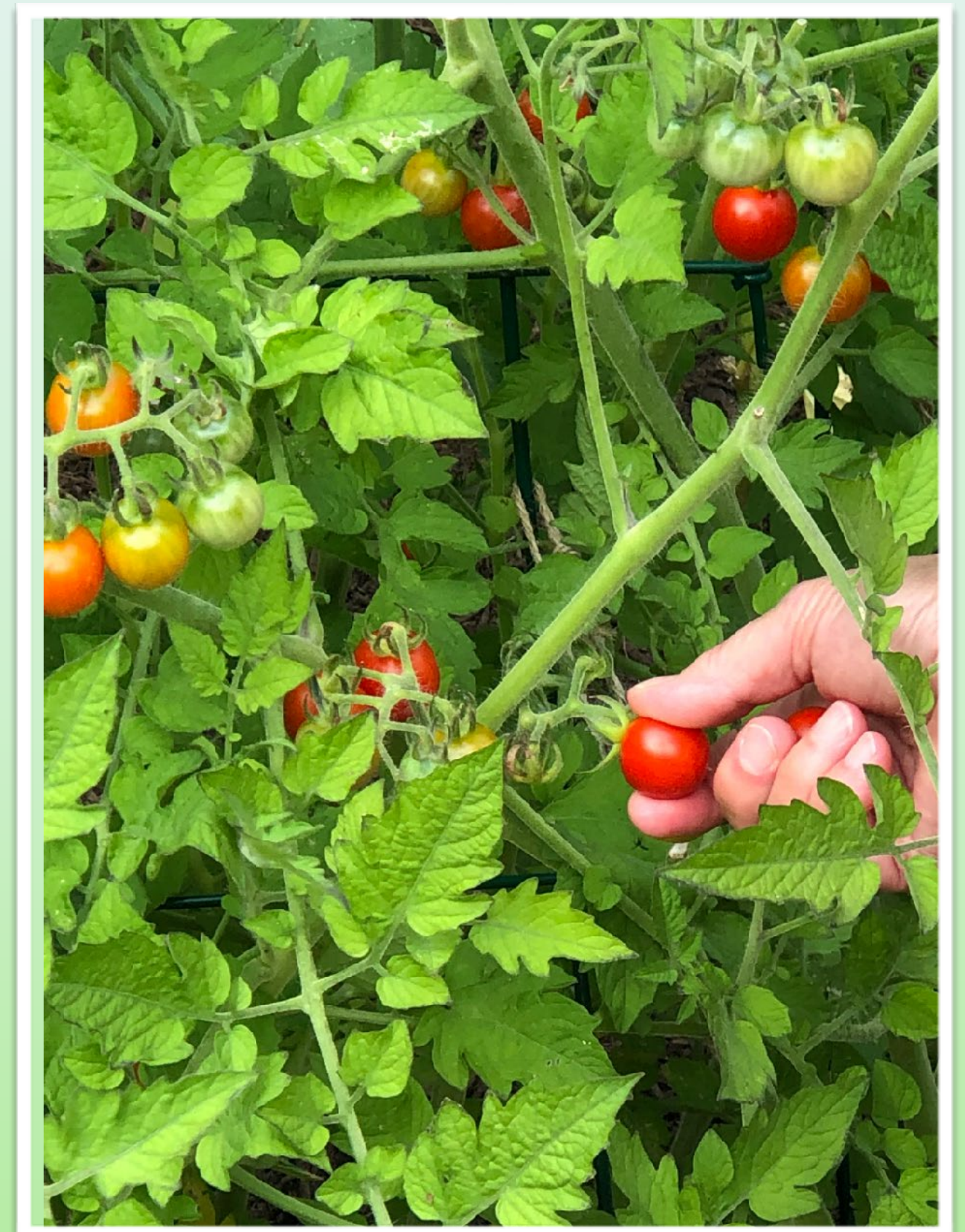
- Tender annuals—cosmos, zinnia, marigolds, tithonia
- Vegetables—bok choy, broccoli, carrots, snow peas, lettuce
- Herbs—basil, cilantro



Sow these even later

April

- Tomatoes
- Peppers
- Eggplant
- Pumpkin
- Squash



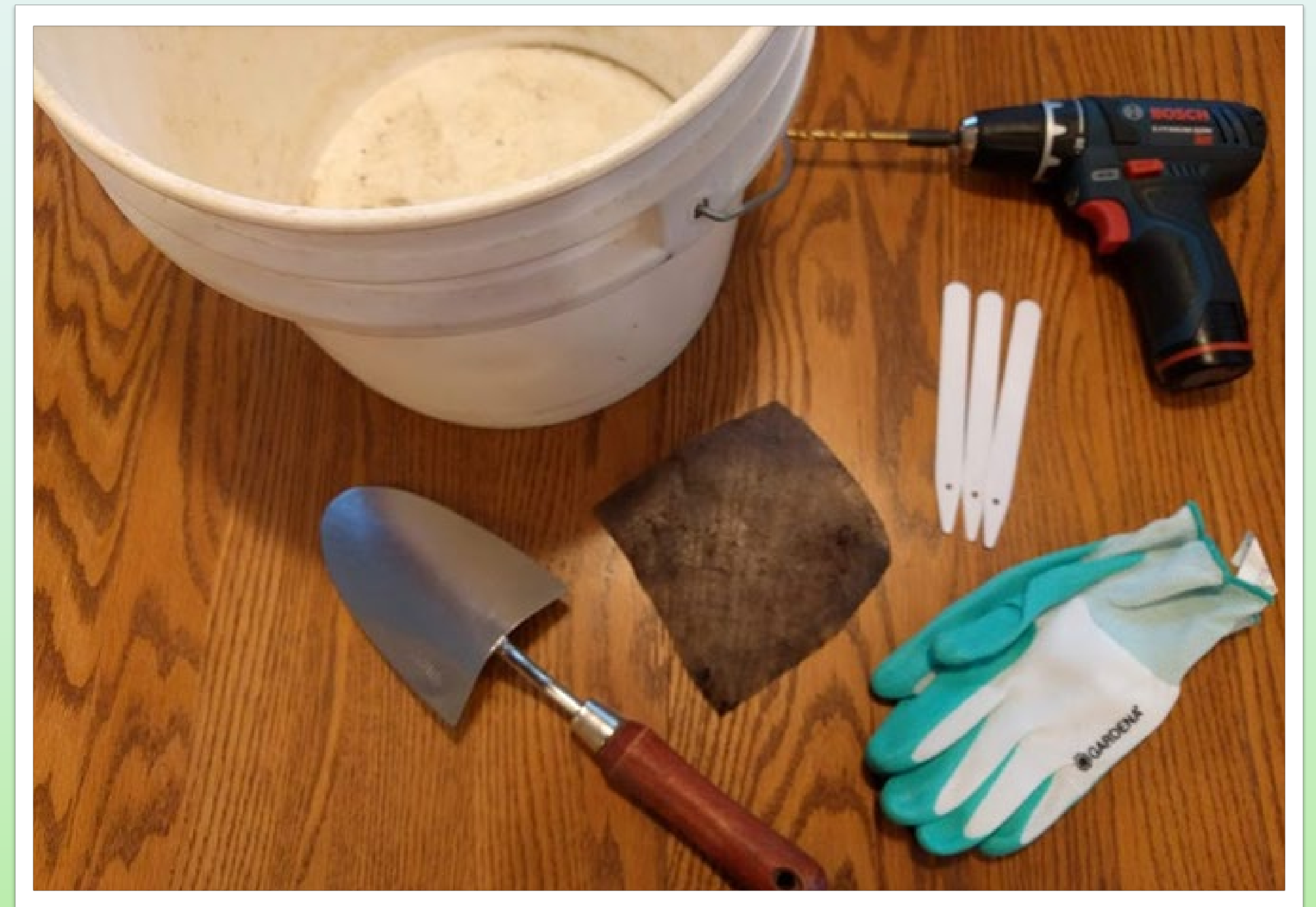
Getting Ready—What you need

- Containers
- Potting mix
- Tape for sealing/labelling
- Marker for labeling
- Scissors or sharp knife
- Seeds
- Water
- Patience!



Getting Ready—Helpful to Have

- Bucket or container for mixing planting medium & water
- Plant tags for inside jugs
- Coffee filter, weed barrier cloth, or newspaper
- Gloves
- Trowel
- Drill



Winter Sowing in 10 Simple Steps

1. Collect and wash containers.
2. Cut drain holes in bottom.
3. Additional container prep.
4. Prepare labels.
5. Add potting mix and water thoroughly.
6. Plant seeds.
7. Seal container...and wait.
8. Care of jugs and containers.
9. Open in spring on warm days.
10. Transplant seedlings.



Graphic courtesy of Skycrest Studios

Step 1: Collect and wash containers

- Milk jugs (gallon or quart), 2-liter bottles, plastic food tubs, ice cream tubs, baggies, aluminum pans, deli/take out containers, plastic drink cups
- Wash and rinse containers to remove any milk or food residue. Allow to dry completely.
- Native plants and perennials need a minimum of 4 inches of potting mix to allow root development.
- Use your imagination! If it can hold potting mixture and be covered to provide a protective, vented environment, go for it!!



Step 2: Cut drain holes in bottom

- Using knife, scissors, drill, hot glue gun, or soldering iron, make 4-6 holes in bottom of container.



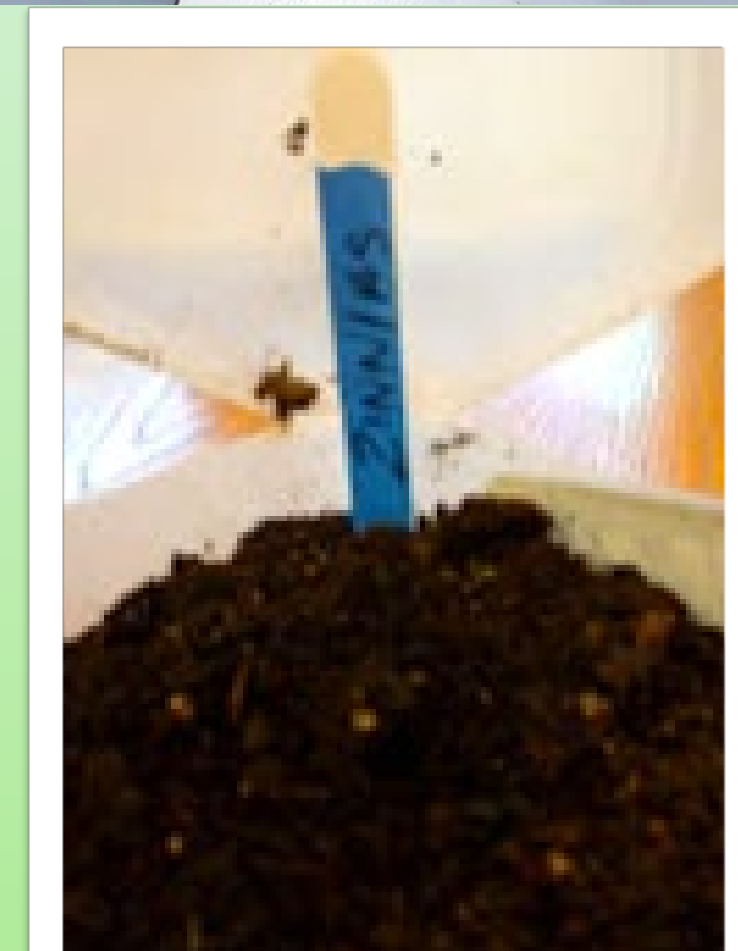
Step 3: Additional container prep

- For jugs/bottles, cut in half, leaving a 4" bottom and a hinge under the handle. Discard cap.
- For containers with lids, cut vent holes in top.
- If container is opaque (butter tub), cut inside of top out, leaving a large enough rim to reseal.



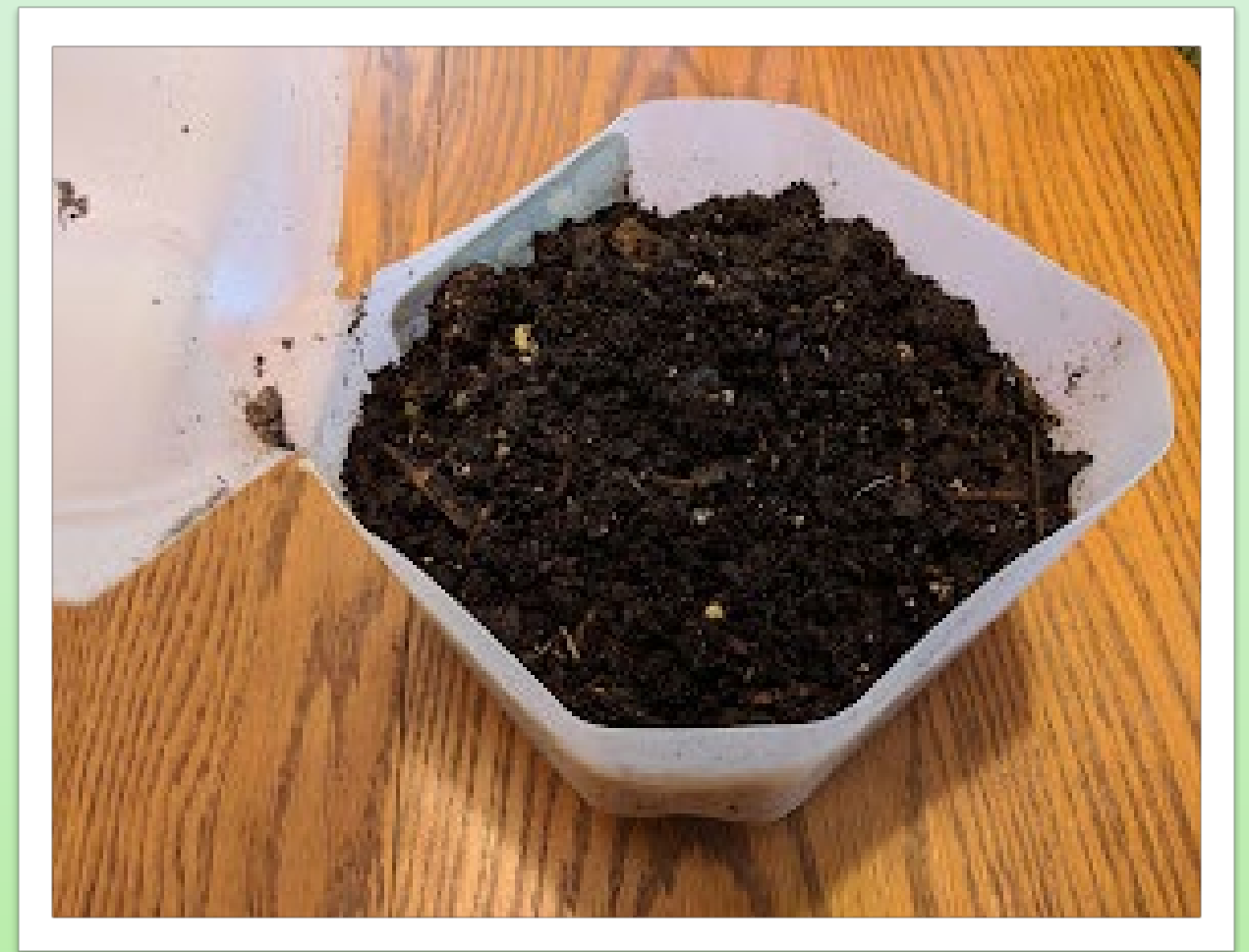
Step 4: Prepare labels

- Label the bottom with duct tape and waterproof marker.
- Or use UV-resistant markers, china markers, grease pencils, etc. on the outside of the jug
- As a backup in case labelling on the outside comes off or fades, a popsicle stick or plant marker inside the jug is a good idea.



Step 5: Add potting mix and wet thoroughly

- Optional: Add a water-permeable barriers (coffee filter, landscape fabric, or newspaper) to the bottom before adding potting mix to keep soil in and slugs out.
- Add approx 3-4 inches of potting mix to the container
- Tap container to settle the potting mix and remove air pockets
- Water mixture thoroughly until water drains through bottom



There's more than one way to mix things up

- Use a large container such as a wheelbarrow or cement mixing tray
- Combine 4 parts potting medium with 1 part vermiculite
- Add water until thoroughly wet but not sippy
- Scoop medium into individual growing containers



Step 6: Planting your seeds

- Plant only one type of seed at a time
- Mark your containers!!!
- Mix tiny seeds with coarse sand or vermiculite and sprinkle on top of mixture
- Larger seeds—follow instructions on packet for depth



Methods of Planting

- Space seeds so they can be easily cut or torn apart
- Hunk 'o Seeds—plant in a mass that can be cut brownie-style



Step 7: Seal Containers...and wait



- Have patience—seeds will sprout when nature tells them to
- You can't hurry the seeds
- But you can—and should—peek

Step 8: Care of jugs & containers

- Do not put caps on jugs
- Place in protected area safe from pets, wild animals, young children and clumsy spouses
- Place in part shade/part sun
- Monitor dampness. Add water only if soil dries out



Step 9: Open in Spring

My seeds have germinated! Now what??

- Open containers during the day after 1-2 sets of true leaves appear
- Unexpected warm spell expected after germination? Open containers and move to the shade. Direct sun and/or heat can harm tiny seedlings
- Unexpected cold spell expected after germination? Once sprouted, cover containers if temps are predicted to go below freezing. You can do this with a sheet, blanket or row cover



Sometimes there's a surprise inside!



Step 10: Transplanting seedlings

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



A tale of winter sowing

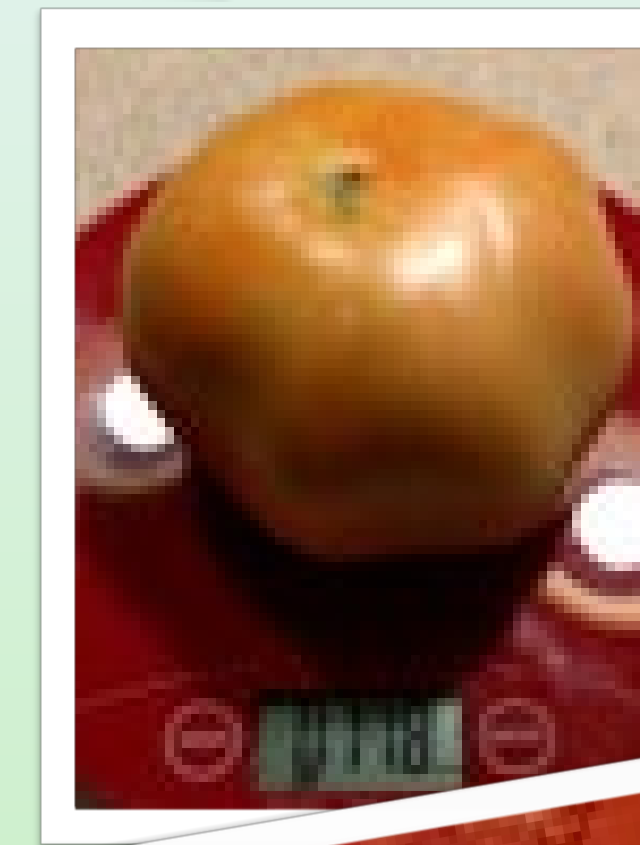
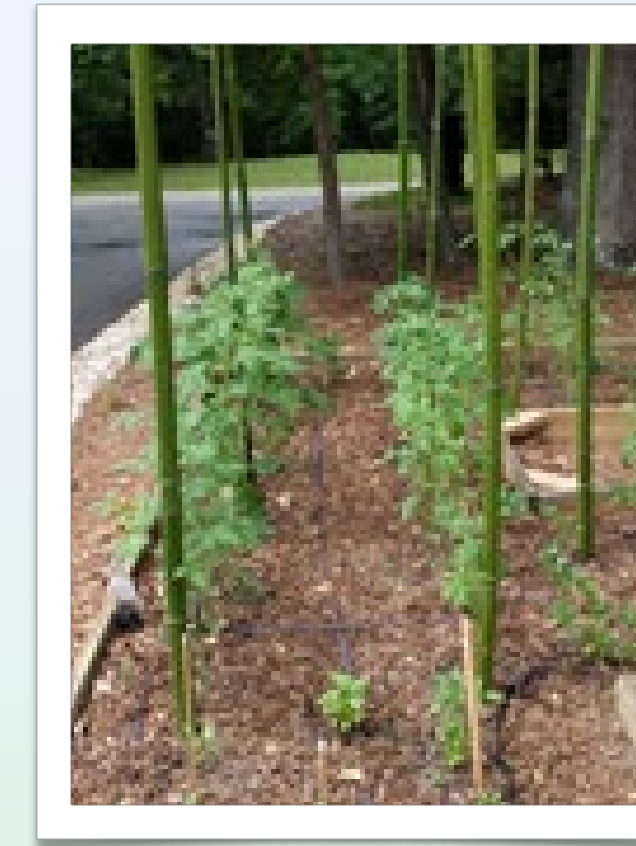
Where's the beef? Or should I say Big Beef Tomato?

- 5/14/2020 Big Beef tomato plants purchased from local Amish farmer
- Fall 2020 Seeds saved from ripe tomato
- 3/3/2021 Winter sowed gallon milk jug
- 3/20/2021 Seeds germinated
- 4/1/2021 Opened and caught that distinctive whiff of tomato foliage
- 4/12/2021 Seedlings transplanted into raised beds. Will they make it?



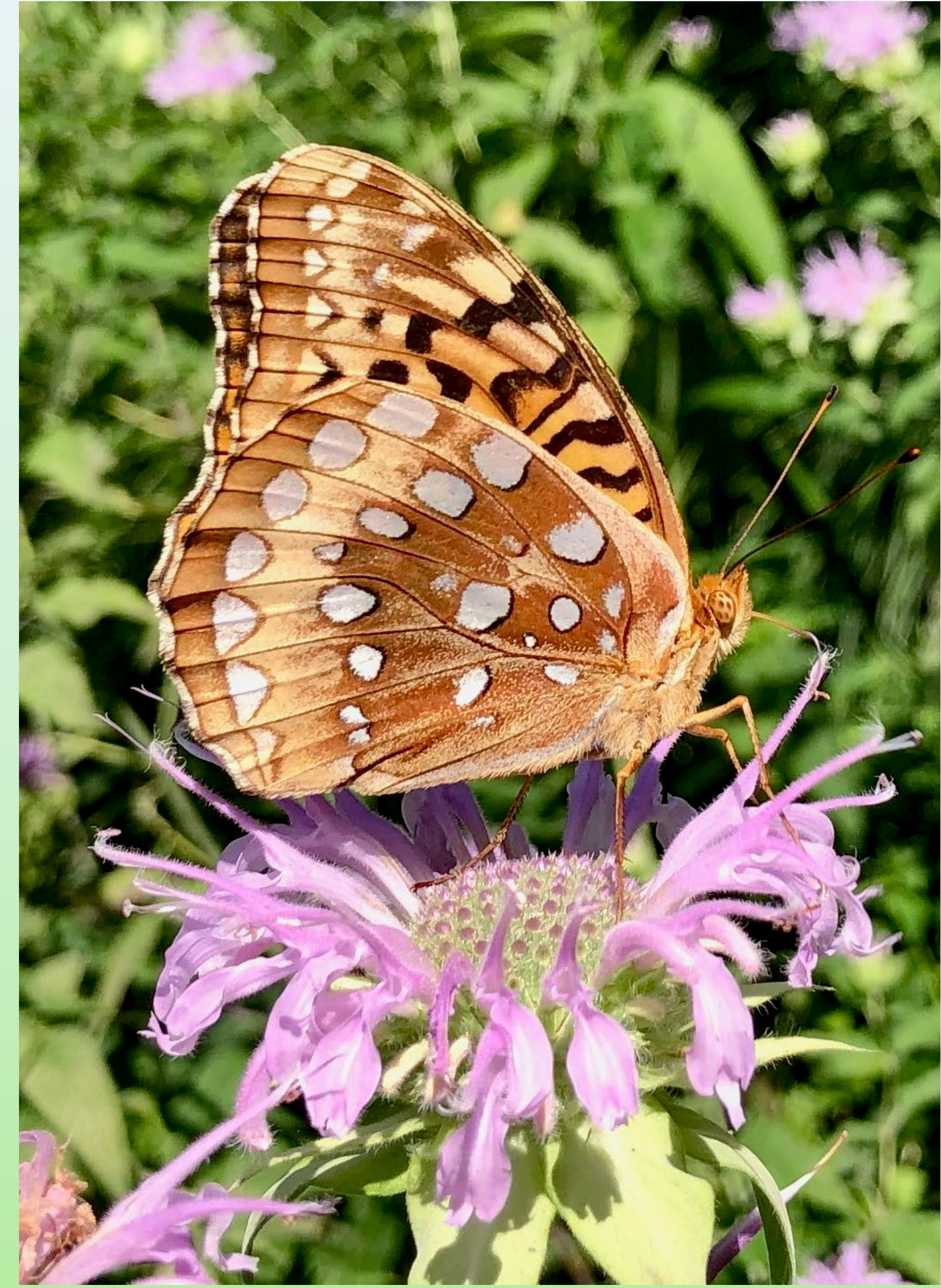
The tale continues...

- 4/21/2021 Covered seedlings with cloches due to forecast of overnight freezing temps and winds
- 4/22/2021 When the sun came out and cloches showed condensation, removed and found the plants safe
- 06/20/2021 Plants growing slowly but surely
- 7/15/2021 Plants are taller than my husband (6'3") and taller than the supports
- 7/20/2021 First tomato harvested with a good "blush"; weight 11.8 oz
- 7/23/2021 Tomato fully ripened inside on the kitchen counter. Sliced and enjoyed on a BLT



This has made me a true believer in the winter sowing process!!

Another tale of winter sowing—planting for wildlife



Cardinal flower-Lobelia cardinalis

More than 60 plants from winter sowing: \$390 value for \$3



Resources/References:

Winter Sowers Facebook group, Trudi's story:
<https://www.facebook.com/notes/winter-sowers/how-to-winter-sow-seeds-outdoors/10151269604480506/>

Winter Sowers Facebook group, benefits
<https://www.facebook.com/notes/winter-sowers/what-is-wintersowing/10162897898900506/>

Winter Sowers Facebook group, Frequently Asked Questions:
<https://www.facebook.com/notes/winter-sowers/frequently-asked-s/5141731165897722/>

Winter Sowers Facebook group, Soil:
<https://www.facebook.com/notes/winter-sowers/about-soil-and-sowing-mediums/229945815468642/>
<https://www.facebook.com/notes/winter-sowers/potting-soil-or-sowing-medium/250079963408522/>

IUN Community Garden: Winter Sowing, An Innovative Method of Sowing Seeds Outdoors with Dolly Foster <https://youtu.be/WhZbj5fcNk0>

More Resources/References:

GrowIt BuildIt, How to Winter Sow Seeds - A Complete Tutorial Guide
<https://youtu.be/SKXY6dl-5Tk>

GrowIt BuildIt, Ultimate Winter Sowing Guide
<https://growitbuildit.com/illustrated-guide-to-winter-sowing-with-pictures/>

Amy Roskilly, Winter Sowing blog:

January - [I feel the need.....the need for seed! \(cuyahogaswcd.org\)](http://cuyahogaswcd.org)

April - [Where is bebe's chamber?.....in a milk jug. \(cuyahogaswcd.org\)](http://cuyahogaswcd.org)

End of May - [Then I Saw the Plants.....Now I'm a Believer \(cuyahogaswcd.org\)](http://cuyahogaswcd.org)

Prairie Moon for CMS times:

<https://www.prairiemoon.com/>

USDA Definition of Winter Sowing:

<https://agclass.nal.usda.gov/mtwdk.exe?k=default&l=60&n=1&s=5&t=2&w=97326>

Skycrest Studios - Winter Seed Sowing in Jugs

All photos by Marlene Smith and Molly Moore, Charles County Master Gardeners

General UME Resources

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extension.umd.edu/hgic



extension.umd.edu/learn/ask-gardening



marylandgrows.umd.edu



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