



All the Dirt on Winter Sowing Veggies, Herbs, Annuals and Natives (2024)

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What is Winter Sowing?

- An easy way to grow seedlings
- In the middle of winter, scoop planting medium into a plastic container with a hole in the top for ventilation & holes in the bottom for drainage
- Plant seeds, monitor & wait for them to sprout
- Winter sowing introduced by Trudi Davidoff in 2000 & has since been recognized officially by the USDA



Why Winter Sow?

- Inexpensive!
- Environmentally friendly
- Relatively easy
- Fun!
- No hard and fast rules



Horticultural advantages

Marlene Smith

- Protects seeds
- Eliminates competition from weeds
- Produces strong, healthy plants
- Eliminates need for “hardening off”
- Reduces need for watering
- Provides cold moist stratification (CMS) needed for many native plants



What is a native plant?

- A plant that is part of the balance of nature & co-evolved with native birds, insects and other wildlife.
- Developed over hundreds or thousands of years in a particular region or ecosystem
- Only plants found in this country before European settlement are considered to be native to the United States



Why grow natives?

- Better suited for our climate
- Require less water once established
- Do not need fertilizer
- Tolerate a wide variety of soil & light conditions
- Add year-round beauty & interest to the garden
- Healthier for you & environment
- Provide essential food & shelter for local birds, pollinators and other wildlife



How many insects
does it take this
Carolina Chickadee
to raise one family?

Up to 9,000!



Douglas Tallamy/U
of Delaware

The winter sowing investment



Cardinal flower seeds
harvested from garden



Recycled milk jugs



Seed starting mix

More than 60 plants from winter sowing

\$390 value for free

Cardinal flower-Lobelia cardinalis



What can you winter sow?

- Native plants
- Perennials
- Herbs
- Annuals
- Vegetables



Photos by Molly Moore

When to Sow

December 21-March 19

Winter Solstice thru Spring Equinox



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- All native plants that need cold moist stratification
- Other perennials requiring stratification: lavender, catmint, hellebores, Chinese lantern
- Native grasses, vines & trees
- Vegetables – cool season and warm season
- Herbs—thyme, oregano, parsley
- Hardy annuals and annuals—pansies, ornamental kale

February-March Cool weather vegetables



- Lettuce
- Bok choy
- Broccoli
- Carrots
- Snow peas
- Spinach
- Swiss chard
- Kale
- Radish
- Onion

Late February-March Herbs

- Parsley
- Dill
- Lavender
- Rosemary
- Sage
- Thyme
- Basil
- Cilantro



Photos by Molly Moore

More Late February-March Tender annuals

- Zinnia
- Marigolds
- Nasturtiums
- Tithonia
- Cosmos
- Calendula



Molly Moore

Molly Moore

What about heat-lovers?

Mid-March to April



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- Tomatoes
- Peppers
- Eggplant
- Okra
- Squash
- Pumpkins
- Watermelon
- Cucumbers/cucurbits

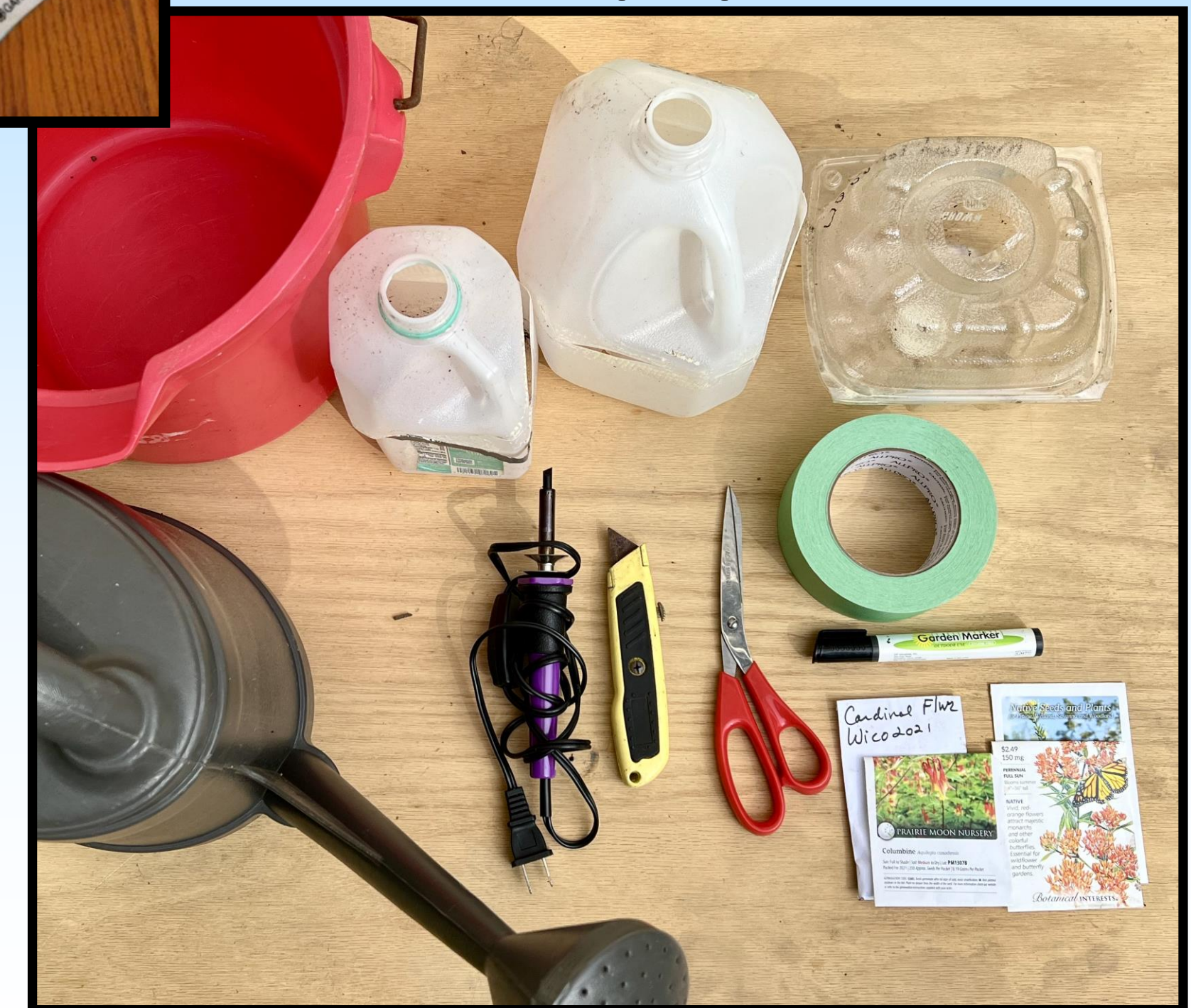
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Tools of the trade: What you need

- Containers
- Soilless potting mix or seed starting mix
- Bucket
- Water
- Trowel
- Scissors or sharp knife
- Popsicle, craft sticks
- Tape
- Marker
- Seeds

Optional:

- Gloves
- Wood-burning pen, drill, etc
- Coffee filter, newspaper



Winter Sowing in Jugs



1. Collect & wash jugs. Discard cap



2. Punch 4-6 drainage holes in bottom



3. Cut jug in half leaving a hinge

4. Label with weather resistant marker



5. Put 3-4" of moist soil in bottom of jug



6. Scatter seeds on top of soil. Water lightly to ensure contact with soil.



7. Duct tape jug together



10. Transplant when seedlings are at least 2" tall



8. Set jugs outside where rain/snow can enter top. Water if needed

9. Open jug in spring after seeds sprout

& danger of frost ends



Making the Cuts

- Using knife, scissors, drill, hot glue gun, or soldering iron, make 4-6 holes in bottom of container
- For jugs, cut in half, leaving a 4" bottom and a hinge under the handle. Discard cap.



Additional cuts

- 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.



Video by Molly Moore



Prepare labels

- Use UV-resistant markers, grease pencils, pens, paints on outside
- Label the bottom with duct tape and waterproof marker
- As a backup in event labelling on the outside comes off or fades, use a popsicle stick or plant marker inside the jug



Prep potting mix

- Use a large container such as a bucket, cement mixing tray, or wheelbarrow
- Add **warm** water to potting mix until thoroughly damp but not sopping wet



Video by Wm Smith, St. Mary's MG

Add potting mix

- Optional: Add a water-permeable barrier (coffee filter, landscape fabric, or newspaper) to bottom before adding potting mix to keep slugs out
- Add approx 3-4 inches of mix to container
- Tap container to settle the mix and remove air pockets



Video by Wm Smith, St. Mary's MG

Plant seeds

- Plant only one type of seed at a time
- For most native seeds, sprinkle on top of mixture & press into mixture. Many need light to germinate. Do not cover.
- Larger seeds—follow instructions on packet for depth
- Water seeds into soil thoroughly; water may drain through bottom
- Did you remember to label your container?



Methods of Sowing Seeds

Space seeds so they can be easily
separately

OR

Sprinkle seeds that can be cut brownie-
style



Seal the containers



Care of jugs & containers

- Do NOT put caps on jugs
- Place in protected area safe from pets, wild animals, young children and clumsy friends
- Do NOT bring indoors!



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Where should I place my containers?

- Keep in part shade/part sun (may need to move as weather warms)
- Do not place under eaves, covers or decks that prevent rain from entering top



Placement of containers matters!

Two containers of Joe Pye planted January 14, 2022
Check out the difference in the photos taken March 20



Germinated within 1 month; photo
taken 2 months after sowing

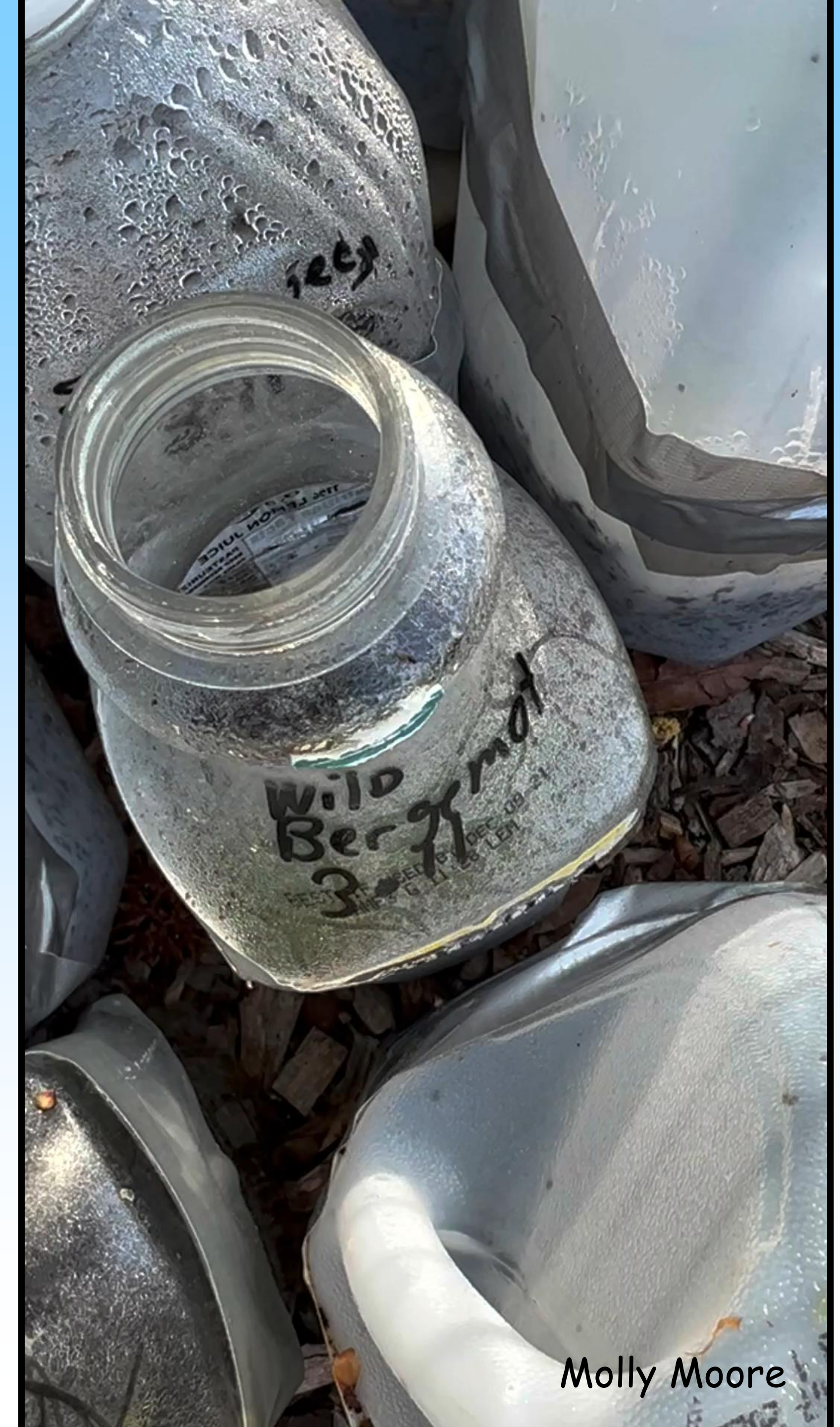
Photos by
Marlene Smith



Germination took 2 months; photo
taken 2 months after sowing

The Wait

- Have patience
- Seeds will sprout when nature tells them to sprout
- You can't hurry the seeds



Don't plant & forget: Check jugs weekly!

Too dry

- Jug feels light when lifted
- Mixture looks crumbly & dry
- Condensation inside the jug seems good, but still check mixture for dryness
- Solution: Spritz/spray (don't pour) water into opening, or bottom water



Too wet

- Jug feels heavy when lifted
- Mixture looks waterlogged
- Green algae on surfaces
- Solution: If not below freezing, open top of jug for a day or two, or add more drainage holes



My seeds have germinated. Now what?

- Keep moist!
- Once sprouted, water well and cover containers with sheet, blanket or row cover if temps are predicted to go below freezing.
- For unexpected warm spell, open containers & move to the shade.
- Wait for at least 1-2 sets of true leaves to appear or until seedlings are 2 inches tall to transplant.



Cotyledons — Not Ready



Ready

Methods of Transplanting

Open containers to acclimate 2-3 days before transplanting

Seeds spaced evenly can be easily cut or torn apart

Sprinkled seeds can be cut brownie-style and planted as “Hunk o’ Seeds”



Marlene Smith



Molly Moore



Marlene Smith



Molly Moore

Sometimes there's a surprise



How to get the plants out!



Video by Molly Moore

**Pull
individual
plants
apart. . .**

Gently!

Video by Molly Moore



Winter sowing's
secret to success...



Amazing roots!



Provide shade when transplanting

- Transplanting disturbs roots, which in turn affects water absorption necessary for photosynthesis & cooling
- Work in a cool, shady place to prevent roots from getting hot or drying out
- Provide shade for the first 1-2 weeks after transplanting
- If seedlings start to wilt in the sun, keep in shade longer



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Advice was taken from the Bona Terra Seedling Division video:



Pot seedlings for neighbors, plants sales, food banks, and for greater survival





Molly Moore

Our Winter Sowing Experiences & Outcomes



Marlene Smith



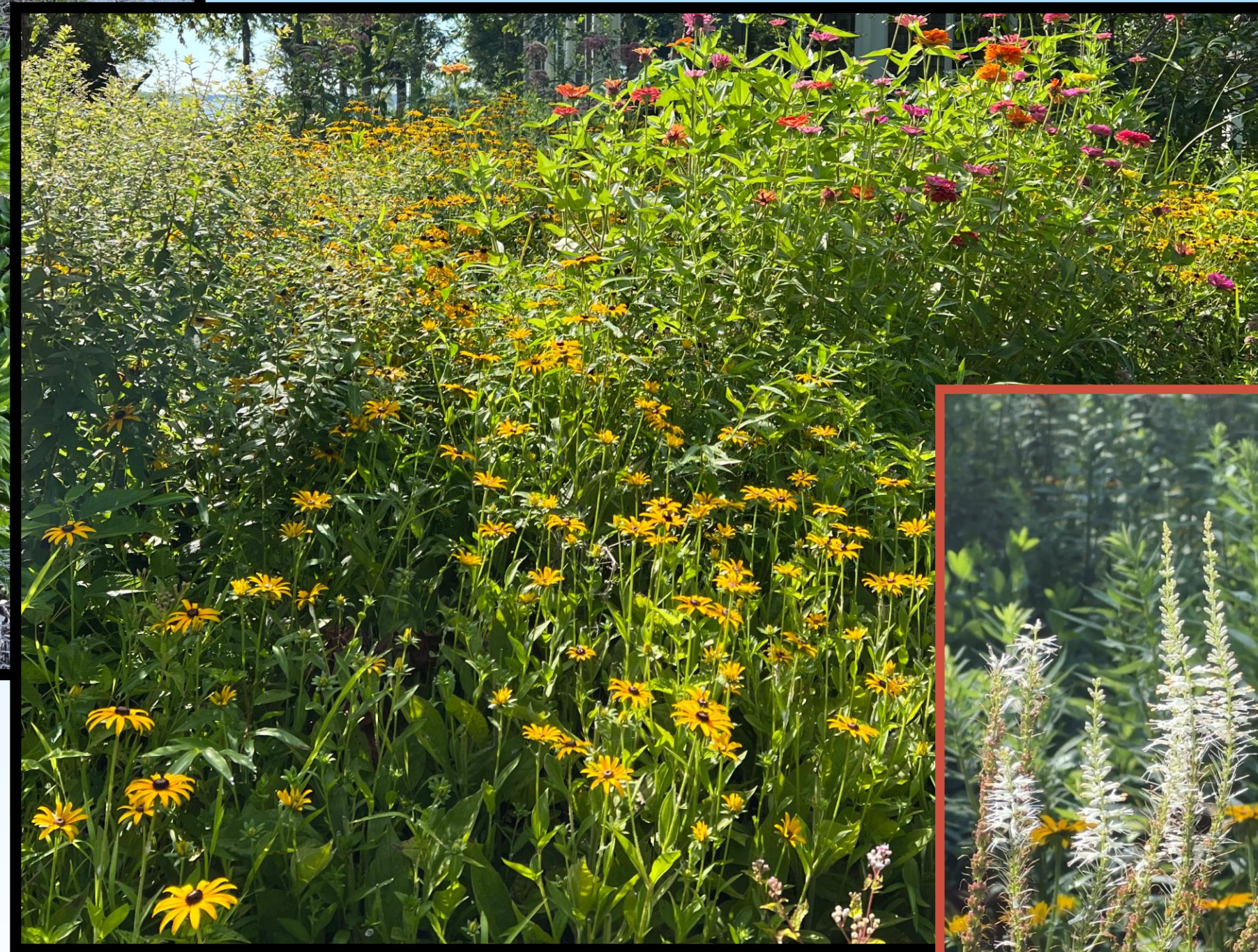
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Two years in a winter sown bird & pollinator garden

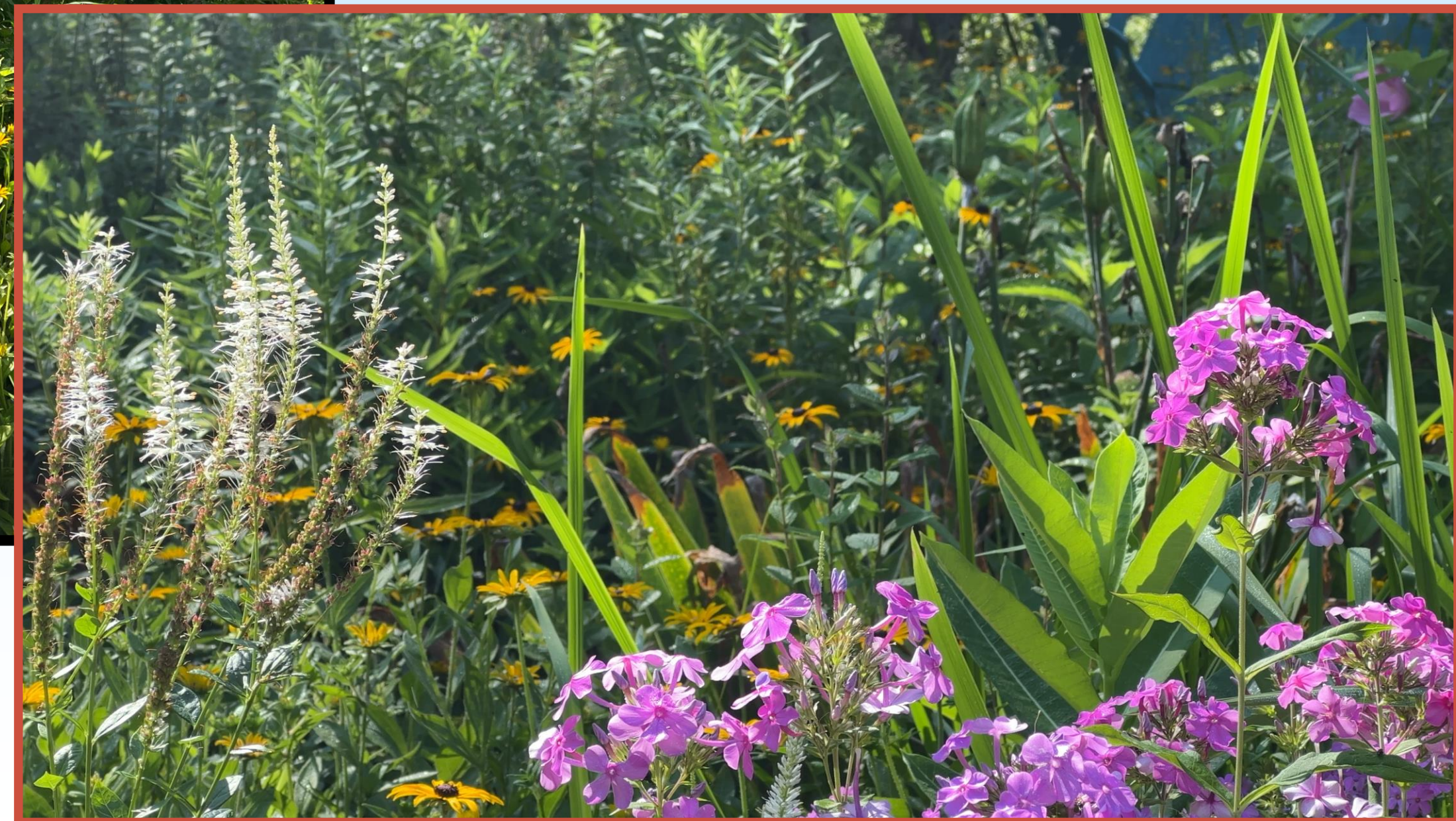
August 2021



August 2022



July 2023



Photos by Molly Moore

Winter Sow for Hummingbirds



Photos by Molly Moore

Companions in the garden

- Basil with tomatoes, improves flavor & growth
- Marigold, zinnias, nasturtiums planted among all veggies to deter pests & attract pollinators
- Oregano with cucumber & melons deters pests in general
- Rosemary with kale deters cabbage moths, with beans deters bean beetles



Photos by Molly Moore

Improve your vegetable garden's production with native plants!

Native plants in or near the vegetable garden attract insects that :

- Pollinate the vegetables
- Prey upon or repel insect pests
- Deter deer, rabbits, and other herbivores



Photo by Marlene Smith

• Native companion plant choices

Beneficial insects (wasps, bees, butterflies, skippers, nocturnal moths, flies, bee flies, beetles) and hummingbirds will be attracted to the nectar of these plants, aiding in pollination. Some species are host plants for butterfly or moth caterpillars, deer resistant, and/or drought tolerant.

- ***Asclepias spp***

- ***Eryngium yuccifolium***

- ***Eupatorium hyssopifolium***

- ***Eutrochium spp***

- ***Helianthus spp***

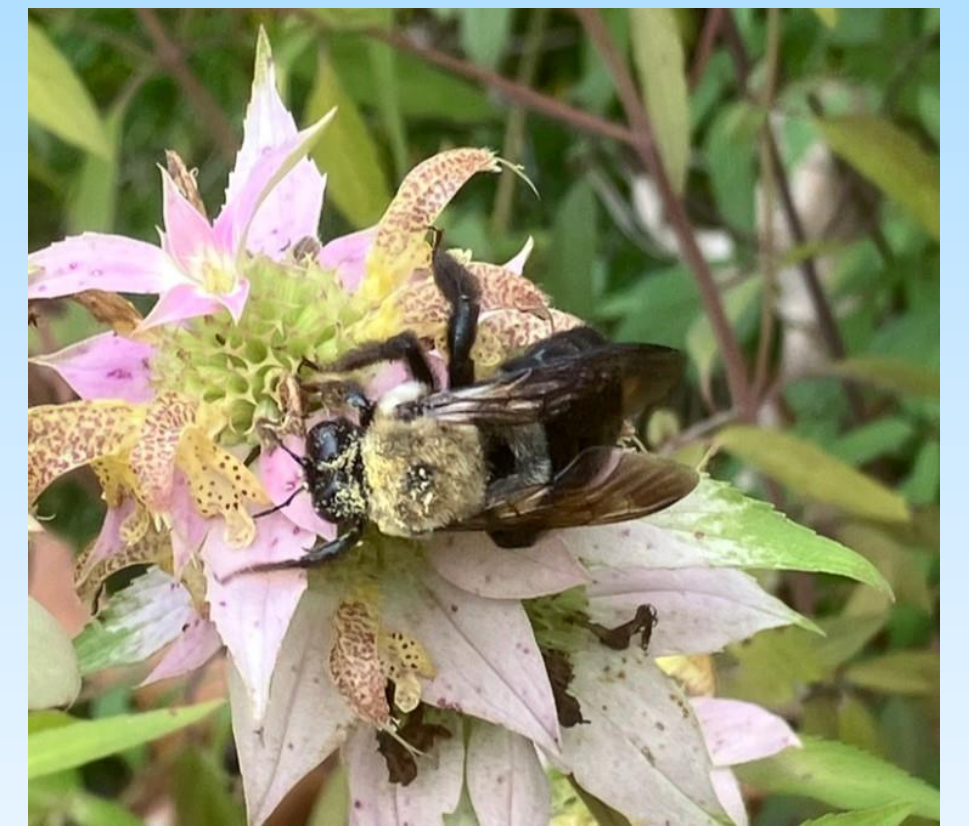
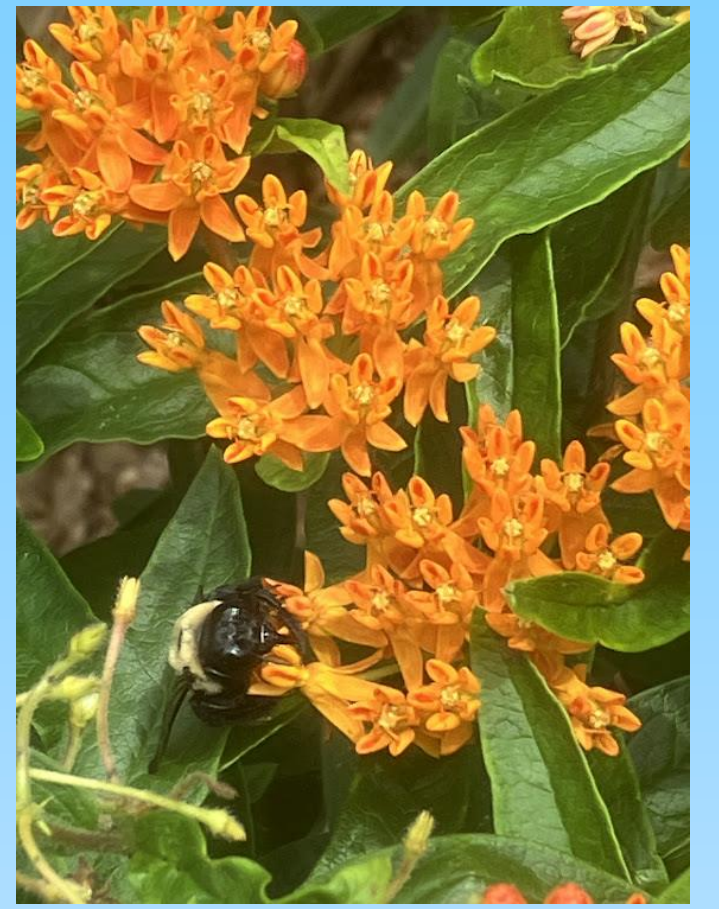
- ***Liatris spp***

- ***Monarda spp***

- ***Pycnanthemum spp***

- ***Solidago spp***

- ***Symphotrichum***



Photos by Marlene Smith

Where's the beef?

Or should I say Big Beef Tomato?

3/3/2021 Winter sowed Big Beef seeds

3/20/2021 Seeds germinated

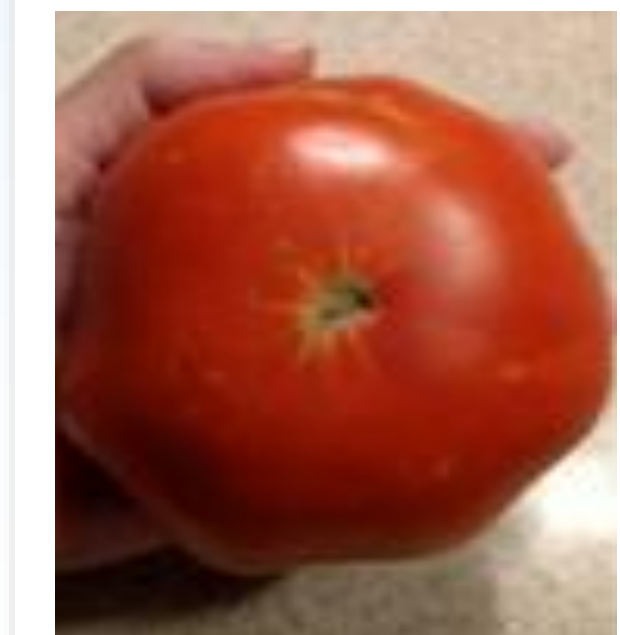
4/1/2021 Opened & caught distinctive whiff of tomato foliage

4/12/2021 Seedlings transplanted into garden

7/15/2021 Plants are taller than my 6'3" husband and their 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



Photos by Marlene Smith

Winter Sown Super Snappy Peas

2/2/22 Winter sown in a gallon milk jug
2/11/22 Germinated in 9 days
3/2/22 Planted in the ground after 2
sets of true leaves appeared.

**Look at the roots on
these babies!**



Photos by Marlene Smith

Southern Maryland Food Bank 2022

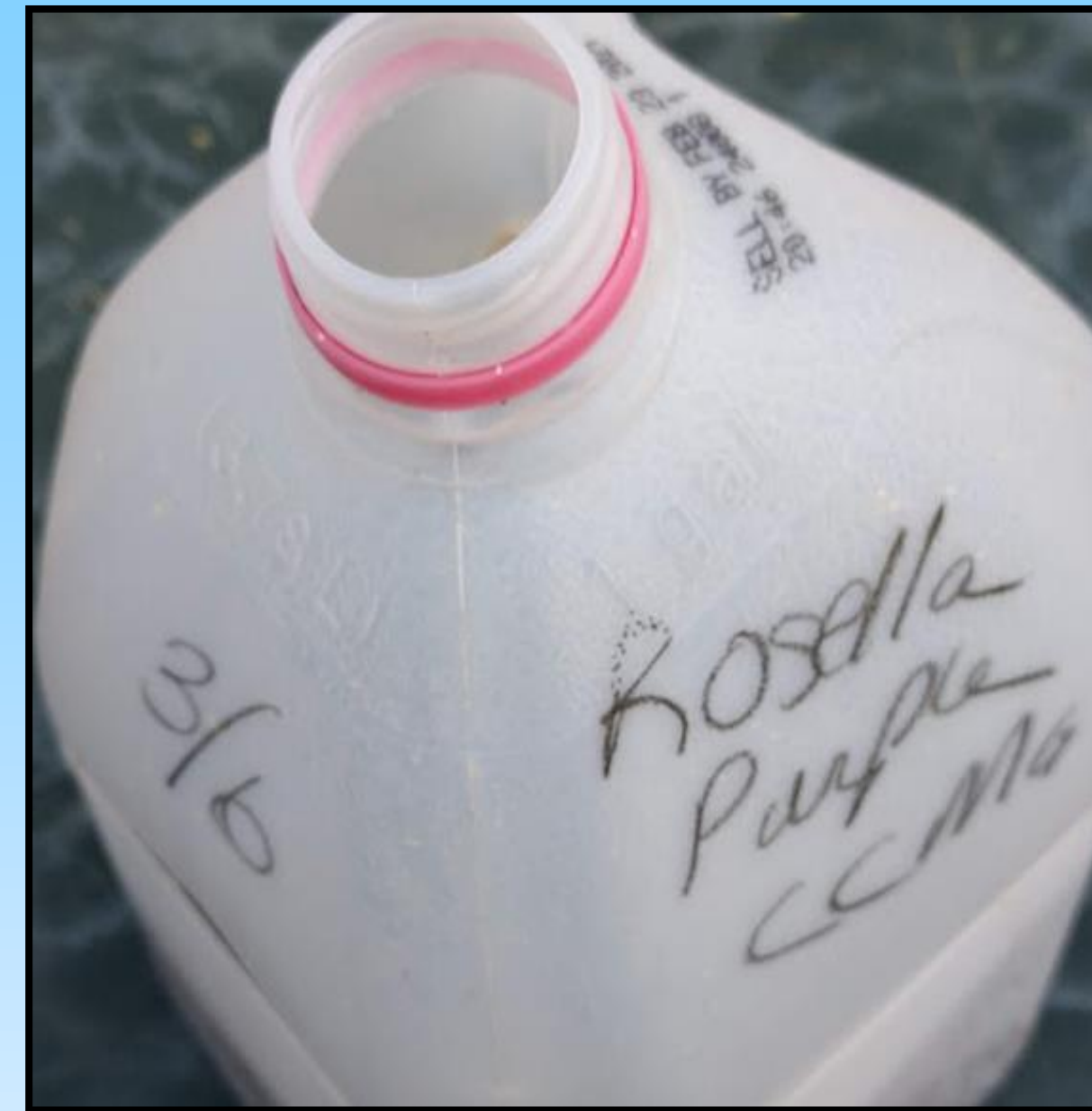


Photos courtesy CCMG B. Burdick

Charles County Master Gardener Plant Sale 2022



Photo by CCMG T.Thir



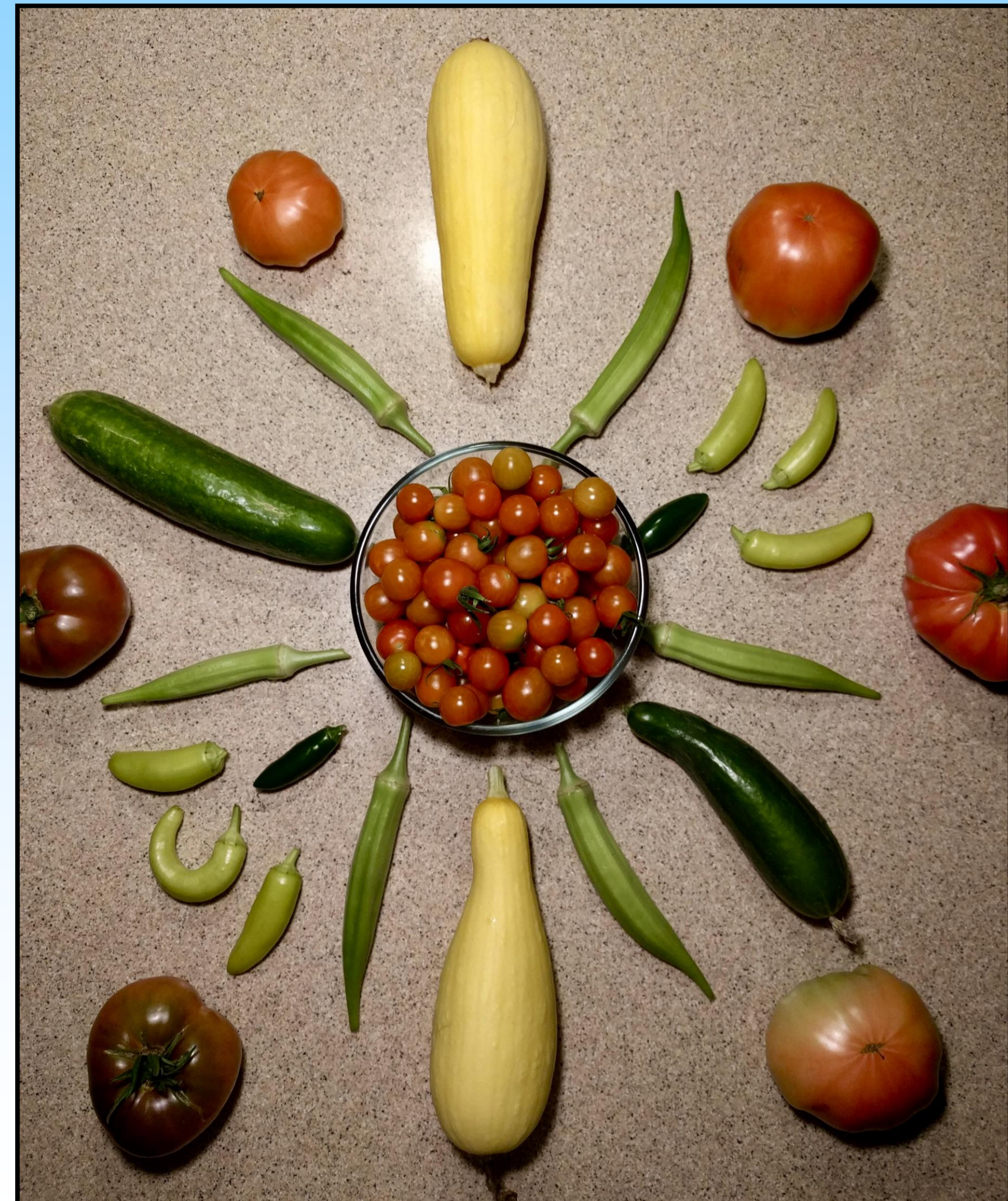
Photos by Marlene Smith



Enjoy the fruits of your labor!



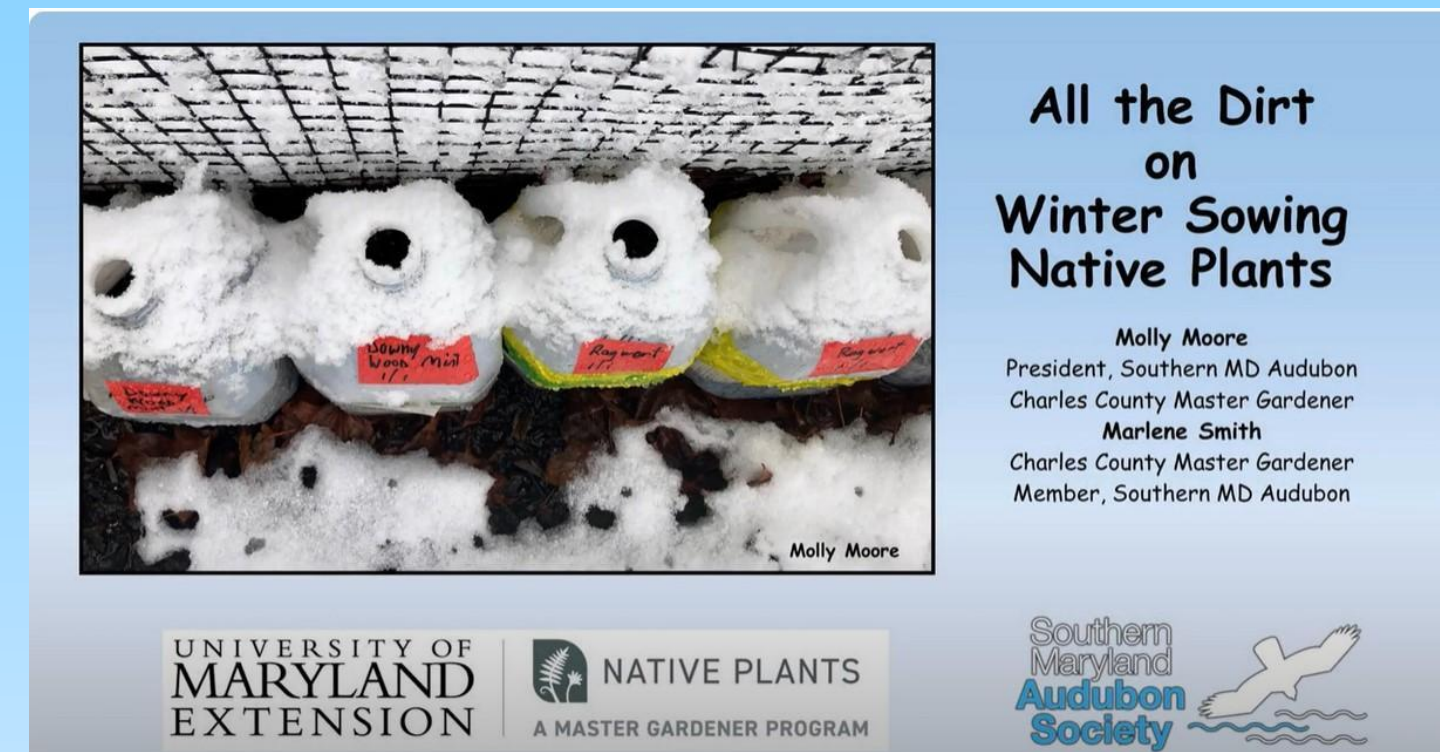
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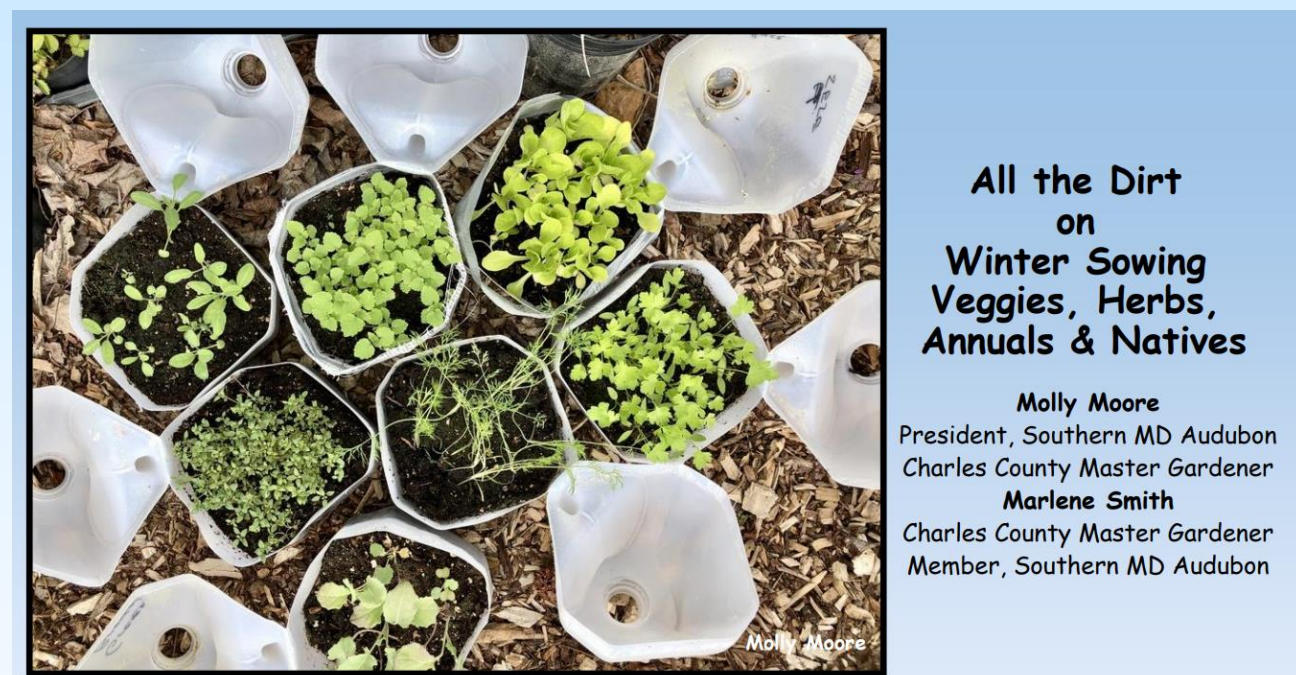
“All the Dirt” Resources



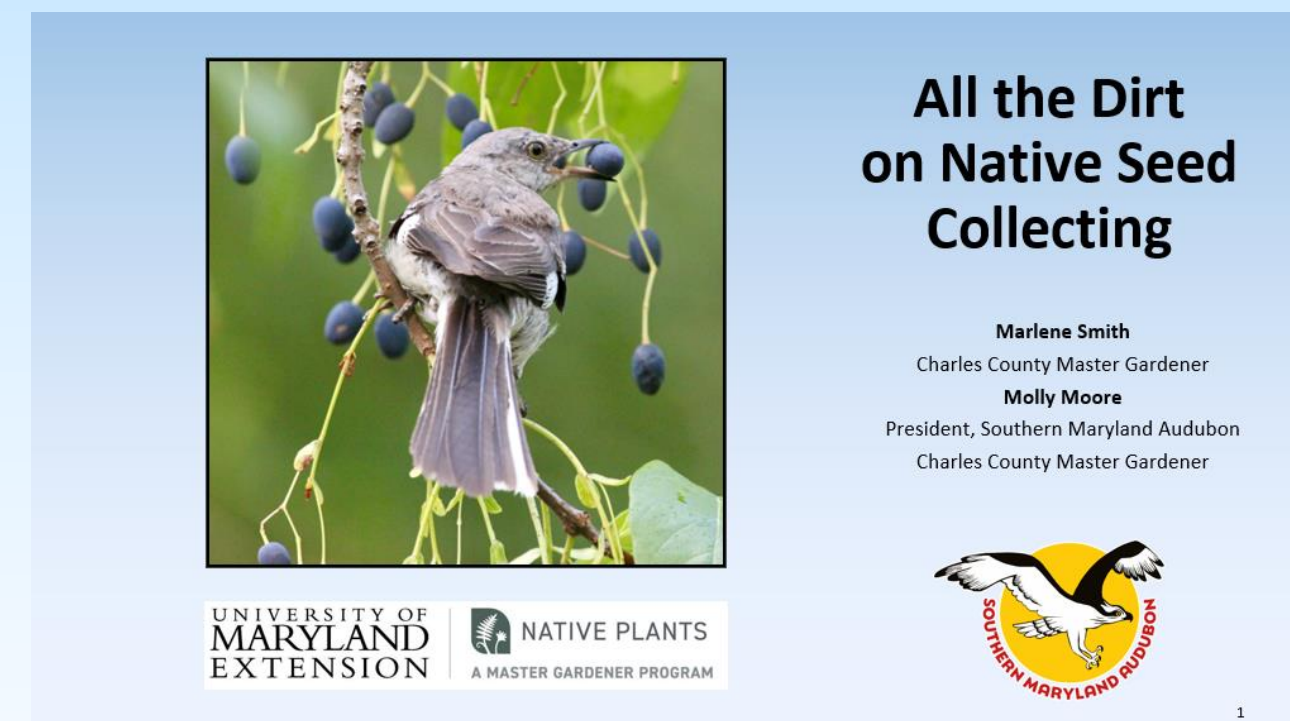
All the Dirt on Winter Sowing
November 2021



All the Dirt on Winter Sowing Native Plants
January 2023



All the Dirt on Winter Sowing Veggies,
Herbs, Annuals, & Natives
February 2023



All the Dirt on Native Seed Collecting
October 2023



Resources

-  “All the Dirt on Winter Sowing” recorded presentation by Charles County Master Gardeners. <https://youtu.be/mhqT1kUVSk0>
-  “All the Dirt on Winter Sowing” PowerPoint presentation by Charles County Master Gardeners. <https://extension.umd.edu/sites/extension.umd.edu/files/2021-12/All%20the%20Dirt%20on%20Winter%20Sowing%20Power%20Point.pdf>
-  “Winter Sowing – How to Grow Your Own Natives for Birds and Beauty” recorded presentation by Southern Maryland Audubon Society. <https://youtu.be/K9Ov1HXzhmw>
-  Charles County Master Gardeners Native Plants webpage. <https://extension.umd.edu/locations/charles-county/master-gardener/native-plants>
-  Audubon “Plants for Birds” webpage. <https://www.audubon.org/plantsforbirds>
-  Winter Sowers Facebook group “Guides”. https://www.facebook.com/groups/wintersown/learning_content
-  Charles County Master Gardeners Resources webpage. <https://extension.umd.edu/locations/charles-county/master-gardener/resources>

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