



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

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Maryland
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ASK A MASTER GARDENER
PLANT CLINIC

A MASTER GARDENER PROGRAM

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BAY-WISE

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POLLINATORS

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COMPOSTING

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NATIVE PLANTS

A MASTER GARDENER PROGRAM

What is Winter Sowing?

- An incredibly 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 and wait for them to sprout
- Winter sowing introduced by Trudi Davidoff in 2000 & has since been recognized officially by the USDA



Marlene Smith

Why Winter Sow?

- Inexpensive!
- Environmentally friendly
- 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



Natives to Winter Sow



10 days cms



Partridge Pea
Chamaecrista fasciculata



Wild Bergamot
Monarda fistulosa



Common Milkweed
Asclepias syriaca



Black-eyed Susan
Rudbeckia hirta



Spotted Beebalm
Monarda punctata



Swamp Milkweed
Asclepias incarnata




Foxglove Beardtongue
Penstemon digitalis



Yellow Sneezeweed
Helenium autumnal



Joe Pye
Eutrochium maculatum

 Needs light to germinate

 Need 30 days cold, moist, stratification

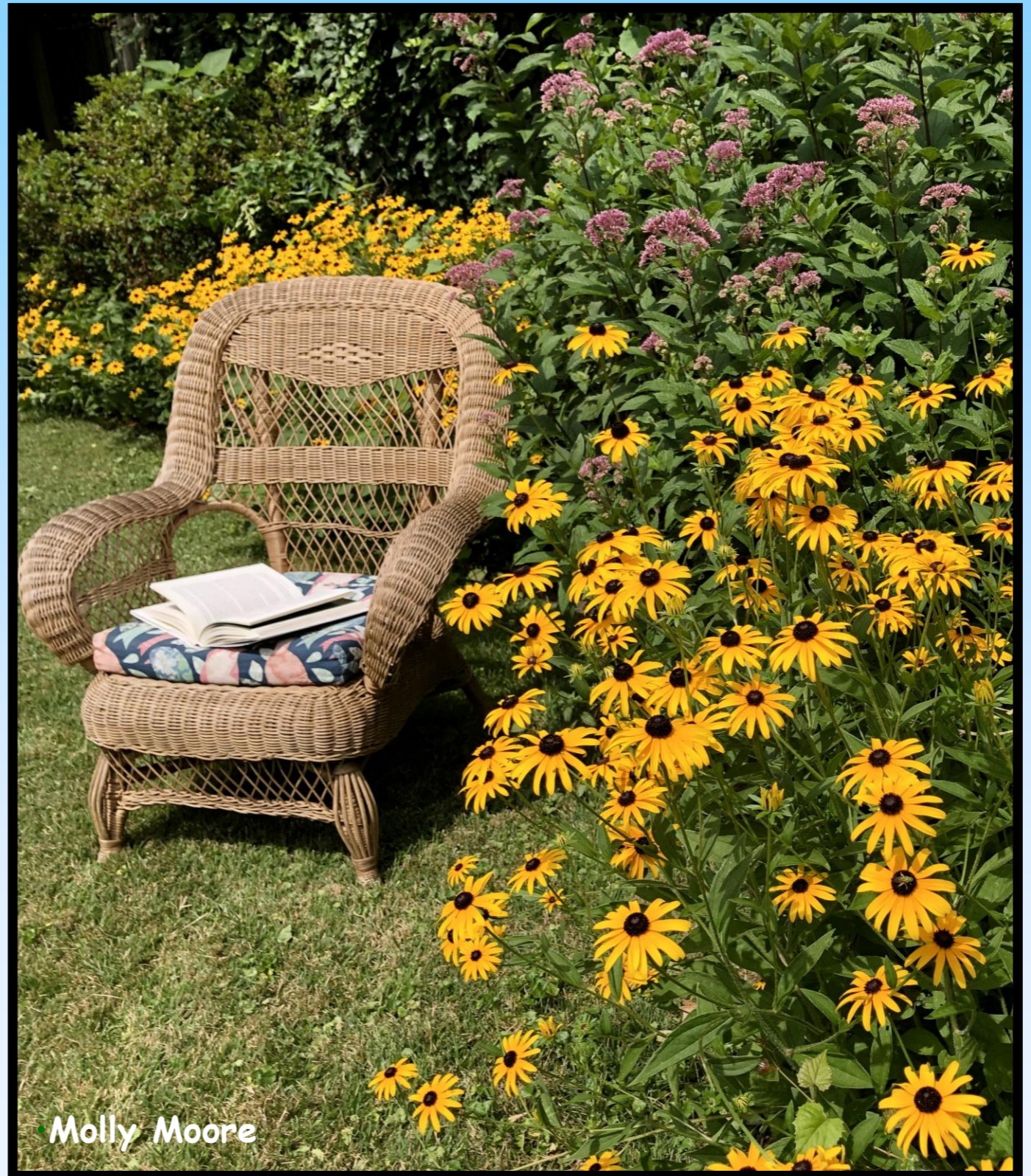
Why natives?

- Better suited for our climate
- Require less water once established
- Do not need fertilizer or pesticides
- Tolerate a variety of soil & light conditions



More reasons to grow natives

- 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?

**7,500-
9,000!**



Douglas
Tallamy/U of
Delaware

What to Sow When

December 21-March 20

- All native plants—but especially ones that require cold moist stratification
- Native grasses, vines, shrubs, trees
- Most perennials, biennials, annuals, herbs & veggies



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What to Sow When February-March

Cool weather vegetables

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



Late February-March Time to sow herbs

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



Photos by Molly Moore

More Late February-March Tender annuals

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



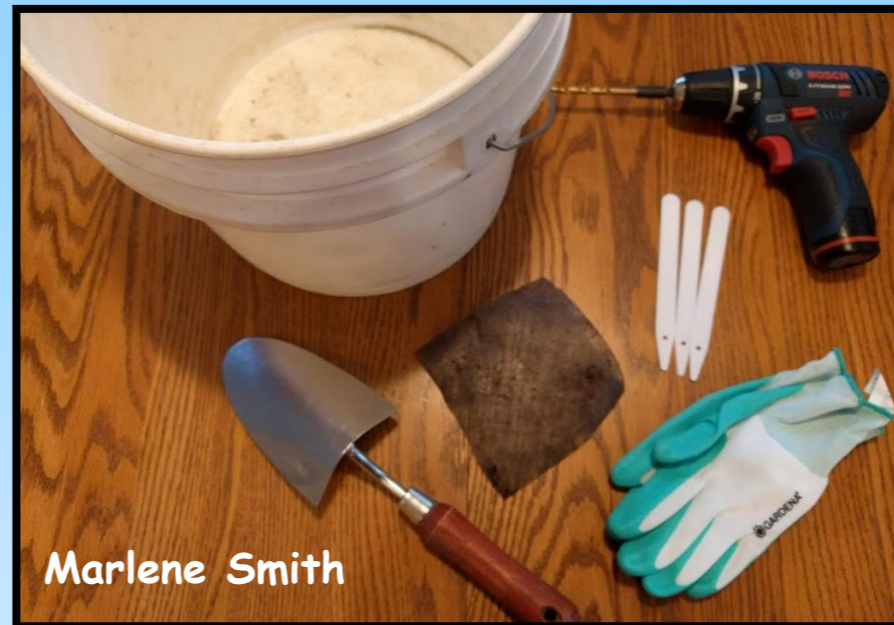
What about heat-lovers? Mid-March to April

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



Tools of the trade: What you need

- Containers
- Soilless potting mix or seed starting mix
- Bucket for mixing
- Water
- Trowel
- Scissors or sharp knife
- Wood-burning pen, drill, etc
- Tape for sealing/labelling
- Marker for labelling
- Seeds



Collect and wash containers

- Milk jugs (gallon or quart), 2-liter bottles, plastic food tubs, ice cream tubes, 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.
- Need minimum of 3-4 inches of potting mix for natives to allow root development.



A word about containers: Use your imagination!



Photos by Marlene Smith



Video by Molly Moore

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!



Video by Wm Smith, St. Mary's MG

Prepare labels

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



Video by Wm Smith, St. Mary's MG

Prepare potting mix

- Use large container such as a wheelbarrow, cement mixing tray or bucket
- Add water to potting mix until thoroughly wet 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 the bottom before adding potting mix to keep slugs out & keep soil in
- Add approx 3-4 inches of mix to the container
- Tap container to settle the mix, remove air pockets



Video by Wm Smith, St. Mary's MG

Plant the seeds

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



Video by Wm Smith, St. Mary's MG

Methods of Sowing Seeds

Space seeds so they can be easily cut or torn apart



Hunk o' seeds—sprinkle in a mass that can be cut brownie-style



Photos by Marlene Smith

Seal the containers



Video by Wm Smith, St. Mary's MG

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



The Wait

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



Video by Molly Moore

Monitor your babies

Condensation—good



Green algae—bad



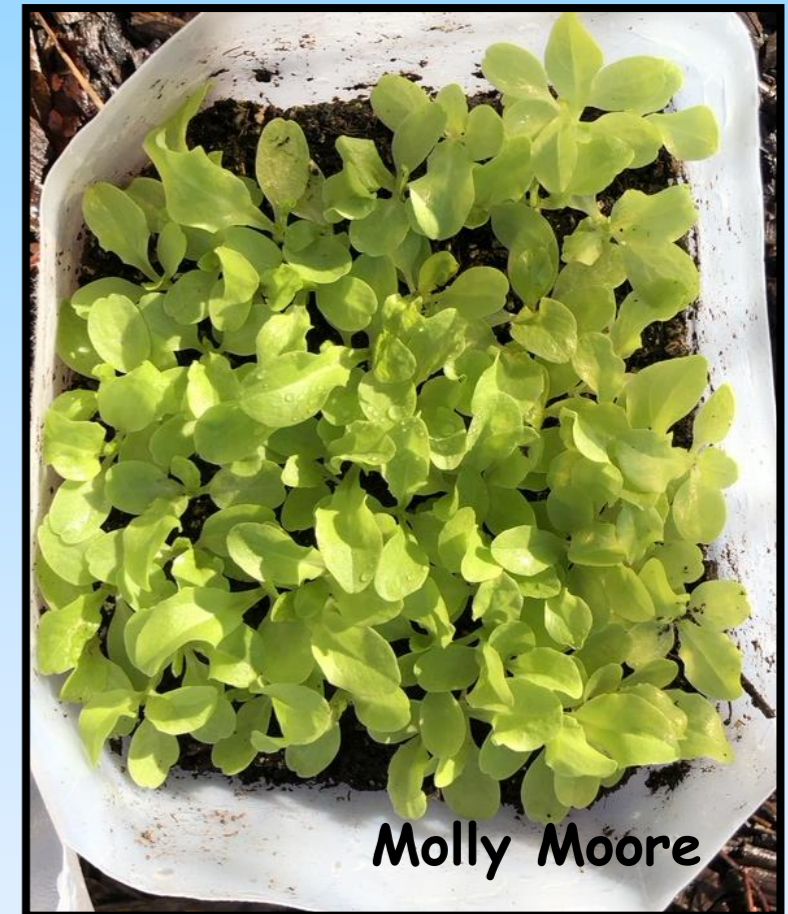
My seeds have germinated. Now what?

- Wait for at least 1-2 sets of true leaves to appear
- Or until seedlings are 2 inches tall



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Cotyledons—Not Ready



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Ready

Transplanting seedlings

- Transplant after seeds sprout at least two true leaves or seedlings are 2 inches tall
- Open containers to acclimate 2-3 days before transplanting.



Sometimes there's a surprise inside!



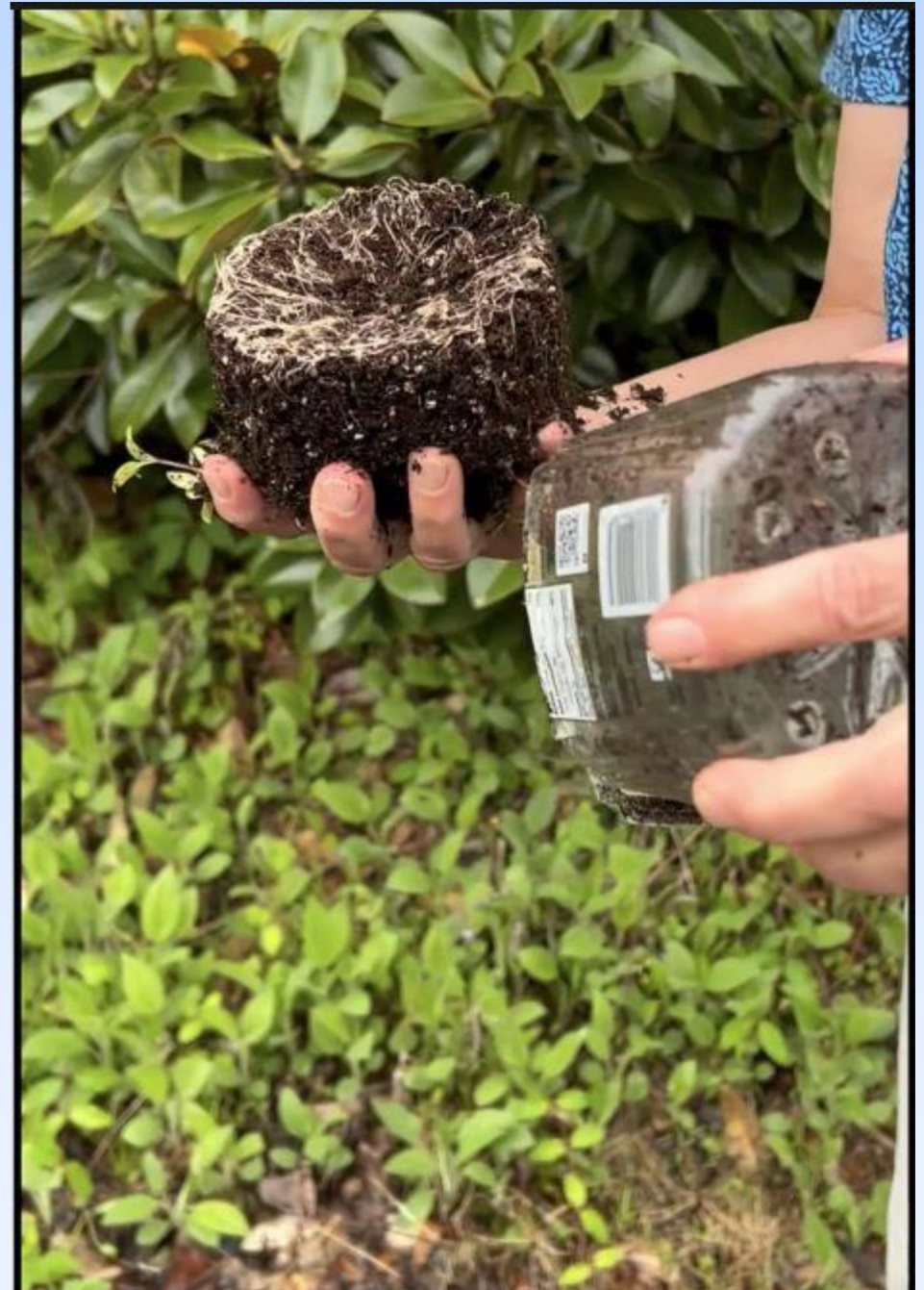
Winter sowing's secret to success



Strong roots!



How to get the plants out!



Video by Molly Moore

**Pull
individual
plants
apart. . .**

Gently!



Video by Molly Moore

Methods of Transplanting

Seeds spaced for easy individual separation



Seeds planted in a mass can be cut brownie-style





Our Winter Sowing Experiences & Outcomes



Marlene Smith



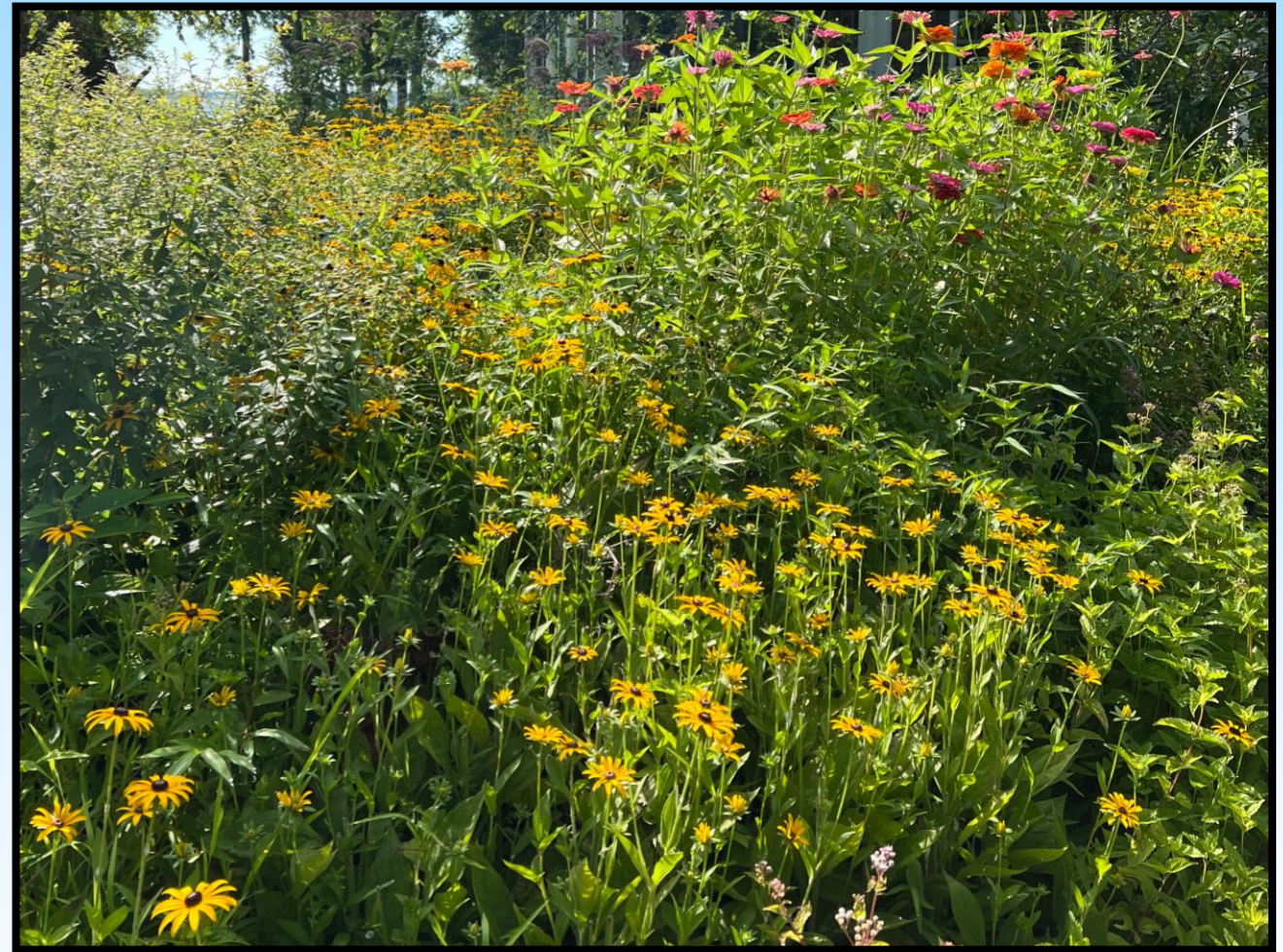
Molly Moor©

One year in a winter sown bird & pollinator garden

Aug. 8, 2021



August 8, 2022



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

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



Germination took 2 months; photo taken 2 months after sowing

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

3/3/2021 Winter sowed Big Beef seeds

3/20/2021 Seeds germinated

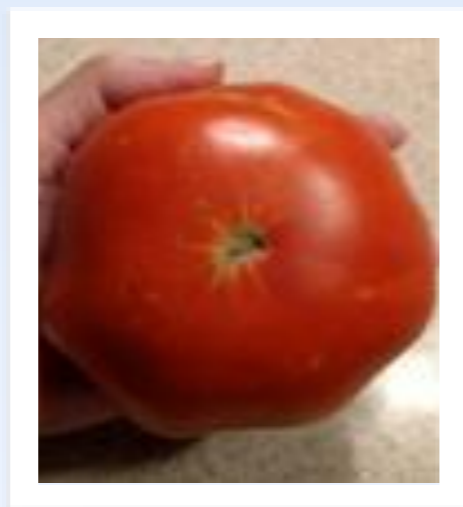
4/1/2021 Opened & caught distinctive whiff of tomato foliage

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



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

Pot seedlings for neighbors, plant sales, food banks



Southern Maryland Food Bank 2022



Photos courtesy CCMG B. Burdick

Charles County Master Gardener Plant Sale 2022



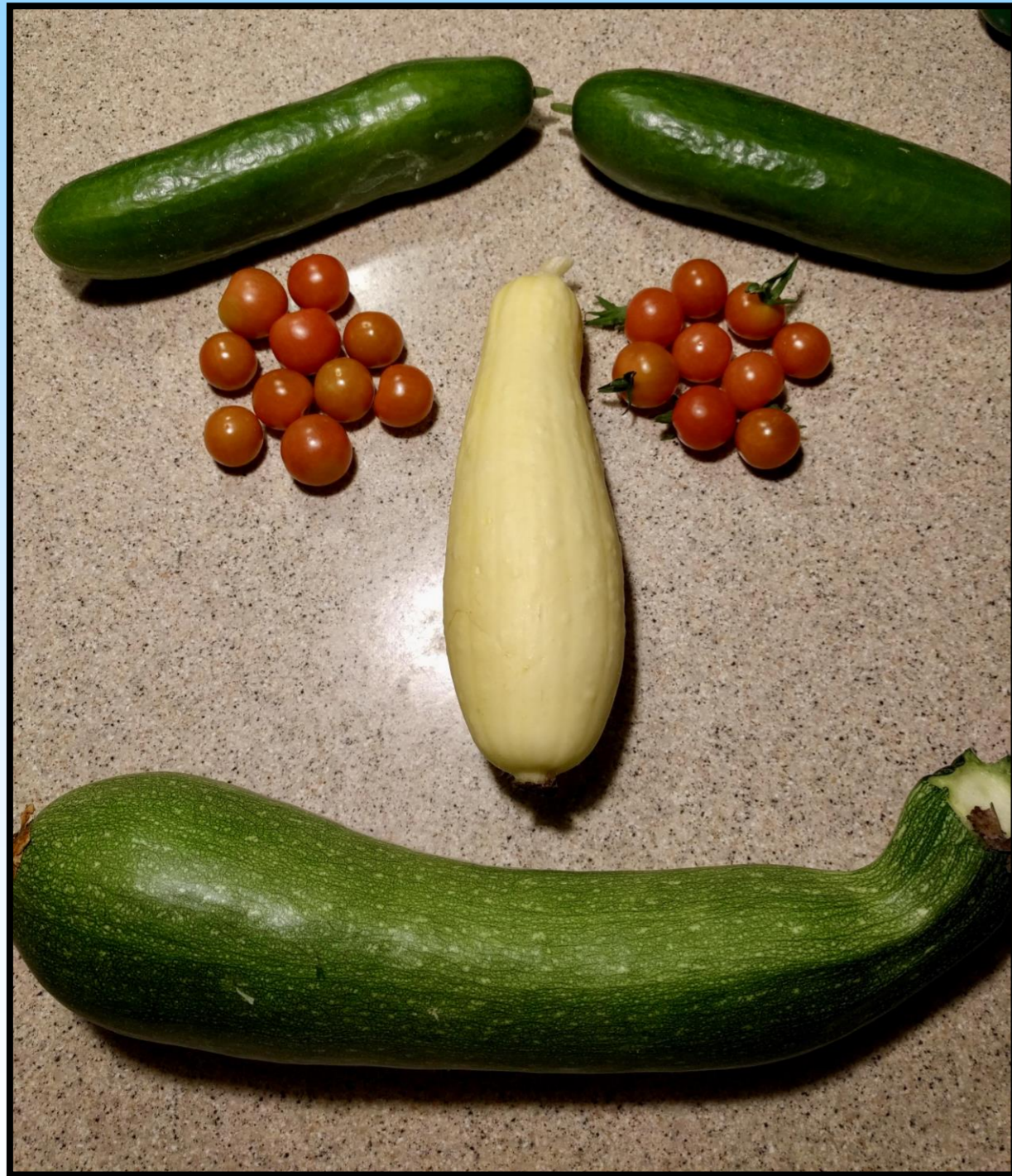
Photo by CCMG T. Thir



Photos by Marlene Smith



Enjoy the fruits of your labor!



Photos by Marlene Smith

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

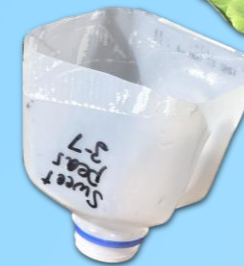


5. Put 3-4" of moist soil in bottom of jug



6. Scatter seeds on top of soil. Cover lightly with soil. Mist lightly

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





Resources

-  “All the Dirt on Winter Sowing Native Plants” PowerPoint presentation by Charles County Master Gardeners & Southern Maryland Audubon. <https://extension.umd.edu/sites/extension.umd.edu/files/2023-01/23%2001%2007%20PDF%20Winter%20Sowing%20Workshop%20Presentation%203%20wide%20width.pdf>
-  “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>



Resources

-  Charles County Master Gardeners Grow It Eat It webpage.
<https://extension.umd.edu/locations/charles-county/master-gardener/grow-it-eat-it>
-  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>



UME Resources

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go.umd.edu/hgic

go.umd.edu/askextension marylandgrows.umd.edu

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LOCAL
PROGRAMS

MASTER GARDENER
HANDBOOK

go.umd.edu/mg

go.umd.edu/mglocalprograms go.umd.edu/mghandbook

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