



# Winter Sowing Native Plants

## Izzy Julio

- **Master Gardener**, Rutgers Cooperative Extension Program - Union County
- **Former Garden Educator & Manager**, Livingston Eagles Garden at Livingston Elementary School

In Partnership with:  
Rutgers Master Gardeners of Union County



Photo: Izzy Julio  
Holding winter sown plants at UPL  
Vauxhall Branch



# Welcome to Winter Sowing!

What we'll cover today:

- How seeds grow naturally in winter
- Creating mini greenhouses from recycled containers
- Starting seeds at the right time
- Results from the Union Public Library and MG Rain Gardens
- Upcoming winter sowing event
- Resources



Photo: Master Gardeners doing various winter sowing steps at the Union County Demonstration Garden in Jan 2025

# Why Try Winter Sowing?

## For Your Garden

- Creates stronger, hardier plants
- Saves money on plants
- Works with nature's timing
- No need for grow lights or indoor space

## For Our Community

- Support local pollinators
- Create wildlife corridors
- Share native plants
- Build biodiversity



Photo: Winter sowing at the UPL Vauxhall Branch

# What is Cold Stratification?

Cold stratification is the process of exposing seeds to cold and moist conditions to encourage germination. The seed sheds its hard seed coat, beginning the germination process. You can mimic this process in the refrigerator or through winter sowing.

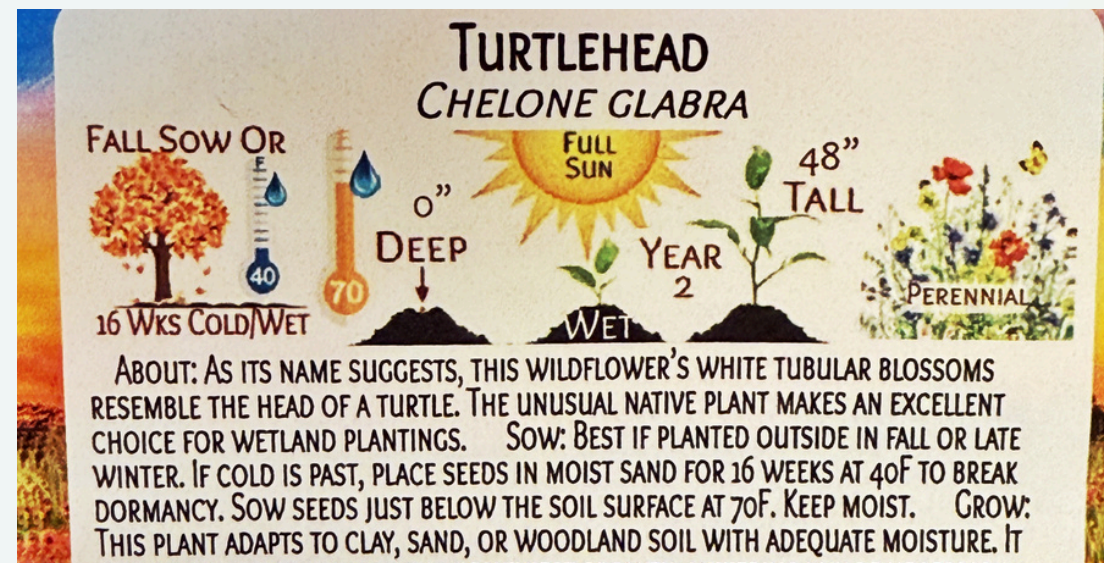
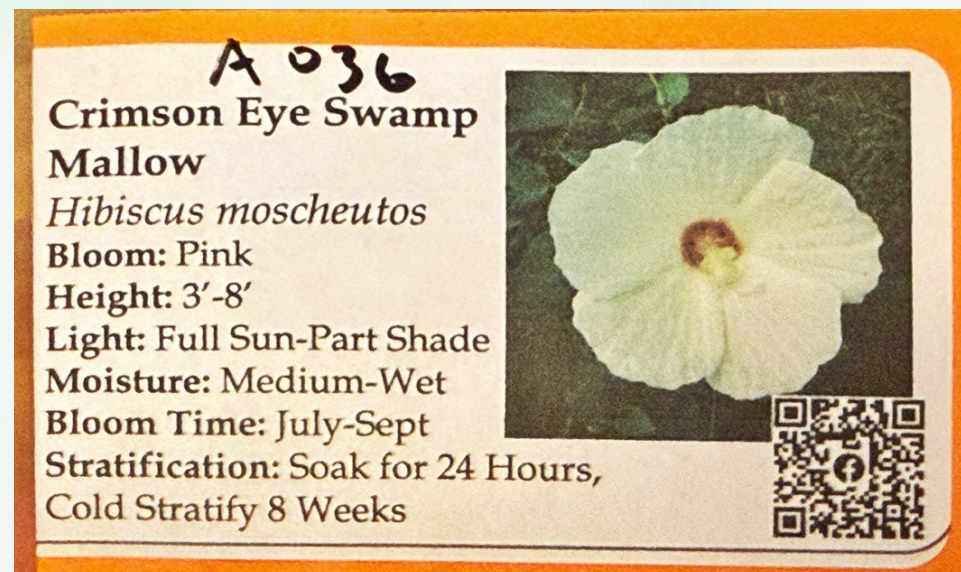
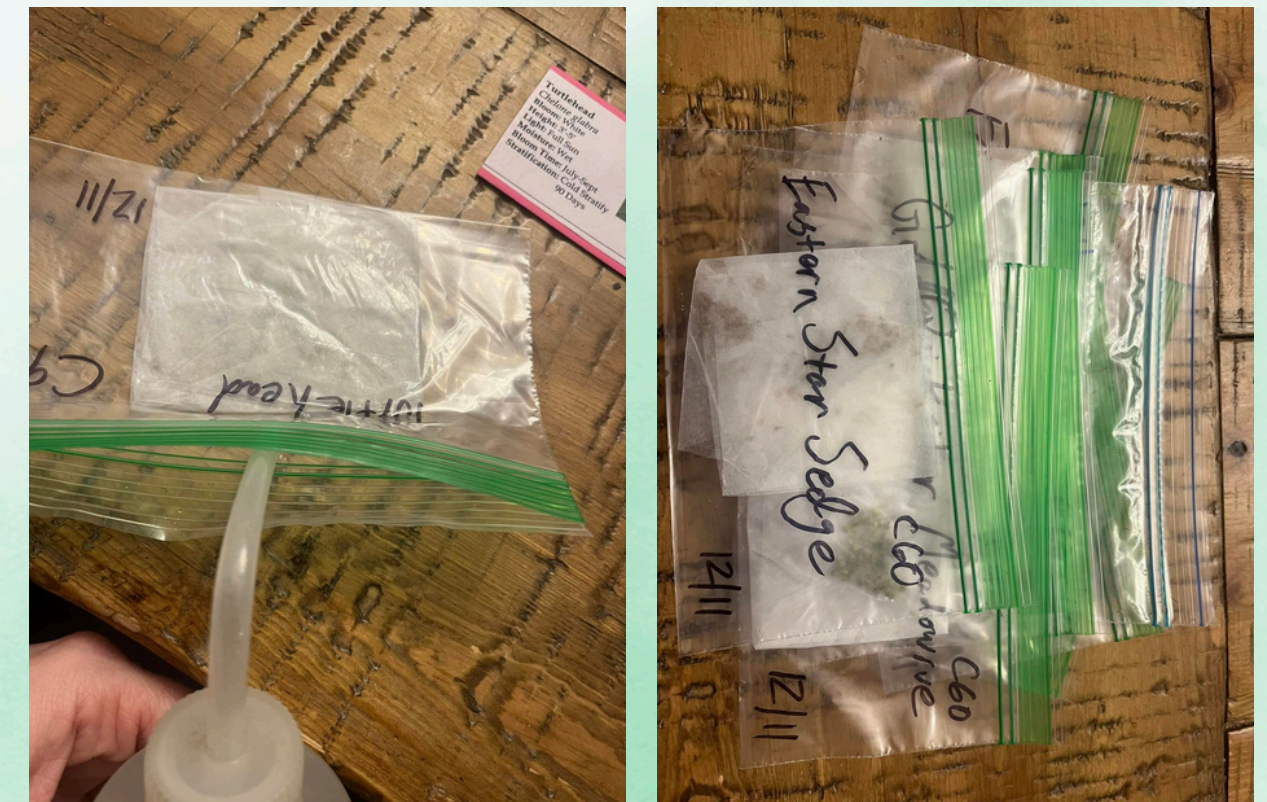


Photo: Izzy Julio

Seed packets with stratification instructions



Photos: Flagship Native Seed Library-South Orange, NJ

# What to sow Dec – Feb

## (Winter Sowing)

### Natives that require $\geq 45$ days of cold stratification:

- Milkweed
- Purple Coneflower
- New Jersey Tea (shrub)
- New England Aster
- Swamp Rose Mallow

### Tender Annuals

- Hollyhock, Poppy

### Herbs:

- Chives
- Thyme
- Oregano

### Vegetables:

- Kale
- Spinach
- Lettuce
- Radish



Photo: Izzy Julio  
Swamp Rose Mallow at the Master Gardeners of  
Union County Demonstration Garden

# What to sow Mar - Apr

## (Early Spring Sowing)

### Natives that require $\leq 30$ days of cold stratification:

- Lanceleaf coreopsis
- Black Eyed Susan
- Foxglove Beardtongue
- Lyreleaf Sage
- Anise Hyssop

### Tender Annuals

- Cosmos, Chamomile, Zinnia

### Herbs:

- Parsley
- Basil
- Cilantro
- Dill

### Vegetables:

- Peas
- Beets
- Swiss Chard



Photo: Izzy Julio  
Anise Hyssop at UPL Vauxhall Branch

# What to sow Apr - May

## (Late Spring Sowing)

### Natives that require 0 days of cold stratification:

- Mountain Mint
- Sneezeweed
- Larkspur
- Partidge Pea

### Tender Annuals

- Sweet Alyssum, Sunflower, Marigold

### Herbs:

- Sage
- Chamomile
- Lemon Balm

### Vegetables:

- Beans
- Cucumbers
- Squash
- Peppers
- Tomato/Tomatillo



Photo: Izzy Julio  
Tomatillo at Casa Julio

# Let's Get Started!

## What you'll need:

### Materials:

- Clean milk/water jugs or clear containers
- Potting soil & pail
- Painter's tape
- Garden marker and plant labels
- Seeds & Water
- *Optional:* Coffee Filters & Ruler

### Tools:

- *For cutting:* Scissors or utility knife
- *For piercing:* Milk crate, drill, scratch awl, soldering iron, glue gun, or hammer and nail



Photo: Izzy Julio  
Gathering supplies for winter sowing

# Container Preparation

## For Milk/Water Jugs

- Clean containers thoroughly
- Make drainage holes (min 6-8)
- Cut around middle (leave hinge)
- Fill with 3-4" of moist soil
- Label both top and inside container w/ label
- Remove cap for ventilation



Photos: Facebook Winter Sowing by Sheryl Mann

# Container Preparation

## Milk/Water Jugs Tips!

- Place containers in a milk crate for secure hole punching
- Use ventilation and wear a mask when using hot glue gun or soldering iron
- Mix soil and water in a bucket or container
- Place coffee filter or newspaper at bottom to prevent slug damage
- Close containers with painter's tape or clear disposable shower caps



Photo: Master Gardeners and UPL teams sowing prep in Jan 2025



# Container Options

Photos: Izzy Julio &  
Facebook Winter Sowing by Sheryl Mann



# Planting Your Seeds

## Steps

- Plant seeds according to packet depth
- Mist gently with water
- Close container and seal with tape
- Label with plant name and date

## Quick Tips

- Tiny seeds: Barely cover with soil
- Larger seeds: Plant twice as deep as seed width
- Soil should feel like a wrung-out sponge
- Space seeds so seedlings won't crowd



Photo: Master Gardeners  
seeds at the Union County  
Demonstration Garden in Jan  
2025



# Caring for Your Seeds

## Winter Care

- Place in a sunny spot
- Don't worry about snow - it's insulation!
- Check moisture occasionally
- Look for condensation inside



## Spring Care

- Watch for sprouts & pests
- Add ventilation slowly
- Protect from frost & wind
- Keep soil moist



Photo: Master Gardeners  
winter sown containers at  
the Union County  
Demonstration Garden in  
Jan & May 2025

# Wind & Critter Protection

## For Wind:

Keep containers on the ground to protect from wind. If needed, secure with netting and garden staples, fencing, milk crates, or wooden stakes through handles.



## For Critters:

Protect plants at any time with wire mesh or netting. Wire trash bins can also be used to protect transplanted seedlings. Coffee filters help with slugs



# Be Patient & Trust the Process

Jan 2025 & May 2025



Photo: Master Gardener Kate Rahal tending to winter sown containers at the Union County Demonstration Garden in Jan & May 2025

# Springtime Care

When daytime temperatures consistently reach 50°F, start opening your milk jugs during the day for a few hours. Close and cover the containers if frost is predicted (below 32°F), especially once seedlings have emerged, to protect your young plants.



Photo: Izzy Julio

April 21, 2024 - Seedlings ready for separation & transplant  
Summer Carnival Hollyhock, Nigra Hollyhock, Yarrow, Giant Hyssop, Borage, Chamomile, Columbine  
Huckleberry, Golden Alexander, Anisse hyssop, Lanceleaf coreopsis, California poppy, Violets

Right photo: Facebook Winter Sowing by  
Sheryl Mann

# Transplanting Your Seedlings

## When to Transplant

- After ground has thawed
- When seedlings have 2-3 sets of true leaves
- After danger of hard frost has passed (May)

## Basic Steps

- Open containers on warm days to “harden” plants
- Choose a cloudy day for transplanting
- Water seedlings before & after transplanting
- Gently separate seedlings
- Plant at same depth as in container



Photo: Izzy Julio

Top: Transplanting to garden bed at UPL  
Vauxhall Branch

Bottom: Seedlings separated for Earth Day event  
at Livingston Elementary School

# Recap

## Winter Seed Sowing in Jugs

December to April

① Collect & wash jugs.  
Discard cap



② Make 6-8 holes  
in bottom of jug



③ Slice jug in half leaving the  
handle attached



④ Add coffee filter to  
bottom of jug. Fill  
3-4" of moist soil in  
bottom of jug



⑤ Sow seeds  
according to packet  
instructions



⑥ Write plant name  
outside jug and on label



⑦ Tape jug back together  
with Painter's Tape

⑧ Set jugs in a sunny spot.  
Snow & rain will enter  
through the cap hole  
creating condensation.  
Spray with water if dry.



⑨ Visit jugs in the Demo  
Garden in the spring!



Jugs become a  
greenhouse!

NOTE: Once seeds have sprouted, protect  
from late frost by covering with blankets





# Winter Sowing Projects





Pumpkin



10/27/23



01/12/24



04/10/24



04/19/24



04/29/24



06/21/24

Photos: Izzy Julio  
Progress of daughter's winter  
sown pumpkin

# UPL Vauxhall Library

## Native Sensory Garden

The Native Sensory Garden at UPL Vauxhall was started from seed by our community using winter sowing methods.

In just one season, the plants are thriving, and blooming with some reaching over 4 feet tall in their very first year!



Photos: Izzy Julio  
[Clockwise] Planted: May 19, 2025  
Added straw mulch: July 3, 2025  
Fall update: September 25, 2025

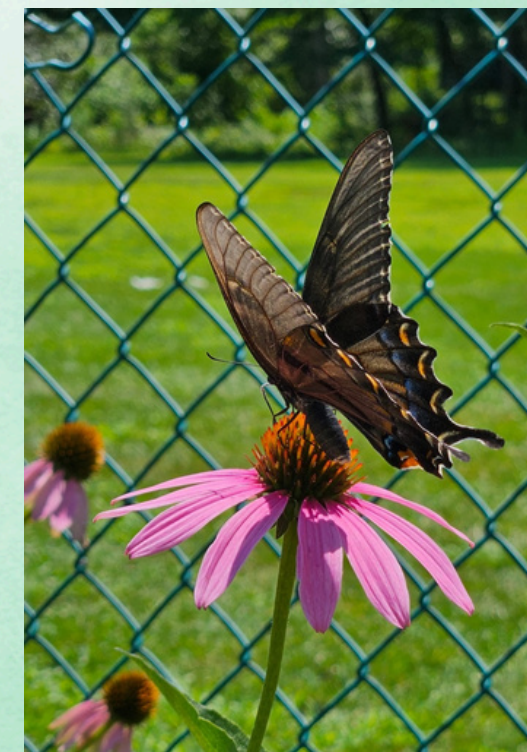
# Union County Demonstration Garden

## Rain Gardens

In January 2025, we started seeds in 50 recycled jugs, representing 32 different native plants, including coreopsis, swamp milkweed, blue mist flower, and butterfly milkweed. The seedlings transplanted throughout the Demo Rain Gardens.



Photo: Master Gardener Rain Garden Team and winter sown plants at the Union County Demonstration





# Want to try winter sowing in person?

Join us for a hands-on winter sowing workshop as the Rain Garden Committee sows plants for the Demonstration Garden beds and for the Spring Fair.

**Saturday, January 31st from 1:00 - 3:00 PM**  
**Demonstration Garden Barn**

2 Education Credits Available

To reserve your space, please email Kate Rahal:  
[kmwrahal@hotmail.com](mailto:kmwrahal@hotmail.com)





# Resources



# Find Seeds Locally

## Free Seed Libraries

- Union Public Library Main Branch
- Vauxhall Library
- Cranford Library & Glen Ridge Library
- Flagship Native Seed Library-South Orange, NJ

## Organizations

- Native Plant Society of New Jersey
- Wild Seed Project
- Buy Nothing Union Township, NJ
- Local garden clubs & friends
- Prairie Moon Nursery (Minnesota)



Photo: Izzy Julio  
Glen Ridge Library

# Seed Harvesting & Trading



Photo: Izzy Julio  
Harvested Swamp  
Milkweed Oct 2023



Photo: Izzy Julio  
Harvested seeds from the Union County  
Demonstration Rain Garden



Photo: Izzy Julio  
Jessica Miller's Flagship Native  
Seed Library-South Orange, NJ

# Recommended Reading

## Native Plants & Gardening

- "Native Plants of the Northeast: A Guide for Gardening & Conservation" - Donald J. Leopold
- "Garden Revolution: How Our Landscapes Can Be a Source of Environmental Change" - Larry Weaner
- "Rain Gardens" - Lynn M. Steiner
- "Nature's Best Hope" - Douglas W. Tallamy (Adult or Youth Ed.)
- "A Northern Gardener's Guide to Native Plants and Pollinators" - Lorraine Johnson
- The Manual of Seed Saving: Harvesting, Storing, and Sowing Techniques for Vegetables, Herbs, and Fruits by Andrea Heisteringer

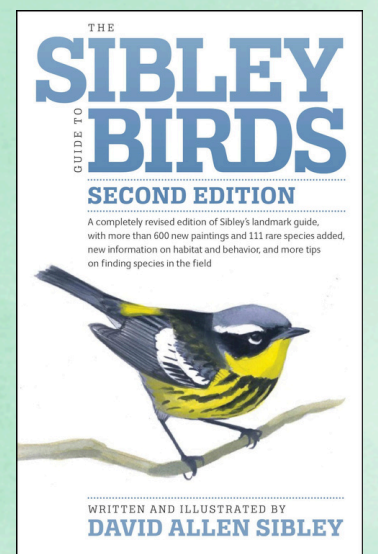
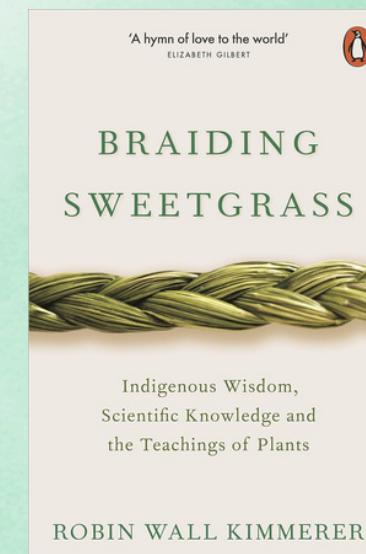
## Sustainable Gardening

- "The Year-Round Vegetable Gardener" - Niki Jabbour
- "Braiding Sweetgrass" - Robin Wall Kimmerer (Adult or Youth Ed.)

## Wildlife & Field Guides

- "National Audubon Society Field Guide to North American Wildflowers, Eastern Region" - John W. Thieret
- "What It's Like to Be a Bird" - David Sibley
- "The Sibley Guide to Birds" - David Sibley
- "NJ Wildlife Viewing Guide" - Laurie Pettigrew

**All available at the Union Public Library!**



# Online Resources

## Native Gardening & Winter Sowing

- The Native Plant Society of New Jersey - [Website](#)
- Rutgers Master Gardeners - [Guide to Winter Sowing](#)
- Jersey-Friendly Yards - [Website](#)
- Wild Seed Project - [YouTube](#) & [Website](#)
- Flagship Native Seed Library-South Orange, NJ - [Facebook Group](#)
- Winter Sowing by Sheryl Mann - [Facebook Group](#) & [YouTube](#)

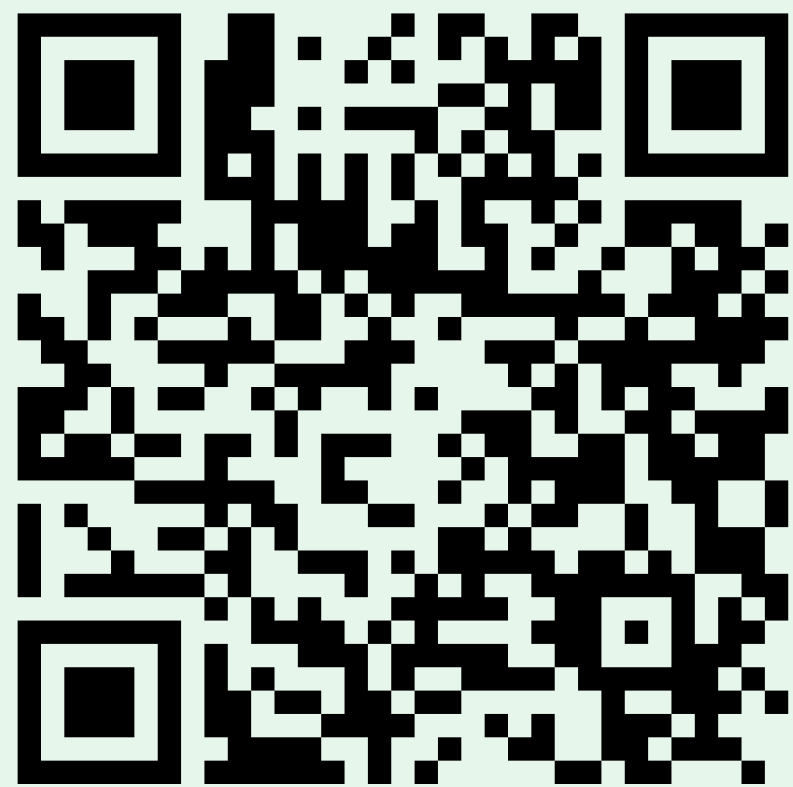
## Online nurseries located in New Jersey:

- [Pinelands Direct](#)
- [Toadshade Wildflower Farm](#)
- [Great Swamp Watershed](#)





# Thank you!



**Resources**



**Presentation**

<https://izzyjulio.com/uplnj-native-gardening/>