



NDSU | EXTENSION

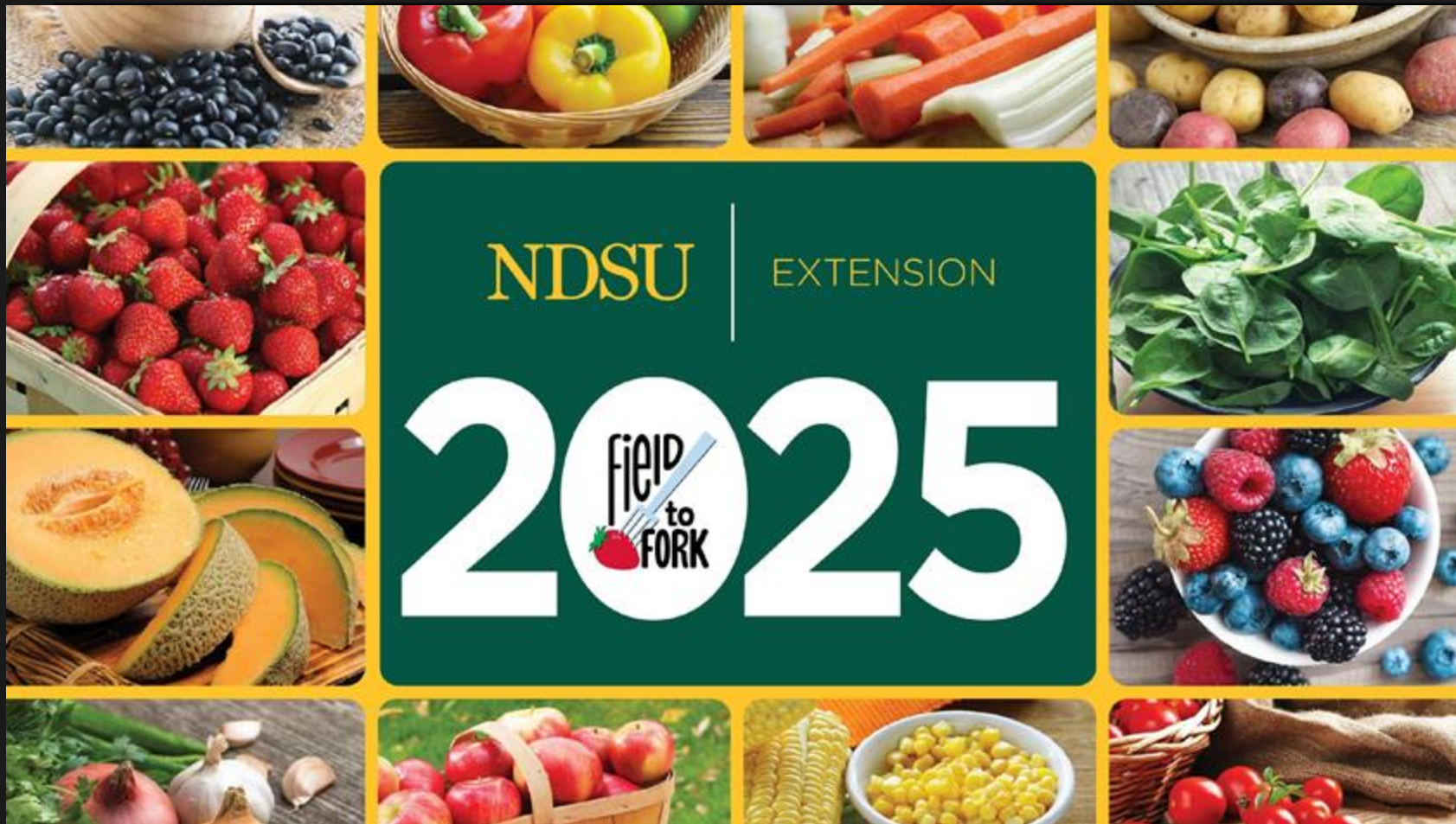
2025

field to FORK



Upcoming Webinars

- **February 19 - Anatomy of a Food Recall**
- Byron Chaves, University of Nebraska - Lincoln Extension associate professor
- **February 26 - Growing Tips for Summer and Winter Squash**
- Tom Kalb, NDSU Extension area specialist – horticulture



Presenter

Audio Settings ^



Chat



Raise Hand



Q&A

Leave

- **Please complete the short online survey** that will be emailed to you after today's webinar. It will take just a couple minutes!
- Be sure to sign up for an opportunity to win a prize in the drawing. After submitting the survey, a form to fill out with your name/address will appear.

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Feb. 12

How to Start Your Own Flower and Vegetable Transplants Indoors

Don Kinzler, NDSU Extension - Cass County horticulture agent



*Starting your own
flower and
vegetable plants
from seed is
rewarding.*



The Non-stop begonia seedlings in the previous photo produced these...



Starting seeds indoors isn't difficult!



*Watching seedlings
grow makes
springtime come
alive.*



*You can produce
greenhouse
quality flower
and vegetable
transplants in
your own home.*



Some types are especially easy, like zinnias and tomatoes



Let's get started!



Don't start too early.

Petunias – March 1

Marigolds – March 15

Tomatoes – April 1

Zinnias – April 15



Seeding dates are determined

by how many growing
weeks are needed
before planting outdoors
May 15-25



February 15-20 (12 growing weeks needed) – begonia, seed geraniums, celery.

March 1-5 (10 weeks) – impatiens, petunia, snapdragon, lobelia, dusty miller, ageratum, coleus, vinca, verbena,

March 15-20 (8 weeks)– alyssum, dahlia, dianthus, salvia, broccoli, cauliflower, cabbage, peppers, eggplant.

April 1-5 (6 weeks) – cleome, celosia, marigold, nicotiana, statice, tomato, lettuce, oregano.

April 15-20 (4 weeks) – Cosmos, calendula, nasturtium, four o'clock, zinnia, basil.

May 1 (2 to 3 weeks) – squash, pumpkins, cucumbers, zucchini, watermelon, muskmelon.

Garden centers sell materials.



Many options for seed-starting trays.



Bakery and deli containers make great miniature greenhouses



Novel idea – drainage is difficult.



Many of us have a stockpile of these!



Concept:

- ✓ Seed into a seed tray, and then transplant into individual cell packs or small pots.



*Plant only one type
of seed in each
container.*

*Label with name
and date.*



Why not seed directly into the final cell-pack or pot?



Direct seeding often results in weaker, spindlier plants.

Transplanting imparts vigor and strength.

Seed germination is rarely 100%



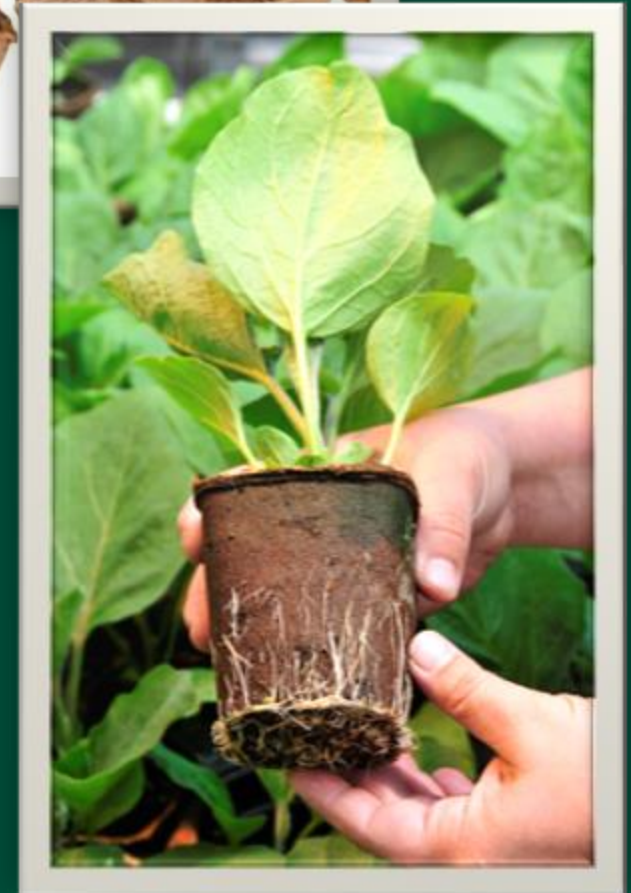
Tomato plants are usually weaker when direct seeded.



Commercially produced seedlings, ready to transplant into cell-packs or pots



Some things are best direct-seeded, such as melons, cucumbers, squash and pumpkins.



*Seeding into peat pellets
– caution, as roots don't
always penetrate out
through netting.*



Use seed-starting mix instead of all-purpose potting mix.



Moisten before using



Coconut Coir



*Fill trays to the top
– they'll settle
when watered.*



*Can plant in
rows or
broadcast.*



Cover large seeds with mix or gently push into soil.

*Don't cover tiny seeds.
Water gently.*



Cover with plastic wrap.



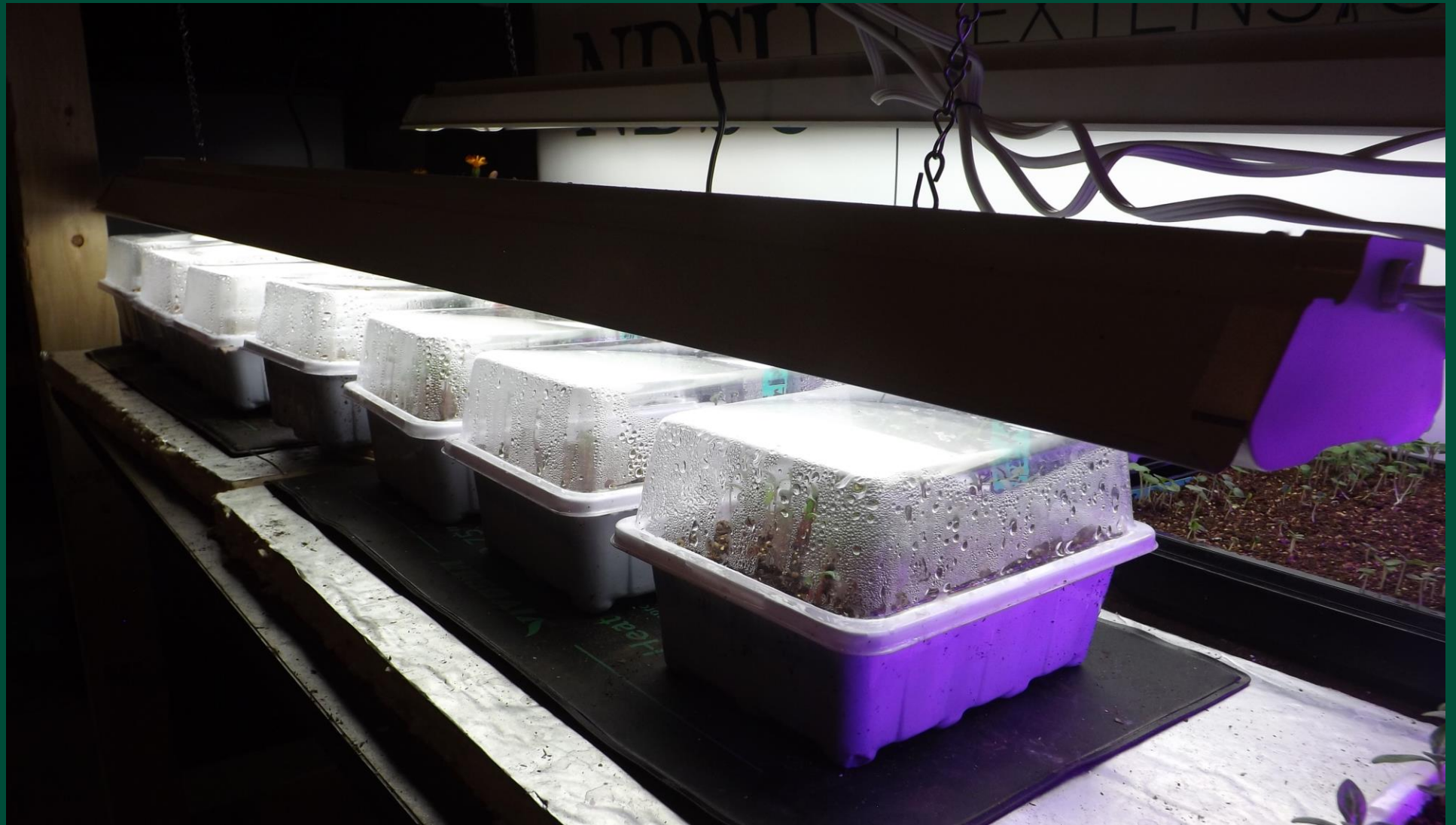
...or use the lid that came with the container.



Bottom heat greatly enhances germination.



*Place
containers in
a sunny
window, or
under lights.*



Seedling will be short and stocky if receiving enough light.



*Locate seed trays
close to light
source.*



Inadequate light causes tall, spindly seedlings.



*Well-grown
tomatoes*



*Healthy tomato plants
versus plants that are
stretching for light.*



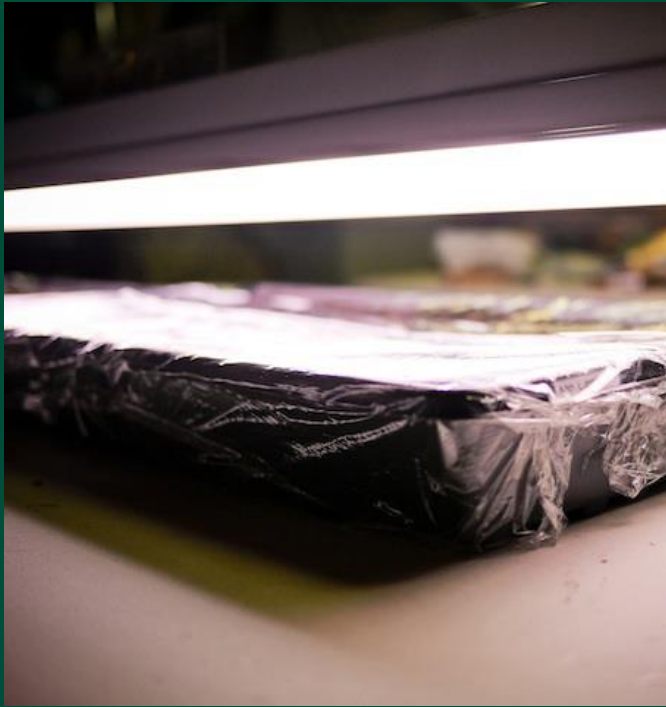
Light fixtures with adjustable chains.







If lights can't be adjusted, raise and lower the trays by propping up underneath.



Types of Light Sources







EXTENDING KNOWLEDGE

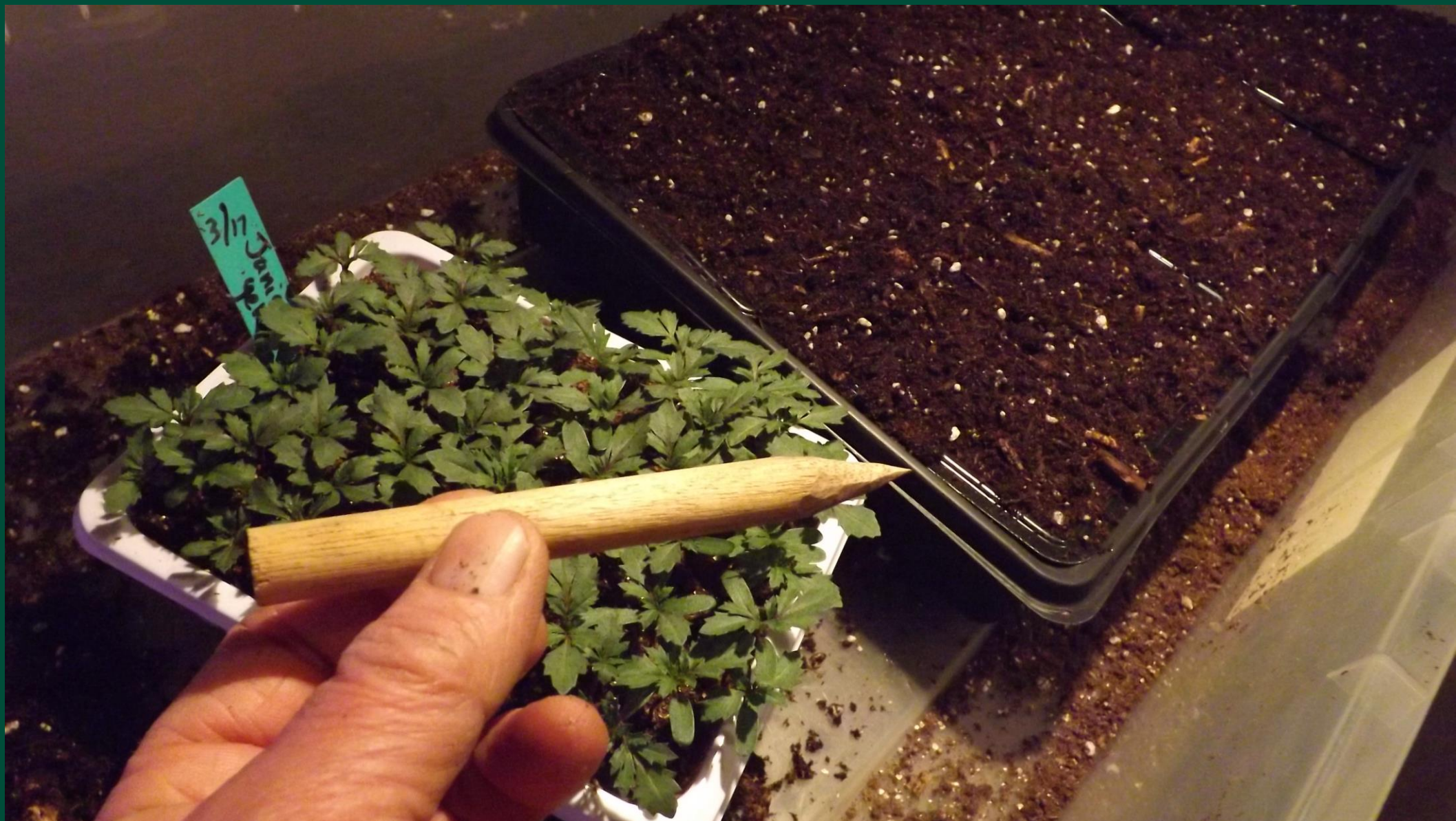


Time to Transplant









Sharpened dowel or a pencil for a “Dibble.”









*Tomato seedlings ready
for transplanting.*



*Gently lift seedling
out of seed tray.*



Make a hole in the cell-pack mix with a “dibble.”



Firm soil around roots.



Petunia seedlings ready to transplant.



*Transplanting
petunia seedlings.*



Simple 'cold frames'



*Ready for May
planting!*



*Let's hear it
for home-
grown plants!*



Thank you!

*For more information,
contact:*

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The graphic features the USDA logo and 'United States Department of Agriculture' at the top left. Below it is a photograph of a classical building with columns, overlaid with the text 'AND JUSTICE FOR ALL' in large white letters. A row of white stars is positioned below the text. The background is a light green color.

USDA
United States Department of Agriculture

**AND
JUSTICE
FOR ALL**

★ ★

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Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410; or

fax:
(833) 256-1665 or (202) 690-7442;

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