



O'ahu Master Gardener Program

Tomato Seed Saving

June 8, 2024

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Personal Use



Exchange



Sale

Why Seed Saving



Food Security



Education



Research

Start With Local Seeds



- **Easier to Grow**
- **Hawai'i Plant Hardiness Zone**
- **Adapted to Hawai'i Climate**
- **Hawai'i Disease & Pest Tolerance/Resistance**



[UH CTahr Agricultural
Diagnostic Service
Center - Seed Program
\(hawaii.edu\)](http://hawaii.edu)

'Komohana' Tomato

- **Ono; taste good**
- **Prolific producing grape type tomato**
- **Determinate, bush growing tomato**
- **Fruits vine ripened**
- **Matures in 80-85 days**
- **Excellent shelf-life**



Photo April 17, 2024

Circle of Life For Tomatoes



Stored in Refrigerator

**Plant
Seeds In
Nursery**
November

**Plant In
Hoop House**
February 28

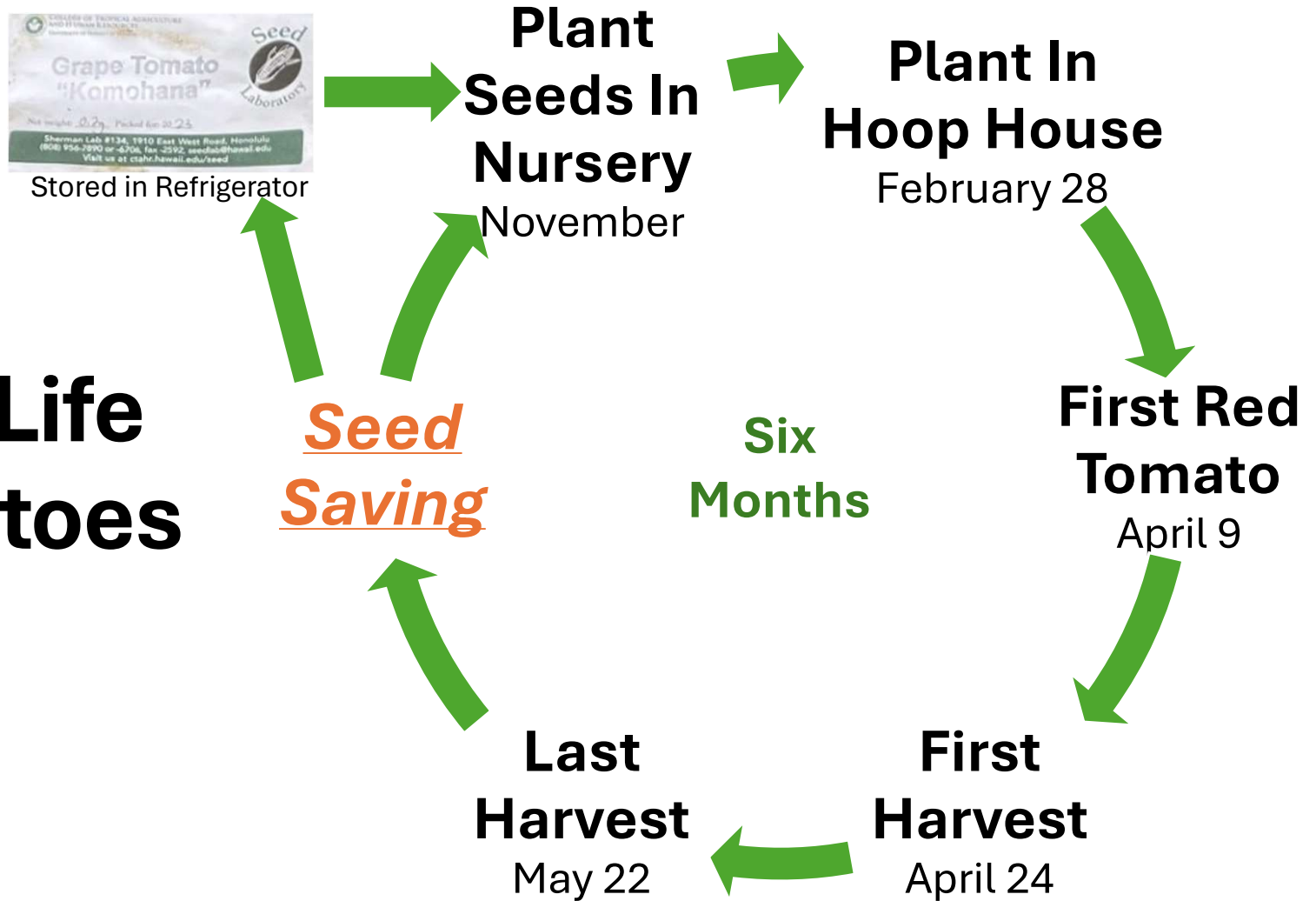
**First Red
Tomato**
April 9

**First
Harvest**
April 24

**Last
Harvest**
May 22

**Seed
Saving**

**Six
Months**



Tomato Seed Saving Steps



**10-20
Days**

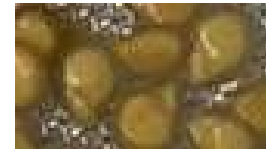


**Ref: "Leading a Tomato Seed Saving Demonstration"
Prepared by Marielle Hampton, UH-CTAHR**

Tomato Seed Saving Steps



- ➔  **1. Harvest**
-  **2. Extract**
- 3. Ferment**
-  **4. Wash**
-  **5. Dry**
- 6. Test**
- 7. Store**



**Plant Seeds
Now**



**Plant Seeds
Later**

 = Workshop Hands-on

Harvest The Best Tomatoes

- **Very Ripe, Big**
- **Not Split, Damaged**
- **Not On or Near Ground**
- **Healthy Plants**
- **Different Plants**



Why Harvest The Best Tomatoes

- More Seeds
- Larger Seeds
- Higher Germination Rate
- Healthier Seedlings



Wash Tomatoes



Hygiene – Wash Your Hands





Cut in Half

- **Equator Direction**
- **Not Top to Bottom**



Cut in Half

- **Some Tomatoes Do Not Have Seeds**

**Squeeze
Seeds Out**



**Dig Out
Seeds w/Knife**



**Add Water
Cover w/
Coffee Filter**



Day 0



Day 1



Day 2



Day 3



Day 4



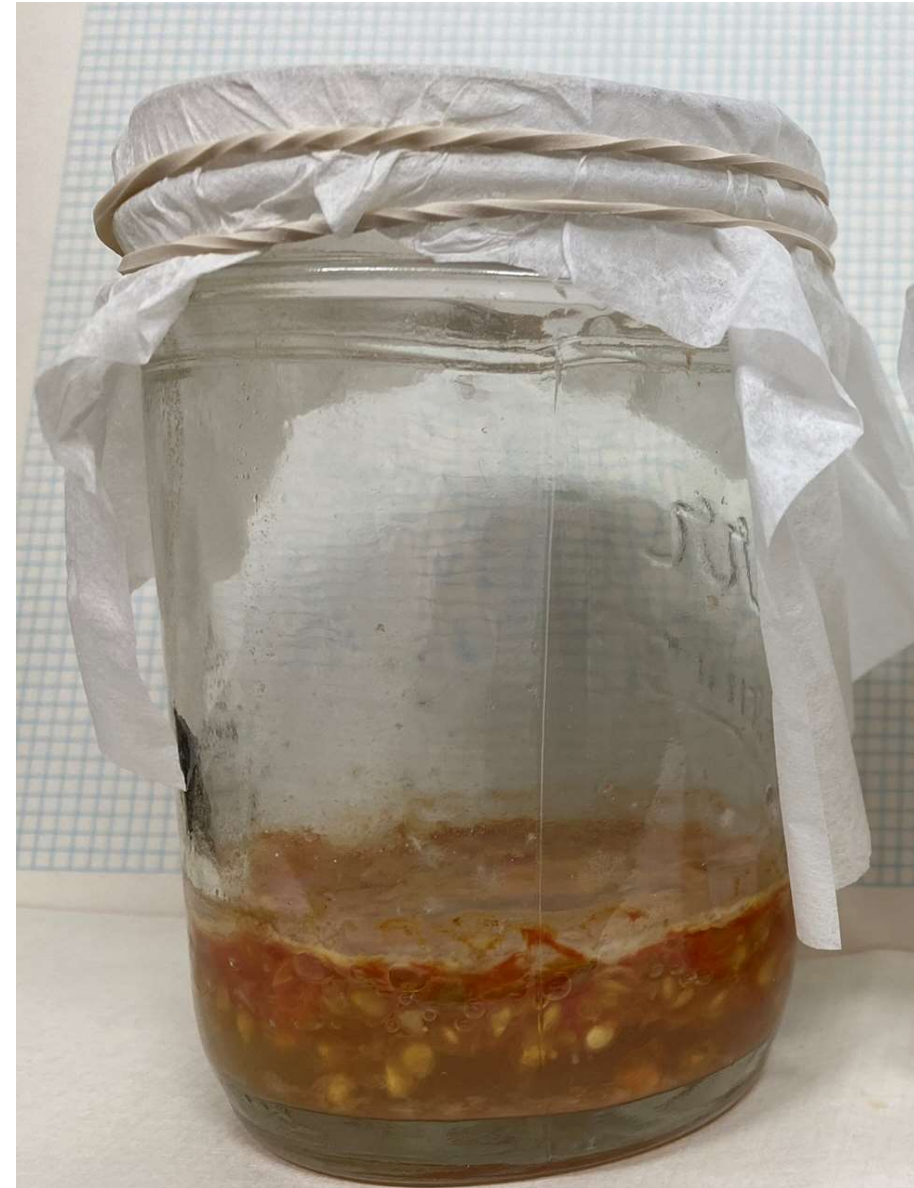
Day 5



... Fermentation...

Why Fermentation

- Jelly Around Seeds Inhibitor Germination
- Removes Jelly Coating
- Kills Diseases Present in Fruit (e.g. Fungus)
- Higher Germination Rate



Discard Top Layer Mold & Floating Seeds



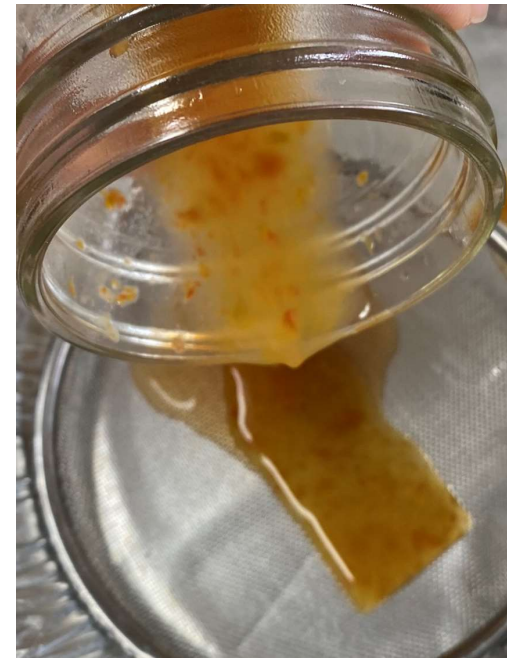
~80% Is Good Enough



Add Water, Discard Pulp, Several Times



Don't Want Floater Seeds



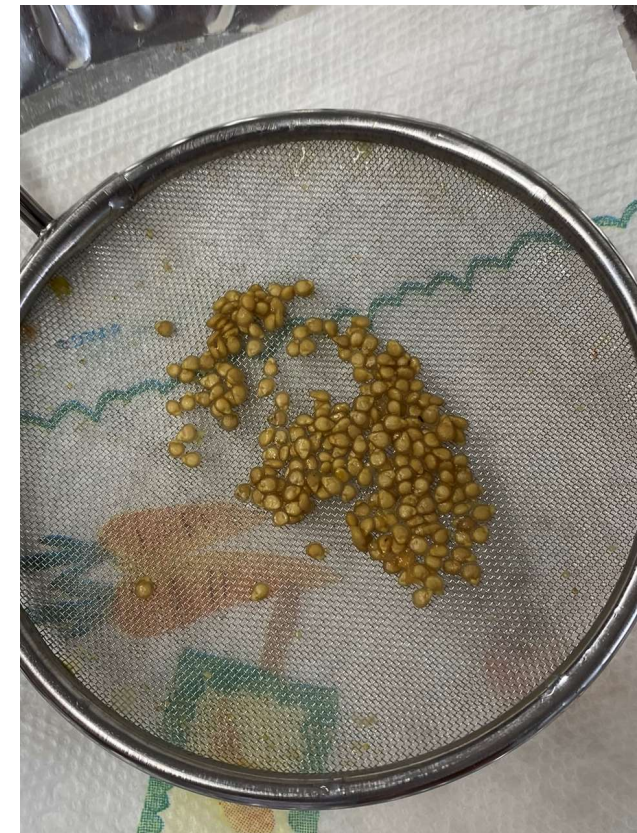
**Push Seeds
Onto Strainer**

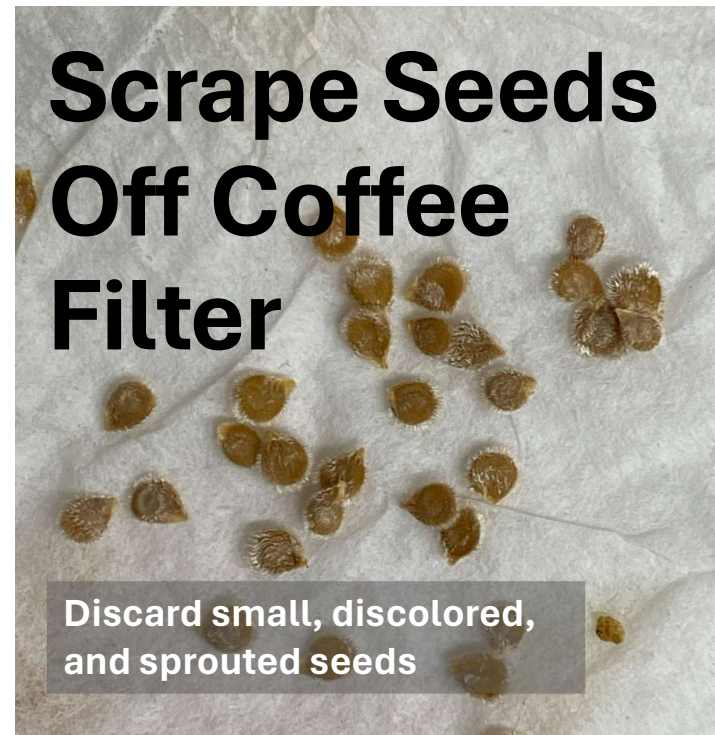


**Clean With
Water**



**Blot On
Paper Towel**





Discard small, discolored,
and sprouted seeds



Faster, Cleaner, Easier Methods

**Clean With
Running Water**



**Spread Out And
Dry On Strainer**



Can Plant Wet Seeds

- No Need To Dry Seeds Before Planting
- Use Sunshine Mix #4 With Osmocote Fertilizer



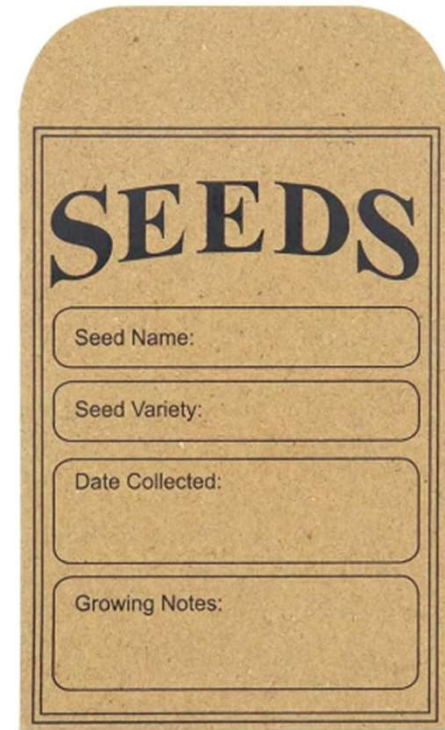
Test For Germination

- **Container, Moist Paper Towel Cover with Cellophane**
- **Or Six Pack Trays**
- **Test 10 to 20 Seeds Per Jar**
 - 10 seeds => 80%, 90%, 100% accuracy
 - 20 seeds => 80%, 85%, 90%, 95%, 100% accuracy



Store Dry Seeds

- **Test: Snap by Hand or Shatter w/Hammer**
- **Envelope - Paper or Plastic**
- **25 Seeds Each**
- **Label**



SEEDS

Seed Name:

Seed Variety:

Date Collected:

Growing Notes:



Store in Cool and Dark Place for Longer Shelf Life



Tomato Seed Saving Summary

Tomato Seed Saving Steps

- 1. Harvest, 15 minutes**
- 2. Extract, 15 minutes**
- 3. Ferment, 2-5 days**
- 4. Wash, 15 minutes**
- 5. Dry, 7-14 days**
- 6. Test, 2-3 days**
- 7. Store, 15 minutes**

**10-20
Days**



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Supplies

- **Note Pad and Pen**
- **Knife**
- **Spoon**
- **Jar With Smooth Sides**
- **Coffee Filters**
- **Scissor**
- **Rubber Bands**
- **Masking Tape**
- **Wash Tub/Bowl or Sink**
- **Water Pitcher or Faucet**
- **Fine Strainer**
- **Paper Towels**
- **Container w/Cellophane or Pot with Potting Mix**
- **Seed Storage Envelope**
- **Seed Storage Container**

Additional Information

<https://manoa.hawaii.edu/ctahr/getlocal/2022/12/06/seed-saving-resources/>



CTAHR Resources for Seed Saving	
TITLE / AUTHOR(S)/PRESENTER(S)	DESCRIPTION
Local Seeds for Local Needs Teves	This video focuses on why saving seeds is important.
Saving Seed Motomura, Radovich, Nagata	This fact sheet reviews pollination, considerations for growing seed, easy-to-grow seeds, and seed harvesting, cleaning, and storage.
Guidelines for Successful Seed Storage Yoshinaga	This document from the Center for Conservation Research & Training provides steps and guidelines to store seeds, from collection and germination testing to more detailed options for drying seeds at home.
Saving UH-CTAHR's Eggplant Seeds Teves, Keach, Kirk, Bost, Collier, Sugano, Uyeda, Radovich, Ahmad, and Silva	This fact sheet reviews the steps for wet seed processing with UH-bred eggplant varieties.
Seed Saving: Eggplant Sugano, Radovich, Uyeda, Ahmad, Silva, Kirk, Collier, Bost, and Teves	This video demonstrates the process for saving seed from the UH eggplant variety Tolentino
Saving Seed Radovich	This article in HānaiʻAi from Dr. Theodore Radovich provides a basic overview of seed saving, briefly discussing pollination, open-pollinated vs. hybrid seeds, seed harvesting and cleaning, and storage
Heirloom Vegetables: A Promising Future for Past Treasures	This article in HānaiʻAi from Dr. Theodore Radovich discusses the potential for heirloom and farmer-developed varieties in Hawaii, including a list of Hawaii-bred