

# Welcome!

**Emcee:** Elena Alvarez

**Presenters:** Henry Shaw, Marina Hsieh, and Nanci Schindler

- **Type questions using the Zoom Q&A feature throughout the event.** Use Chat for comments or links.
- If time allows, we'll have a Q&A session at the end. You can ask your question directly -- raise your hand or speak up.
- Zoom etiquette: Please keep your mics muted when not speaking.
- To improve bandwidth, you can use speaker (not gallery) view and turn your video off.

This program is being recorded for posting on our website.  
A copy of the recipes and these slides will be sent to you after you submit the post-program survey.



# Who Are We?

The UC Master Food Preserver Online Program is a community-outreach, online-based, grant funded, volunteer program of the University of California Cooperative Extension that provides up-to-date research-based information on food safety and preservation.

*The views, thoughts, and opinions expressed are each speaker's own and do not represent the views, thoughts, and opinions of the University of California. The "University of California" name and all forms and abbreviations are the property of its owner and its use does not imply endorsement of or opposition to any specific organization, product, or service.*



# Our mission

Our mission is to keep Californians safe and well as they use culturally appropriate, research-based practices to safely preserve food in the home, reducing food waste, increasing food security, and providing engaging ways for Californians to explore healthy food.



# Preserving Pomegranates: Juice, Jam, Molasses, & More!

Elena Alvarez, Marina Hsieh, Nanci Schindler, and Henry Shaw  
UC Master Food Preserver Online Program Volunteers

Dec. 11, 2024



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

UC Master Food Preserver Program

# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
2. Freezing arils
3. Dehydrating arils
4. Juicing arils
5. Preserving juice
6. Making pomegranate jelly from juice
7. Making pomegranate molasses from juice



# Pomegranates are a seasonal treat!

- Pomegranates (*Punica granatum*) are native to Afghanistan and Iran, but are now grown around the world
- The name comes from the Latin *pomum* (apple) and *granatum* (seeded) = “seeded apple”
- The juice is contained in a sac, called an “aril” that surrounds the seed
- In season (northern hemisphere) from September to January but commercial juice available year round
- Many different varieties and juice colors! (see presentation resources)



Photo credits:  
Henry Shaw



# Pomegranates: Symbol of a New Year, New Life



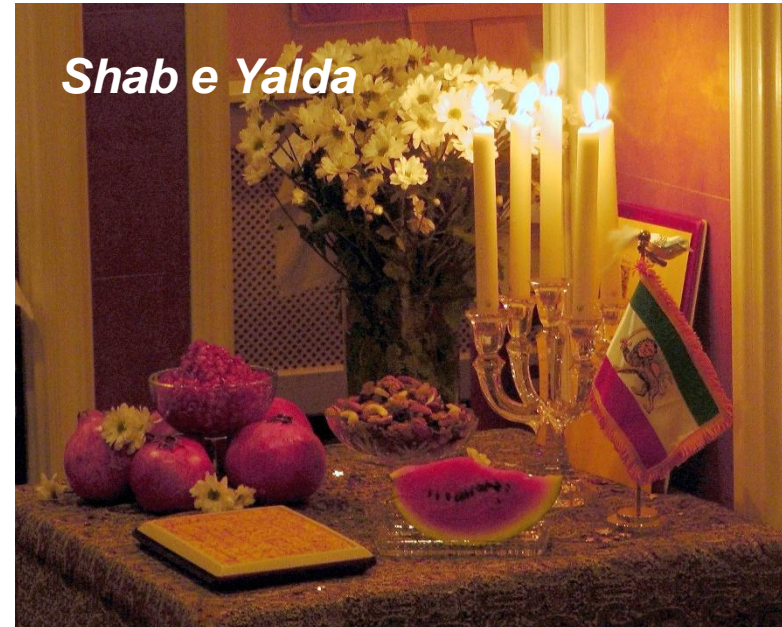
*Rosh Hashanah*

Photo credit: Deror\_avi, CC BY-SA 3.0

*Rosh Hashanah* - the Jewish New Year  
anniversary of the creation

Custom: tasting a new fruit, eating pomegranates  
and dipping apples in honey.

- Pomegranate symbolizes fertility & abundance
- The numerous seeds are thought to represent the 613 commandments in the Torah.



*Shab e Yalda*

Photo credit: PersianDutchNetwork, CC BY-SA 3.0

*Shab e Yalda* - meaning birth or renewal  
celebrates Winter Solstice (Dec. 20/21)

Custom: considered a main fruit served as part of an  
ancient Persian religion - Zoroastrianism

Symbolizes red hues of dawn and sweetness of life



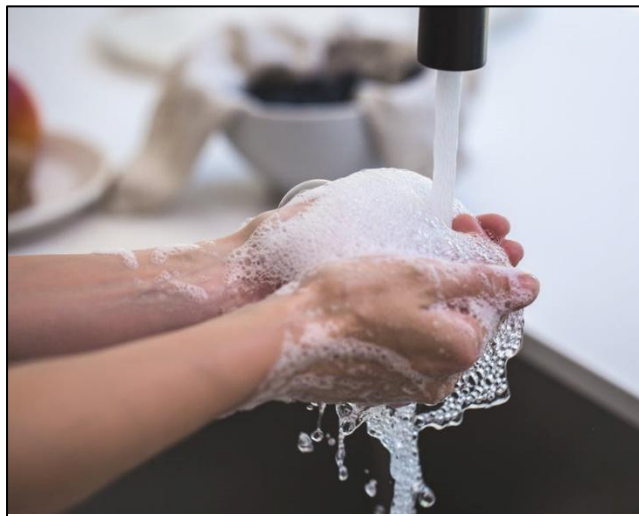
# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
2. Freezing arils
3. Dehydrating arils
4. Juicing arils
5. Preserving juice
6. Making pomegranate jelly from juice
7. Making pomegranate molasses from juice



# First, clean your hands, workspace, tools, and fruit!



Public domain, CC0 via Pexels



Public domain, CC0 via Pexels

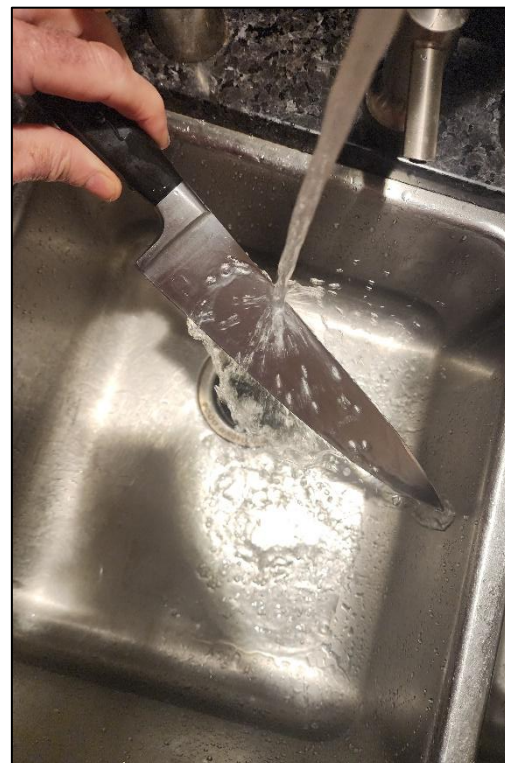


Photo credit: Henry Shaw



Photo credit: Marina Hsieh



# How do you separate the arils from the whole fruit?

The white “pith” is bitter and should be removed.



Photo credits: Henry Shaw and Marina Hsieh



# Extraction method 1



## Halve and smack!

- Fast, but you will spend more time removing white pith from separated arils

One can buy devices that are supposed to make this process easier. We didn't find them any easier or neater.



Photo/video credits: Henry Shaw



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

■ UC Master Food Preserver Program

# Extraction method 2



Segment fruit and **massage** arils out.

- Slower, but will need less time to remove white pith from arils

Video credit: Henry Shaw



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

■ UC Master Food Preserver Program

# In both cases, you'll need to remove remaining pith



Photo/video credits: Henry Shaw

- Cover arils with clean water and pick separate any attached white bits.
- The white pith and membranes will float (mostly).
- Skim the surface of the water to removed floating material.
- Drain cleaned arils through a colander and dry on paper towels



Finished product  
ready to use



# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
- 2. Freezing arils**
3. Dehydrating arils
4. Juicing arils
5. Preserving juice
6. Making pomegranate jelly from juice
7. Making pomegranate molasses from juice



# Freezing pomegranate arils



Freeze arils in a single layer. Package frozen arils in vacuum-sealed bags or freezer-grade plastic bags (remove as much air as possible). Store in freezer for up to a year.

Photo credits: Henry Shaw



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

UC Master Food Preserver Program

# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
2. Freezing arils
- 3. Dehydrating arils**
4. Juicing arils
5. Preserving juice
6. Making pomegranate jelly from juice
7. Making pomegranate molasses from juice



# Dehydrating pomegranate arils (“*anardana*”)

- Dried arils are “molassesey”, with a concentrated sweet/tart flavor
- Used in many cuisines, like Indian and Middle Eastern



Photo credits: Marina Hsieh, 2024



# Prepare trays

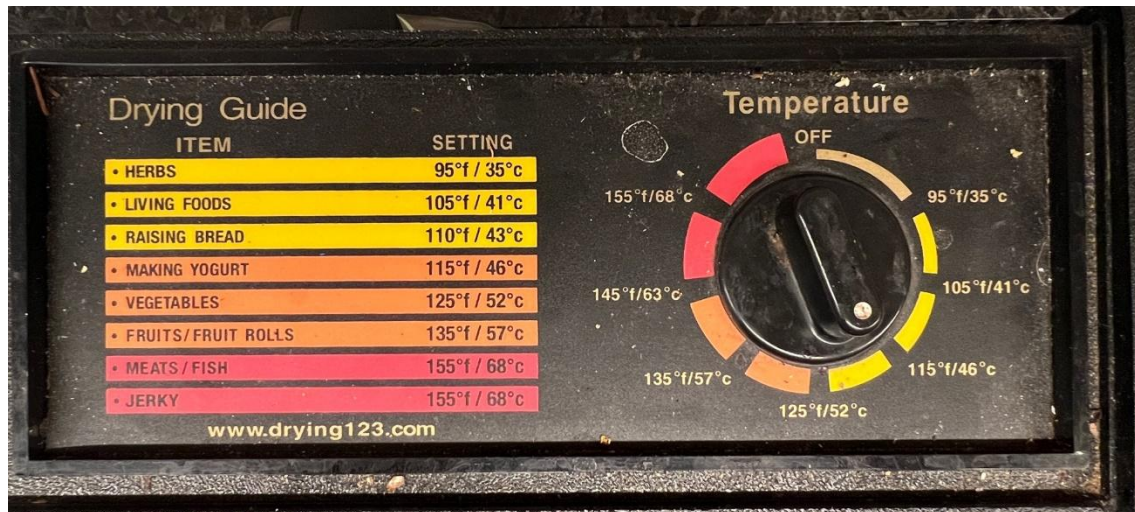
1. Use clean, firm arils, preferably from varieties with seeds you don't mind eating, *e.g.*, Parfianka.
2. Spread on trays in a single layer.

Tip: Spray a light coat of cooking-oil spray on plastic trays or mesh to reduce sticking.



# Dehydrate

- Dehydrate between 110°-140°F for 12 - 36 hours.  
You may start on a solid tray then move to open mesh.  
  
Start at higher temperature, then reduce and monitor.  
  
Dry until seeds no longer stick to each other.



# Condition and store

4. Cool completely, then immediately store in an airtight glass or plastic jar.
5. “Condition” the fruit to equalize the moisture. Shake the sealed jar every day for 7-10 days. If condensation develops, or the fruits seem sticky or damp, dehydrate the whole batch again.
6. Label and date; store in a cool, dark place. Best consumed in a year.

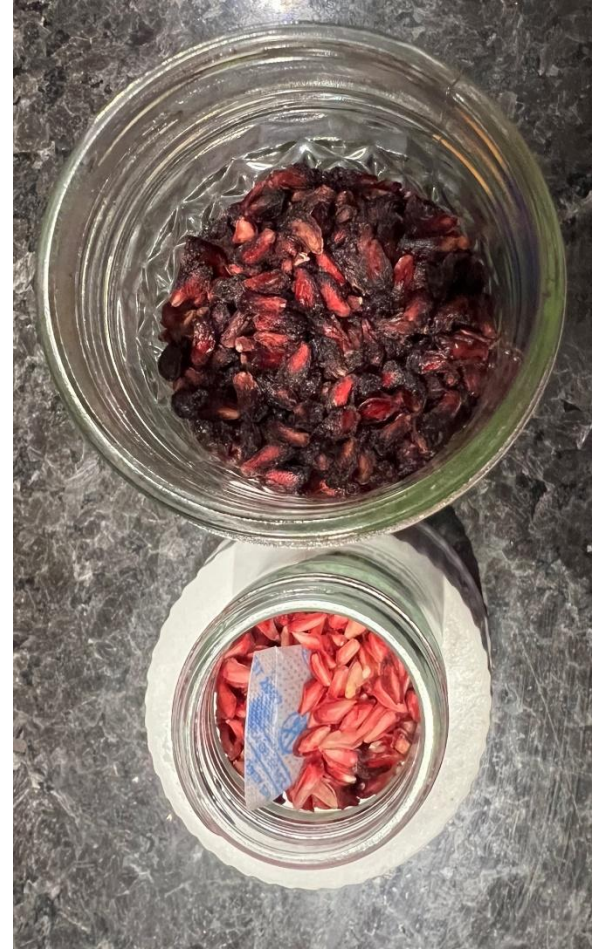
Tip: Adding a small packet of silica gel / desiccant helps maintain dryness.



# Enjoy!



Photo credits: Marina Hsieh, 2024



Use powdered or whole as garnish or an ingredient substitution for:

- lemon
- dried lime
- tamarind
- sumac



# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
2. Freezing arils
3. Dehydrating arils
- 4. Juicing arils**
5. Preserving juice
6. Making pomegranate jelly from juice
7. Making pomegranate molasses from juice



# Juicing arils is easy!



- Must crush arils to release juice
  - Simplest: whirl in blender or food processor for a bit
  - Alternatives:
    - Use immersion blender
    - Crush in sealed ziplock bag with rolling pin
    - Mash arils in bowl with potato masher
- Strain mash through colander, pressing pulp to extract juice.
- Using thawed, previously frozen arils result in better juice extraction
- Reports of using a steam juicer are mixed: low extraction and discoloration (browning) of juice

Use leftover pulp to flavor commercial vinegar!  
Follow any reputable recipe for making fruit-infused vinegar.

Video credit: Henry Shaw



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

UC Master Food Preserver Program

# Filtering the juice



- The colander removes large solids from the juice, but to further clarify juice, pass through a fine mesh strainer.
- To produce clearer juice for making jelly, filter again through a jelly bag.
- Add a scant  $\frac{1}{4}$  teaspoon ascorbic acid per quart of juice to help retain color (optional)



Video/photo credit: Marina Hsieh



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

■ UC Master Food Preserver Program

# Preserving pomegranate juice

- Freeze juice in freezer-safe containers. Leave at least ½” of headroom to accommodate expansion upon freezing.
- Can process pomegranate juice in a boiling-water or atmospheric steam canner to make shelf stable product. Processed juice may turn brown and lose its flavor.

## Freezing is the preferred method.

- For shelf-stable juice, add ¼ teaspoon of ascorbic acid per quart before processing.
- Use sterilized jars and process pints or quarts for 5 minutes at elevations below 1000 ft.; 10 minutes at elevations between 1000 – 6000 ft.; and for 15 minutes above 6000 ft.



Photo credit: Henry Shaw



# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
2. Freezing arils
3. Dehydrating arils
4. Juicing arils
5. Preserving juice
- 6. Making pomegranate jelly from juice**
7. Making pomegranate molasses from juice



# Get Yourself Ready



## Ingredients

- Pomegranate Juice (unsweetened)
- Calcium Water
- Honey
- Lemon Juice
- Pomona Pectin

## Equipment



Photo credits: Nanci Schindler



# Pre-prep for the pectin process

½ Teaspoon calcium powder



Photo credits: Nanci Schindler



½ Cup of water

Shake well



Keep unused portions of calcium solution in refrigerator



# Sanitize and prepare jars, lids and rings

Use a boiling water canner or atmospheric steam canner

Photo credits: Nanci Schindler



Jars and rings:  
10 minutes at rolling  
boil to sterilize.  
Add 1 min. to time for  
every 1000' above  
1000' elevation.

Newer lids –  
Wash in warm soapy  
water, then rinse.



After sanitizing use low heat to  
keep jars warm until filling.



# Juice preparation



4 Cups pomegranate juice  
(commercial, 100 %, unsweetened)



4 Teaspoons calcium water



Mix well



# Sweetener and pectin preparation



½ to 1 Cup honey



3 to 4 Teaspoons pectin powder



For softer gel, use 3 tsp.  
For firmer gel, use 4 tsp.

Thoroughly mix into sweetener



Photo credits: Nanci Schindler

Set aside

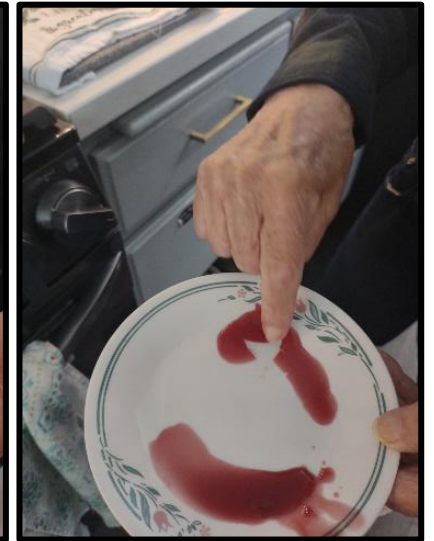
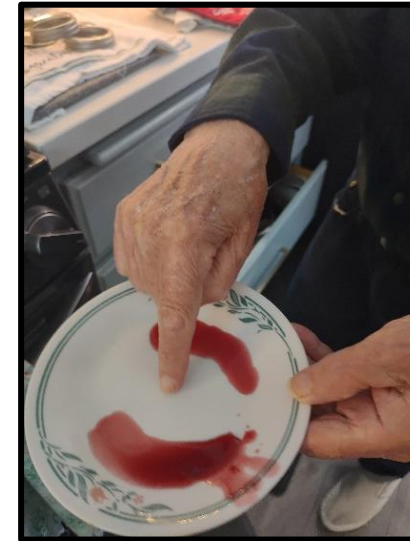


# Cook juice mixture with pectin

Heat juice mixture to full boil  
Add pectin mixture  
Stir vigorously, 1-2 min



Skim foam



Check for gel



# Fill jars and process

Photos Credits: Nanci Schindler



Fill warm jars,  
leaving  
1/4" headspace.  
De-bubble

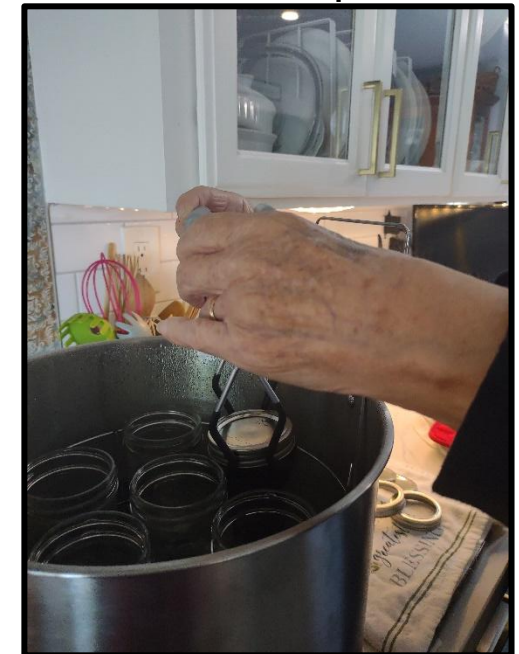


Wipe rims with damp cloth



Place lids and tighten rings  
finger tight

Boiling-water or  
steam-canner process



Process 10 min. (0-6,000')  
**Or 15 min. (>6,000')**  
Turn off heat, leave jars in  
water for 5 more mins.



# 12-to-24-hour rest, then enjoy!

## Final Steps:

- Remove jars from canner (straight up, over, down)
- Place on cloth to prevent breakage
- Rest 12-24 hours before checking seals and removing rings
- Not sealed properly? Refrigerate or re-process later.
- Date and label jars.



## Thank You!

[ucanr.edu/sites/mfp\\_of\\_cs/files/333874.pdf](http://ucanr.edu/sites/mfp_of_cs/files/333874.pdf)  
Also, *USDA Complete Guide to Home Canning*, 2015 and [pomonapectin.com](http://pomonapectin.com) 2013



# Today's Agenda

Our goal today is to inform you on how to safely preserve pomegranates at home:

1. Getting arils (seeds) out of pomegranates
2. Freezing arils
3. Dehydrating arils
4. Juicing arils
5. Preserving juice
6. Making pomegranate jelly from juice
7. Making pomegranate molasses from juice



# Making pomegranate molasses is easy, but time consuming

## Ingredients:

- 4 cups pomegranate juice (fresh or commercial bottled juice with no additives)
- 1/3 cup white sugar
- 4 Tbs lemon juice

Yield: ~1 cup molasses

See <https://mfp.ucanr.edu/News/Newsletter/?story=2842>



Juice ready to make pomegranate molasses

Photo credit: Henry Shaw



# Molasses instructions

- Combine ingredients in large, heavy saucepan (larger surface area will reduce time needed to reduce to a syrup)
- Heat mixture, stirring continuously until sugar is dissolved.
- Adjust heat to maintain a **very** low simmer (190° - 200°F). **Important to keep the juice from boiling during the process.** Boiling will cause the product to turn brown and lose its fresh pomegranate flavor.
- Stir frequently until liquid has reduced to ~25% of original volume and is syrupy. When ready, liquid should coat a spoon.
- Syrup will get thicker when it cools.
- Takes 2-3 hours to reduce 4 cups of initial liquid to 1 cup of molasses.



Finished molasses



Spoon-testing finished molasses

Photo/video credits: Henry Shaw



# Storing and using pomegranate molasses

- Pour the hot molasses into a sterilized jar\* and store in the refrigerator for up to a year.
- Pomegranate molasses is a staple in many Middle Eastern and Mediterranean cuisines. It can be used in everything from salad dressings to marinades to desserts.



\*To sterilize a jar, put the jar in a pot, cover completely with water, and boil for 10 minutes if you live at an elevation below 1000 feet. Add 1 minute of boiling time for each additional 1000 feet of elevation.



# Some notes on molasses recipe

- Possible to make pomegranate molasses using pure juice (no additions) but it's recommended to add sugar - will shorten time needed to reduce the liquid to syrup and increase yield of molasses.
- Lemon juice also optional, but helps retain the color of the original juice, and add flavor and tartness.
- Have not tried, but an uncovered slow-cooker on low setting might be a good way to reduce juice to syrup!



Photo credit: Henry Shaw



# Additional pomegranate resources

- UC Master Food Preservers of Sonoma County – Pomegranates & Persimmons: [https://ucanr.edu/sites/MFPSC/Seasonal\\_Food\\_Preservation/](https://ucanr.edu/sites/MFPSC/Seasonal_Food_Preservation/)
- Utah State University Cooperative Extension pomegranate fact sheet with preservation tips: <https://ucanr.edu/sites/MFPOC/files/154856.pdf>
- USDA information on pomegranates, including nutrition information: <https://snaped.fns.usda.gov/resources/nutrition-education-materials/seasonal-produce-guide/pomegranates>
- UC Davis Fruit and Nut Research & Information table of pomegranate varieties:  
[https://ucanr.edu/sites/btfnp/fruitnutproduction/Pomegranate/Pomegranate\\_Cultivar\\_Table/](https://ucanr.edu/sites/btfnp/fruitnutproduction/Pomegranate/Pomegranate_Cultivar_Table/)



Photo credit: Henry Shaw



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

■ UC Master Food Preserver Program

# Upcoming online programs

**Bookmark <https://mfp.ucanr.edu/Events/>**

- “Ask a Master Food Preserver”, (open Q&A), 6:30-7:30 pm, Wednesday, December 11, 2024 (by Master Food Preservers of Central Sierra)
- “Ask a Master Food Preserver”, (open Q&A) 7:00 – 8:00 pm, Wednesday, January 8, 2025 (by Master Food Preservers of Amador/Calaveras Counties and the Online Delivery Program)
- Food Preservation Basics: Freezing & Dehydrating, 6:00 -8:00 pm, Thursday, January 9, 2025 (by Master Food Preservers of Central Sierra)

See recordings of past events at: <https://mfp.ucanr.edu/Events/Past Online Events/>



# Additional Master Food Preserver learning opportunities

- Become a UC Master Food Preserver yourself:  
<https://mfp.ucanr.edu/Volunteer/BeMFP/>
- “Like” and follow us on social media at <https://www.facebook.com/UCMFP/>
- Sign up for our monthly newsletter at <https://mpf.ucanr.edu/News/Newsletter/>
- Submit a question to our “Help Desk ” at  
<https://surveys.ucanr.edu/survey.cfm?surveynumber=30287>
- Join our monthly “Ask a Master Food Preserver” online programs, 7:00 - 8:00 pm, on the first Wednesday of each month.



# PLEASE HELP: Event survey

Your feedback is critical to our improvement, and to continue our grant-funded program.

When you leave this Zoom meeting, a brief post-event survey will pop up in your browser. After you submit it, the program recipe handout and slides will be sent to you.

***Thank you*** in advance for your time and feedback!



# Questions?



Photo credit: Marina Hsieh



**UNIVERSITY OF CALIFORNIA**  
Agriculture and Natural Resources

■ UC Master Food Preserver Program