



University of California
Agriculture and Natural Resources

4145 Branch Center Road
Sacramento, CA 95827-3823
(916) 875-6913 Office
(916) 875-6233 Fax
Email: sacmfp@ucanr.edu
Website: sacmfp.ucanr.edu

UCCE Master Food Preservers of Sacramento County

Monthly Wednesday Night Demonstration

January 16, 2019

*Citrus: From Margaritas
to Marmalade*



Resources:

- Please visit the National Center for Home Food Preservation at <http://nchfp.uga.edu> for detailed information about research-based methods of home food preservation.
- UC ANR Catalog (<http://anrcatalog.ucanr.edu>)

Should you need assistance or require special accommodations for any of our educational programs, please contact us at 916-875-6913.

TABLE OF CONTENTS

TRADITIONAL PRESERVED LEMONS	2
SWEET AND SOUR CANDIED CITRUS PEEL	3
CHIPOTLE LIME SALT.....	4
LEMON, PARSLEY AND GARLIC SALT	4
DRIED CITRUS FRUITS	5
MARGARITA MARMALADE	6
MARGARITA MIX	7
ORANGE MARMALADE.....	9

--No endorsement of any product/company listing within this document is intended, nor is criticism implied of similar products/companies not included.

--The University of California, Division of Agriculture and Natural Resources (UC ANR) prohibits discrimination against or harassment of any person in any of its programs or activities on the basis of race, color, national origin, religion, sex, gender, gender expression, gender identity, pregnancy (which includes pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, status as a protected veteran or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994 [USERRA]), as well as state military and naval service. UC ANR policy prohibits retaliation against any employee or person in any of its programs or activities for bringing a complaint of discrimination or harassment. UC ANR policy also prohibits retaliation against a person who assists someone with a complaint of discrimination or harassment, or participates in any manner in an investigation or resolution of a complaint of discrimination or harassment. Retaliation includes threats, intimidation, reprisals, and/or adverse actions related to any of its programs or activities. UC ANR is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment and/or participation in any of its programs or activities without regard to race, color, religion, sex, national origin, disability, age or protected veteran status. University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's equal employment opportunity policies may be directed to: John I. Sims, Affirmative Action Compliance Officer and Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1397. Email: jsims@ucanr.edu. Website: http://ucanr.edu/sites/anrstaff/Diversity/Affirmative_Action/

Traditional Preserved Lemons

Source: Ball Complete Book of Home Preserving, 2012

Yield: One quart jar

Ingredients

10 lemons, divided
1/2 cup pickling or canning salt, divided
4 bay leaves
4 cinnamon sticks (each about 4 inches)
1 teaspoon whole black peppercorns (optional)

Procedure

1. Prepare jar and lid. For this recipe, the jar needs to be sterilized prior to packing. Boil jar in water for 10 minutes and keep hot until ready to use.
2. Wash 5 of the lemons in warm water, scrubbing well to remove any dirt and wax, and dry well using paper towels. Cut a thin (1/8 inch) slice off the stem end. From stem end, cut each lemon into quarters, without cutting through the bottom end and leaving it intact. Juice the remaining 5 lemons to measure 1-1/2 cups juice.
3. Sprinkle 1 tablespoon pickling salt over the bottom of sterilized jar. Working over a bowl, pack 1 heaping tablespoon salt into each lemon before placing in the jar, stem end up. When 3 lemons have been salted and packed, slip bay leaves and cinnamon sticks against sides of the jar and add peppercorns, if using. Repeat with remaining lemons and salt. Cover with the remaining salt.
4. Fill jar with lemon juice to within 1/2 inch of top of jar. Center lid on jar. Screw band down until resistance is met, then increase to fingertip-tight.
5. Place jar in a dark, cool cupboard for 2 weeks, shaking every day to distribute the salt. After 2 weeks, the lemons are ready to use. Remove pulp and membrane, using only the peel. Rinse under water to remove excess salt and dry with a paper towel. Store preserved lemons in the refrigerator.
6. Store preserved lemons in a container with an airtight lid. Cover and refrigerate for up to 6 months.

Variation

If you prefer, you can cut the lemons into quarters. In a large bowl, combine lemon quarters with salt and toss to mix. Fill the jar half way, add the bay leaves, cinnamon sticks and peppercorns, if using, then continue until the jar is filled, pushing the lemons well down to squeeze in as many as possible.

Sweet and Sour Candied Citrus Peel

Source: Rebekah Turshen, City House, Nashville, TN

Ingredients

4 large oranges, 3 grapefruit, or 6 lemons or limes, halved through stem ends
4 cups water
3 cups sugar, divided
2 tablespoons citric acid

Procedure

Peel fruit using a vegetable peeler. Save flesh for another use; cut peels into 1/4 inch strips.

Bring peels and 4 cups water to a boil in a large saucepan and cook 5 minutes. Drain and return peels to pan. Repeat process twice more, using fresh water each time.

Return peels to pan. Add 2 cups sugar and 2 cups water. Bring to a boil and cook until peels are soft and translucent and vibrant looking, 30 – 40 minutes (about 10 minutes longer for grapefruit, or 10 minutes less for lemons or limes).

Drain and transfer peels to a wire rack set inside a rimmed baking sheet; chill until cool, about 15 minutes.

Whisk citric acid and remaining 1 cup sugar in a medium bowl. Add peels; toss to coat. Return to rack; let sit at room temperature 1 hour. Toss peels again in sugar mixture. Return to rack; let sit 4 – 12 hours to dry out. A dehydrator can be used to speed up this process.

NOTE: Citrus peels can be candied 1 month ahead. Store airtight at room temperature.

Chipotle Lime Salt

Yield: 1/4 cup

Ingredients

1 tsp chipotle chili powder
2 limes
2 tablespoons flaky sea salt

Procedure

Toss sea salt and chili powder on a baking sheet. Finely zest limes over. Bake in a 350° oven, stirring occasionally, until lime zest is dry, about 5 minutes.

Or, use a dehydrator set at 125° for 1 hour.

Let cool and then package in an airtight container.

Lemon, Parsley and Garlic Salt

Yield: Approximately one 4-oz. jar

Ingredients

1 pound lemons (approx.. 4 – 5 lemons)
1 bunch flat-leaf parsley
3 garlic cloves
2 Tbsp coarse sea salt

Using a rasp-style grater, remove the zest from the lemons. Wash the parsley well and strip the leaves from the stems (you don't have to be meticulous, but you want more leaves than stems).

Place the parsley on a large cutting board and chop roughly. Add the lemon zest and chop the two together until well combined. Add the garlic cloves and salt and continue to chop until the lemon zest, parsley, garlic and salt are well combined and chopped very finely.

Spread mixture on a plate and let dry for 48 hours at room temperature. When it no longer feels moist, scrape it into a jar and use as you would any other flavored salt.

Dried Citrus Fruits

Source: The Dehydrator Bible, 2009, page 28

ZEST

- Preparation: using the course side of a box grater, scrape colored zest from the fruit. Alternatively, use a sharp y-shaped vegetable peeler to remove thin strips of the colored zest. Be sure not to scrape through to the bitter white pith.
- Drying: spread on leather sheets. Dry at 130°F.
- Time: 3 to 4 hours
- Special instructions: stir occasionally to break up any clumps and ensure even drying. Doneness test: pieces should be firm, brittle and just slightly pliable.
- Tip: Store dried zest in larger pieces to preserve the most flavor. Using a sharp knife, chop finely just before using.

SLICES

- Preparation: cut fruit crosswise into slices about 1/4 inch thick.
- Drying: place on mesh drying trays. Dry at 130°F.
- Time: limes and oranges: 16 to 18 hours; lemons: 18 to 20 hours; grapefruit: 22 to 24 hours.
- Special instructions: if possible, flip the slices several times so they dry evenly. Doneness test: slices should be firm, brittle and no longer pliable.
- Tip: The flesh may pull away from the center of the slices as they dry. Even though the fruit slices may feel dry, moisture from within the juice sacs can diffuse outwards upon cooling and make previously firm slices feel pliable. You may have to put slices back in the dryer after they have been stored overnight to finish the drying process

Margarita Marmalade

Source: <http://www.pomonapectin.com/recipes/margarita-marmalade/>

Before You Begin

Prepare calcium water. To do this, combine ½ teaspoon calcium powder (in the small packet in your box of Pomona's pectin) with ½ cup water in a small, clear jar with a lid. Shake well. Extra calcium water may be stored in the refrigerator for future use.

Ingredients

12 medium-size limes, divided	½ cup tequila
4 medium-size oranges	½ cup orange liqueur
1½ cups water	2½ cups sugar
3 teaspoons calcium water	4½ teaspoons Pomona's pectin powder

Directions

1. Wash your jars, lids, and bands. Place jars in canner, fill canner 2/3 full with water, bring canner to a rolling boil, and boil jars for 10 minutes to sterilize them. (Add 1 extra minute of sterilizing time for every 1000 feet above sea level.) Reduce heat and allow jars to remain in hot canner water until ready to use. Place lids in water in a small sauce pan, heat to a low simmer, and hold until ready to use.
2. Slice 2 of the limes in half and squeeze out their juice, discarding the seeds and peels. Divide the juice, reserving ¼ cup of the lime juice for later use. Then, set aside extra lime juice (if there is any) in a different container.
3. Wash the oranges. Peel oranges and remaining limes, and set aside peels from 2 of the oranges, discarding all remaining peels. Remove and discard seeds, excess white pith, or fibrous parts of the membrane from the flesh of the fruit. Chop the flesh of the fruit.
4. Using a paring knife, scrape off and discard the inner white part of the reserved orange peels. Slice the peels into thin strips, about 1-inch long.
5. In a large saucepan, combine chopped fruit, sliced peels, 1½ cups of water, and the extra lime juice, if there is any (not including the ¼ cup reserved juice). Bring mixture to a boil over high heat. Reduce heat and simmer, covered, for 20 minutes, stirring occasionally. Remove from heat.
6. Measure 5 cups of the cooked fruit (saving any extra for another use), and return the measured quantity to the saucepan. Add calcium water, the 1/4 cup reserved lime juice, tequila, and orange liqueur and mix well.
7. In a separate bowl, combine sugar and pectin powder. Mix thoroughly and set aside.
8. Bring fruit mixture back to a full boil over high heat. Slowly add pectin-sugar mixture, stirring constantly. Continue to stir vigorously for 1 to 2 minutes to dissolve pectin while the marmalade returns to a boil. Once it returns to a full boil, remove it from the heat.

Margarita Marmalade (continued)

9. Can Your Marmalade: Remove jars from canner and ladle jam into hot jars, leaving 1/4 inch of headspace. Remove trapped air bubbles, wipe rims with a damp cloth, put on lids and screw bands, and tighten to fingertip tight. Lower filled jars into canner, ensuring jars are not touching each other and are covered with at least 1 to 2 inches of water. Place lid on canner, return to a rolling boil, and process for 10 minutes. (Add 1 extra minute of processing time for every 1000 feet above sea level). Turn off heat and allow canner to sit untouched for 5 minutes, then remove jars and allow to cool undisturbed for 12 to 24 hours. Confirm that jars have sealed, then store properly.

Note: *A steam canner can be used in lieu of a boiling water bath canner. Same processing time.*

TIP: Paring Peels

Unlike other citrus fruits, lime peels can be difficult to remove with your fingers. If you have trouble, carefully use a paring knife to slice the peel off.

Margarita Mix

Yield: 9-10 cups

Ingredients

6 cups fresh squeezed and strained lime juice

6 cups sugar OR 3 cups honey

Directions

1. Wash jars, lids, and bands. Place jars in boiling water bath canner, fill canner 2/3 full with water, bring to a boil. Or, if using a steam canner, fill with 2 to 3 inches of water and place jars on rack, bring to a boil. Turn off heat, cover, and keep jars in hot canner until ready to use.
2. Measure lime juice into sauce pan.
3. Measure sugar or room temperature honey and add to lime juice.
4. Bring juice mixture to a full boil.
5. Fill hot jars to 1/4 inch of top. Wipe rims clean. Screw on 2-piece lids. Put filled jars in boiling water to cover. Boil 10 minutes (add 1 minute more for every 1,000 ft. above sea level). Remove from water.
6. Let jars cool 12 – 24 hours. Check to make sure lids are sealed.

Use within 1 year. Lasts 3 weeks once opened.

Note: *A steam canner can be used in lieu of a boiling water bath canner. Same processing time.*

Orange Marmalade

Source: National Center for Home Food Preservation
https://nchfp.uga.edu/how/can_07/orange_marmalade.html

Yield: About 7 or 8 half-pint jars

Ingredients

- 4 cups thinly sliced orange peel with albedo (about 2.5 to 3 lbs. oranges as purchased)
- 4 cups orange pulp, cut up
- 1 cup thinly sliced lemon (about 1 large lemon as purchased)
- 6 cups of water
- 6 cups of sugar

Procedure

1. Wash and rinse half-pint canning jars; pre-sterilize and keep hot until ready to fill. Prepare lids and ring bands according to manufacturer's directions.
2. Rinse oranges and lemons well in clean water.
3. Peel oranges and slice orange peel with albedo attached into 1/8" strips. Measure 4 cups. Remove seeds and membrane from orange pulp. Cut sections into smaller pieces; measure 4 cups.
4. Slice lemon(s) into 1/8" slices and remove seeds. If desired, cut slices into halves or quarters (we used quarter slices of a large lemon). Measure 1 cup.
5. Add water to fruit in a 10-quart stock pot. Bring to a boil and cook over medium heat until peel is tender, about 1 hour.
6. Add sugar and bring slowly to a boil; stirring until sugar dissolves. Cook rapidly to the jellying point, about 45 minutes, stirring occasionally. Be careful not to get burned with spattering marmalade. Quickly skim foam, if any, from top of mixture.
7. Fill hot marmalade into hot pre-sterilized jars, leaving 1/4" headspace. Wipe rims of jars with a dampened, clean paper towel. Apply and adjust prepared canning lids.
8. Process filled jars in a boiling water bath canner or steam canner according to the recommendations below. (If there is a partial eighth jar, refrigerate and enjoy freshly made.)
9. Let processed jars cool, undisturbed, 12 to 24 hours and check seals.

Process Time at Altitudes of				
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 6,000 ft	Above 6,000 ft
Hot	Half-pints	5 min	10 min	15 min

Note

(1) When peeling citrus fruits for marmalades, be sure to leave all or most of the white albedo (white pith or tissue) left attached to the outer peel. This is where the most pectin (needed for gelling) is located.