# Preserving the Season: Celebrating Citrus



# University of California Cooperative Extension Master Food Preservers

ucanr.edu/sites/MFPOC Helpline: ucanr.edu/sites/MFPOC/Got\_A\_Question

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# Master Food Preservers Upcoming Events

Saturday, March 18, 2017

Make It, Take It, Food Preservation - Strawberry Jam

Learn how to make and can jam. Fresh produce, equipment, canning jars will be provided. Attendees will leave with 3 half pints of strawberry jam.

Time - 9:30 to 12:00 noon Location - OC Fair & Event Center -Silo Building at Centennial Farm (Enter Gate 2 off Fair Dr) Fee \$30 (Includes materials & handouts) Reservation deadline: Thursday, March 16 More Information: http://ns.ocfair.com/ocf2/Calendar/Calendar.asp

> Saturday, March 25, 2017 Workshop at the OC Great Park

Jams and Jellies Demonstration: How to make and can low sugar jams and jellies

> Time: 10:00 to 11:00 am Location: Farm + Food Lab at OC Great Park Free Event and Free Parking More Information: http://ucanr.edu/sites/MFPOC/

> > Saturday, March 25, 2017

Make It, Take It, Food Preservation - Pickles

Learn how to make pickles. Fresh produce, equipment, canning jars will be provided. Attendees will leave with 3 half pints of bread and butter pickles.

Time - 9:30 to 12:00 noon Location - OC Fair & Event Center -Silo Building at Centennial Farm (Enter Gate 2 off Fair Dr) Fee \$30 (Includes materials & handouts) Reservation deadline: Thursday, March 23 More Information: http://ns.ocfair.com/ocf2/Calendar/Calendar.asp

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# **University** of **California** Agriculture and Natural Resources

UCCE Master Food Preserver

Boiling Water Canning 1 • 2 • 3 • 4

- 1. Pick
- a tested recipe
- your ingredients
- 2. Prepare your equipment
  - jars, canning pot, tools
  - the correct equipment for your recipe
- 3. Prepare your kitchen and yourself
  - prep all surfaces in your kitchen
  - tie back hair and put on an apron
  - wash your hands

# 4. Preserve

- wash jars
- keep jars warm in canning pot and simmer lids
- prepare your recipe
- fill jars observing correct headspace
- remove air bubbles
- wipe rims
- place lid on, securing ring fingertip tight
- put jars in canner keeping them upright
- make sure jars are covered by at least 1 inch of water
- cover and bring to a boil and begin processing time
- when processing is complete, turn off heat, remove lid and let rest 5 minutes
- remove jars by lifting straight up and placing them on a towel or rack to cool

For more complete information on canning, see

USDA Guide to Canning [http://nchfp.uga.edu/publications/publications usda.html] or one of the Ball guidebooks.



# Dehydration

Drying (dehydrating) food is one of the oldest and easiest methods of food preservation. Dehydration is the process of removing water or moisture from a food product. Removing moisture from foods makes them smaller and lighter. Dehydrated foods are ideal for backpacking, hiking, and camping because they weigh much less than their non-dried counterparts and do not require refrigeration. Drying food is also a way of preserving seasonal foods for later use.

#### How dehydration preserves foods

Foods can be spoiled by food microorganisms or through enzymatic reactions within the food. Bacteria, yeast, and molds must have a sufficient amount of moisture around them to grow and cause spoilage. Reducing the moisture content of food prevents the growth of these spoilage-causing microorganisms and slows down enzymatic reactions that take place within food. The combination of these events helps to prevent spoilage in dried food.

The basics of food dehydration

Three things are needed to successfully dry food at home:

- **Heat** hot enough to force out moisture  $(140^{\circ}F)$ , but not hot enough to cook the food;
- **Dry air** to absorb the released moisture;
- Air movement to carry the moisture away.

Foods can be dried using four methods:

- In the sun— requires warm days of 85°F or higher, low humidity, and insect control; recommended for dehydrating fruits only;
- In the oven: drying in an oven uses the most energy. It is possible if you can set your oven temperature very low. Some recommend propping the oven door open to let moisture evaporate. A convection oven often does a good job dehydrating food as it uses the fan function to facilitate drying
- **Solar dehydrator:** a solar dehydrator is an enclosed structure that uses natural convection to move the warm air over the food inside. Sometimes called an Appalachian Dehydrator. Plans are available from many websites.
- Using a food dehydrator electric dehydrators take less time to dry foods and are more cost efficient than an oven. Look for one with UL Seal of Approval for safety. Older models are not always safe.







# Dehydration

#### Methods

Choose a fruit or vegetable in great condition. Drying will not make a fruit become better than it is. If you do have fruit that is getting too soft, you can make a purée and make fruit leather.

Cut your produce into thin slices. The thinner the slice the faster it will dehydrate. Too thin, though, could make a final product that is so thin in breaks into pieces.

As you cut up certain fruits, such as apples and pears, you will need to drop them into a bowl of acidified water. You can use lemon juice, ascorbic acid (vitamin C), or citric acid to help prevent unwanted browning of the fruit.

Many vegetables benefit from blanching prior to dehydrating. Fill a large pot with water and bring to a boil. Place prepared vegetable in the water. Bring back to a boil. See the USDA guide for timing guidelines for each vegetable.

http://nchfp.uga.edu/how/dry/csu\_dry\_vegetables.pdf

Place the produce in a single layer on the trays of the dehydrator. Set the temperature to the correct setting for what you are drying. Most fruits and vegetables are dried at 125° to 135° while herbs are dried at a much lower temperature and meats for jerky are at a higher temperature.

After dehydration, check food to see if it is pliable but not moist. Place food in a container and shake daily for several days to condition, which distributes the moisture evenly, and check for condensation. If there is any moisture, return the food to the dehydrator. If you have used a method for dehydration that could have allowed insect access to the food, it is recommended that you freeze the food to kill any bugs or insect eggs.

Store dehydrated food in an airtight container in a cool, dark place for the best quality. Dried foods maintain the best quality and nutritional value if they are used in less than 12 months. Dried foods may still be edible after many months or years in storage, although they may not be as tasty or nutritious.

Visit the USDA website for further information and recipes: <u>http://nchfp.uga.edu/how/dry.html</u>

Visit the UCCE Master Food Preservers of Orange County for questions or additional information: <u>http://ucanr.edu/sites/MFPOC/</u> Helpline: <u>http://ucanr.edu/sites/MFPOC/Contact\_Us/</u>



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## MIMOSA JELLY

From: http://www.pomonapectin.com/recipes/mimosa-jelly/

Mimosa Jelly is a low-sugar cooked jelly made with Pomona's Pectin. The main recipe has a more champagne-forward flavor. The recipe described in *Option 1* has a more fruit-forward flavor.

YIELD - 4 to 5 cups

#### INGREDIENTS

2 cups Orange Juice without pulp (fresh squeezed or no-calcium-added store bought)\*

2 cups champagne or spumante or prosecco or sparkling wine

2 teaspoons calcium water

1/4 cup lemon juice

3/4 cup sugar

3 teaspoons Pomona's pectin powder

\*As an example, use a combination of reconstituted orange juice from concentrate and fresh squeezed juice from Cara Cara oranges. The juice from the Cara Cara oranges is slightly pink and sweet and will add a special depth of flavor.

#### BEFORE YOU BEGIN - Prepare calcium water.

Combine 1/2 teaspoon calcium powder (in the small packet in your box of Pomona's pectin) with 1/2 cup water in a small, clear jar with a tight-fitting lid. Shake well. Extra calcium water should be stored in the refrigerator for future use.

#### DIRECTIONS

1. Wash jars, lids, and bands. Place jars in canner, fill canner 2/3 full with water, bring to a boil. Turn off heat, cover, and keep jars in hot canner water until ready to use. Turn off heat and keep lids in hot water until ready to use.

2. Measure orange juice and champagne into sauce pan.

3. Add calcium water and lemon juice, and mix well.

4. Measure sugar into a bowl. Thoroughly mix pectin powder into sugar. Set aside.

5. Bring juice mixture to a full boil. Add pectin-sugar mixture, stirring vigorously for 1 to 2 minutes to dissolve the pectin while the jam comes back up to a boil. Once the jam returns to a full boil, remove it from the heat.

6. Fill hot jars leaving 1/4 inch headspace. Wipe rims clean. Screw on 2-piece lids. Put filled jars in boiling water to cover. Boil 10 minutes, turn off heat and wait 5 minutes. Remove from water and let jars cool undisturbed. Check seals; lids should not flex up and down when center is pressed.

#### VARIATIONS

*Option 1:* For a more fruit-forward jelly, you can use a different ratio of orange juice to champagne: 3 cups of orange juice to 1 cup of champagne. If you increase the juice and reduce the champagne, you may want to increase the sugar some (we used 1 cup of sugar with this ratio). The lemon juice, calcium water, and Pomona's pectin powder remain the same.

*Option 2:* Sweetness can vary depending on the orange juice you use. If you're concerned about whether the jelly will be sweet enough, taste after Step 5. If you want it to be sweeter, you can add more sugar now. Turn on the heat, stir in the new sugar and bring the mixture back to a full boil. Turn off heat and go on to Step 6.



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STRAWBERRY LEMONADE Concentrate

From Ball<sup>®</sup>: http://www.freshpreserving.com/recipes/

YIELD – about 7 pints

METHOD – Boiling Water Canning

INGREDIENTS

6 cups hulled strawberries
4 cups freshly squeezed lemon juice
6 cups granulated sugar

DIRECTIONS

- 1. PREPARE boiling water canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set bands aside.
- 2. PURÉE strawberries in a blender or food processor fitted with a metal blade, working in batches, until smooth. Transfer to a large stainless steel saucepan as completed.
- 3. ADD lemon juice and sugar to strawberry puree, stirring to combine. Heat to 190° F over medium-high heat, stirring occasionally. Do not boil. Remove from heat and skim off foam.
- 4. LADLE hot concentrate into hot jars leaving 1/4 inch headspace. Wipe rim. Center lid on jar. Apply band until fit is fingertip tight. Place jar in boiling water canner. Repeat until all jars are filled.
- 5. PROCESS jars in a boiling water canner for 15 minutes, adjusting for altitude. (https://www.freshpreserving.com/altitude-adjusting.html) Remove jars and cool. Check lids for seal after 24 hours. Lid should not flex up and down when center is pressed.

QUICK TIP

To reconstitute, mix one part concentrate with three parts water, tonic water or ginger ale. Adjust concentrate to suit your taste.



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## Preserved Lemons

#### **INGREDIENTS**

Lemons	
Salt as needed (non-iodized)	
Spices	

#### DIRECTIONS

- 1. Clean a pint jar or a jar large enough to hold two lemons.
- 2. Scrub the lemons with a vegetable brush and dry them off. Use organic lemons if possible.
- 3. Cut off the blossom and stem ends of the lemons. Slice them into wedges.
- 4. Use at least 1 tablespoon of salt per lemon. Use a pure, non-iodized salt. Sprinkle some salt in the jar. Add a lemon wedge and sprinkle salt over it. Continue adding lemon wedges and salt. As you pack the jars, press the lemons so they release some juice.
- 4. Add spices as desired as you are filling the jar: bay leaf, cinnamon stick, coriander, peppercorns. See additional options, below.
- 5. Press the lemons very firmly in the jar to get juices flowing. The lemon wedges should be submerged beneath the liquid. If they are not, juice an additional lemon and add the juice to the jar. Leave some headspace before adding the jar lid.
- 6. Leave the jar at room temperature for 2-4 weeks.
- 7. When the preserved lemons are soft, they're ready to use. Store the lemons in the refrigerator, where they will keep for at least 6 months. Rinse before using to remove excess salt.

#### **OPTIONS**

Moroccan Lemons: (bay leaf, cinnamon, coriander, peppercorns, cloves, cumin, turmeric)

Preserved Mexican Limes: (bay leaf, oregano, cumin, various chili peppers, garlic, onions)

Preserved Tangelos - (cardamom, star anise, cinnamon, cloves, nutmeg, chili peppers)

#### USING PRESERVED LEMONS

Pull a lemon wedge from the jar and separate the pulp from the peel. You will be dicing up the peel to use in recipes. The juice/syrup can also be used but beware of the salt. Do not salt a dish until after you have added the Preserved Lemon. You may not need additional salt.

Preserved lemons can be used like olives. Add them to sautéed vegetables. Make chicken piccata. Add them to a pasta salad.

Here is a link to some other recipes, including a risotto, that use Preserved Lemons:

http://ucanr.edu/sites/MFPOC/Recipes for Preserved Lemons/

and from Food In Jars, Marisa McClellan:

http://foodinjars.com/2017/02/use-salt-preserved-citrus/



### HOME FOOD PRESERVATION RECIPES

The following resources provide a wide variety of tested recipes and information, based on USDA recommendations for safe canning and preserving methods. Only Use Recommended, Tested Recipes!

#### BOOKS:

#### Ball Blue Book: Guide to Preserving. Daleville, IN: Hearthmark LLC, 2011.

Classic reference book with over 500 tested recipes. Includes recipes and instructions for canning, pickling, freezing, and dehydrating all types of foods, including recipes for special diets. Book is available for purchase at Amazon, www.freshpreserving.com, and Walmart.

Ball Complete Book of Home Preserving. Kingry, Judi, Devine, Lauren, eds. Toronto: R. Rose, 2006 (earlier editions not recommended).

Compilation of over 400 tested recipes for spreads, fruits, salsas, relishes, chutneys, condiments, pickles, and tomatoes. Includes special instructions for beginners and tips for experienced canners. Book is available for purchase from Amazon.

So Easy to Preserve. Athens, GA: Cooperative Extension Service, University of Georgia, 2006 (earlier editions not recommended).

Book contains USDA tested recipes plus 35 additional tested recipes, including a new section for home canned salsas. Book is available for purchase from University of Georgia at: http://setp.uga.edu/

USDA Complete Guide to Home Canning. Washington, D.C.: U.S. Department of Agriculture, National Institute of Food and Agriculture, 2009.

Also available free online at: http://nchfp.uga.edu/publications/publications\_usda.html Book contains the most current, research-based canning techniques. Includes 277 tested canning recipes for fruits, tomatoes, vegetables, red meats, poultry, seafood, pickles, relishes, jams and jellies. Print book is available for purchase from The Education Store (Purdue Cooperative Extension) at: https://mdc.itap.purdue.edu/item.asp?item\_number=AIG-539

#### FREE ONLINE RECIPES:

Various state Cooperative Extension Services produce online facts sheets and guides with scientifically tested recipes. Links to these publications are available at: http://nchfp.uga.edu/links/links\_home.html

#### **Ball®** website. http://www.freshpreserving.com

Site provides access to 230 tested recipes. Recipes can be searched by name, main ingredient, level of difficulty, category of food, or preserving method. To search recipes, click "Recipes" link on banner at top of home page.

*REMEMBER...when canning home-preserved foods:* 

- Use tested, up-to-date recipes from the resources in this guide.
- Follow directions carefully and do not change the measurements of fruit, vegetables, or acid.
- Adjust processing time for altitude.
- Date home-preserved foods and store them no more than 12 months between 50-70 °F.
- Avoid direct sunlight.

#### Home Canned Sweet Spreads Made with Green Chile.

New Mexico State University Cooperative Extension Service. July 2009.

http://www.chilepepperinstitute.org/files/tiny\_mce/file\_manager/educ\_info/CannedSprdswgrnchile.pdf Guide includes 5 tested recipes for preparing sweet spreads with green chilies.

#### National Center for Home Food Preservation website. http://nchfp.uga.edu/

Site contains over 400 laboratory tested recipes for canning fruits, tomatoes, salsa, nuts, vegetables, poultry, red meats and seafood; freezing all types of foods; drying fruits, herbs, and vegetables; leathers and jerkies; curing and smoking meats; fermenting; pickling; and jam and jelly making. Includes reduced-sugar recipes. To view recipes, click links under "How do I?" on left side of home page.

# *Preserving Food in Wyoming: Wild Berries and Other Wild Fruit.* University of Wyoming Cooperative Extension Service. July 2011. <u>http://www.wyomingextension.org/agpubs/pubs/B1210-3.pdf</u> Bulletin contains 30 tested recipes for canning/drying chokecherries, wild plums, serviceberries, rose hips, buffaloberries, wild currants, gooseberries, wild grapes, prickly pear cactus, and dandelions.

#### Salsa Recipes for Canning.

New Mexico State University Cooperative Extension Service. August 2006. http://aces.nmsu.edu/pubs/\_e/e-323.pdf Guide includes 5 tested salsa recipes.

#### SURE-JELL® Premium Fruit Pectin website. http://www.kraftbrands.com/SureJell

Site contains tested recipes from SURE-JELL® and CERTO® pectin package inserts, as well as over 20 other tested recipes for jam and jelly making. Includes reduced and no sugar recipes. To view insert recipes, click "Jamming Tips" link on home page. To view other jam and jelly recipes, click "Our Favorite Jam & Jelly Recipes" link.

#### USDA Complete Guide to Home Canning, 2009 revision (Electronic Book).

http://nchfp.uga.edu/publications/publications\_usda.html

Online version of book contains the most current, research-based canning techniques. Includes 277 tested canning recipes for fruits, tomatoes, vegetables, red meats, poultry, seafood, pickles, relishes, jams and jellies.

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