UC Master Food Preservers Online Program

Preserving Persimmons I: Freezing and Drying, November 14, 2024



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Preserving Persimmons II: Pickles, Chutney, Vinegar, and Jams

Date 12-05-2024

Time 6:30 PM - 7:30 PM

Contact

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1. Types and Ripeness of Persimmons

Excerpted from https://ucanr.edu/sites/NSJMFP/files/388648.pdf and adapted from Harold McGee, Keys to Good Cooking

Generally fuyu and hachiya persimmons are mature and best picked when they are fully orange, with minimal green or yellow.

Fuyu Persimmons: The same orange color as hachiya persimmons, fuyus look a bit like orange tomatoes, squat and round with a flat bottom. This type of "sweet" persimmon is non-astringent, which means it can be eaten when firm, like an apple, and even if it's not fully ripe. A fuyu is usually easy to cut, like a firm peach, and is just as sweet as a ripe mushy softness. Refrigeration will preserve it longer. Hachiya persimmons: are heart or acorn-shaped, with a pointy bottom. When unripe, they are very astringent because of a high quantity of soluble tannins when unripe. Their unripened taste can be extremely tannic and difficult to digest, so they should not be consumed until ripe or chemically treated to reduce soluble tannins.

The simplest way to ripen a hachiya to its best flavor is to wash it and leave it in a bowl at room temperature for days or weeks until it gets soft and the skin goes nearly translucent. When it feels like a soft gel inside, it's time to eat! This pulp is excellent for baking or making fruit leathers.

You can speed ripening of an astringent persimmon by putting it in a thick plastic bag or jar with limited oxygen contact, or with apples or bananas, which give off ethylene gas. Drying semi-soft slices with slices of apples will also reduce the astringency. Freezing and then thawing a plastic wrapped hachiya at -4°F for 15-60 days will have a similar effect of both softening and reducing the astringency of the fruit. To maintain firmness yet reduce astringency to an edible level, vacuum-pack fruit in non-gas permeable plastic or glass (removing all oxygen contact and/or displacing with carbon dioxide) and store at 100°F for 12 hours, then at room temperature for 12 hours before opening seal. Ideally, if you want a ripe persimmon that is firm, use a fuyu!

2. Freezing Persimmons

Frozen whole Fuyu persimmons

Adapted from: Kovel, A. (2024, September 16). *13 Persimmon Recipes Everyone Should Make This Fall*. Martha Stewart. <u>13 Persimmon Recipes Everyone Should Make This Fall</u>

- 1. Wash and freeze ripe, firm, whole Fuyu persimmons for at least 8 hours and up to one month.
- 2. Slice off the top. Eat from frozen fruit with a spoon.



Photo credit: M. Hsieh, 2024

Frozen whole Hachiya persimmons (reduces astringency)

Adapted from: Schneider, E., (1986) Uncommon fruits & vegetables: A commonsense guide (William Morrow). Shahid, M. A. (2024, October 17). Persimmon harvesting, ripening, and preservation strategies. University of Florida/IFAS Extension. <u>https://nwdistrict.ifas.ufl.edu/hort/?s=persimmon</u>

- 1. Rinse unripe but orange-colored Hachiya (or other astringent variety) persimmons well under cool running water.
- 2. Cut off a small amount of the pointy tip. Wrap the persimmon well in plastic wrap. Allow at least 15 days in the freezer to "ripen"; ideally consume within three months.
- 3. To serve, partially thaw in the refrigerator until about the consistency of sherbet, about 4 hours. (Too long, and the persimmon will be puddly and unappealing.)
- 4. Serve whole with spoons for scooping. Can garnish with toasted nuts or whipped cream.

Frozen Hachiya persimmon purée

Adapted from: Andress, E. L. & Harrison, J.A. (2014). *So easy to preserve (*6th ed.), Bulletin 989. Cooperative Extension/The University of Georgia. <u>Freezing Persimmons - National Center for Home Food Preservation</u>



Photo credit: M. Hsieh, 2024

Select orange-colored, soft-ripe Hachiya persimmons. Sort, wash, peel and cut into sections. Remove seeds, if any. Press fruit through a sieve to make a purée. To retain bright color and for best quality, to each quart of purée add 1/8 teaspoon (375 mg) ascorbic acid. Purées may be packed with or without sugar (mix in 1 cup sugar per quart (2 pounds) of purée, if sugar is desired).

Pack purée into freezer-safe containers. Leave ½ inch headspace for expansion. Seal and freeze. Keep up to 6 months. Thaw in the refrigerator. Use promptly in baking, eating, or mixed with yogurt or whipped cream.

3. Fruit Leathers

Source: Adapted from So Easy to Preserve, 6th Edition, page 329-336; 352-354. <u>https://nchfp.uga.edu/how/dry/fruit_leathers.html</u>

1. Use ripe or slightly overripe fruit. Leathers are a good way to use overripe or bruised fruit, or leftovers from making jam or other recipes. Frozen pulp also works well. Two cups of fruit will make a leather about 13" x 15".

2. Wash, remove calyx, and discard any seeds or bad spots. Most people will want to peel the persimmon, but the skins are edible.

4. Purée fruit until smooth. You can use a blender, wand, food processor, food mill, or press through a sieve.



Photo Credit: M. Hsieh, 2024

5. Add 1/8 teaspoon ascorbic acid (375 mg) or 2 teaspoons of lemon juice for each 2 cups of puree. The acid helps retain color and improves the destruction of pathogens during drying.

6. Optional add ins:

 Corn syrup, honey, or sugar can balance tartness in fruit leathers, but ripe persimmons rarely need additional sweetness. Do not use sugar for longer storage because it may crystalize. Sweeten to taste, about ¼ to ½ cup sugar, corn syrup or honey for each 2 cups of fruit. Saccharin based sweeteners may also be used, but aspartame sweeteners may lose sweetness during drying.

- Other fruit purées can extend your fruit and add different flavor profiles. Applesauce mixed with persimmon adds pliability.
- Spices, *e.g.*, ginger, or any of the "pumpkin pie spice" array like allspice or cinnamon. Start sparingly, testing ¼ teaspoon per 2 cups of purée.
- Flavorings such as almond extract, lemon juice, lemon peel, lime juice, lime peel, orange extract, orange juice, orange peel or vanilla extract can be added; try 1/8 to 1/4 teaspoon for each 2 cups of purée.

7. Spread onto baking trays. Many dehydrators have special trays, especially the columnar ones that require a doughnut shape. Flexible silicone works well for unmolding. A low outer rim is useful. Because leather dries from the outside edge toward the center, you might spread a bit less in the center.

Do not spread over 1/8" of wet fruit for each round of drying. Layers that are too thick will dry unevenly, and may form a dry "skin" that inhibits dehydration of wet pureé underneath. Three or more thin layers work well.

8. Optional: sprinkle add-ins on top or between layers, e.g., sesame seeds, pepitas, flaked coconut, chopped nuts, granola, even mini-marshmallows!

9. Dehydrate between 90-140°F. If using a dehydrator, you might start with its recommendations for fruits based on your schedule and preferences; 115°F works well. Lower temperatures may better preserve color, taste, and nutrients. Hotter temperatures also increase the risk of forming an outside "skin" and uneven drying.

Oven drying is possible in some ovens, but generally results in an inferior product. For drying in the oven, a 13" X 15" cookie pan with edges works well. Line pan with a silicone mat or plastic wrap, being careful to smooth out wrinkles. Do not use waxed paper or aluminum foil. Sun drying is only possible with sufficient warmth, lower humidity, and protection from vermin.

10. Dry each layer until the surface is not tacky but the leather is still pliable, like its namesake. The surface should be slightly shiny, and touching any part will not leave an indentation. Rotate and flip the leather for even drying. Drying time depends on the thickness and temperature and equipment; Approximate drying times are 6 to 8 hours in a dehydrator, up to 18 hours in an oven and 1 to 2 days in the sun.

11. Cool, cut with a knife or kitchen shears, and package in an air-tight, labeled container, or wrap in plastic wrap for individual snack packs. Cookie cutters can be used to make shapes. You can also spread fillings–such as melted chocolate, nut butters, cheese spreads, marmalades or preserves, even marshmallow cream–onto dried leathers and roll them up; these must be stored in the refrigerator.

Leathers are best consumed in a month if stored at room temperature, and within a year if tightly rolled, wrapped, and stored in the freezer. Quality will decline over time, but if properly dried, they are safe to consume indefinitely

4. Dehydrated Persimmon Slices

Adapted from So Easy to Preserve, 6th Edition, page 329-345. <u>https://extension.colostate.edu/topic-areas/nutrition-food-safety-health/drying-fruits-9-309/</u>

Dried persimmon slices are a beautiful color and a healthy snack. You can reduce volume and use them in everything from garnishes to baking.

1. Use fully ripe fuyu or other non-astringent persimmons or slightly soft hachiya or astringent types of persimmons that can still hold together when sliced.

2. Wash, remove the calyx, and peel (optional). The peels are edible, but can cause edges to be when dried.

3. Slice fruits horizontally into uniformly thick rounds, from paper thin to up to 1/2" thick. If using hachiyas or astringent varieties, do not exceed $\frac{1}{4}$ " thick. You can easily remove any seeds after drying.

4. Recommended pretreatment (optional): Soaking the sliced fruit in an acidic solution helps preserve the color and texture of the dried fruits, and helps reduce potentially harmful bacteria during drying. Dissolve 1 teaspoon powdered ascorbic acid (or 3000 mg ascorbic acid tablets, crushed) into 2 cups water. Soak cut fruit slices in solution for 3-5 minutes. Add more ascorbic acid if solution is used more than twice. Drain well before placing on drying trays.

5. Optional: Before drying, sprinkle on spices like powdered ginger, allspice, even chililime salt!

6. Dehydrate in single layers, not touching, for 12+ hours. Dehydrate between 90-140°F. If using a dehydrator, you might start with its recommendations for fruits based



Photo Credit: M. Hsieh, 2024

on your schedule and preferences; 115°F works well. Lower temperatures may better preserve color, taste, and nutrients.

If using astringent varieties of persimmons like hachiyas, it is helpful to add slices of apple to the drying trays to reduce any lingering astringency.

Slices are done when there are no pockets of moisture. They should be pliable but not sticky or tacky. Test a slice: it should bend in half, yet not stick to itself, but spring back. Exceptionally thin slices may be intentionally dried to the brittle stage.

7. Completely cool fruit; packaging warm can lead to sweating and moisture buildup. It is useful to equilibrate the moisture among the batch of slices by "conditioning" the fruit. Conditioning is a process to equalize the moisture and reduce the risk of mold growth.

Pack cooled dried fruit loosely into tightly sealed plastic or glass jars. Seal and let stand for 4 to 10 days. The excess moisture in some pieces will be absorbed by the drier pieces. Shake the jar daily to separate the pieces and check for moisture condensation. If condensation develops in the jar, return the fruit to the dehydrator for more drying.

8. Store in a labeled, airtight container to keep moisture from reentering the fruit, or it may mold. Silica gel packets can be added to the container to maintain dryness. Suitable containers are glass jars with lids, plastic containers with lids, food- and freezer-grade plastic bags, or vacuum packaging.

Store in a cool, dark place; these are best consumed in a year. Storing in the refrigerator or freezer lengthens shelf life, and guards against mold or insects.

5. Hoshigaki – Whole Air-Dried Persimmons

1. Pick hachiya persimmons when underripe and very firm, usually October to November.

2. Use a sharp pair of pruners to cut the branch containing the persimmon from the tree, making sure to leave enough stem so you can create a "T" on top. At this point, your persimmons can sit for a few days before hanging. Just keep them in a cool, dry place out of direct sun.

3. Set up your space where you will be hanging your persimmons. A sunny window with good air circulation works well.

4. Use strong string or double it if not sure. Determine how low you would like to hang your fruit. Knot the top of the strings. Then tie around the rod. If using drying rack or ladder, cut shorter pieces.

5. Trim off the calyx from around the stem.

6. Then peel persimmons.

7. Hang the fruit. If using the drying-rack style, make a loop of string, hook two persimmons in opposite ends of it, then drape over two rods, keeping them from touching each other or the string while hanging.



Photo Credit: D. Davis, 2024

8. Leave alone for a couple days until a "skin" forms on the outside and it is no longer tacky to touch. You can test it by gently pressing the fruit.

9. Starting from the top of the persimmon, hold the fruit and gently press in. Rotate the fruit and press in a few more spots. Then leave it be until the next day.

10. Once again, press your fingers together on the fruit, rotating it as you go. Work your way down, pressing a little more than the day before. Then let it rest for another day.

11. Continue this process until there no longer are any firm-feeling parts inside the fruit. Leave fruit alone until dried enough and ready to remove. This is a bit subjective based partly on personal preference.

12. Place in a sealed container and store in a cool, dry, dark place. Let sit for a couple weeks, then check. When done, they should be coated in a white powder. This is known as sugar bloom.

13. If you've made a lot and plan to keep them for a long time, I suggest placing them in a ziplock and freezing them for at least 3 days. This will prevent the possibility of insect debris developing.



Photo Credit: D. Davis, 2024