



# Apples

## Selecting fresh Apples to preserve

- **When Canning:** Select apples that are crisp, juicy, and a combination of both sweet and tart.
- **When Freezing:** Select apples that are crisp, and firm. The apples should not be too grainy in texture.

## Health Benefits of Apples

An apple a day keeps the doctor away! One small apple contains 80 calories. They provide a good source of fiber. Unpeel apples have twice the fiber as peeled so save time and enjoy the skin. Apples are also a good source of vitamin C which is important for skin, immune and bone health.

## Making Syrups

While you can preserve apples in plain water, adding syrups helps to retain flavor, color, and shape. However, it does not prevent spoiling.

- **Procedure:** Heat water and sugar together, and bring to a boil. Pour the solution over all of the raw fruits in the jar. If it is a hot pack: bring water and sugar to a boil, add fruit, reheat to a boil, and then pour into jars immediately. Below are the recipes for each type of syrup.

Syrup Type	For 9-pt Load		For 7-Qt Load	
	Cups of Water	Cups of Sugar	Cups of Water	Cups of Sugar
Very Light	6-1/2	3/4	10-1/2	1-1/4
Light	5-3/4	1-1/2	9	2-1/4
Medium	5-1/4	2-1/4	8-1/4	3-3/4
Heavy	5	3-1/4	7-3/4	5-1/4
Very Heavy	4-1/4	4-1/4	6-1/2	6-3/4

## Things you should know about freezing Apples

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### Packaging should:

- Be moisture vapor resistant
- Be durable and leak proof
- Not become brittle and crack at low temperatures
- Resist oil, grease and water
- Protect food from absorption of other odors and flavors
- Be easy to mark and seal

### Rigid Containers:

These include hard plastic and glass. They are usually good for liquid packs. Rigid containers are often reusable and are easy to store in the freezer. Choose glass jars made for canning or freezing. If the glass jar has a narrow mouth, be sure to leave a little extra headspace for the expansion of foods when frozen. Lids should fit tightly. If they do not, seal with freezer tape.

### Flexible Containers:

These types include flexible freezer bags, freezer paper, and heavy-weight aluminum foil. These are typically used for food with little or no liquids. Bags are available in a variety of sizes and come with different seals such as zippers or ties. Regardless of the type, when sealing press to remove as much excess air as possible.

## How to Freeze Apples

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A syrup pack is preferred if you are using apples for uncooked desserts or fruit cocktail. If you are using apples for pie fillings, it is recommended that you use a sugar or dry pack.

1. **Syrup Pack:** Use cold Heavy syrup (see front page). Add 1/2 teaspoon of ascorbic acid to each quart of syrup to prevent browning. Slice apples in to syrup container (start with 1/2 cup of syrup in a 1 pint container). Push the fruit down into the container so that it is covered in syrup. Leave 1/2-inch headspace per pint. Seal and freeze.
2. **Sugar Pack:** Dissolve 1/2 teaspoon of ascorbic acid in 3 tablespoons water to prevent browning. Sprinkle over fruit. Mix 1/2 cup of sugar with 1 quart of fruit. Press apples and sugar mixture into containers. Leave 1/2-inch headspace. Seal and freeze.
3. **Dry Pack:** Follow directions for sugar pack, but do not add sugar. Treated apple slices can also be frozen first on a tray, then packed into containers as soon as they are frozen.

## Things you should know about canning:

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### General Information:

- You must closely follow instructions to safely can food at home.
- Carefully select and wash the food you are going to can.
- Peel some fresh foods.
- Acids are added to some canned foods to protect colors.
- Use proper jars made specifically for home canning and 2-piece lids
- Apples can be safely processed in a boiling-water canner or a pressure canner.

### Adjusting for altitude:

- The higher the altitude, the lower the temperature in the canner. That can result in under-processing and higher risk of spoilage and foodborne illness.
- If you can food at an altitude over 1000 feet you need to adjust for altitude.
- Find the altitude for your county seat by checking a State of Oklahoma map.
- Be sure to include the altitude information when determining processing times.

### Recommended Canning Jars:

- Regular, and wide mouth Mason type jars with tight sealing lids are ideal. These come in a variety of sizes.
- Before using, clean jars with hot water and soap and rinse well. To sterilize, put jar right side up on the rack in boiling-water canner. Fill jar with hot water to one inch below top of jar, and boil for 10 minutes at altitudes of 1,000 ft. If above 1,000 ft boil 1 extra minute for each additional 1,000 ft.
- Seal lids tight. Once sealed, do not try to re-tighten the lids. As the contents in the jars cool, this will suction the lid to the jar.

## How to Can Apples - Sliced (visit <http://nchfp.uga.edu/index.html> for more ways to can apples)

You will need about 19 pounds of apples for every canner load of 7 quarts, about 12-1/4 pounds for every canner load of 9 pints. Use apples that are juicy, crispy and preferably both sweet and tart.

1. Prepare canner.
2. Wash, peel, and core apples. Slice apples into acidified water (dissolve 1/2 teaspoon ascorbic acid in water) to prevent browning.
3. Drain the apple slices and place in a large sauce pan containing 1 pint of water or very light, light or medium syrup for every 5 pounds of sliced apples.
4. Bring to a boil for 5 minutes. Stir occasionally to prevent burning.
5. Fill jars with hot slices, leaving 1/2 inch headspace. Adjust lids and follow directions for canning pressures in accordance to your altitude. See tables below.

### Recommended process time for Apples in a boiling water canner.

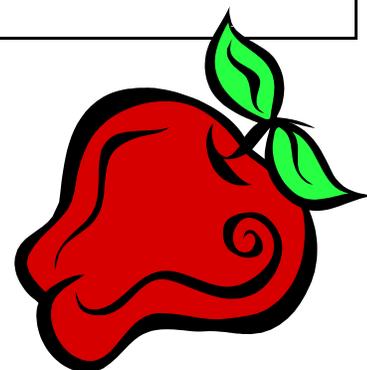
Canner Pressure (PSI) at Altitudes of:					
Style of Pack	Size of Jar	0-,1000ft	1,001-3,000ft	3,001-6000ft	Above 6,000 ft
Hot	Pints or Quarts	20 min	25 min	30 min	35 min

### Recommended process time for Apples in a dial-gauge pressure canner.

			Canner Pressure (PSI) at Altitudes of:			
Style of Pack	Size of Jar	Process Time (min)	0-,2000ft	2,001-4,000ft	4,001-6000ft	Above 6,000 ft
Hot	Pints or Quarts	8	6	7	8	9

### Recommended process time for Apples in a weighted-gauge pressure canner.

			Canner Pressure (PSI) at Altitudes of:	
Style of Pack	Size of Jar	Process Time	0-1,000 ft	Above 1,000 ft
Hot	Pints or Quarts	8 min	5	10



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## Drying Apples

When drying apples, select fruit that is fresh and fully ripened. Do not use immature apples because they lack flavor and color. On the other hand, do not select overly ripe apples, as they can be too soft. Always thoroughly wash and clean fruit before you begin the drying process. Pretreating apples is recommended. Pretreating helps to preserve color and may speed the drying process. Two recommended pretreatment methods are:

- **Ascorbic Acid Pretreatment:** Ascorbic acid (vitamin C) helps keep apples from browning. Stir 1 teaspoon of powdered ascorbic acid (or 300mg of ascorbic acid tablets, crushed in 2 cups cold water. Place apples in the mixture and soak 3 to 5 minutes. Drain well and place on dryer trays. Solution can be used twice.
- **Citric Acid or Lemon Juice Pretreatment:** This can prevent darkening during the drying process. Stir 1 teaspoon citric acid into 1-quart cold water, or mix equal parts of lemon juice and water (ex: 1 cup lemon juice, 1 cup water). Cut the peeled fruit directly into solution, and allow it to soak for 10 minutes, then start drying process.

Drying methods include:

- **Dehydrator Drying:** thermostatically electric dehydrators are recommended. These work by blowing warm air over the food until they are dried out. These should be used in a well-ventilated room.
- **Oven Drying:** Either gas or electric ovens can be used, if the oven can be set at 140°F. If not, the food will cook instead of dry. Preheat oven to 140°F. Maintain that temperature throughout the duration of the drying process, using an oven thermometer placed near the food to do so. For air circulation, leave the oven door propped open two to six inches. A fan outside the oven near the door will improve circulation. When drying is nearly complete, turn off heat and open the door wide for an additional hour or so to allow excess moisture to escape. Drying times in a conventional oven could be up to twice as long as those in a dehydrator.

**To Dry Apples:** Wash apples, peel, and core. Cut slices or rings about 1/8– thick). Pretreat in ascorbic acid or other anti-darkening solution as directed above. Remove and drain apples. Arrange apples in a single layer on trays. Dry 6 to 12 hours in a dehydrator. **Dryness test**—apples should be soft, pliable and leathery without any moist area in the center when cut.

**Post Drying Treatment:** When drying is finished, some pieces may be more dry than others. Conditioning helps distribute remaining moisture evenly. Place cooled, dry fruit loosely in a plastic or glass container. Cover and let them stand 7 to 10 days. Shake jars daily to keep pieces separated and check for moisture condensation. If there are signs of condensation inside the container, return the apples to drying trays for further drying.

## Apple Jelly

- 4 cups apple juice (about 3 pounds apples and 3 cups water)
- 2 tablespoons lemon juice, if desired
- 3 cups sugar

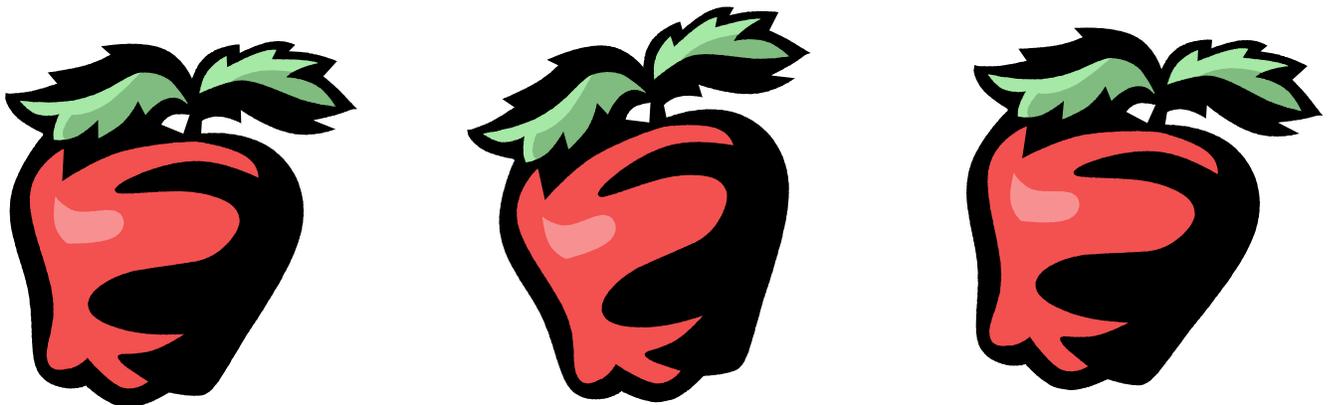
*This will make 4 or 5 half-pint jars*

*To Prepare Juice*—Select about 1/4 firm-ripe and 3/4 fully ripe tart apples. Sort, wash and remove stem and blossom ends; do not pare or core. Cut apples into small pieces. Add 1 cup water per pound apples, cover and bring to boil on high heat. Reduce heat and simmer 20 to 25 minutes, or until apples are soft. Pour everything into a damp jelly bag and suspend the bag over a bowl to collect the juice. The clearest jelly comes from juice that has dripped through a jelly bag without pressing or squeezing.

*To Make Jelly*—Sterilize the canning jars. To do this, fill the canner and jars with hot (not boiling) water to 1 inch above the tops of the jars. Boil 10 minutes at altitudes of less than 1,000 feet. At higher elevations, boil 1 additional minute for each additional 1,000 ft. elevation. Remove and drain hot sterilized jars one at a time. Save the hot water for processing filled jars. Prepare 2 piece canning lids according to manufacturer's directions. Measure apple juice into a large kettle. Add lemon juice and sugar and stir well. Boil over high heat to 8 degrees above the boiling point of water at your altitude or until jelly mixture sheets from a spoon. Remove from heat; skim off foam quickly. Pour jelly immediately into hot, sterile jars, leaving 1/4 inch headspace. Wipe jar rims with a dampened clean paper towel; adjust two-piece metal canning lids. Process in a boiling water canner.

### Recommended process time for Fruit Jelly and Jams in a boiling water canner.

		Process time at Altitudes of:		
Style of Pack	Size of Jar	0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Hot	Half-Pints or Pints	5 min	10 min	15 min



# How to Can Apple Pie Filling

## General Information:

For successful home canned fillings you must use Clear Jel® which is a modified starch that gives unique characteristics to food products when used. It is used in fruit pie fillings because it does not break down the acid, and does not interfere with killing bacteria during the cooking process. Clear Jel® does not add any flavor to the filling, and provides a smooth final product. You may adjust sugar and spices in recipes as needed, however do not alter lemon juice amounts as it may effect the safety and stability of the filling. When processing pie fillings, regardless of type of fruit, always use a boiling water canner. When using frozen fruit, use unsweetened, if sugar has already been added, rinse it off while still frozen. Also, for frozen fruit, thaw it first, then collect the juice and measure it and use it in conjunction with the water specified in the recipe.

**Quality:** Select firm, crisp apples. (Golden Delicious, Rome and other varieties of similar quality are ideal). If apples are not tart, add 1/4 cup lemon juice for each 6 quarts of apples.

**Yield:** 1 quart or 7 quarts

**Ingredients:** See table on next page labeled “ingredients” .

**Procedure:** Wash fruit well. Wash, peel and core apples. Prepare slices 1/2-inch wide and place in water containing ascorbic acid to prevent browning. For fresh apples, place 6 cups at a time in 1 gallon of boiling water. Boil each batch 1 minute after water returns to a boil. Drain, but keep heated fruit in a covered bowl or pot. Combine sugar, Clear Jel, and cinnamon in a large kettle with water and apple juice. If desired, food coloring and nutmeg may be added. Stir and cook on medium high heat until mixture thickens and begins to bubble. Add lemon juice and boil 1 minute, stirring constantly. Fold in drained apple slices immediately and fill jars with mixture without delay, leaving 1-inch headspace. Adjust lids and process immediately according to the table below.

## Recommended process time for Fruit Filling in a boiling water canner.

		Process Time (in min) at Altitudes of:			
Style of Pack	Size of Jar	0-1,00 ft	1,001-3,000 ft	3,001-6,000 ft	Above 6,000 ft
Hot	Pints or Quarts	25	30	35	40

## Ingredients:

	Quantities Needed For Apple Pi Filling:	
	1 Quart	7 Quart
Fresh or thawed Apples	3-1/2 cups	6 quarts
Granulated Sugar	3/4 cup + 2 tablespoons	5-1/2 cups
Clear Jel®	1/4 cup	1-1/2 cup
Cinnamon	1/2 teaspoon	1 tablespoon
Cold Water	1/2 cup	2-1/2 cups
Apple Juice	3/4 cup	5 cups
Bottled Lemon Juice	2 tablespoons	3/4 cup
Nutmeg (optional)	1/8 teaspoon	1 teaspoon
Yellow food coloring (optional)	1 drop	7 drops

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For more information about food preservation contact your local County Cooperative Extension office. To locate contact information for your county visit <http://www.oces.okstate.edu/> and select County Office Directory on the left side. You can also visit the National Center for Home Food Preservation at [www.uga.edu/nchfp/](http://www.uga.edu/nchfp/)

Adapted for Oklahoma by Barbara Brown, Food Specialist for the Oklahoma Cooperative Extension Service and Claire Grady, graduate research assistant.

Source: National Center for Home Preservation, [www.uga.edu/nchfp/](http://www.uga.edu/nchfp/)

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