**Apples & Pears**

**Food Safety Basics**

*Wash Hands Frequently*

* Personal cleanliness is a must. Wash your hands thoroughly and frequently. *E. Coli* resides in the human nose and intestines. Wash your hands if you rub your nose, or if you wipe your face or skin.
* Bandage any cuts or burns on hands before handling food, or use disposable gloves.

*Avoid Cross Contamination*

* Rinse all fresh fruits and vegetables well under running water before preparing or eating them.
* ALWAYS wash your hands, knives, cutting boards, and food preparation surfaces well with soapy water before and after any contact with raw meat, fish, or poultry.
* Run sponges through the dishwasher several times a week. Change dishcloths daily.
* Use paper towels to mop up spilled juices from meat, fish or poultry.
* Use a disinfecting solution of 1½ teaspoon of chlorine bleach to 1 pint of water. Dispense with a spray bottle to disinfect countertops, cutting surfaces, sinks, etc. Make a new solution weekly.

*When in doubt, throw it out!*

* Never taste food that looks or smells strange to see if it can still be used.
* Most bacteria that cause food borne illness are odorless, colorless, and tasteless.

*Prevent botulism by following a reputable recipe*

* There must be a minimum, uniform level of acid throughout the mixed product to prevent the growth of botulinum bacteria.
* Use a current recipe from one of the sources listed at the end of this publication. Grandma’s recipe may not use the correct proportions of water and vinegar, or may have assumed a higher level of acidity in the vinegar.

**Canning Basics**

***Canning Processes***

* Use an **atmospheric steam canner** or a **boiling water canner** for high acid foods: fruits, pickled and fermented products, jams and jellies.
* Use a **pressure canner** for low acid foods: meats, vegetables, beans and seafood.

Why two different processes? Low acid foods must be pressure canned because *Clostridium botulinum*, the bacteria that causes botulism, is a spore former. When conditions are not favorable for the organism to grow (high acidity, oxygen, dryness, and low/high heat.), the bacterial cell forms a protective structure called a spore. It takes a higher temperature than boiling to destroy the spores: 240º - 250ºF. If you do not destroy the spores in low acid canned foods they will germinate and produce fatal toxins in the food when it is stored on the shelf. High acid foods have enough acidity to destroy spores.

The USDA does not recommend the open kettle method of canning because it does not prevent all risks of spoilage. (Open kettle canning is putting hot food in hot jars, sealing it with a lid and then not processing it in a canner.)

***Raw-Pack vs. Hot-Pack Methods***

Filling jars with raw, unheated food prior to heat processing is called the raw-pack method. The preferred method, filling jars with preheated, hot food prior to heat processing, is called the hot-pack method. Benefits include a tighter pack and, because food expels air when heated, less float.

***Jars***

Check jars, lids and bands for high quality. Wash jars, lids and bands in hot, soapy water. Rinse well. Dry bands.

Heat home canning jars in hot water, not boiling, until ready for use. Fill a large saucepan or stockpot half-way with water. You may also place them in your canner. Place jars in water (filling jars with water from the saucepan will prevent flotation). Bring to a simmer over medium heat. Keep jars hot until ready for use. You may also use a dishwasher to wash and heat jars. Keeping jars hot prevents them from breaking when hot food is added. Leave lids and bands at room temperature for easy handling.

***Headspace***

Headspace is the completely empty space left in the jar underneath the lid and above the food. Headspace allows for food to expand during canning without being forced out from under the lid during processing. Recommended amounts also allow for good vacuums to be formed for holding lids in place and good food quality to be maintained during storage.

**Recipes**

Dried Apple Rings

1. Peel and core, cut into slices or rings about 1/8 inch thick.
2. Pre-treat: (optional) Dip into ascorbic acid mixture according to package directions.
3. Dehydrate at 140°F for 6-12 hours.
4. Variation: sprinkle rings (or apple wedges) with cinnamon before drying.

Gingered Pear Preserves Yield: [about 5 half-pints](https://www.freshpreserving.com/ball-regular-mouth-half-pint-8-oz.-glass-mason-jars-with-lids-and-bands-12-count-1033887VM.html#start=4)

5-1/2 cups finely chopped cored peeled pears (about 8 medium)

Grated zest and juice of 3 limes

2-1/3 cups granulated sugar

1 tablespoon freshly grated ginger

1. Combine pears, lime zest and juice, sugar and ginger in a large stainless steel saucepan. Bring to a boil over medium heat, stirring to dissolve sugar. Boil, stirring frequently, until mixture thickens, about 15 minutes.
2. Remove from heat and test gel. If preserves break from spoon in a sheet or flake, it is at the gel stage. Skim off foam. If your mixture has not reached the gel stage, return the pan to medium heat and cook, stirring constantly, for an additional 5 minutes. Repeat gel stage test and cooking as needed.
3. Ladle hot jam into a hot jar leaving 1/4-inch headspace. Remove air bubbles and adjust headspace, if needed. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
4. Process jars in either a boiling water or steam canner for 10 minutes between 0-1,000 feet elevation, 55 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, and 25 minutes above 6,000 feet.
5. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Fresh Preserving.com, 2019*

Apple Pie Filling (using ClearJel) Yield: about 7 pints

12 cups sliced peeled cored apples, treated to prevent browning (see step 1)

2-3/4 cups granulated sugar

3/4 cup ClearJel

1-1/2 teaspoon ground cinnamon

1/2 teaspoon ground nutmeg

1-1/4 cups cold water

2-1/2 cups unsweetened apple juice

1/2 cup lemon juice

1. In a large pot of boiling water, working with 6 cups at a time, blanch apple slices for 1 minute. Remove with a slotted spoon and keep warm in a covered bowl.
2. In a large stainless steel saucepan, combine sugar, ClearJel, spices, water and apple juice. Bring to a boil over medium-high heat, stirring constantly, and cook until mixture thickens and begins to bubble.
3. Add lemon juice, return to a boil and boil for 1 minute, stirring constantly.
4. Remove from heat. Drain apple slices and immediately fold into hot mixture. Before processing, heat, stirring, until apples are heated through.
5. Ladle hot pie filling into hot jars, leaving 1-inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot filling. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
6. Process pint and quart jars in either a boiling water or steam canner for 25 minutes between 0-1,000 feet elevation, 30 minutes between 1,001-3,000 feet, 35 minutes between 3,001-6,000 feet, and 40 minutes above 6,000 feet.
7. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Ball Complete Book of Home Preserving, 2012*

Apple Rings, Spiced Yield: about 4-5 pints

6 pounds firm tart apples (max diameter 2-1/2 inches)

6 cups sugar

3 cups water

3/4 cups white vinegar (5%)

1-1/2 tablespoons whole cloves

4 cinnamon sticks

1. Wash apples. Prepare enough ascorbic acid solution to hold sliced apples.
2. To prevent discoloration, peel and slice one apple at a time. Immediately cut crosswise into 1/2-inch slices, remove core area with a melon baller and immerse in ascorbic acid solution.
3. To make flavored syrup, combine sugar, water, vinegar, cloves and cinnamon sticks in a 6-qt saucepan. Stir, heat to boil, and simmer 3 minutes.
4. Drain apples, add to hot syrup, and cook 5 minutes.
5. Fill jars (preferably wide-mouth) with apple rings and hot flavored syrup, leaving 1/2-inch headspace. Remove air bubbles and adjust headspace, if needed. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
6. Process half-pint and pint jars in either a boiling water or steam canner for 10 minutes between 0-1,000 feet elevation, 15 minutes between 1,001-6,000 feet, and 20 minutes above 6,000 feet.
7. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation (nchfp.uga.edu), 2019*

Pear Pickles Yield: about 7 or 8 pints

8 cups sugar

4 cups white vinegar (5%)

2 cups water

8 cinnamon sticks, 2-inch pieces

2 tablespoons whole cloves

2 tablespoons whole allspice

8 pounds firm pears

1. Combine sugar, vinegar, water and cinnamon sticks; add cloves and allspice that are tied in a clean, thin, white cloth. Bring mixture to a boil and simmer, covered, about 30 minutes.
2. Wash pears, remove skins, and all of blossom end; the stems may be left on if desired. If pears are large, halve or quarter. To prevent peeled pears from darkening during preparation, immediately after peeling, put them into a cold solution containing 1/2 teaspoon ascorbic acid per 2 quarts water. Drain pears just before using.
3. Add drained pears to the hot syrup, bring to a boil, lower heat and simmer for 20 to 25 minutes.
4. Pack hot pears into hot pint jars; add one 2-inch piece cinnamon stick per jar. Cover pears with boiling syrup, leaving 1/2-inch headspace and making sure pears are covered by the syrup. Remove air bubbles and adjust headspace if needed. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
5. Process jars in either a boiling water or steam canner for 20 minutes between 0-1,000 feet elevation, 25 minutes between 1,001-3,000 feet, 30 minutes between 3,001-6,000 feet, and 35 minutes above 6,000 feet.
6. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation (nchfp.uga.edu), 2019*

Applesauce Yield: about 8 pints

12 pounds apples, peeled, cored, quartered, treated to prevent browning\* and drained (about 36 medium)

Water

3 cups granulated sugar, optional

4 tablespoons lemon juice

1. Combine apples with just enough water to prevent sticking in a large stainless steel saucepan. Bring to a boil over medium-high heat. Reduce heat and boil gently, stirring occasionally, for 5 to 20 minutes, until apples are tender (time will depend upon the variety of apple and their maturity). Remove from heat and let cool slightly, about 5 minutes.
2. Working in batches, transfer apples to a blender, food processor or food mill and purée until smooth.
3. Return apple purée to saucepan. Add sugar, if using, and lemon juice. Bring to a boil over medium-high heat, stirring frequently to prevent sticking. Maintain a gentle boil over low heat while filling jars.
4. Ladle hot applesauce into hot jars leaving 1/2-inch headspace. Remove air bubbles. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
5. Process pint jars in either a boiling water or steam canner for 20 minutes between 0-1,000 feet elevation, 25 minutes between 1,001-3,000 feet, 30 minutes between 3,001-6,000 feet, 35 minutes between 6,001-8,000 feet, and 40 minutes between 8,001-10,000 feet.
6. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Ball Complete Book of Home Preserving, 2012*

\*To treat apple slices to prevent browning, apply ascorbic acid, citric acid, or Fruit Fresh according to the manufacturer's instructions or submerge cut apples in a mixture of 1/4 cup lemon juice and 4 cups water.

Variations:

* Spiced applesauce: In step 3, add 4 teaspoons ground spices, such as cinnamon, nutmeg or allspice, to the sauce with the sugar and lemon juice.
* Chunky Applesauce: In step 3, coarsely crush half of the cooked apples and purée the remainder. Combine before adding the sugar.

Pears Yield****:**** about 17-1/2 pounds yields 7 quarts; 11 pounds yields 9 pints

Quality: Choose ripe, mature fruit of ideal quality for eating fresh or cooking.

Light syrup (optional: heat 3/4 cups sugar with 6-1/2 cups water for 9 pints or 1-1/4 cups sugar with 10-1/2 cups water for 7 quarts)

1. Wash and peel pears. Cut lengthwise in halves and remove core. A melon baller or metal measuring spoon is suitable for coring pears. To prevent discoloration, keep pears in an ascorbic acid solution.
2. Prepare a very light syrup or pack pears in apple juice, white grape juice, or water. Raw packs make poor quality pears.
3. Boil drained pears 5 minutes in syrup, juice, or water. Fill jars with hot fruit and cooking liquid, leaving 1/2-inch headspace.
4. Remove air bubbles and adjust headspace, if necessary, by adding hot liquid. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
5. Process jars in a boiling water or steam canner according to the table below.

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| --- | --- | --- | --- | --- |
| **Jar Size** | **0 - 1,000 ft** | **1,001 - 3,000 ft** | **3,001 - 6,000 ft** | **Above 6,000 ft** |
| Pints Quarts | **20 minutes** **25 minutes** | 25 **minutes** 30 **minutes** | 30 **minutes** 35 **minutes** | 35 **minutes** 40 **minutes** |

1. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation (nchfp.uga.edu), 2019*

Tomato Apple Onion Chutney Yield: about 6 half pints

1-1/2 cups white vinegar

2 cups chopped cored peeled apples

5 cups chopped cored peeled tomatoes

1-1/2 cups lightly packed brown sugar

1 cup chopped English cucumber

3/4 cup chopped onions

3/4 cup chopped seeded red bell peppers

1/2 cup raisins

1 red chili pepper, finely chopped

1/4 teaspoon finely chopped garlic

1-1/2 teaspoons ground ginger

1/2 teaspoon salt

1/2 teaspoon ground cinnamon

1. Combine all ingredients in a large saucepan. Bring to a boil, stirring frequently.
2. Reduce heat and simmer 30 minutes, stirring frequently.
3. Ladle hot chutney into hot jars leaving 1/2-inch headspace. Remove air bubbles. Wipe rim. Center hot lid on jar. Apply band and adjust until fit is fingertip tight.
4. Process jars in a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001-3,000 feet, 20 minutes at 3,001-6,000 feet, 25 minutes at 6,001-8,000 feet, and 30 minutes at 8,001-10,000 feet.
5. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: freshpreserving.com, 2019*

Low-Sugar Apple Cinnamon Jam Yield: about 4 half pints

2 apples

3 tablespoons bottled lemon juice

4 cups apple juice

3 tablespoons Ball Low or No-Sugar Pectin

1 teaspoon cinnamon

1/2 cup sugar

1/2 cup maple syrup

1. Peel, core and grate apples. Combine apples and lemon juice in a large saucepan. Bring to a boil. Reduce heat and simmer until apples begin to soften, about 10 minutes. Add apple juice, pectin and cinnamon and bring mixture to a rolling boil. Add sugar and maple syrup stirring to dissolve. Return mixture to a full rolling boil that cannot be stirred down, boil hard 1 minute, stirring constantly. Remove from heat. Skim foam, if necessary.
2. Ladle hot jam into hot jars, leaving 1/4-inch headspace. Remove air bubbles. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
3. Process jars in a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001-3,000 feet, 20 minutes at 3,001-6,000 feet, 25 minutes at 6,001-8,000 feet, and 30 minutes at 8,001-10,000 feet.
4. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Fresh Preserving.com, 2019*

Pear Relish **Yield:** About 10 pints

2 gallons pears

6 large onions

6 sweet green peppers

6 sweet red peppers

1 bunch celery

3 cups sugar

1 tablespoon allspice

1 tablespoon salt

5 cups vinegar (5%)

1. Wash the pears, onions, peppers and celery in cold water. Peel and core the pears. Remove stems and seeds from the peppers. Clean the celery; peel the onions. Put pears and vegetables through a food chopper.
2. Stir the sugar, allspice, salt and vinegar into the chopped mixture and let stand, covered, overnight in the refrigerator.
3. Heat the relish mixture to boiling; simmer 5 minutes.
4. Ladle hot relish into hot jars, leaving 1/2-inch headspace. Remove air bubbles and adjust headspace if needed. Wipe rims of jars with a dampened clean paper towel; adjust two-piece metal canning lids.
5. Process jars in a boiling water or steam canner for 20 minutes at 0-1,000 feet, 25 minutes at 1,001-3,000 feet, 40 minutes at 3,001-6,000 feet, and 35 minutes above 6,000 feet.
6. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation (nchfp.uga.edu), 2019*

Apple Dump Cake

40 ounces apple pie filling

1/3 cup caramels, diced

1 box yellow or white cake mix

2 sticks butter, cut into 1 tablespoon sections

1. Preheat oven to 350°F.
2. To greased 9×13” cake pan, add apple pie filling and caramels.
3. Layer dry cake mix on top of filling. Add pats of butter on top of cake mix, spacing evenly.
4. Bake for 45 minutes or until crust is golden brown and filling is bubbly.

Pear Jam Yield: about 6 half pints

4 cups finely chopped cored peeled fully ripe pears

2 tablespoons lemon juice

1 package regular powdered fruit pectin

5 cups granulated sugar

1. In a large, deep stainless steel saucepan, combine pears and lemon juice. Whisk in pectin until dissolved. Bring to a boil over high heat, stirring frequently. Add sugar all at once and return to a full rolling boil, stirring constantly. Boil hard, stirring constantly, for 1 minute. Remove from heat and skim off foam.
2. Ladle hot jam into hot jars, leaving 1/4 inch headspace. Remove air bubbles and adjust headspace if needed. Wipe rims of jars with a dampened clean paper towel; adjust two-piece metal canning lids.
3. Process in boiling water or atmospheric steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001-3,000 feet, 20 minutes at 3,001-6,000 feet, 25 minutes at 6,001-8,000 feet, and 30 minutes at 8,001-10,000 feet.
4. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Ball Complete Book of Home Preserving, 2012*

Honey Cinnamon Pears Yield: about 6 pints

*Preserve crisp fall pears with a delectable light honey syrup that highlights the pear flavor. Delicious over oatmeal, ice cream, in winter salads or eaten right from the jar.*

6 lbs. mixed green and red pears, unpeeled, quartered and cored

3 cups water

2 cups unsweetened apple juice

1 Tbsp. lemon juice

1 c. honey

6 cinnamon sticks

Fruit Fresh or 3 Tbsp. lemon juice

1. Prepare boiling water canner. Heat jars in simmering water until ready to use, do not boil. Wash lids in warm soapy water and set aside with bands.
2. Combine Fruit Fresh or lemon juice in a bowl with enough water to cover pear quarters; let soak until syrup is simmering.
3. Combine water, apple juice, lemon juice and honey in a 4 qt. saucepan set over medium heat. Bring to a simmer.
4. Add pears to honey syrup and stir gently until heated through.
5. Place one cinnamon stick into a jar; pack hot pears in jar leaving a ½ inch headspace. Ladle hot syrup over pears, leaving a ½ inch headspace. Remove air bubbles. Wipe jar rim. Center lid on jar and apply band, adjust to fingertip tight. Place jar in boiling water canner. Repeat until all jars are filled.
6. Process jars in a boiling water or steam canner for 20 minutes at 0-1,000 feet elevation, 25 minutes at 1,001-3,000 feet, 30 minutes at 3,001-6,000 feet, 35 minutes at 6,001-8,000 feet, and 40 minutes at 8,001-10,000 feet.
7. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Fresh Preserving.com, 2019*

Caramel Apple Coffee Jam Yield: about 4 half pints

5 cups peeled, diced apples

2 cups extra strong brewed coffee

4 tablespoons Ball Classic Pectin

1/2 teaspoon ground allspice

2 cups brown sugar

1. Prepare boiling water canner. Heat jars in simmering water until ready to use, do not boil. Wash lids in warm soapy water and set aside with bands.
2. Bring apples and coffee to a boil in a large stainless pot, reduce heat and simmer 10 minutes or until apples are soft. Puree apples with an immersion blender or in the bowl of a food processor. Return to heat.
3. Whisk in pectin and allspice. Over high heat bring mixture to a full rolling boil that cannot be stirred down.
4. Add sugar, stirring to dissolve. Return jam to a full rapid boil and boil hard for 1 minute stirring constantly. Remove from heat and skim foam if necessary.
5. Ladle hot jam into a hot jar leaving a 1/2-inch headspace. Remove air bubbles. Wipe jar rim. Center lid on jar and apply band, adjust to fingertip tight. Place jar in boiling water canner. Repeat until all jars are filled.
6. Process jars in a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001-3,000 feet, 20 minutes at 3,001-6,000 feet, 25 minutes at 6,001-8,000 feet, and 30 minutes at 8,001-10,000 feet.
7. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: Fresh Preserving.com, 2019*

Sweet Apple Relish **Yield: a**bout 4 pints

4 pounds apples, peeled, cored and sliced thin

1¼ cups distilled white vinegar (5%)

1 cup sugar

1/2 cup light corn syrup

2/3 cup water

1-1/2 teaspoons whole cloves

4 pieces stick cinnamon (1-1/2 inches each)

1 teaspoon whole allspice

1. Wash apples, peel, core and slice thin. Immerse cut apples in a solution of 1/2 teaspoon ascorbic acid and 2 quarts of water to prevent browning.
2. Combine vinegar, sugar, corn syrup, water, cloves, cinnamon and allspice; bring to a boil. Drain apples and add to syrup. Simmer 3 minutes, stirring occasionally.
3. Remove cinnamon from syrup and place one piece in each jar. Pack hot apple slices into hot jars, leaving 1/2- inch headspace. Fill jars with boiling hot syrup, leaving 1/2-inch headspace, making sure apples are completely covered. Remove air bubbles and adjust headspace if needed. Wipe rims of jars with a dampened clean paper towel; adjust two-piece metal canning lids.
4. Process in boiling water or atmospheric steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001-6,000 feet, 20 minutes above 6,000 feet.
5. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation (nchfp.uga.edu), 2019*

**References**

* National Center for Home Food Preservation, http://nchfp.uga.edu/
* Complete Guide to Home Canning. 2009. USDA Agricultural Information Bulletin 539. National Institute of Food and Agriculture. Available free online at http://nchfp.uga.edu//publications/publications\_usda.html
* Ball Complete Book of Home Preserving, 2006

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