

HOME CANNING FRUIT

Home canned fruit pie fillings make it easy to prepare delicious pies and desserts throughout the year. The recipes are created for home canning, guaranteeing a tasty, shelf-stable, and safe product. Instructions for apple, blueberry, cherry, and peach fillings are included. A one-quart jar serves as ingredients for an eight- to nine-inch pie. These fillings can also be used as toppings or for fruit cobblers or crisps.

PREPARATION GUIDELINES

Thickening Pie Fillings

The recipes use ClearJel®, a modified starch thickener that creates smooth, clear sauces with minimal aftertaste. It withstands heat processing and acid mixtures without breaking down. Unlike other starches, sauces with ClearJel don't separate or over-thicken during canning.

There are two ClearJel types: **traditional** and **instant**.

- **Traditional** ClearJel is used for pie fillings, while instant cannot substitute in recipes here.
- **Instant** thickens without heat, meant for uncooked products.

Ensure you have ClearJel before starting your pie filling canning.

Purchasing ClearJel

ClearJel isn't sold in most grocery stores. Buy it at health food stores, specialty shops, or online. Contact your local Extension office for sources nearby. Sometimes, mail order is the only choice.

One pound of ClearJel has about three cups. This publication's fruit pie filling recipes need 1½ to 2¼ cups of ClearJel for 7-quart jars.

If you can't find ClearJel, can the pie filling without thickener and then add tapioca or cornstarch before placing it in the pie shell.

Recipe Adjustments

Sugar and spices can be adjusted in these pie filling recipes, as flavor varies with fruit type. To ensure satisfaction, try making a small batch first. Each recipe includes instructions for a quart jar, allowing you to bake a pie, taste it, and modify sugar and spices as needed. These recipes haven't been tested with alternative sweeteners.

Use bottled lemon juice as required, and do not alter the amount. It ensures safety and stabilizes the filling during storage.

Preparation with frozen fruit involves using frozen cherries or blueberries. Start with unsweetened fruit; rinse off added sugar while still frozen or adjust sugar during prep. Use juice from thawed fruit to replace water and cut ClearJel to ¼ cup per quart and 1¾ cups for 7 quarts. Fresh fruit is preferred for apple and peach fillings.

Safety Alert—Do not use thickeners like flour, cornstarch, or tapioca instead of ClearJel for canning, as they impair heat penetration, risking bacterial survival. These thickeners also cause inconsistent textures, with watery and thick parts. Discard recipes using these and replace with ones in this guide.

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APPLES

Since apple pie is a North American tradition, homemade apple pie filling is a wonderful staple to have on hand.

Table 1. Apple varieties and their characteristics.

Apple varieties	sweet	tart	firm	crisp	juicy	available
Lodi		x				Jul
Pristine		x		x		Jul
Ginger Gold	x	x	x		x	Aug
Summer Rambo		x	x			Aug
McIntosh		x		x	x	Sep
Cortland		x		x		Sep
Jonagold	x	x				Sep
Empire		x	x	x		Sep
Jonathan		x		x		Sep
Golden Delicious	x			x	x	Sep
Liberty		x	x			Oct
Crispin (Mutsu)	x		x		x	Oct
Braeburn	x	x	x	x	x	Oct
Fuji	x		x	x	x	Oct
Granny Smith		x		x	x	Oct
Rome		x	x	x	x	Oct
York Imperial		x	x			Oct
Goldrush		x		x		Oct

FREEZING PROCEDURE

For freezing, select crisp, firm apple varieties such as Golden Delicious, Rome Beauty, Jonathan, York Imperial, or Granny Smith (Table 1). Don't freeze more than 2 pounds per cubic foot of freezer capacity daily.

APPLESAUCE

Prepare applesauce as usual. Cool quickly by placing the pan in cold water and stirring; replace water as it warms. Pack in containers with ½ inch headspace for pints, 1 inch for quarts. Freeze. Thaw in refrigerator. Storage time: 8-10 months.

SLICED APPLES

Use syrup packs for apples in uncooked desserts or fruit cocktail, and sugar or dry packs for pies. Choose crisp, firm apples that are full-flavored, not mealy. Wash, peel, core, then slice medium apples into twelfths and large ones into sixteenths.

Syrup pack: Use cold 40% syrup (¾ cups sugar to 5 cups water). Add ½ teaspoon ascorbic acid per quart to prevent browning. Slice apples into syrup starting with ½ cup in a pint container. Press fruit down, add syrup to cover, leaving ½ inch for pints and 1 inch for quarts. Place crumpled waterproof paper on top, seal, and freeze.

Sugar pack: Dissolve ½ teaspoon (1,500 mg) ascorbic acid in 3 tablespoons water and sprinkle over fruit, or steam blanch slices for 1½–2 minutes, cool, and drain. Mix ½ cup sugar with 1 quart (1¼ pounds) of fruit, pack into containers, press down, leave ½ inch headspace, seal, and freeze.

Dry pack: Follow sugar pack directions, omitting sugar. Freeze treated apple slices on a tray first, then pack into containers like tapered wide-mouth jars or zip bags. Remove air, seal, label, and freeze flat or stacked. Avoid containers over half-gallon.

CANNING PROCEDURE

For canning, use apple varieties like Jonathan, Golden Delicious, McIntosh, Braeburn, Crispin, York Imperial, or others that are crisp and firm to retain shape and texture (Table 1). Wash and sterilize jars for processing under 10 minutes. To sterilize, place jars upright on a rack in a boiling water canner, fill with hot (not boiling) water to 1 inch above jars, and boil for 10 minutes. Remove, drain, and fill jars immediately with food. Prepare lids as per manufacturer's instructions. Fill hot jars with products, wipe edges with a damp towel, add lids, and tighten bands. Process jars in a boiling water canner, or use a pressure canner for applesauce and sliced apples.

To Process in a Boiling Water Canner

Preheat canner with water to 180°F. Load sealed jars onto the rack or use a jar lifter. Add water to 1 inch above jars, cover, and boil vigorously, then lower heat for gentle boiling. Process jars as per the recipe, then turn off heat, remove the lid, and wait 5 minutes before removing jars onto a towel or rack. Do not retighten screw bands. Cool jars for 12-24 hours, then remove bands and check seals. If the lid is indented, wash, dry, label, and store in a cool, dark place. If unsealed, replace jar or lid and reprocess. Wash screw bands and store separately.

To Process in a Pressure Canner

Place jar rack, 2 inches of water, and sealed jars in canner. Fasten lid and heat on high. After 10 minutes of steam, add gauge or close petcock to pressurize. Start timing at desired pressure. Maintain pressure and process jars as per recipe. When done, remove from heat and cool until depressurized. Then, release gauge or petcock, wait 10 minutes, and remove lid carefully.

Remove jars from canner with jar lifter and place on a towel or rack. Finish cooling and storing as directed in processing in a boiling water canner above.

To Process at High Altitudes

Process times are for altitudes at or below 1,000 feet. For higher altitudes, use times in Table 2.

- In a pressure canner, the processing time stays the same, but pressure increases at higher altitudes.

In a dial gauge pressure canner.

Elevation	Pressure
0-2,000 ft.	6 lbs.
2,001-4,000 ft.	7 lbs.
4,001-6,000 ft.	8 lbs.
6,001-8,000 ft.	9 lbs.

- In a weighted gauge pressure canner above 1,000 feet altitude, process time stays the same, but food must be processed at 10 pounds pressure.

For additional information about food preservation, visit the Penn State Extension Home Food Preservation website at extension.psu.edu/food/preservation, or contact Penn State Extension in your county.

Table 2. Recommended processing times in a boiling water canner.

<i>hot pack processing time (in minutes) at altitudes of</i>				
<i>Product</i>	<i>0-1,000 ft.</i>	<i>1,001-3,000 ft.</i>	<i>3,001-6,000 ft.</i>	<i>above 6,000 ft.</i>
apple butter				
half-pints or pints	5	10	10	15
quarts	10	15	15	20
apple juice				
pints or quarts	5	10	10	15
half-gallons	10	15	15	20
applesauce				
pints	15	20	20	25
quarts	20	25	30	35
sliced apples				
pints or quarts	20	25	30	35
slice apple rings				
half-pints or pints	10	15	15	20
spiced crab apples				
pints	20	25	30	35

APPLE PIE FILLING

Since apple pie is a North American tradition, homemade apple pie filling is a wonderful staple to have on hand.

INGREDIENTS

	1 quart	7 quarts
blanched, sliced, fresh apples	3½ cups	6 quarts
granulated sugar	¾ cup + 2 Tbsp	5½ cups
ClearJel®	¼ cup	1½ cups
cinnamon	½ tsp	1 Tbsp
apple juice	¾ cup	5 cups
bottled lemon juice	2 Tbsp	¾ cup
nutmeg (optional)	⅛ tsp	1 tsp
yellow food coloring (optional)	1 drop	7 drops



INSTRUCTIONS

1. Use firm, crisp apples. Stayman, Golden Delicious, Rome, and other similar varieties are suitable. If the apples lack tartness, add an extra ¼ cup of lemon juice for every 6 quarts of sliced apples.
2. Hot Pack. Wash, peel, and core apples. Cut apples into ½-inch slices. Place in an anti-darkening solution. Remove from the solution and drain well.
3. To blanch the fruit, place 6 cups at a time in one gallon of boiling water. Boil each batch for one minute after the water returns to a boil. Remove the fruit from the blanch water, but keep the hot fruit in a covered bowl or pot while the ClearJel® mixture is prepared.
4. Combine sugar, ClearJel®, cinnamon, and nutmeg in a large saucepot with water and apple juice. Stir and cook over medium-high heat until the mixture thickens and starts to bubble. Add lemon juice to the boiling mixture and boil for 1 minute, stirring constantly.
5. Immediately fold in drained apple slices and fill hot jars with the hot mixture. Leave 1-inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids and screw on bands. Tighten bands to finger-tight.
6. Place jars in the canner, making sure they are fully covered with water. Bring to a boil

and process for 25 minutes, adjusting for elevation. Remove the lid from the canner. Wait 5-10 minutes, then take out the jars, let them cool 12-24 hours, and store without lid bands.

Process times for Elevations

Style of pack: hot

Jar size: quart or pint

Elevation	Process Time
0-1,000 ft.	25 min
1,001-3000 ft.	30 min
3,001-6,000 ft.	35 min
6,001-8,000 ft.	40 min

NOTE

ClearJel® is a cooking starch that is acceptable for use in home canning. Not all cooking starches are suitable for home canning, as reheating causes some to lose viscosity. Making mixtures too thick can interfere with required heat penetration during heat processing.

BLUEBERRY PIE FILLING

INGREDIENTS

	<i>1 quart</i>	<i>7 quarts</i>
fresh or thawed blueberries	3½ cups	6 quarts
granulated sugar	¾ cup + 2 Tbsp	6 cups
ClearJel®	¼ cup + 1 Tbsp	2¼ cups
cold water	1 cup	7 cups
bottled lemon juice	3½ tsp	½ cup
blue food coloring (optional)	3 drops	20 drops
red food coloring (optional)	1 drop	7 drops



INSTRUCTIONS

1. Choose fresh, ripe, firm blueberries. You can use unsweetened frozen berries. If sugar's added to frozen berries, rinse while still frozen.
2. Wash and drain fresh blueberries; thaw frozen ones.
3. To prepare the fruit, work in batches of no more than 6 cups at a time. In a large pot, heat 1 gallon of water to a boil. Place the fruit into the boiling water. Bring it back to a boil and cook for 1 minute.
4. Remove the fruit from the water. Drain but keep warm in a covered bowl or pot. Repeat until all fruit is blanched.
5. In a separate pot, combine sugar and ClearJel. Stir to blend. Add water and mix thoroughly. Add food coloring, if desired. Stir and cook over medium-high heat until the mixture thickens and begins to bubble.
6. Add lemon juice and boil for 1 minute, stirring constantly. Fold in drained berries and fill hot jars with the mixture, leaving 1-inch headspace. Wipe the jar rims. Adjust lids and rings according to manufacturer's instructions.
7. Process immediately in a boiling water canner, adjusting for elevation if needed. Once processing is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing the jars. Increase the wait time to 10 minutes to reduce siphoning or ooze. Let cool undisturbed for 12 to 24 hours and check for seals.

Process times for Elevations

Style of pack: hot

Jar size: quart or pint

<i>Elevation</i>	<i>Process Time</i>
0-1,000 ft.	30 min
1,001-3000 ft.	35 min
3,001-6,000 ft.	40 min
6,001-8,000 ft.	45 min

CHERRY PIE FILLING

INGREDIENTS

	1 quart	7 quarts
fresh or thawed sour cherries	3½ cups	6 quarts
granulated sugar	1 cup	7 cups
ClearJel®	¼ cup + 1 Tbsp	1¾ cups
cold water	1½ cups	9½ cups
bottled lemon juice	1 Tbsp + 1 tsp	½ cup
cinnamon (optional)	⅛ tsp	1 tsp
almond extract (optional)	¼ tsp	2 tsp
red food coloring (optional)	6 drops	¼ tsp



INSTRUCTIONS

1. Select fresh, very ripe, but firm cherries. Unsweetened, frozen cherries may be used. If sugar has been added to the frozen cherries, rinse it off while the fruit is still frozen.
2. Rinse and pit fresh cherries and hold in cold water. To prevent stem end browning on light-colored cherries, place cherries in solution containing 1 teaspoon of ascorbic acid per gallon of water. Allow frozen cherries to thaw.
3. To prepare fruit, work in batches of no more than 6 cups of fruit at a time. In large pot, heat 1 gallon of water to boiling. Place fruit into boiling water. Bring back to boil and boil 1 minute.
4. Remove fruit from water. Drain but keep warm in a covered bowl or pot. Repeat until all fruit is blanched.
5. In a separate pot, combine sugar and ClearJel. Stir to blend. Add water and mix thoroughly. Add cinnamon, almond extract, and food coloring, if desired. Stir mixture and cook over medium high heat until mixture thickens and begins to bubble.
6. Add lemon juice and boil 1 minute, stirring constantly. Fold in drained cherries and immediately fill hot jars with mixture, leaving 1-inch headspace. Wipe jar rims. Adjust lids and rings according to manufacturer's instructions.
7. Process immediately in boiling water canner, adjusting for elevation, if needed.

Once processing is complete, turn off heat, remove canner lid and wait 5 minutes before removing jars. Increase wait time to 10 minutes to reduce siphoning/oozing. Let cool, undisturbed, for 12 to 24 hours and check for seals.

Process times for Elevations

Style of pack: hot

Jar size: quart or pint

Elevation	Process Time
0-1,000 ft.	30 min
1,001-3000 ft.	35 min
3,001-6,000 ft.	40 min
6,001-8,000 ft.	45 min

Blackberry/Marionberry Pie Filling

Food scientists at Oregon State University added a Blackberry Pie Filling to the USDA-approved list, using cherry pie filling instructions with blackberries or marionberries.

When making berry filling, do not blanch and omit cinnamon, almond extract, and food coloring from cherry instructions. Thaw frozen berries completely before use. Use juice from thawed berries to replace part of the water in the recipe (Waite-Cusic, personal communication, 2020).

PEACH PIE FILLING

INGREDIENTS

	1 quart	7 quarts
sliced fresh peaches	3½ cups	6 quarts
granulated sugar	1 cup	7 cups
ClearJel®	¼ cup + 1 Tbsp	2 cups + 3 Tbsp
cold water	¾ cup	5¼ cups
bottled lemon juice	¼ cup	1¾ cups
cinnamon (optional)	⅛ tsp	1 tsp
almond extract (optional)	⅛ tsp	1 tsp
red food coloring (optional)	6 drops	¼ tsp



INSTRUCTIONS

1. Select ripe, but firm, fresh peaches.
2. Peel peaches by submerging in boiling water for 30-60 seconds, then in cold water for 20 seconds. Slip off skins and cut into ½-inch slices. To prevent browning, soak slices in water with 1 teaspoon of ascorbic acid per gallon.
3. To prepare the fruit, work in batches of no more than 6 cups each. In a large pot, bring 1 gallon of water to a boil. Add the fruit to the boiling water. Return to a boil and cook for 1 minute.
4. Remove the fruit and drain, keeping it warm in a covered bowl or pot. Repeat until all fruit is blanched. In a separate pot, mix sugar and ClearJel. Add water and, if desired, cinnamon and/or almond extract. Stir well. Cook over medium-high heat, stirring until thickened and bubbling.
5. Add lemon juice and boil for 1 minute, stirring constantly. Fold in the drained peach slices and cook for an additional 3 minutes. Fill hot jars immediately, leaving 1-inch headspace. Wipe the jar rims. Secure the lids and rings as per the manufacturer's instructions.
6. Process the jars in a boiling water canner, adjusting for altitude if needed. After processing, turn off the heat, remove the canner lid, and wait 5 minutes before removing the jars. For less siphoning, wait 10 minutes. Cool the jars undisturbed for 12 to 24 hours and check seals.

Process times for Elevations

Style of pack: hot

Jar size: quart or pint

Elevation	Process Time
0-1,000 ft.	30 min
1,001-3000 ft.	35 min
3,001-6,000 ft.	40 min
6,001-8,000 ft.	45 min

SAFETY ALERT: Use only yellow fleshed peaches to prepare this recipe. White fleshed peaches do not have the same level of acidity as yellow fleshed peaches and cannot be safely processed in a boiling water canner.

PROCESSING STEPS

Follow these steps to use a boiling water canner for processing pie filling.

1. **Gather ingredients and equipment** for the pie filling recipe. Ensure you locate a source of ClearJel before starting.
2. **Add water to the canner.** Before preparing the pie filling, place the canner rack in the bottom of a boiling water canner. Fill it halfway with warm water for pint jars, adjusting for other sizes so water is 1 to 2 inches above jars.
3. **Preheat the canner and jars** by placing clean, empty jars in water inside the canner or in the dishwasher. Center the canner over the burner and bring the water to 180°F to prevent jar breakage. While preheating, prepare the pie filling.
4. **Prepare food and fill jars.** Make pie filling as instructed and pour into hot jars, leaving 1-inch headspace. Release trapped air by gently packing with a spatula or spoon. Avoid overfilling.
5. **Close jars, wipe rims** with damp towel, seal with lids and bands, then use a jar lifter to place them into the canner promptly.
6. **Check water level** and add boiling water if needed to keep it 1 to 2 inches above jar tops, avoiding pouring directly on jars. Place the cover on the canner. For processing over 30 minutes, maintain at least 2 inches of water above the jars.
7. **Heat canner on high** until water boils vigorously, then select processing time for your altitude.
8. **Once water boils vigorously**, set a timer for the required processing minutes.
9. **Keep the canner covered** and boil throughout. The heat can be lowered as long as a gentle, complete boil is maintained during all of processing.
10. **Watch water level** and add boiling water as needed to keep it above the jar tops. Pour water around, not directly onto, the jars.
11. Keep boiling during the entire processing time. If the water stops boiling at any point, increase the heat to its highest setting, re-establish a vigorous boil, and restart the timing from the beginning.
12. **Turn off heat after boiling.** Wait 5 minutes before removing jars to help them seal and prevent liquid loss. This step isn't safety-critical when following USDA (2015) times, but it aids sealing.

Note: Increasing canner wait time to 10 minutes helps prevent siphoning of pie filling (Ingham 2017).

13. **Remove jars with a jar lifter**, one at a time, without tilting. Place them on a towel or cooling rack with a one-inch gap, avoiding cold surfaces or drafts.
14. **Cool jars.** Let sit undisturbed for 12-24 hours. Do not tighten ring bands or press down on lids until jars are fully cooled.
15. **Inspect the seal within 24 hours.** Remove ring bands from sealed jars. Unsealed jars can be refrigerated and enjoyed in 2-4 days, reprocessed, or frozen.
16. **Wash jars and lids** to remove residues before storage.
17. **Label jars** with content, processing info, and date. Store in a cool, dry, dark place. For best quality, consume within a year of canning.

REFERENCES

- USDA (United States Department of Agriculture). 2015. USDA Complete Guide to Home Canning, 2015 revision. National Center for Home Food Preservation.
- Waite-Cusic, J. 2020. Personal communication. Blackberry pie filling.
- So Easy To Preserve. Sixth Edition. E.L. Andress, J.A. Harrison. 2014.
- Penn State. Let's Preserve Apples.

OOZING PIE FILLING

Sometimes, despite our best efforts, the pie filling tends to ooze down the side of the jars after the jars are removed from the canner. We have experimented with several different techniques for trying to ensure that this does not happen. A few tips may make canning pie-filling a success:

- **Follow directions carefully for preparing fruit.** This including thawing frozen fruit and blanching fresh fruit. One goal of home-canning is to remove air from the jars so that the jars will seal. Raw fruit can have a lot of air in the fruit tissue. Blanching will help remove some of this air prior to the canning process, leaving less air to be removed during canning. Blanch fruit in small batches, changing the blanch water frequently. If you use frozen fruit and it's not yet thawed, the quick cooking process prior to canning may not completely thaw the fruit and could interfere with gel formation prior to canning, leaving the gel to form, and the product to thicken, later in the process.
- **Take care to remove air bubbles prior to sealing.** As the filling thickens it can trap air bubbles in the jar. Use your bubble freer to remove those trapped bubbles prior to sealing each jar.
- **Use $\frac{3}{4}$ of the amount of ClearJel recommended in Extension recipes.** ClearJel is a modified corn starch; modified so that it will not break down as the pie filling is cooked in preparation for canning, heated during the canning process, and heated a third time as the pie is baked. So, if the recipe calls for $1\frac{1}{2}$ cups of ClearJel, use only $\frac{3}{4}$ of this amount or 1 cup + 2 tablespoons, and so forth. Extension does not recommend the use of regular corn starch or flour for thickening pie filling as these thickeners tend to break down and a poor quality product results.
- **Do not attempt to double recipes.** Because it can be difficult to stir the

ClearJel/fruit mixture as it thickens, do not double the recipe but make more batches on any given day.

- **Leave sufficient headspace.** Pie filling recipe recommend canning in quart jars, just enough for one pie! Be sure to leave at least 1" headspace in each jar, and take care to remove air bubbles prior to applying the lid. Leaving even a bit more headspace, up to $1\frac{1}{4}$ inch, can help to prevent oozing.
- **Keep the product hot and canner ready to go!** Take care to avoid delays in canning, but if this happens, product waiting for canning should be kept very hot, about 180°F internal temperature, ideally in something like a Nesco roaster in 1-2" of very hot water. Jars should be promptly canned in a boiling water canner or steam canner according to recipe instructions.
- **Try leaving the jars in the canner for 10 minutes after the end of the timed process, especially if using a boiling water canner.** The pressure of the canner water will help to prevent oozing as the jars begin to cool in the canner. Be sure to remove jars after about 10 minutes and before they cool completely. Do not hold the jars if using a steam canner; simply remove jars at the end of the processing time.

Canning pie filling in quart jars, rather than pint jars, may also help. For pint jars, follow the recipe for quart jars, retaining 1" headspace, and using the processing time listed for quart jars. If your pie filling does ooze out the side, the jar lids will be more stuck-on than sealed, so set those jars aside and store them in the refrigerator. Enjoy within 2 weeks.

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