



THE UNIVERSITY OF ARIZONA

Cooperative Extension

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www.cals.arizona.edu/maricopa/fcs

Preparing and Canning: Poultry, Red Meat, and Seafood

Equipment

Be certain that you have all the equipment needed to produce a safe, good tasting canned product.

A pressure canner is required for processing fish, meat, or poultry. The high temperatures reached under pressure are necessary to ensure a safe product.

Re-read and follow directions for your canner. If you no longer have an instruction manual, write the manufacturer for a new copy.

Your pressure canner must be in good condition. Replace the gasket and safety plug if necessary. Be certain the vent or petcock is clean and open.

If you have a dial pressure gauge, have it checked for accuracy before the canning season begins. *Some dial pressure gauges may be checked at your local Cooperative Extension office.*

It is a good idea to complete a trial run with your canner. Use 2 to 3 inches (about 3 quarts) of water in the canner. Put the canner through a short canning cycle, according to the manufacturer's instructions. To be certain you are familiar with the sound of the weighted gauge or with reading the dial gauge.

Jars should be washed in hot soapy water and rinsed before you use them. Check the rims of jars and discard any that have nicks or cracks.

Use two-piece self-sealing lids.

Prepare the jar lids and rings according to the lid manufacturer's directions. Lids should be purchased new each year. Rings are reusable if they are not bent or rusty.

An acrylic or hard wood cutting board is recommended to cut down on bacterial contamination. Knives should be sharp. Cutting boards and knives should be washed regularly in warm, soapy water and rinsed thoroughly.

Chicken or Rabbit

Procedure: Choose freshly killed and dressed, healthy animals. Large chickens are more flavorful than fryers. Dressed chicken should be chilled for 6 to 12 hours before canning. Dressed rabbits should be soaked 1 hour in water containing 1 tablespoon of salt per quart, and then rinsed. Remove excess fat. Cut the chicken or rabbit into suitable sizes for canning. Can with or without bones.

Hot pack – Boil, steam, or bake meat until about two-thirds done. Add 1 teaspoon salt per quart to the jar, if desired. Fill jars with pieces and hot broth, leaving 1¼ -inch headspace.

Raw pack – Add 1 teaspoon salt per quart, if desired. Fill jars loosely with raw meat pieces, leaving 1¼ -inch headspace. Do not add liquid.

Adjust lids and process.

Recommended process time for Chicken or Rabbit in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Without Bones:						
Hot and Raw	Pints	75 min	11 lb	12 lb	13 lb	14 lb
	Quarts	90 min	11 lb	12 lb	13 lb	14 lb
With Bones:						
Hot and Raw	Pints	65 min	11 lb	12 lb	13 lb	14 lb
	Quarts	75 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Chicken or Rabbit in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Without Bones:				
Hot and Raw	Pints	75 min	10 lb	15 lb
	Quarts	90 min	10 lb	15 lb
With Bones:				
Hot and Raw	Pints	65 min	10 lb	15 lb
	Quarts	75 min	10 lb	15 lb

Ground or Chopped Meat

Bear, beef, lamb, pork, sausage, veal, venison

Procedure: Choose fresh, chilled meat. With venison, add one part high-quality pork fat to three or four parts venison before grinding. Use freshly made sausage, seasoned with salt and cayenne pepper (sage may cause a bitter off-flavor). Shape chopped meat into patties or balls or cut cased sausage into 3- to 4-inch links. Cook until lightly browned. Ground meat may be sauteed without shaping. Remove excess fat. Fill jars with pieces. Add boiling meat broth, tomato juice, or water, leaving 1-inch headspace. Add 2 teaspoons of salt per quart to the jars, if desired. Adjust lids and process.

Recommended process time for Ground or Chopped Meat in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot	Pints	75 min	11 lb	12 lb	13 lb	14 lb
	Quarts	90 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Ground or Chopped Meat in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot	Pints	75 min	10 lb	15 lb
	Quarts	90 min	10 lb	15 lb

Strips, Cubes, or Chunks of Meat

Bear, beef, lamb, pork, sausage, veal, venison

Procedure: Choose quality chilled meat. Remove excess fat. Soak strong-flavored wild meats for 1 hour in brine water containing 1 tablespoon of salt per quart. Rinse. Remove large bones.

Hot Pack – Precook meat until rare by roasting, stewing, or browning in a small amount of fat. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with pieces and add boiling broth, meat drippings, water, or tomato juice (especially with wild game), leaving 1-inch headspace.

Raw pack – Add 2 teaspoons of salt per quart to the jar, if desired. Fill jars with raw meat pieces, leaving 1-inch headspace. Do not add liquid. Adjust lids and process.

Recommended process time for Strips, Cubes, or Chunks of Meat in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot and Raw	Pints	75 min	11 lb	12 lb	13 lb	14 lb
	Quarts	90 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Strips, Cubes, or Chunks of Meat in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot and Raw	Pints	75 min	10 lb	15 lb
	Quarts	90 min	10 lb	15 lb

Meat Stock (Broth)

Beef: Saw or crack fresh trimmed beef bones to enhance extraction of flavor. Rinse bones and place in a large stockpot or kettle, cover bones with water, add pot cover, and simmer 3 to 4 hours. Remove bones, cool broth, and pick off meat. Skim off fat, add meat removed from bones to broth, and reheat to boiling. Fill jars, leaving 1-inch headspace. Adjust lids and process.

Chicken or turkey: Place large carcass bones in a large stockpot, add enough water to cover bones, cover pot, and simmer 30 to 45 minutes or until meat can be easily stripped from bones. Remove bones and pieces, cool broth, strip meat, discard excess fat, and return meat to broth. Reheat to boiling and fill jars, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Meat Stock in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot	Pints	20 min	11 lb	12 lb	13 lb	14 lb
	Quarts	25 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Meat Stock in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot	Pints	20 min	10 lb	15 lb
	Quarts	25 min	10 lb	15 lb

Chile Con Carne

- 3 cups dried pinto or red kidney beans
- 5½ cups water
- 5 tsp salt (separated)
- 3 lbs ground beef
- 1½ cups chopped onions
- 1 cup chopped peppers of your choice (optional)
- 1 tsp black pepper
- 3 – 6 tbsp chili powder
- 2 qts crushed or whole tomatoes

Yield: 9 pints

Procedure: Wash beans thoroughly and place them in a 2 qt. saucepan. Add cold water to a level of 2 to 3 inches above the beans and soak 12 to 18 hours. Drain and discard water. Combine beans with 5½ cups of fresh water and 2 teaspoons salt. Bring to a boil. Reduce heat and simmer 30 minutes. Drain and discard water. Brown ground beef, chopped onions, and peppers, if desired, in a skillet. Drain off fat and add 3 teaspoons salt, pepper, chili powder, tomatoes and drained cooked beans. Simmer 5 minutes. **Caution: Do not thicken.** Fill jars, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Chile Cone Carne in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot	Pints	75 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Chile Con Carne in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot	Pints	75 min	10 lb	15 lb

Festive Mincemeat Pie Filling

2 cups finely chopped suet
 4 lbs ground beef or (4 lbs ground venison and 1 lb sausage)
 5 qts chopped apples
 2 lbs dark seedless raisins
 1 lb white raisins
 2 qts apple cider
 2 tbsp ground cinnamon
 2 tsp ground nutmeg
 5 cups sugar
 2 tbsp salt

Yield: About 7 quarts

Procedure: Cook suet and meat in water to avoid browning. Peel, core, and quarter apples. Put meat, suet, and apples through food grinder using a medium blade. Combine all ingredients in a large saucepan, and simmer 1 hour or until slightly thickened. Stir often. Fill jars with mixture without delay, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Festive Mincemeat Pie Filling in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot	Quarts	90 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Festive Mincemeat Pie Filling in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot	Quarts	90 min	10 lb	15 lb

Soups

Vegetable, dried bean or pea, meat, poultry, or seafood soups can be canned.

Caution: Do not add noodles or other pasta, rice, flour, cream, milk or other thickening agents to home canned soups. If dried beans or peas are used, they *must* be fully rehydrated first.

Procedure: Select, wash, and prepare vegetables, meat and seafoods as described for the specific foods. Cover meat with water and cook until tender. Cool meat and remove bones. Cook

vegetables. For each cup of dried beans or peas, add 3 cups of water, boil 2 minutes, remove from heat, soak 1 hour, and heat to boil; drain.

Combine solid ingredients with meat broth, tomatoes, or water to cover. Boil 5 minutes. **Caution:** Do not thicken. Salt to taste, if desired. Fill jars halfway with solid mixture. Add remaining liquid, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Soups in a dial-gauge pressure canner						
Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot	Pints	60* min	11 lb	12 lb	13 lb	14 lb
	Quarts	75* min	11 lb	12 lb	13 lb	14 lb

* Caution: Process 100 minutes if soup contains seafood.

Recommended process time for Soups in a weighted-gauge pressure canner				
Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot	Pints	60* min	10 lb	15 lb
	Quarts	75* min	10 lb	15 lb

* Caution: Process 100 minutes if soup contains seafood.

Clams

Whole or minced

Procedure: Keep clams live on ice until ready to can. Scrub shells thoroughly and rinse, steam 5 minutes, and open. Remove clam meat. Collect and save clam juice. Wash clam meat in water containing 1 teaspoon of salt per quart. Rinse and cover clam meat with boiling water containing 2 tablespoons of lemon juice or 1/2 teaspoon of citric acid per gallon. Boil 2 minutes and drain. To make minced clams, grind clams with a meat grinder or food processor. Fill jars loosely with pieces and add hot clam juice and boiling water if needed, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Clams in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Hot	Half-pints	60 min	11 lb	12 lb	13 lb	14 lb
	Pints	70 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Clams in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Hot	Half-pints	60 min	10 lb	15 lb
	Pints	70 min	10 lb	15 lb

King and Dungeness Crab Meat

It is recommended that blue crab meat be frozen for best quality.

Procedure: Keep live crabs on ice until ready to can. Wash crabs thoroughly, using several changes of cold water. Simmer crabs 20 minutes in water containing ¼ cup of lemon juice and 2 tablespoons of salt (or up to 1 cup of salt, if desired) per gallon. Cool in cold water, drain, remove back shell, then remove meat from body and claws. Soak meat 2 minutes in cold water containing 2 cups of lemon juice or 4 cups of white vinegar, and 2 tablespoons of salt (or up to 1 cup of salt, if desired) per gallon. Drain and squeeze meat to remove excess moisture. Fill half-pint jars with 6 ounces of meat and pint jars with 12 ounces, leaving 1-inch headspace. Add ½ teaspoon of citric acid or 2 tablespoons of lemon juice to each half-pint jar, or 1 teaspoon of citric acid or 4 tablespoons of lemon juice per pint jar. Add hot water, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for King and Dungeness Crab Meat in a dial-gauge pressure canner

Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
		0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Half-pints	70 min	11 lb	12 lb	13 lb	14 lb
Pints	80 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for King and Dungeness Crab Meat in a weighted-gauge pressure canner

Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
		0 – 1,000 ft	Above 1,000 ft
Half-pints	70 min	10 lb	15 lb
Pints	80 min	10 lb	15 lb

Fish

Blue, mackerel, salmon, steelhead, trout, and other fatty fish except tuna

Caution: Eviscerate fish within 2 hours after they are caught. Keep cleaned fish on ice until ready to can.

Note: Glass-like crystals of magnesium ammonium phosphate sometimes form in canned salmon. There is no way for the home canner to prevent these crystals from forming, but they usually dissolve when heated and are safe to eat.

Procedure: Remove head, tail, fins, and scales. Wash and remove all blood. Split fish lengthwise, if desired. Cut cleaned fish into 3½-inch lengths. Fill pint jars, skin side next to glass, leaving 1-inch headspace. Add 1 teaspoon of salt per pint, if desired. Do not add liquids. Adjust lids and process.

Recommended process time for Fish in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Raw	Pints	100 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Fish in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Raw	Pints	100 min	10 lb	15 lb

Oysters

Procedure: Keep live oysters on ice until ready to can. Wash shells. Heat 5 to 7 minutes in preheated oven at 400°F. Cool briefly in ice water. Drain, open shell, and remove meat. Wash meat in water containing ½ cup salt per gallon. Drain. Add ½ teaspoon salt to each pint, if desired. Fill half-pint or pint jars with meat and hot water, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Oysters in a dial-gauge pressure canner

Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
		0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Half-pints or Pints	75 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Oysters in a weighted-gauge pressure canner

Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
		0 – 1,000 ft	Above 1,000 ft
Half-pints or Pints	75 min	10 lb	15 lb

Smoked Fish

Salmon, rockfish and flatfish (sole, cod, flounder) and other fish

Caution: Safe processing times for other smoked seafoods have not been determined. Those products should be frozen. Smoking of fish should be done by tested methods. Lightly smoked fish is recommended for canning. However, because it has not yet been cooked, do not taste lightly smoked fish before canning.

Follow these recommended canning instructions carefully. Use a 16 to 22 quart pressure canner for this procedure; do not use smaller pressure saucepans. Safe processing times haven't been determined. Do not use quart jars or tin cans. Half-pints could be safely processed for the same length of time as pints, but the quality of the product may be less acceptable.

Procedure: If smoked fish has been frozen, thaw in the refrigerator until no ice crystals remain before canning. If not done prior to smoking, cut fish into pieces that will fit vertically into pint canning jars, leaving 1-inch headspace. Measure 4 quarts (16 cups) of cool tap water and pour into the pressure canner. (**Note:** The water level probably will reach the screwbands of pint jars). **Do not decrease the amount of water or heat the water before processing begins.** Pack smoked fish vertically into jars, leaving 1-inch headspace between the pieces and the top of the jar. The fish may be packed either loosely or tightly. Clean jar rims with a clean, damp paper towel. Do not add liquid to the jars. Adjust lids and process.

Recommended process time for Smoked Fish in a dial-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft
Raw	Pints	110 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Smoked Fish in a weighted-gauge pressure canner

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0 – 1,000 ft	Above 1,000 ft
Raw	Pints	110 min	10 lb	15 lb

Tuna

Tuna may be canned either precooked or raw. Precooking removes most of the strong-flavored oils. The strong flavor of dark tuna flesh affects the delicate flavor of white flesh. Many people prefer not to can dark flesh. It may be used as pet food.

Note: Glass-like crystals of magnesium ammonium phosphate sometimes form in canned tuna. There is no way for the home canner to prevent these crystals from forming, but they usually dissolve when heated and are safe to eat.

Procedure: Keep tuna on ice until ready to can. Remove viscera and wash fish well in cold water. Allow blood to drain from stomach cavity. Place fish belly down on a rack or metal tray in the bottom of a large baking pan. Cut tuna in half crosswise, if necessary. Precook fish by baking at 250°F for 2½ to 4 hours (depending on size) or at 350°F for 1 hour. The fish may also be cooked in a steamer for 2 to 4 hours. If a thermometer is used, cook to a 165° to 175°F internal temperature. Refrigerate cooked fish overnight to firm the meat. Peel off the skin with a knife, removing blood vessels and any discolored flesh. Cut meat away from bones; cut out and discard all bones, fin bases, and dark flesh. Quarter. Cut quarters crosswise into lengths suitable for half-pint or pint jars. Fill into jars, pressing down gently to make a solid pack. Tuna may be packed in water or oil, whichever is preferred. Add water or oil to jars, leaving 1-inch headspace. Add ½ teaspoon of salt per half-pint or 1 teaspoon of salt per pint, if desired. Adjust lids and process.

Recommended process time for Tuna in a dial-gauge pressure canner

Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
		0 – 2,000 ft	2,001 – 4,000 ft	4,001 – 6,000 ft	6,001 – 8,000 ft

Half-pints or Pints	100 min	11 lb	12 lb	13 lb	14 lb
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Recommended process time for Tuna in a weighted-gauge pressure canner

Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
		0 – 1,000 ft	Above 1,000 ft
Half-pints or Pints	100 min	10 lb	15 lb

Source: *Canning Fish in Quart Jars* section adapted from the University of Alaska Fairbanks Cooperative Extension Service, www.uaf.edu/coop-ext; June 2012.

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