





PRESSURE CANNING

Background Information










Pressure canning is used to prepare low-acid foods like vegetables, meats, poultry, seafood, mushrooms, and soup. Tomatoes and mixed vegetable recipes should be pressure canned. To make sure that all bacteria that cause spoilage in low-acid foods (pH value higher than 4.6) are destroyed, low-acid foods must be processed in a pressure canner at 240 degrees F to 250 degrees F (116 to 121 degrees C) for the correct amount of time based on the specific food product, style of pack, and jar size. Processing times for low-acid foods will vary from 20 to 100 minutes and need to be extended at higher altitudes. For instance, one minute of additional processing time is needed for each 1,000 feet above sea level.

Equipment Preparation


-  Assemble all clean equipment and utensils.
-  Check the pressure canner and accuracy of the pressure gauge using the manufacturer's instructions.
-  Wash jars and ring bands in hot, soapy water and rinse in hot water. Check jars for nicks and cracks. Discard if nicked or cracked. Keep jars in hot water until ready to use.
-  Check sealing compounds on new lids. Follow the directions on the lid package for preparation of lids. Do not use old, dented or deformed lids.

Food Preparation And Packing The Jars

Follow instructions in an up-to-date food preservation book for methods on preparing meats, poultry, seafoods, and soups for processing.


-  Select good quality vegetables and process only one canner load at a time.
-  Rinse vegetables thoroughly under cold running water.
-  Depending on the type of vegetable, skin, peel, slice, or cut vegetables. Remove seeds and stems.
-  For raw pack, pack vegetables loosely in jars to allow water to circulate between the vegetable pieces. Pour boiling water over vegetables to remove air, prevent food from floating, and increase vacuum in sealed jars.
-  If using the hot pack method, precook the vegetables in boiling water for 3 to 5 minutes before packing in jars.
-  Leave 1 to 1¹/₄ inch of space at the top of each jar. Eliminate bubbles by moving plastic knife or spatula up and down inside of jar.
-  Wipe jar rim and top of jar with a clean damp cloth.
-  Place lid with sealing compound down on top of jar. Screw band on jar until just tight. Over tightening may cause lid to buckle or jar to crack or break, while under tightening may allow leakage of contents.
-  Can only the quantity of food that will be eaten within a year.


Processing

-  Read manufacturer's directions for pressure canner before placing filled jars in rack. Place jars in pressure canner that has approximately 2 to 3 inches

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of hot water covering the bottom of the canner. Fasten cover.

 Heat, allowing steam to escape for 10 minutes or according to manufacturer's instructions.


 Close vent and bring pressure canner to required pressure. Start counting processing time when pressure is reached. Maintain pressure and process for recommended time. Refer to the table as a processing guide.


Processing Times For Low-Acid Foods Using a Pressure Canner* (240° F at 10 pounds of pressure)


Food	Pints	Quarts
Vegetables		
Asparagus (hot/raw pack)	30 min.	40 min.
Beets (hot pack)	30	35
Carrots (hot/raw pack)	25	30
Corn, cream style (hot pack)	85	**
Corn, cream style (raw pack)	95	**
Corn, whole kernel (hot/raw pack)	55	85
Garden peas (hot/raw pack)	40	40
Greens (hot pack)	70	90
Irish potatoes (hot pack)	35	40
Sweet potatoes, dry (hot pack)	65	95
Sweet potatoes, wet (hot pack)	55	90
Lima beans (hot/raw pack)	40	50
Snap beans (hot/raw pack)	20	25
Okra (hot pack)	25	40
Summer squash (hot pack)	30	40
Summer squash (raw pack)	25	30
Winter squash (hot pack)	55	90
Vegetable soup (hot pack)	Time depends on vegetable requiring the longest processing time.	
Meats		
Beef, Veal, Pork, Lamb (hot pack)	75	90
Ground beef (hot pack)	75	90
Poultry		
Poultry, with bone (hot pack)	65	75
Poultry, without bone (hot pack)	75	90
Fish		
Fish, salt and fresh (raw pack)	100	**

*Extend processing time one additional minute for each 1000 feet above sea level.


**Not recommended.


 Turn off stove and remove canner from heat. Let pressure drop to zero naturally. Wait an additional 2 to 5 minutes after the pressure has reached zero.


 Open vent by releasing valve slowly. Unfasten cover. Lift cover and open away from you. Let stand 10 minutes.


 Remove jars to cool on rack or towels. Do not tighten ring bands. Within 24 hours test seals and remove ring bands. Wash outside jar surface. Store sealed jars in dark, dry, cool place below 95 degrees F.

3-Way Test For Checking The Seals On The Jars

 **Hear the seal** - Hear the "plink" as lid snaps down while jar is cooling, or tap lid with spoon when jar is cold. A clear ringing sound means a seal.

 **Observe the seal** - If the center of the lid is curved down, the jar is sealed.

 **Press the seal** - After the jar has cooled, press the center of the lid. If it is down and will not move, the jar is sealed.

 Ring bands free of rust may be reused. Never reuse lids for canning purposes.

NOTE: If jar is not sealed within 24 hours, reprocess contents with new lid, or refrigerate and use in the next 1 to 2 days.

CAUTION: Never taste or eat food from a jar with an unsealed lid, swollen lid, or if the food shows signs of spoilage.

REFERENCES

Complete Guide to Home Canning, Extension Service, USDA, 1994.

Food Preservation In Alabama, Alabama Cooperative Extension Service, Auburn University, 1995.

Contact the local Virginia Cooperative Extension office for the most recent information on canning for your area.