

# Home Canning Meat, Poultry, Wild Game, and Fish

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Home canning your own meat, poultry, wild game or fish can help you save money, gain control over what's in your food, and save time in meal preparation. To ensure safe, high quality home-canned products, always follow research-based recommendations when canning.

All meats, poultry, wild game and fish are low-acid foods. **To prevent the risk of botulism, they must be processed in a pressure canner.** No safe options exist for processing these foods in a boiling water canner.

Meat may be canned with or without bones. The process time for meat with bones will always be shorter than the process time for canning meat without bones. This is because bones are more porous (easily penetrated by water or air), so it takes less time to cook them.

## Ingredients

Use only good quality meat, poultry, game or fish for canning. Trim away gristle, bruised spots and excess fat. Keep refrigerated (at 40°F or lower) until you are ready to can. If holding for longer than a few days, freeze (at 0°F or lower) for storage. Thaw in the refrigerator before canning and follow the directions given for each type of meat, poultry, game or fish.

Be sure to trim away excess fat before canning. Fat will melt and rise up the sides of the jar during processing. If it reaches the sealing edge of the lid, the jar may not seal. Too much fat may also cause strong flavors to develop.

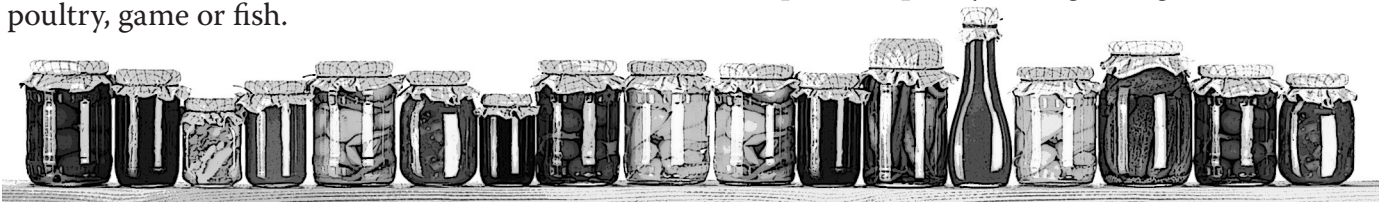
Salt is optional in canning meat, poultry, game and fish. It is used only for seasoning and does not help to preserve the food.

Broth, meat juices, tomato juice or water may be added to the filled jars before processing. Tomato juice is a good choice for use with wild game. To make your own broth, place bony pieces of meat or poultry in a saucepan and cover with cold water. Simmer until the meat is tender. Strain broth, cool quickly and skim off fat. Heat broth to boiling before adding to jars. Do not thicken the broth before use.

## Filling Jars

There are two methods that can be used for packing food into the jars – raw pack and hot pack. Raw pack means putting raw, unheated food into the jars. Hot pack involves cooking or heating the food for a specified length of time before packing it into the jars and covering it with a hot liquid.

For most meats, the hot pack method yields the best product quality during storage. Natural fat



and juices released during processing are usually not enough to cover the meat in raw packs.

Some recipes have directions for both raw and hot packs. Others specify one or the other, depending on which method is most suitable for the specific meat, poultry, game or fish being canned. Always use the type of pack and full processing time specified in the recipe.

The size of the jar will affect the rate of heat penetration into the food. To ensure that all of the food in the jar receives the full heat treatment needed to destroy spores of harmful bacteria that may be present, use only the jar sizes specified in the recipe and the processing time given for each jar size. Do not use jars that are larger than those specified in the recipe. It is safe to use jars that are smaller than those specified in the recipe, but the processing time cannot be reduced for the smaller jars.

## Processing: Why Do I Need to Use a Pressure Canner?

High-acid foods (those with a pH of 4.6 or lower) contain enough acid to help control the growth of harmful bacteria and can be safely

processed in a boiling water canner. However, all meats, poultry, game and fish are low-acid foods, with pH levels ranging from 5.1 to 7.3. They do not contain enough acid to prevent the growth of the bacterium *Clostridium botulinum*, which produces the toxin that causes botulism. For these foods, the high temperatures reached in a pressure canner (240°F to 250°F at 10 to 15 pounds of pressure) are necessary to destroy any spores of *Clostridium botulinum* that might be present. Destroying the spores prevents them from growing into bacterial cells in the canned product and producing the deadly botulism toxin. The high temperature reached in the canner under pressure must be maintained for a specified length of time, depending on the food being canned, the way it is prepared and packed into the jar, and the size of the jar. It is important to always use the full processing time and pressure specified in each recipe.

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For more information on safe home canning and the pressure canner method, please see Home Canning Basics, publication FCS3-578.

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### Caution! Altitude Adjustments

Altitude affects processing times and pressures. The processing times and pressures given in this publication are based on canning at or below 1,000 feet above sea level. If you live at an altitude greater than 1,000 feet, pressure canner processing times stay the same, but the processing pressures are adjusted as shown in Table 1.

**Table 1.** Processing pressure.

Gauge	0-1,000 feet	1,001-2,000 feet	2,001-4,000 feet
Dial gauge	11 pounds	11 pounds	12 pounds
Weighted gauge	10 pounds	15 pounds	15 pounds

If you live at an altitude greater than 4,000 feet, please consult the website for the National Center for Home Food Preservation, <http://nchfp.uga.edu/>.

# Step-By-Step Canning

## *Pressure Canner Method*

1. Assemble all equipment and utensils.
2. Visually examine jars, lids and bands for defects. Wash in hot, soapy water and rinse well. Place the jars in simmering water to keep hot until filled. Dry the bands and set aside. Follow the manufacturer's instructions for preparing the lids. Many no longer require preheating before use. Do not boil the lids.
3. Use fresh, top-quality ingredients. Prepare the recipe, following the directions given.
4. Fill the hot jars, leaving the headspace specified in the recipe. Remove air bubbles and adjust headspace, if necessary. Wipe jar rims with a dampened clean paper towel. Center lids on jars and apply bands fingertip tight. Do not over tighten.
5. Following your manufacturer's instructions, place one to two inches of hot water in the pressure canner. Load filled jars into the canner, using a jar lifter. Keep jars upright at all times. Fasten the canner lid securely. Leave the weight off the vent port or open the petcock.
6. To vent the canner, heat on high until the water boils and generates steam that can be seen escaping in a funnel shape through the open vent port or petcock. Set a timer for 10 minutes. After 10 minutes of continuous steam, close the petcock or place the counterweight or weighted gauge over the vent port to begin building pressure in the canner. The canner should pressurize within three to ten minutes.
7. Start timing the process when the pressure reading on the dial gauge indicates that the recommended pressure has been reached, or when the weighted gauge begins to jiggle or rock as the manufacturer describes. Regulate the heat under the canner to maintain a steady pressure at, or slightly above, the correct gauge pressure for the whole processing time.
8. When the processing time specified in the recipe is complete, turn off the heat to allow the canner to cool naturally and return to zero pressure. After the canner is completely depressurized, remove the weight from the vent port or open the petcock. At this point, the canner and its contents will still be hot. Wait 10 minutes, then unfasten the lid and remove it carefully, with the underside away from you so that the steam coming out of the canner does not burn your face.
9. Remove jars from canner, keeping them upright. Carefully place them onto a towel, leaving a one-inch space between the jars for proper cooling.
10. After 12 to 24 hours, test seals and remove bands.
11. Wash outside of jars and lid surfaces. Label and store sealed jars in a cool, dark, dry place for up to two years.
12. Enjoy your very own canned meat, poultry, game or fish.

# Recipes

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## Meat—Strips, Cubes or Chunks (bear, beef, lamb, pork, veal, venison)

The hot pack method is preferred for best liquid cover and quality during storage.

### *Ingredients*

meat, trimmed

½ teaspoon salt per pint (optional)

boiling broth, meat juices, tomato juice or water to cover (for hot pack)

### *Directions*

#### **Hot Pack**

- Prepare meat: Choose high quality, chilled meat. Remove excess fat. Soak strongly flavored wild meats for 1 hour in a brine made from 1 tablespoon salt per quart of water. Rinse. Cut meat into 1-inch wide strips, cubes or chunks.
- Pre-cook meat to the rare stage by roasting, stewing or browning in a small amount of fat.
- Pack hot meat loosely into hot pint or quart jars, leaving 1-inch headspace.
- Add ½ teaspoon salt to each pint jar or 1 teaspoon salt to each quart jar, if desired.
- Ladle boiling broth, meat juices, tomato juice or water over meat pieces, leaving 1-inch headspace.
- Remove air bubbles and adjust headspace if needed. Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- Process pint jars 75 minutes, quart jars 90 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

#### **Raw Pack**

- Prepare meat: Choose high quality, chilled meat. Remove excess fat. Soak strongly flavored wild meats for 1 hour in a brine made from 1 tablespoon salt per quart of water. Rinse. Cut meat into 1-inch wide strips, cubes or chunks.
- Add ½ teaspoon salt to each hot pint jar or 1 teaspoon salt to each hot quart jar, if desired.
- Pack raw meat pieces into hot jars, leaving 1-inch headspace. Do not add liquid.
- Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- Process pint jars 75 minutes, quart jars 90 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

Recipe adapted from *So Easy to Preserve*. Used with permission for educational purposes only.

# Meat—Ground or Chopped (bear, beef, lamb, mutton, pork, sausage, veal, venison)

Ground or chopped meat may be safely canned. However, freezing gives a much higher quality product.

## *Ingredients*

ground or chopped meat or sausage

½ teaspoon salt per pint (optional)

boiling meat broth, tomato juice or water to cover

## *Directions*

### **Hot Pack**

- Prepare meat: Choose fresh, chilled meat. For venison, add one part high-quality pork fat to three or four parts venison before grinding. For sausage, use freshly made sausage, seasoned with salt and cayenne pepper (sage may cause a bitter off-flavor when canned). Cut cased sausage into 3- to 4-inch links. Shape ground meat into patties or balls, or leave unshaped.
- Cook meat until lightly browned. Remove excess fat.
- Pack hot meat loosely into hot pint or quart jars, leaving 1-inch headspace.
- Ladle boiling meat broth, tomato juice or water over meat, leaving 1-inch headspace.
- Add ½ teaspoon salt to each hot pint jar or 1 teaspoon salt to each hot quart jar, if desired.
- Remove air bubbles and adjust headspace if needed. Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- Process pint jars 75 minutes, quart jars 90 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

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# Poultry (chicken, duck, goose, turkey or game birds)

The hot pack method is preferred for best liquid cover and quality during storage.

## Ingredients

poultry or game birds

½ teaspoon salt per pint (optional)

hot broth to cover (for hot pack)

## Directions

### Hot Pack

- Prepare meat: Choose freshly killed and dressed poultry or game birds. Large chickens are more flavorful than fryers. Dressed poultry should be chilled for 6 to 12 hours before canning. Strongly flavored game birds (especially water fowl) can be soaked for 1 hour in a brine made from 1 tablespoon salt per quart of water. Rinse poultry or game birds, remove excess fat, and cut meat into suitable sizes for canning. The meat may be canned with or without bones; be sure to use the appropriate processing time for each.
- Boil, steam or bake meat until about two-thirds done.
- Pack hot meat pieces into hot pint or quart jars, leaving 1¼-inch headspace.
- Add ½ teaspoon salt to each pint jar or 1 teaspoon salt to each quart jar, if desired. *Note:* If you have soaked game birds in salt water, don't add salt when filling the jars.
- Ladle hot broth over meat pieces, leaving 1¼-inch headspace.
- Remove air bubbles and adjust headspace if needed. Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- *For meat with bones:* Process pint jars 65 minutes, quart jars 75 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner
- *For meat without bones:* Process pint jars 75 minutes, quart jars 90 minutes at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

### Raw Pack

- Prepare meat: Choose freshly killed and dressed poultry or game birds, chilled for 6 to 12 hours before canning. Strongly flavored game birds (especially water fowl) can be soaked for 1 hour in a brine made from 1 tablespoon salt per quart of water. Rinse poultry or game birds, remove excess fat, and cut meat into suitable sizes for canning. The meat may be canned with or without bones; be sure to use the appropriate processing time for each.
- Add ½ teaspoon salt to each hot pint jar or 1 teaspoon salt to each hot quart jar, if desired. *Note:* If you have soaked game birds in salt water, don't add salt when filling the jars.
- Pack raw meat pieces loosely into hot jars, leaving 1¼-inch headspace. Do not add liquid.
- Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- *For meat with bones:* Process pint jars 65 minutes, quart jars 75 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner
- *For meat without bones:* Process pint jars 75 minutes, quart jars 90 minutes at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.



# Rabbit or Squirrel

The hot pack method is preferred for best liquid cover and quality during storage.

## Ingredients

rabbit or squirrel

hot broth to cover (for hot pack)

## Directions

### Hot Pack

- Prepare meat: Choose freshly killed and dressed, healthy animals. Soak meat for 1 hour in a brine made from 1 tablespoon salt per quart of water. Rinse. Remove excess fat and cut meat into suitable sizes for canning. The meat may be canned with or without bones; be sure to use the appropriate processing time for each.
- Boil, steam or bake meat until about two-thirds done.
- Pack hot meat pieces into hot pint or quart jars, leaving 1¼-inch headspace.
- Ladle hot broth over meat pieces, leaving 1¼-inch headspace.
- Remove air bubbles and adjust headspace if needed. Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- *For meat with bones:* Process pint jars 65 minutes, quart jars 75 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner
- *For meat without bones:* Process pint jars 75 minutes, quart jars 90 minutes at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

### Raw Pack

- Prepare meat: Choose freshly killed and dressed, healthy animals. Soak meat for 1 hour in a brine made from 1 tablespoon salt per quart of water. Rinse. Remove excess fat and cut meat into suitable sizes for canning. The meat may be canned with or without bones; be sure to use the appropriate processing time for each.
- Pack raw meat pieces loosely into hot pint or quart jars, leaving 1¼-inch headspace. Do not add liquid.
- Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- *For meat with bones:* Process pint jars 65 minutes, quart jars 75 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner
- *For meat without bones:* Process pint jars 75 minutes, quart jars 90 minutes at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

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# Fish (catfish, northern pike, salmon, smelt, trout and other fatty fish except tuna)

For best results, freeze (rather than can) panfish such as crappies, perch and bass.

**Caution:** Bleed and eviscerate fish immediately after catching, never more than 2 hours after they are caught. Keep cleaned fish on ice until ready to can.

## Ingredients

fish, cleaned

1 teaspoon salt per pint (optional)

## Directions

**Note:** This recipe is for canning fish in pint jars. To safely can fish in quart jars, different operating instructions must be followed and the processing time is much longer. For directions for canning fish in quart jars, please visit the National Center for Home Food Preservation website at [http://nchfp.uga.edu/how/can5\\_meat.html](http://nchfp.uga.edu/how/can5_meat.html).

### Raw Pack

- Prepare fish: If fish is frozen, thaw it in the refrigerator before canning. Rinse the fish in cold water. You can add vinegar to the water (2 tablespoons per quart) to help remove slime. Remove head, tail, fins and scales. It is not necessary to remove the skin or bones. In most fish, the bones become very soft during processing and are a good source of calcium. Split fish lengthwise, if desired. Cut into 3½-inch lengths. Refrigerate until you are ready to pack in jars.
- Pack fish pieces into hot pint jars, leaving 1-inch headspace. If the skin has been left on the fish, pack pieces skin side out for a nicer appearance, or skin side in for easier jar cleaning.
- Add 1 teaspoon salt to each pint jar, if desired. Do not add liquid.
- Carefully wipe jar rims with a dampened clean paper towel; wipe with a dry paper towel to remove any fish oil. Apply two-piece metal caps.
- Process pint jars 100 minutes at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

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## References

- Andress, E. L., & Harrison, J. A. (2014). *So Easy to Preserve* (6th ed.). Athens, GA: Cooperative Extension, University of Georgia.
- FDA/Center for Food Safety & Applied Nutrition. (n.d.). *Bad bug book – pH values of various foods*. Retrieved November 5, 2014, at: <http://www.fda.gov/Food/FoodborneIllnessContaminants/CausesOfIllnessBadBugBook/ucm122561.htm>.
- Ingham, B. H., Ingham, S. C., & Buege, D. R. (2002). *Canning Meat, Wild Game, Poultry & Fish Safely* (Publication B3345). Madison, WI: Cooperative Extension Publications, University of Wisconsin.
- Jarden Home Brands. (2012). *Ball Blue Book Guide to Preserving*. Daleville, IN: Hearthmark.
- National Center for Home Food Preservation, University of Georgia. (n.d.). *How Do I?... Can Meats*. Retrieved November 12, 2014, at: [http://nchfp.uga.edu/how/can5\\_meat.html](http://nchfp.uga.edu/how/can5_meat.html).
- United States Department of Agriculture. (2009). *USDA Complete Guide to Home Canning* (Agriculture Information Bulletin No. 539). Retrieved January 30, 2014, at: [http://nchfp.uga.edu/publications/publications\\_usda.html](http://nchfp.uga.edu/publications/publications_usda.html).

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