

# Home Canning

## Soups, Stocks, and Stews

---

Canning homemade soups, stocks or stews 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 recipes when canning. Safe, tested recipes for home-canned soups and stews are based on laboratory measurements of pH and heat penetration into the jars during processing, which are specific to the recipe being tested. **Untested recipes from the Internet, books, or grandma's recipe stash should not be canned, since safe processing times for those recipes can't be determined.** Instead, enjoy those soups and stews fresh, or frozen for longer storage.

The recipes included in this publication are research-based for safe home canning. The thickness of the soup or stew affects processing time by changing the rate of heat penetration into the food. **Do not modify recipes, change the amounts of ingredients used, or add any extra ingredients, unless options are given in the recipe.**

Soups, stocks and stews made with meat and/or vegetables are low-acid foods. **To prevent the risk of botulism, they must be processed in a pressure canner.** There are no safe options for processing these foods in a boiling water canner.

### Ingredients

Start with fresh, good quality meats and vegetables. Trim meats, discarding 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 use.

Wash vegetables well, whether or not they will be peeled before cooking. Soil may contain many bacteria, including the spores of *Clostridium botulinum*. For even cooking, cut vegetables into uniformly-sized pieces.

If dried beans or peas are included, they must be fully rehydrated by soaking and boiling before adding to the mixture.

Salt is optional in canning soups, stocks and stews. It is used only for seasoning and does not help to preserve the food.

**Caution: Do not add noodles, other types of pasta, rice, flour, cream, milk, or other thickening agents to soups and stews before canning.** Anything that makes the soup or stew thicker will slow down the heat penetration into the jars and interfere with safe processing. If desired, these ingredients can be safely added to the home-canned products at serving time.



## Filling Jars

Two methods can be used for filling the jars in home canning—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 putting it into the jars. For soups, stocks and stews, the hot pack method is used.

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 and the quality of the final product may suffer.

## 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 and vegetables are low-acid foods, with pH levels ranging from 4.9 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, and the soups and stews made from them, 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. This method prevents the spores from growing into bacterial cells in the canned product and producing the deadly botulism toxin. The high temperature 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.

---

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

---

### 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 home-canned soup, stock, or stew.

# Recipes

---

## Beef Stock (Broth)

### *Ingredients*

- trimmed beef bones (with meat removed)
- 2 onions, quartered (optional)
- 2 carrots, sliced (optional)
- 2 stalks celery, sliced (optional)
- 2 bay leaves (optional)
- water to cover
- salt (optional)

### *Directions*

- Prepare bones: Saw or crack fresh trimmed beef bones to enhance extraction of flavor. Rinse bones.
- Place bones, vegetables and bay leaves (if using) in a large stockpot; add water to cover. Cover pot and simmer 3 to 4 hours. Remove bones and discard. Strain stock; discard vegetables and bay leaves. Cool broth; skim off and discard fat. Add salt to taste, if desired.
- Reheat broth to boiling.
- Fill hot pint or quart jars with hot broth, leaving 1-inch headspace.
- Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- Process pint jars 20 minutes, quart jars 25 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.

# Chicken or Turkey Stock (Broth)

## *Ingredients*

- chicken or turkey carcass bones (with meat removed)
- 2 onions, quartered (optional)
- 2 stalks celery, sliced (optional)
- 2 bay leaves (optional)
- water to cover
- salt (optional)

## *Directions*

- Place bones, vegetables and bay leaves (if using) in a large stockpot; add water to cover. Cover pot and simmer until any remaining tidbits of meat fall easily off the bones, about 30 to 45 minutes. Remove bones and discard. Strain stock; discard vegetables and bay leaves. Cool broth; skim off and discard fat. Add salt to taste, if desired.
- Reheat broth to boiling.
- Fill hot pint or quart jars with hot broth, leaving 1-inch headspace.
- Wipe jar rims with a dampened clean paper towel; apply two-piece metal caps.
- Process pint jars 20 minutes, quart jars 25 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.

# Vegetable Soup

## *Ingredients*

- 8 cups peeled, cored, chopped tomatoes
- 6 cups peeled, cubed potatoes
- 6 cups  $\frac{3}{4}$ -inch sliced carrots
- 4 cups green lima beans
- 4 cups uncooked corn kernels
- 2 cups 1-inch sliced celery
- 2 cups chopped onions
- 6 cups water
- salt (optional)
- pepper (optional)

## *Directions*

- Combine all vegetables in a large saucepot. Add water. Bring to a boil. Reduce heat and simmer 5 minutes. Season with salt and pepper, if desired.
- Ladle hot soup into hot pint or quart jars, 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 55 minutes, quart jars 85 minutes, at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

***Yield:*** about 14 pint jars or 7 quart jars

***Nutritional Analysis:*** (1 cup) 100 calories, 1 g fat, 21 g carbohydrate, 4 g protein

Recipe courtesy of Ball® Canning and Recipes at [www.freshpreserving.com](http://www.freshpreserving.com). Used with permission for educational purposes only.

# Chicken Soup

## *Ingredients*

- 16 cups chicken stock
- 3 cups diced chicken
- 1½ cups diced celery
- 1½ cups sliced carrots
- 1 cup diced onion
- 3 chicken bouillon cubes (optional)
- salt (optional)
- pepper (optional)

## *Directions*

- Combine chicken stock, chicken, celery, carrots and onion in a large saucepot. Bring mixture to a boil. Reduce heat and simmer 30 minutes. Season to taste with salt and pepper, if desired. Add bouillon cubes, if desired. Cook until bouillon cubes are dissolved.
- Ladle hot soup into hot pint or quart jars, 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.

**Yield:** about 8 pint jars or 4 quart jars

**Nutritional Analysis:** (1 cup): 140 calories, 4 g fat, 11 g carbohydrate, 14 g protein

Recipe courtesy of Ball® Canning and Recipes at [www.freshpreserving.com](http://www.freshpreserving.com). Used with permission for educational purposes only.

# Vegetable Soup Your Way

## Ingredients

meat or poultry of your choice (optional)  
fresh vegetables of your choice  
dried beans or peas (optional)  
water, broth or tomato juice  
salt (optional)

### Vegetable Soup Your Way, with Seafood

Cooked seafood can be used in place of meat or poultry in this recipe, but processing times must be increased to ensure safety. If seafood is used, process pint or quart jars for 100 minutes at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

## Directions

- Prepare meat or poultry, if using: Cover with water; simmer until tender. Cool; remove bones and excess fat. Cut meat or poultry into small pieces. Reserve broth, if desired.
- Prepare vegetables: Wash, trim and prepare each vegetable as you would for a hot pack in canning. Preparation directions for selected vegetables are given below. For information on preparing other vegetables, please visit the National Center for Home Food Preservation website at [http://nchfp.uga.edu/how/can4\\_vegetable.html](http://nchfp.uga.edu/how/can4_vegetable.html).
  - » Green beans: Cut into 1-inch pieces. Cover with boiling water; boil 5 minutes; drain.
  - » Carrots: Peel and re-wash; slice or dice. Cover with water and bring to a boil; simmer 5 minutes; drain.
  - » Corn: Blanch ears 3 minutes in boiling water. Cut corn from cob at about three-fourths the depth of a kernel; do not scrape cob. Add 1 cup boiling water to each 4 cups of corn and bring to a boil; simmer 5 minutes; drain.
  - » Okra: Cut into 1-inch pieces. Cover with hot water; boil 2 minutes; drain.
  - » Peas (green): Shell. Cover peas with water; bring to a rolling boil; boil 2 minutes; drain.
  - » Potatoes: Peel; cut into ½-inch cubes. Cover with boiling water; boil 2 minutes; drain.
  - » Tomatoes: Dip in boiling water for 30 to 60 seconds; dip in cold water; slip off skins; remove cores; cut into pieces. Heat to boiling; simmer 5 minutes.
- Prepare dried beans or peas, if using: For each cup of dried beans or peas, add 3 cups of water; boil 2 minutes. Remove from heat; soak 1 hour. Heat again to boiling; drain.
- Combine cooked ingredients with enough hot water, broth or tomato juice to cover. Boil 5 minutes. *Caution:* Do not thicken or add milk, cream, flour, rice, noodles or other pasta. If thickening or additional ingredients are desired, the soup should be canned as directed here and the additions made when the jar is opened for serving.
- Add salt to taste, if desired.
- Using a slotted spoon, fill hot pint or quart jars halfway with the hot meat and vegetable solids. *Caution:* Do not fill jars more than halfway full with solids. Ladle hot cooking liquid over solids, 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 60 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.

Recipe adapted from National Center for Home Food Preservation website. Used with permission for educational purposes only.



# Beef Stew

## *Ingredients*

- 4 to 5 pounds beef stew meat, cut into 1½-inch cubes
- 1 tablespoon vegetable oil
- 12 cups peeled, cubed potatoes
- 8 cups sliced carrots
- 3 cups chopped celery
- 3 cups chopped onion
- 1½ tablespoons salt
- 1 teaspoon thyme
- ½ teaspoon pepper
- water to cover

## *Directions*

- Brown meat in oil in a large saucepot. Add vegetables and seasonings to browned meat. Cover with boiling water. Bring stew to a boil. Remove from heat.
- Ladle hot stew into hot pint or quart jars, 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.

***Yield:*** about 14 pint jars or 7 quart jars

***Nutritional Analysis:*** 180 calories, 4 g fat, 19 g carbohydrate, 18 g protein

Recipe courtesy of Ball® Canning and Recipes at [www.freshpreserving.com](http://www.freshpreserving.com). Used with permission for educational purposes only.

# Hearty Chili

## *Ingredients*

- 4 pounds boneless beef chuck, cut into ½-inch cubes, excess fat removed.
- ¼ cup vegetable oil
- 3 cups diced onion
- 2 cloves garlic, minced
- 5 tablespoons chili powder
- 2 teaspoons cumin seed
- 2 teaspoons salt
- 1 teaspoon oregano
- ½ teaspoon pepper
- ½ teaspoon coriander
- ½ teaspoon crushed red pepper
- 6 cups diced canned tomatoes, undrained (about 4 14.5-ounce cans)

## *Directions*

- Lightly brown meat in hot oil. Add onions and garlic; cook until soft but not brown. Add remaining spices and cook for 5 minutes. Stir in tomatoes. Bring to a boil. Reduce heat and simmer for 45 to 60 minutes, stirring occasionally.
- Ladle hot chili into hot pint or quart jars, 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 or 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.

**Yield:** about 6 pint jars or 3 quart jars

**Nutritional Analysis:** (1 cup) 290 calories, 12 g fat, 12 g carbohydrate, 35 g protein

Recipe courtesy of Ball® Canning and Recipes at [www.freshpreserving.com](http://www.freshpreserving.com). Used with permission for educational purposes only.

# Chili Con Carne

## Ingredients

- 3 cups dried pinto or red kidney beans
- 5½ cups water
- 5 teaspoons salt (divided)
- 3 pounds ground beef or venison, or a combination
- 1½ cups chopped onion
- 1 cup chopped peppers (optional)
- 1 teaspoon black pepper
- 3 to 6 tablespoons chili powder
- 8 cups crushed or whole tomatoes

## Directions

- Soak beans: Wash beans thoroughly and place in a 2-quart saucepan. Add cold water to a level of 2 to 3 inches above the beans. Cover and place in refrigerator to 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 meat, chopped onions and peppers (if desired) in a skillet. Drain off fat. Add 3 teaspoons salt, black pepper, chili powder, tomatoes and drained cooked beans. Bring to a simmer and simmer 5 minutes. *Caution:* Do not thicken.
- Ladle hot chili into hot pint jars, leaving 1-inch headspace. Do not use quart jars for this recipe.
- 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 at 10 pounds pressure in a weighted-gauge pressure canner or at 11 pounds pressure in a dial-gauge pressure canner.

**Yield:** about 9 pint jars

**Nutritional Analysis:** (1 cup) 310 calories, 12 g fat, 28 g carbohydrate, 24 g protein

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

# Beans with Tomato Sauce

## Ingredients

- dried beans
- 1 quart tomato juice
- 3 tablespoons sugar
- 2 teaspoons salt
- 1 tablespoon chopped onion
- $\frac{1}{4}$  teaspoon each of ground cloves, allspice, mace and cayenne
- $\frac{3}{4}$ -inch cubes of pork, ham, or bacon (optional)

## Directions

- Prepare beans: Wash beans. Add 3 cups water for each cup of dried beans. Boil 2 minutes and remove from heat. Soak 1 hour; drain; discard liquid. Cover beans with fresh water and heat to boiling; drain, discard liquid.
- Prepare tomato sauce: Combine tomato juice, sugar, salt, onion and spices. Heat to boiling.
- Fill hot pint or quart jars  $\frac{3}{4}$  full with hot drained beans. Add one cube of pork, ham or bacon to each jar, if desired. *Caution:* Do not add any more meat or bacon. Ladle hot tomato sauce over beans, 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 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.

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

# Baked Beans with Molasses Sauce

## *Ingredients*

- dried beans
- 1 quart water or cooking liquid from beans
- 3 tablespoons dark molasses
- 1 tablespoon vinegar
- 2 teaspoons salt
- 1<sup>3</sup>/<sub>4</sub> teaspoons powdered dry mustard
- 7 cubes (<sup>3</sup>/<sub>4</sub>-inch) of pork, ham or bacon (optional)

## *Directions*

- Prepare beans: Wash beans. Add 3 cups water for each cup of dried beans. Boil 2 minutes and remove from heat. Soak 1 hour; drain, discarding liquid. Cover beans with fresh water and heat to boiling; drain, reserving liquid for use in molasses sauce.
- Prepare molasses sauce: Combine 1 quart water or cooking liquid from beans, molasses, vinegar, salt and dry mustard. Heat to boiling.
- Place pork, ham or bacon cubes in a large casserole or pan. Add beans and enough molasses sauce to cover the beans. Cover pan and bake at 350°F for 4 to 5 hours. Check each hour and add more liquid if needed.
- Ladle hot beans and sauce into hot pint or quart jars, 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 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.

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

## References

- Andress, E.L., and Harrison, J.A. (2014). *So Easy to Preserve* (6th ed.). Athens, GA: Cooperative Extension, University of Georgia.
- FDA/Center for Food Safety and Applied Nutrition. (n.d.). *Bad bug book – pH values of various foods*. Retrieved November 5, 2014, at: <http://www.fda.gov/Food/FoodborneIllness-Contaminants/CausesOfIllnessBadBugBook/ucm122561.htm>.
- Ingham, B.H., Ingham, S.C., and Buege, D.R. (2002). *Canning Meat, Wild Game, Poultry and 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.
- Jarden Home Brands. (2014). *Ball recipes: Find the recipe that is right for you*. Retrieved November 19, 2014, at: <http://www.freshpreserving.com/recipes>.
- National Center for Home Food Preservation, University of Georgia. (n.d.). *How Do I?...Can Vegetables*. Retrieved November 14, 2014, at: [http://nchfp.uga.edu/how/can\\_04/soups.html](http://nchfp.uga.edu/how/can_04/soups.html).
- United States Department of Agriculture. (2009). *USDA Complete Guide to Home Canning* (Agriculture Information Bulletin No. 539). Retrieved November 5, 2014, at: [http://nchfp.uga.edu/publications/publications\\_usda.html](http://nchfp.uga.edu/publications/publications_usda.html).

## Authors

- Sandra Bastin, PhD, RD, LD, Extension Food and Nutrition Specialist*
- Debbie Clouthier, BS, Extension Associate*

---

Mention or display of a trademark, proprietary product or firm in text or figures does not constitute an endorsement and does not imply approval to the exclusion of other suitable products or firms.

---