

# Sweet Corn



## Quantity

A bushel of ears weighs 35 pounds and yields 6 to 11 quarts of whole kernel style or 12 to 20 pints of cream style corn. An average of 31½ pounds (in husks) are needed for a 7-quart canner load of whole kernel corn. An average of 20 pounds is needed for a 9-pint canner load of cream style. An average of 2½ pounds makes 1 pint of frozen whole kernel corn.

## Quality

Preserve the corn within 2 to 6 hours after harvest for the best quality. Use sweet corn varieties for best quality. Select the ears containing slightly immature kernels or of ideal maturity for eating fresh. Sweeter varieties may turn brown when canned, especially if processed at 15 pounds of pressure. Can a small amount and check the color and flavor before canning large amounts.

## Preparation for freezing or canning

Husk the ears, remove the silk, trim out insect-damaged kernels if needed, trim off the ends of the ears to remove the small fibrous kernels, and wash the ears.

*To prepare whole kernel corn for freezing or canning:* Place the ears in 1 gallon of boiling water and blanch 4 minutes after the water returns to a boil. Cool the ears and cut the kernels from the cob at about three-fourths of their depth. Do not scrape the cob.

*To prepare cream style corn for freezing or canning:* Blanch the ears 4 minutes in boiling water. Cool the ears and cut the kernels from the cob at about ⅔ of their depth. Scrape the cob with a knife to remove the remainder of the kernels and combine them with the half-kernels.

*To prepare corn-on-the cob for freezing:* Blanch the small ears (1¼ inches or less in diameter) 7 minutes in boiling water; blanch the medium size ears (1¼ to 1½ inches in diameter) 9 minutes, and the large ears (over 1½ inches in diameter) 11 minutes. Cool in several changes of ice cold water and drain. If desired, cut the ears into uniform 4-, 6-, or 8-inch pieces.

## Freezing

Freeze only up to 2 pounds of food per cubic foot of freezer capacity per day.

*To package whole kernel or cream style corn:* Fill pint- or quart-size freezer bags to a level of 3 to 4 inches from the tops. Squeeze out the air, leave 1-inch head space, label, and freeze. Before freezing, the bags may be inserted into reusable, rigid-plastic freezer containers for added protection against punctures and freezer burn.

*To package corn-on-the cob:* Fill quart or half-gallon freezer bags. Squeeze out the air, seal, label, and freeze.

## Canning

Wash the jars. Prepare the lids according to the manufacturer's instructions. Whole kernel corn may be canned in pints or quarts. Cream style corn must be packed only in half-pint or pint jars due to the denseness of the canned product. If desired, add 1 teaspoon of salt per quart, ½ teaspoon per pint, or ¼ teaspoon per half-pint jar.

*For raw-packed whole kernel style corn:* Fill the jars with corn, leaving 1-inch head space. Do not shake or press down. Add boiling water over the corn in each jar, leaving 1-inch head space. Remove air bubbles and adjust headspace if needed. Wipe the sealing surface of the jars with a clean, damp paper towel, add the lids, tighten the screw bands, and process.

*For hot packs:* Add 1 cup of hot water to each quart of whole kernel and 2 cups of boiling water to cream style corn in a large pan, and heat to boil. Simmer the whole kernel corn 5 minutes. Fill the jars with hot corn and cooking liquid, leaving 1-inch head space. Remove air bubbles and adjust headspace if needed. Wipe the sealing surface of the jars with a clean, damp paper towel, add the lids, tighten the screw bands and process.

*To process in a pressure canner:* Place the jar rack, 2 inches of water, and closed jars in the canner. Fasten the lids, and heat the canner on a high setting. After exhausting the steam for 10 minutes, add the

weighted gauge or close the petcock to pressurize the canner. Start timing the recommended process when the desired pressure is reached according to the table below. Half-pint and 12-ounce jars are processed as for pint jars.

Regulate the heat to maintain a uniform pressure. When the processing is completed, remove the canner from the heat. Air-cool the canner until it is fully depressurized. Then slowly remove the weighted gauge or open the petcock, wait 2 more minutes, and unfasten and carefully remove the canner lid.

Remove the jars from the canner with a jar lifter and place them on a towel or rack. Do not retighten the screw bands. Air-cool the jars 12 to 24 hours. Remove the screw bands and check the lid seals. If the center of the lid is indented, wash, dry, label, and store the jar in a clean, cool, dark place. If the lid is unsealed, examine and replace the jar if defective, use a new lid, and reprocess as before. Wash the bands and store separately. Canned sweet corn is best if consumed within a year and safe as long as the lids remain vacuum sealed.

#### Nutrition per ½ cup

	Whole kernel	Cream style
<b>Calories</b>	66.0	92.0
<b>Carbohydrate</b>	15.2 g	23.0 g
<b>Fat</b>	0.8 g	0.5 g
<b>Protein</b>	2.1 g	2.2 g
<b>Dietary fiber</b>	1.1 g	1.5 g
<b>Sodium</b>		
with salt	278.0 mg	278.0 mg
no salt	11.6 mg	11.6 mg

### Pickled Corn Relish

*Yield:* About 9 pint jars  
10 cups whole kernel corn — Use fresh (16 to 20 medium-sized ears) or frozen (six 10-ounce packages)

- 2½ cups sweet red pepper, diced
- 2½ cups sweet green pepper, diced
- 2½ cups chopped celery
- 1¼ cups chopped onions
- 1¾ cups sugar
- 5 cups vinegar
- 2½ tablespoons salt

- 2½ teaspoons celery seed
- 2½ tablespoons dry mustard
- 1¼ teaspoons turmeric

### Procedure

*Fresh corn:* Remove the husks and silks. Cook the ears of corn in boiling water for 5 minutes; remove and plunge into cold water. Drain and cut the corn from the cob. Do not scrape the cob.

*Frozen corn:* Defrost in the refrigerator overnight or in a microwave oven.

*To make relish:* Combine the peppers, celery, onions, sugar, vinegar, salt, and celery seed in a saucepan. Cover the pan until the mixture starts to boil, then simmer uncovered for 5 minutes, stirring occasionally. Mix the dry mustard and turmeric in a ½ cup of the simmered mixture. Add this mixture with the corn to the hot mixture. Return it to boiling and simmer for 5 minutes, stirring occasionally.

The relish may be thickened when the corn is added by adding ¼ cup of flour blended with ¼ cup of water. Frequent stirring will be necessary to prevent sticking and scorching.

Pack loosely while the mixture is boiling hot into hot pint jars, filling to ½ inch from the top. Remove the air bubbles, wipe the jar rims, and adjust the lids.

### Processing in a boiling-water canner

Fill the canner halfway with water and preheat to 180°F for hot packs or 140°F for raw packs. Load the closed jars onto the canner rack and lower with the handles; or load one jar at a time with a jar lifter onto rack in the canner. Add water, if needed, to a level of 1 inch above the jars. Add the cover. When the water boils vigorously, reduce heat to maintain a gentle boil, and process for the recommended time. Process 15 minutes in a boiling-water bath for altitudes 0 to 1,000 feet.; process 20 minutes for 1,001 to 6,000 feet.

### After processing is completed

Remove the jars from canner with a jar lifter and place them on a towel or rack. Do not retighten the screw bands. Air-cool the jars 12 to 24 hours. Remove the screw bands and check the lid seals. If the center of the lid is indented, wash, dry, label, and store the jar in a clean, cool, dark place. If the lid is unsealed, examine and replace the jar if defective. Use a new lid, and reprocess as before. Wash the screw bands and store separately.

### Nutrition per 1 tablespoon

Calories	11.0	Dietary fiber	0.2 g
Carbohydrate	2.8 g	Vitamin C	3.5 mg
Fat	0.0 g	Sodium	66.0 mg

### Nutrition per 1 cup serving

Calories	104.32
Carbohydrate	21.82 g
Fat	1.06 g
Dietary fiber	3.18 g
Vitamin C	31.92 mg
Sodium	159.24 mg

## Southwestern Vegetable Soup

*Yield:* about 9 pints or 4 quarts

- 6 cups whole kernel corn, uncooked
- 1 quart chopped, peeled, cored tomatoes
- 2 cups chopped, cored, husked tomatillos
- 1 cups sliced carrots
- 1 cup chopped onion
- 1 cup chopped sweet red pepper
- 1 cup chopped sweet green pepper
- ¾ cup chopped and seeded long green pepper, banana pepper, for example
- ¼ cup chopped and seeded hot pepper
- 3 tablespoons minced cilantro
- 2 teaspoons chili powder
- 1 teaspoon cayenne pepper
- 1 teaspoon black pepper
- 1 teaspoon salt
- 6 cups tomato juice
- 1 cup water
- 4 teaspoons hot pepper sauce

Combine all ingredients in a large saucepot. Bring to a boil. Reduce heat and simmer 15 minutes. Ladle hot soup into hot jars, leaving 1-inch headspace. Adjust two-piece caps. Process accordingly.

*Note:* When cutting or seeding hot peppers, wear rubber gloves to prevent hands from being burned.

## Preserving Corn

### Problems and Solutions

#### 1. Why does canned corn turn brown after processing?

This could be due to an unsuitable variety of corn for canning. The corn could have been harvested at the wrong time. The kernels should be plump, shiny, and filled with milk. If liquid does not cover the corn in the jar, it can turn brown. Also, if the processing temperature is too high, it will overcook and cause browning.

#### 2. Why does frozen corn taste “cobby”?

Inaccurate blanching time or not blanching corn at all will cause it to taste like the cob. Be sure to follow recommended blanching times.

#### 3. Can corn-on-the-cob be frozen with the husks on?

There is no way to blanch the cob with the husks on. The quality will deteriorate after 1 to 2 months. The enzymes naturally present in the corn will cause off flavors. For best results, blanching is best.

#### 4. What makes corn expand during processing?

Corn contains starch which absorbs liquid and expands during cooking. Pack corn loosely in jars to allow for expansion.

### Recommended processing times for corn in a pressure canner

Product	Style of pack	Jar size	Process time (min.)	Canner gauge pressure needed at different altitudes (in feet)			
				Dial gauge (lbs.)		Weighted gauge (lbs.)	
				0- 2,000	2,001-4,000	0-1,000	Above 1,000
Corn, cream style	Hot	Pints	85	11	12	10	15
Corn, whole kernel	Hot or raw	Pints	55	11	12	10	15
		Quarts	85	11	12	10	15
Southwestern Vegetable Soup	Hot	Pints	55	11	12	10	15
		Quarts	85	11	12	10	15

**Revised by Karen Blakeslee, M.S., Extension Associate, Food Science**

Adapted from *Preserving Sweet Corn* by Karen P. Penner, Ph.D., Foods and Nutrition, and Jeanne Dray, Extension Assistant, Foods and Nutrition, April 1995; *Complete Guide to Home Canning*, USDA AIB No. 539, 2009; and *So Easy to Preserve*, 5th ed., The University of Georgia Cooperative Extension Service.

Some information provided by Jarden Home Brands, makers of Ball Brand Fresh Preserving Products. ©2010 Hearthmark, LLC dba Jarden Home Brands. All Rights Reserved. Distributed by Hearthmark, LLC dba Jarden Home Brands, Daleville, IN 47334. Hearthmark, LLC is a subsidiary of Jarden Corporation (NYSE: JAH).

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available on the World Wide Web at: [www.ksre.ksu.edu](http://www.ksre.ksu.edu)

Publications are reviewed or revised annually by appropriate faculty to reflect current research and practice. Date shown is that of publication or last revision. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit

Karen Blakeslee, et al., *Preserving Sweet Corn*, Kansas State University, October 2010.