

How to Can Fresh Vegetables

Susan Mills-Gray
State Nutrition Specialist

Vegetables are at peak quality for six to 12 hours after harvesting. Vegetables picked from your garden or purchased from nearby producers are usually good for canning. If you must delay canning fresh vegetables, keep them refrigerated until you are ready to begin.



For safety's sake

Pressure canning is the only safe method for canning vegetables. *Clostridium botulinum*, the bacterium that causes botulism food poisoning, is destroyed in low-acid foods, such as vegetables, when they are processed for the correct amount of time at the correct temperature in pressure canners.

- Canning low-acid foods in boiling-water canners is absolutely unsafe because the botulinum bacteria can survive this process.
- If *Clostridium botulinum* bacteria survive and grow inside a sealed jar of food, they can produce a poisonous toxin.

It's OK to skip the salt

Salt seasons vegetables, but it is not necessary for safety. It is perfectly safe to can vegetables without adding salt. Add salt substitutes when serving vegetables, but not when canning. If added before the canning process, salt substitutes may cause a bitter taste. If you do add salt, be sure to use canning salt. Please refer to MU Extension publication [GH1451, The Basics of Safe Canning](#), for information on correct canning procedures and the steps to follow in pressure canning.

Note

Use only tested recipes from the U.S. Department of Agriculture Cooperative Extension Service or the Ball Blue Book (dated 1989 or later). Follow canning procedures from the same sources dated 2009 or later.

Asparagus—spears or pieces

Quantity

For eight to 12 quart jars, you need an average of 24 pounds of fresh asparagus.

A crate weighs 30 pounds and yields 10 to 15 quarts (an average of 2 to 3 pounds per quart).

Quality

Use tender, tight-tipped spears, 4 to 6 inches long.

Procedure

Wash asparagus. Trim off tough scales, break off tough stems and wash again. Cut into 1-inch pieces or leave whole.

Hot pack

Cover asparagus with boiling water. Boil 2 or 3 minutes. Loosely fill jars with hot asparagus; leave 1 inch of headspace.

Raw pack

Fill jars with raw asparagus, pack as tightly as possible without crushing, and leave 1 inch of headspace.

Final steps

Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Add boiling water; leave 1 inch of headspace. Adjust lids, and process as directed in [Table 1](#).

Beans or peas—shelled and dried (all varieties)

Quantity

For each 7-quart canner load, you need an average of 5 pounds of dried beans or peas. For each 9-pint canner load, you need an average of 3¼ pounds of dried beans or peas (an average of ¾ pound per quart).

Quality

Select mature, dry seeds. Sort out and discard discolored beans.

Procedure

Place dried beans or peas in a large pot, and cover with water. Soak 12 to 18 hours in a refrigerator. Drain water or, to save time, cover sorted and washed beans or peas with boiling water in a saucepan. Boil 2 minutes, remove from heat, soak 1 hour, and drain.

After soaking beans or peas, cover with fresh water and boil 30 minutes. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar if desired. Fill jars with beans or peas and cooking water; leave 1 inch of headspace. Adjust lids, and process as directed in [Table 1](#).

Beans, fresh lima—shelled

Quantity

For each 7-quart canner load, you need an average of 28 pounds of fresh, shelled lima beans. For each 9-pint canner load, you need an average of 18 pounds of fresh, shelled lima beans.

A bushel weighs 30 pounds and yields 5 to 8 quarts (an average of 4 to 5 pounds per quart).

Quality

Select well-filled pods with green seeds. Discard insect-damaged and diseased seeds.

Procedure

Shell beans, and wash thoroughly.

Hot pack

Cover beans with boiling water, and heat to boil. Boil 3 minutes. Fill jars loosely; leave 1 inch of headspace.

Raw pack

Fill jars loosely with raw beans. Do not press or shake down.

Small beans

Leave 1 inch of headspace for pints and 1½ inches for quarts.

Large beans

Leave 1 inch of headspace for pints and 1¼ inches for quarts.

Final steps

Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar if desired. Add boiling water; leave the same headspace listed above. Remove air bubbles. Adjust lids and process as directed in [Table 1](#).

Beans, snap and Italian—pieces (green and wax)

Quantity

For each 7-quart canner load, you need an average of 14 pounds of fresh beans. For each 9-pint canner load, you need an average of 9 pounds of fresh beans.

A bushel weighs 30 pounds and yields 15 to 20 quarts (an average of 1½ to 2 pounds per quart).

Quality

Select filled but tender, crisp pods. Remove and discard diseased and rusty pods.

Procedure

Wash beans and trim ends. Leave whole, cut or snap into 1-inch pieces.

Hot pack

Place beans in a large saucepan, and cover with boiling water; boil 5 minutes. Fill jars; leave 1 inch of headspace.

Raw pack

Fill jars with raw beans, pack tightly, and leave 1 inch of headspace.

Final steps

Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to the jar, if desired. Add boiling water; leave 1 inch of headspace. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Beets—whole, cubed or sliced

Quantity

For each 7-quart canner load, you will need an average of 21 pounds of fresh beets (without tops). For each 9-pint canner load, you will need an average of 13½ pounds of fresh beets.

A bushel of beets (without tops) weighs 52 pounds and yields 17 to 20 quarts (an average of 2½ to 3 pounds per quart).

Quality

Beets with a diameter of 1 to 2 inches are preferred for whole packs. Beets larger than 3 inches in diameter are often fibrous and tough.

Procedure

Trim off beet tops; leave 1 inch of stem and root to reduce bleeding of color. Scrub well. Cover with boiling water. Boil until skins slip off easily, about 15 to 25 minutes depending on size. Cool just enough to remove skins. Trim off stems and roots. Leave baby beets whole. Cut medium or large beets into ½-inch cubes or slices. Halve or quarter very large slices.

Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Fill jars with hot beets and fresh hot water; leave 1 inch of headspace. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Carrots—sliced or diced

Quantity

For each 7-quart canner load, you will need an average of 17½ pounds of fresh carrots (without tops). For each 9-pint canner load, you will need an average of 11 pounds of fresh carrots. A bushel of carrots (without tops) weighs 50 pounds and yields 16 to 20 quarts (an average of 2½ to 3 pounds per quart).

Quality

Select small carrots, preferably 1 to 1¼ inches in diameter. Larger carrots are often too fibrous and tough.

Procedure

Wash, peel and rewash carrots. Slice or dice.

Hot pack

Cover with boiling water, bring to boil again and simmer for 5 minutes. Fill jars; leave 1 inch of headspace.

Raw pack

Fill jars with raw carrots, packing tightly.

Final steps

Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Add boiling cooking liquid or water; leave 1 inch of headspace. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Corn—cream style

Quantity

For each 9-pint canner load, you will need an average of 20 pounds of sweet corn (in husks). A bushel weighs 35 pounds and yields 12 to 20 pints (an average of 2¼ pounds per pint).

Quality

Select ears containing slightly immature kernels or corn that is at the ideal stage or maturity for eating fresh.

Procedure

Husk corn, remove silk and wash ears. Blanch ears 4 minutes in boiling water. Cut corn from cob at about the center of the kernel. Scrape remaining corn from cobs with a table knife.

Caution

Quart jars are not recommended due to the denseness of the canned product.

Hot pack

Add 1 cup of boiling water for each 2 cups of corn. Heat to boiling.

Add ½ teaspoon canning salt to each pint jar, if desired. Fill pint jars with hot corn mixture; leave 1 inch of headspace. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Corn—whole kernel

Quantity

For each 7-quart canner load, you need an average of 31½ pounds of sweet corn (with husks). For each 9-pint canner load, you need an average of 20 pounds of sweet corn.

A bushel weighs 35 pounds and yields 8 to 9 quarts (an average of 4½ pounds per quart).

Quality

Select ears containing slightly immature kernels at the ideal stage of maturity for eating fresh. Some of the sweeter varieties may turn brown during the canning process. Kernels that are too immature may also turn brown. This discoloration does not affect safety. For best quality, can a small amount and check color and flavor before canning large quantities.

Procedure

Remove husks and silk, and wash corn. Blanch 3 minutes in boiling water. Cut corn from cob at about three-fourths the depth of the kernel.

Caution

Do not scrape the cob.

Hot pack

Place kernels in a saucepan. Add 1 cup of hot water for each quart of corn, heat to boiling and simmer 5 minutes. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Fill jars with corn and cooking liquid; leave 1 inch of headspace.

Raw pack

Fill jars with raw kernels; leave 1 inch of headspace. Do not shake or press down. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Add fresh boiling water; leave 1 inch of headspace.

Final steps

Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Okra

Quantity

For each 7-quart canner load, you need an average of 11 pounds of fresh okra. For each 9-pint canner load, you need an average of 7 pounds of fresh okra.

A bushel weighs 30 pounds and yields 19 to 21 quarts (an average of 1½ pounds per quart).

Quality

Select young, tender pods. Remove and discard diseased and rust-spotted pods.

Procedure

Wash pods and trim ends. Leave whole or cut into 1-inch pieces. Cover with hot water in a saucepan, boil 2 minutes and drain. Fill jars with hot okra and cooking liquid; leave 1 inch of headspace. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar if desired. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Peas, green or English—shelled

Note

Sugar snap and Chinese edible podded peas should be frozen for best quality.

Quantity

For each 7-quart canner load, you need an average of 31½ pounds of fresh peas (in pods). For each 9-pint canner load, you need an average of 20 pounds.

A bushel weighs 30 pounds and yields 6 to 8 quarts (an average of 4½ pounds per quart).

Quality

Select filled pods containing young, tender, sweet seeds. Discard diseased pods.

Procedure

Shell and wash peas. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired.

Hot pack

Cover with boiling water. Bring to a boil in a saucepan, and boil 2 minutes. Fill jars with hot peas (don't pack tightly), and add cooking liquid. Leave 1 inch of headspace.

Raw pack

Fill jars with raw peas, and add boiling water; leave 1 inch of headspace. Do not shake or press down peas.

Final steps

Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Peppers—hot or sweet

Types

Chili, jalapeño and pimento peppers.

Caution

If you choose hot peppers, wear plastic gloves while handling them, or wash hands thoroughly with soap and water before touching your face.

Quantity

For each 9-pint canner load, you need an average of 9 pounds of fresh peppers.

A bushel weighs 25 pounds and yields 20 to 30 pints (an average of 1 pound per pint).

Quality

Select firm yellow, green or red peppers. Do not use soft or diseased peppers.

Procedure

Select your favorite pepper(s). Leave small peppers whole. Cut large peppers into quarters. Remove cores and seeds. Slash 2 or 4 slits in each pepper, and either blanch in boiling water or blister in an oven or broiler.

Oven or broiler method

Place peppers in a hot oven (400 degrees F) or broiler for 6 to 8 minutes until skins blister.

Allow peppers to cool. Place in a pan, and cover with a damp cloth to make peeling the peppers easier. After several minutes, peel each pepper. Flatten whole peppers. Fill jars loosely with peppers, and add fresh boiling water; leave 1 inch of headspace. Add ½ teaspoon canning salt to each pint jar, if desired. Adjust lids, and process as directed in [Table 1](#).

Potatoes, sweet—pieces or whole

Caution

It is unsafe to dry-pack or can mashed or pureed sweet potatoes.

Quantity

For each 7-quart canner load, you need an average of 17½ pounds of potatoes. For each 9-pint canner load, you need an average of 11 pounds of fresh potatoes.

A bushel weighs 50 pounds and yields 17 to 25 quarts (an average of 2½ pounds per quart).

Quality

Choose small to medium potatoes. They should be mature and not too fibrous. Can within 1 to 2 months after harvest.

Procedure

Wash potatoes, and boil or steam just until tender, about 15 to 20 minutes. Remove skins. Cut potatoes into uniform pieces. Fill jars; leave 1 inch of headspace. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Cover with fresh boiling water or syrup. (See MU Extension publication [GH1455, How to Can Fresh Fruit](#), for syrup directions.) Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Potatoes, white—cubed or whole

Quantity

For each 7-quart canner load, you need an average of 35 pounds of potatoes. For each 9-pint canner load, you need an average of 22½ pounds of potatoes.

A 50-pound bag yields 8 to 12 quarts (an average of 5 pounds per quart).

Quality

Select small-to-medium, mature potatoes of ideal quality for cooking. Potatoes stored below 45 degrees F may discolor when canned. Choose potatoes with a 1- to 2-inch diameter if they are to be packed whole.

Procedure

Wash and peel potatoes. Place in ascorbic acid solution to prevent darkening. (See MU Extension publication [GH1455, How to Can Fresh Fruit](#).) If desired, cut into ½-inch cubes. Drain. Cook cubed potatoes 2 minutes in boiling water, and drain again. For whole potatoes, boil 10 minutes and drain. Add 1 teaspoon canning salt per quart, or ½ teaspoon per pint, to each jar, if desired. Fill jars with hot potatoes and fresh hot water; leave 1 inch of headspace. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Pumpkins and winter squash

Caution

It is unsafe to can mashed or pureed pumpkins or squash. Instead, cut pumpkins or squash into cubes.

Quantity

For each 7-quart canner load, you need an average of 16 pounds of pumpkins or squash. For each 9-pint canner load, you need 10 pounds of pumpkins or squash (an average of 2¼ pounds per quart).

Quality

Pumpkins and squash should have a hard rind and stringless, mature pulp of ideal quality for cooking fresh. Small pumpkins (sugar or pie varieties) make better canned products.

Procedure

Wash, remove seeds, cut into 1-inch-wide slices and peel. Cut flesh into 1-inch cubes. Boil 2 minutes in water. Fill jars with cubes and cooking liquid; leave 1 inch of headspace. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Spinach and other greens

Note

Greens can be canned, but freezing results in a better product.

Quantity

For each 7-quart canner load, you need an average of 28 pounds of fresh spinach or other greens. For each 9-pint canner load, you need an average of 18 pounds of fresh spinach or other greens. A bushel weighs 20 pounds and yields 3 to 9 quarts (an average of 4 pounds per quart).

Quality

Can only freshly harvested greens. Discard any wilted, discolored, diseased or insect-damaged leaves. Leaves should be tender and attractive in color.

Procedure

Wash only small amounts of greens at a time. Drain water and continue rinsing until water is clear and free of grit. Cut out tough stems and midribs. Place 1 pound of greens at a time in cheesecloth bag or blancher basket and steam 3 to 5 minutes, or until wilted thoroughly.

Fill jars loosely with greens, add fresh boiling water and leave 1 inch of headspace. Add ½ teaspoon canning salt to each quart jar, or ¼ teaspoon per pint, if desired. Remove air bubbles. Adjust lids, and process as directed in [Table 1](#).

Table 1

Recommended process times for vegetables in a pressure canner.

				Canner gauge pressure needed at different altitudes (in feet) Weighted gauge (lbs.)		
Product	Style of pack	Jar size	Process time (minutes)	Dial gauge (pounds) 0–2,000	0 to 1,000 feet	Above 1,000 feet
Asparagus	Hot or raw	Pints	30	11	10	15
		Quarts	40	11	10	15
Beans or peas, shelled dried	Hot or raw	Pints	75	11	10	15
		Quarts	90	11	10	15
Lima beans	Hot or raw	Pints	40	11	10	15
		Quarts	50	11	10	15
Beans, snap and Italian	Hot or raw	Pints	20	11	10	15
		Quarts	25	11	10	15
Beets	Hot or raw	Pints	30	11	10	15
		Quarts	35	11	10	15
Carrots	Hot or raw	Pints	25	11	10	15
		Quarts	30	11	10	15
Corn, cream style	Hot	Pints	85	11	10	15
Corn, whole kernel	Hot or raw	Pints	55	11	10	15
		Quarts	85	11	10	15
Okra	Hot	Pints	25	11	10	15
		Quarts	40	11	10	15
Peas	Hot or raw	Pints	40	11	10	15
		Quarts	40	11	10	15
Peppers, hot or sweet	Hot	Pints	35	11	10	15

				Canner gauge pressure needed at different altitudes (in feet) Weighted gauge (lbs.)		
Product	Style of pack	Jar size	Process time (minutes)	Dial gauge (pounds) 0–2,000	0 to 1,000 feet	Above 1,000 feet
Potatoes, sweet	Hot	Pints Quarts	65 90	11 11	10 10	15 15
Potatoes, white	Hot	Pints Quarts	35 40	11 11	10 10	15 15
Pumpkin and winter squash	Hot	Pints Quarts	55 90	11 11	10 10	15 15
Spinach and other greens	Hot	Pints Quarts	70 90	11 11	10 10	15 15