



Glossary of Canning Terms¹

United States Department Of Agriculture, Extension Service²

Acid foods - Foods which contain enough acid to result in a pH of 4.6 or lower. Includes all fruits except figs; most tomatoes; fermented and pickled vegetables; relishes; and jams, jellies, and marmalades. Acid foods may be processed in boiling water.

Altitude - The vertical elevation of a location above sea level.

Ascorbic acid - The chemical name for vitamin C. Lemon juice contains large quantities of ascorbic acid and is commonly used to prevent browning of peeled, light-colored fruits and vegetables.

Bacteria - A large group of one-celled microorganisms widely distributed in nature. See microorganism.

Blancher - A 6 to 8 quart lidded pot designed with a fitted perforated basket to hold food in boiling water, or with a fitted rack to steam foods. Useful for loosening skins on fruits to be peeled, or for heating foods to be hot packed.

Boiling-water canner - A large standard-sized lidded kettle with jar rack, designed for heat-processing 7 quarts or 8 to 9 pints in boiling water.

Botulism - An illness caused by eating toxin produced by growth of *Clostridium botulinum* bacteria in moist, low-acid food, containing less than 2 percent oxygen, and stored between 40 degrees and 120 degrees F. Proper heat processing destroys this bacterium in canned food. Freezer temperatures inhibit its growth in frozen food. Low moisture controls its growth in dried food. High oxygen controls its growth in fresh foods.

Canning - A method of preserving food in air-tight vacuum-sealed containers and heat processing sufficiently to enable storing the food at normal-home temperatures.

Canning salt - Also called pickling salt. It is regular table salt without the anticaking or iodine additives.

Citric acid - A form of acid that can be added to canned foods. It increases the acidity of low-acid foods and may improve the flavor and color.

Cold pack - Canning procedure in which jars are filled with raw food. "Raw pack" is the preferred term for describing this practice. "Cold pack" is often used incorrectly to refer to foods that are open-kettle canned or jars that are heat-processed in boiling water.

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Enzymes - Proteins in food which accelerate many flavor, color, texture, and nutritional changes, especially when food is cut, sliced, crushed, bruised, and exposed to air. Proper blanching or hot-packing practices destroy enzymes and improve food quality.

Exhausting - Removal of air from within and around food and from jars and canners. Blanching exhausts air from live food tissues. Exhausting or venting of pressure canners is necessary to prevent a risk of botulism in low-acid canned foods.

Fermentation - Changes in food caused by intentional growth of bacteria, yeast, or mold. Native bacteria ferment natural sugars to lactic acid, a major flavoring and preservative in sauerkraut and in naturally fermented dills. Alcohol, vinegar, and some dairy products are also fermented foods.

Headspace - The unfilled space above food or liquid in jars. Allows for food expansion as jars are heated, and for forming vacuums as jars cool.

Heat processing - Treatment of jars with sufficient heat to enable storing food at normal home temperatures.

Hermetic seal - An absolutely airtight container seal which prevents reentry of air or microorganisms into packaged foods.

Hot pack - Heating of raw food in boiling water or steam and filling it hot into jars.

Low-acid foods - Foods which contain very little acid and have a pH above 4.6. The acidity in these foods is insufficient to prevent the growth of the bacterium *Clostridium botulinum*. Vegetables, some tomatoes, figs, all meats, fish, seafoods, and some dairy foods are low acid. To control all risks of botulism, jars of these foods must be (1) heat processed in a pressure canner, or (2) acidified to a pH of 4.6 or lower before processing in boiling water.

Microorganisms - Independent organisms of microscopic size, including bacteria, yeast, and mold. When alive in a suitable environment, they grow rapidly and may divide or reproduce every 10 to 30 minutes. Therefore, they reach high populations very quickly. Undesirable microorganisms cause disease and food spoilage. Microorganisms are sometimes intentionally added to ferment foods, make antibiotics, and for other reasons.

Mold - A fungus-type microorganism whose growth on food is usually visible and colorful. Molds may grow on many foods, including acid foods like jams and jellies and canned fruits. Recommended heat processing and sealing practices prevent their growth on these foods.

Mycotoxins - Toxins produced by the growth of some molds on foods.

Open - Kettle canning A non-recommended canning method. Food is supposedly adequately heat processed in a covered kettle, and then filled hot and sealed in sterile jars. Foods canned this way have low vacuums or too much air, which permits rapid loss of quality in foods. Moreover these foods often spoil because they become recontaminated while the jars are being filled.

Pasteurization - Heating of a specific food enough to destroy the most heat-resistant pathogenic or disease-causing microorganism known to be associated with that food.

pH - A measure of acidity or alkalinity. Values range from 0 to 14. A food is neutral when its pH is 7.0: lower values are increasingly more acidic; higher values are increasingly more alkaline.

Pickling - The practice of adding enough vinegar or lemon juice to a low-acid food to lower its pH to 4.6 or lower. Properly pickled foods may be safely heat processed in boiling water.

Pressure canner - A specifically designed metal kettle with a lockable lid used for heat processing low-acid food. These canners have jar racks, one or more safety devices, systems for exhausting air, and a way to measure or control pressure. Canners with 20- to 21-quart capacity are common. The minimum volume of canner that can be used is 16-quart capacity, which will contain 7 quart jars. Use of pressure saucepans with less than 16-quart capacities is not recommended.

Raw pack - The practice of filling jars with raw, unheated food. Acceptable for canning low-acid foods, but allows more rapid quality losses in acid foods heat processed in boiling water.

Spice bag - A closeable fabric bag used to extract spice flavors in a pickling solution.

Style of pack - Form of canned food, such as whole, sliced, piece, juice, or sauce. The term may also be used to reveal whether food is filled raw or hot into jars.

Vacuum - The state of negative pressure. Reflects how thoroughly air is removed from within a jar of processed food--the higher the vacuum, the less air left in the jar.

Yeasts - A group of microorganisms which reproduce by budding. They are used in fermenting some foods and in leavening breads.