# How to Buy CANNED AND FROZEN VEGETABLES



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# How to Buy CANNED AND FROZEN VEGETABLES

Canned and frozen vegetables, preserved at the peak of goodness, can be used as an entree...as a side dish in a main meal...or included in salads, souffles, and other tasty dishes. They are convenient to use and are always available.

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# Points to Consider

Nutritive value...wholesomeness...quality... convenience...informative labeling...and methods of use are some of the points to consider when purchasing canned and frozen vegetables.

#### **Nutritive Value**

Canned and frozen vegetables provide a variety of vitamins and minerals, they are low in fat, and they provide fiber. USDA nutritionists recommend 3 to 5 servings from the vegetable group each day. Count as a serving 1/2 cup cooked vegetable or 3/4 cup vegetable juice. Salt is usually added when vegetables are canned, but some salt-free products are available. Both canned and frozen vegetables are available in butter or cream sauces, which may be high in fat or salt. Go easy on the fat and salt added during cooking or at the table in the form of spreads, sauces, dressings, seasonings, and toppings.

#### Wholesomeness

When you buy canned vegetables, be sure the cans are not leaking, or bulged at either end. Bulging or swelling cans indicate spoilage. Do not taste the contents. Badly dented cans should always be avoided. Small dents in cans, however, usually do not harm the contents.

Packages of frozen vegetables should be firm. Vegetables should be used immediately after defrosting to avoid loss of quality. Purchases of packages that are limp, wet, or sweating should be avoided. These are signs that the vegetables have defrosted or are in the process of defrosting. Packages stained by the contents or with ice on the outside may have been defrosted and refrozen at some stage in the marketing process. The contents may be safe to eat, but refrozen vegetables will normally not taste as good as freshly frozen vegetables.

#### Grades for Canned and Frozen Vegetables

All canned and frozen vegetables are wholesome and nutritious, but they can differ in quality. The difference in quality may mean a difference in taste, texture and appearance of the vegetable, and its price. Because different qualities of vegetables are suited to different uses, you can make better buys by choosing processed vegetables of the quality that fits your needs.

The U.S. Department of Agriculture's Agricultural Marketing Service has established U.S. grade standards as measures of quality for many canned and frozen vegetables. USDA also provides an inspection service which certifies the quality of processed vegetables based on these U.S. grade standards. The inspection service is voluntary and paid for by the user. Under the program, processed vegetables are inspected by highly trained specialists during all phases of preparation, processing, and packaging.

The grade standards are used extensively by processors, buyers, and others in wholesale trading to establish the value of a product described by the grades. If you've been selecting canned or frozen vegetables by habit, or can't tell which can or package would be best for the use you have in mind, here's some information that can help you make a wise choice.

**U.S. Grade A** Grade A vegetables are carefully selected for color, tenderness, and freedom from blemishes. They are the most tender, succulent, and



flavorful vegetables produced. The term "fancy" may appear on the label to reflect the Grade A product.

**U.S. Grade B** Grade B vegetables are of excellent quality but not quite as well selected for color and tenderness as Grade A. They are usually slightly more mature and therefore have a slightly different taste than the more succulent vegetables in Grade A.

**U.S. Grade C** Grade C vegetables are not so uniform in color and flavor as vegetables in the higher grades, and they are usually more mature. They are a thrifty buy when appearance is not too important, for instance, if you are using the vegetable as an ingredient in a soup, stew, or casserole.

Other names may be used to describe the quality grades of canned or frozen vegetables—Grade A as "Fancy," Grade B as "Extra Standard," and Grade C as "Standard."

The brand name of a frozen or canned vegetable may also be an indication of quality. Producers of nationally advertised products spend considerable money and effort to maintain the same quality for their brand labels year after year. Unadvertised brands may also offer an assurance of quality, often at a slightly lower price. Many stores, particularly chain stores, carry two or more qualities under their own name labels (private labels).

#### Labels

When a product has been officially graded under continuous inspection, labels may carry the official grade name and the statement "Packed under continuous inspection of the U.S. Department of Agriculture." The grade name and the statement may also appear with shields or without shields.

You may find USDA grade shields on cans or packages of vegetables that have been packed under continuous USDA inspection.



Sometimes the grade name, such as "Grade A," is indicated on the label without the "U.S." in front of it. A canned or frozen vegetable with this designation must measure up to the quality stated, even if it has not been officially inspected for grade.

Federal regulations require that the following information be included on the label of a can or package:

- The common or usual name of the vegetable.
- The form (or style) of vegetable, such as whole, slices, or halves. If the form is visible through the package, it need not be stated.
- For some vegetables, the variety or color.
- Liquid in which a vegetable is packaged must be listed near the name of the product.
- The total contents (net weight) must be stated in ounces for containers holding 1 pound or less. Weight must be given in both total ounces and in pounds and ounces (or pounds and fractions of a pound) for products containing a net weight of 1 to 4 pounds.

The net weight shown on a label includes both vegetables and liquid. For the best buy, figure out the cost per ounce. Large containers often cost less per ounce, but not always. Other information required on the label, although not on the front panel, is:

- Ingredients, such as spices, flavoring, coloring, or special sweetener, if used.
- Any special type of treatment.
- The packer's or distributor's name and place of business.

Nutritional information.

Labels may also give the quality or grade, count, size, and maturity of the vegetables, cooking directions, and recipes or serving ideas. If the label lists the number of servings per container, the law requires that the size of the serving be given in common measures, such as ounces or cups.

#### **Commercial Processing**

Vegetables for canning and freezing are grown especially for that purpose, and the processing preserves much of their nutritional value. Both canning and freezing plants are usually located in the vegetable production areas so the harvested vegetables can be quickly brought to the plant for processing while fresh and at their peak in quality.

In today's modern plants, most of the processing is done by automated equipment and there is little handling of the vegetables by the plant workers. This high-speed process brings us sanitary, wholesome products, preserved with good flavor and quality.

The initial work in preparing canned or frozen vegetables is similar. At the processing plant, the fresh product is usually sorted into sizes by machine and washed in continuously circulating water or sprays of water. Some vegetables, such as carrots, beets and potatoes, are mechanically peeled. Next, they are moved onto conveyer belts where plant workers do any additional peeling or cutting prior to preparation for the various styles (whole, cut, sliced, etc.).

#### **Canned Vegetables**

Cans or glass jars are filled with vegetables by semiautomatic or automatic machines. Next, the containers are moved to machines that fill them with the correct amount of brine or liquid and then to machines that pre-heat them prior to automatically sealing them. The sealed containers are then cooked under carefully controlled conditions of time and temperature to assure that the product will keep without refrigeration. After the containers are cooled, they are stored in cool, dry, well-ventilated warehouses until they are shipped to market. 6

Vegetables sold in glass jars with screw-on or vacuum-sealed lids are sealed tightly to preserve the contents. If there is any indication the lid has been tampered with, return the jar to the store and report the matter to the store manager.

#### Frozen Vegetables

After initial preparation, vegetables that are to be frozen are usually blanched, or slightly pre-cooked. This pre-cooking process ensures that the frozen vegetables will retain much of their natural appearance and flavor for long periods of time in storage. Without blanching, the product would prematurely turn brown or oxidize before it could be marketed. The vegetables, after freezing, are packaged in polyethylene bags of varying sizes or may be packaged in retail-size fiber cartons with a labeled overwrap that identifies the product.

#### Sizes and Servings

Deciding which size can or package you should buy is sometimes difficult, because canned and frozen vegetables are packed by net weight rather than volume. Also, the amount obtained from a particular size of container varies according to the styles of vegetables and different ways of using them.

Industry terms for containers of canned vegetables are sometimes given in recipes. Common fiber carton sizes for frozen vegetables range from 8 to 32 ounces, with equivalent metric weights provided in parentheses. Vegetables packaged in large plastic bags are usually from 16 ounces to 32 ounces. You may find it more economical to buy the large plastic bag, because you can use part of the contents for one meal and put the rest back in your freezer to serve later.

#### Home Storage

Proper storage is important in maintaining the quality of processed vegetables. If you keep unopened canned vegetables in a place no warmer than 75 °F., they will usually retain their quality for a year or more. The color, flavor, and texture of canned vegetables that have been stored at very high temperatures or for prolonged periods of time may not stay at top quality, but the vegetables will still be safe to eat. Once a can has been opened, the vegetables should be refrigerated if it is not for immediate use. Vegetables stored in a refrigerator usually will keep well for only a few days.

To maintain the quality of frozen vegetables for a longer period of time, store them in a freezer that can maintain a temperature of 0  $^{\circ}$ F. or lower. If you wish to use only a portion of an opened package, be sure to return the remaining portion to the freezer before it has thawed.

#### Styles, Seasonings, and Sauces

Both canned and frozen vegetables are sold in many forms or styles. Carrots, green beans, potatoes, and other vegetables may be found whole, cut, sliced, diced, and in other forms.

Whole vegetables generally cost more than cut styles because they are specially selected for appearance and uniformity of size, shape, and color. Whole vegetables make attractive servings, either hot or cold.

Short-cut green beans, diced carrots, and tomato pieces are examples of the least expensive styles of processed vegetables, and the styles that are best used in soups, souffles, and stews. Many frozen vegetables are available in butter or cream sauces, with mushrooms, or other garnishes or flavorings. Some canned vegetables are also available in butter sauces or with other garnishes, such as tomatoes with green peppers and onions. Such vegetables, of course, cost more than the plain product, but let you serve something different without any extra work.

#### Consumer's Guide

The grade and style of a vegetable, whether or not special seasonings or sauces are added, all affect the cost of the processed product. It may determine the 8

best way to serve the vegetable, so you get the most for your money and the most out of the vegetable.

Selecting the style, seasonings, and sauces is easy enough, because these are shown on the label. The grade or quality often is not indicated, but you can learn to tell differences in quality by trying different processors' or distributors' products.

To help you choose the vegetable that will suit the use you have in mind, some of the most popular vegetables, along with the styles in which the vegetables are available, are described in the list that follows.

#### Artichokes

Artichoke hearts, the tender inner part of the vegetable, are available frozen and canned. Artichoke hearts are also packed in vinegar and sauces, to be used like pickles or hors d'oeuvres. Canned whole artichokes are also available, and they may be served like the fresh vegetable. The repeated handpicking necessary to harvest artichokes makes it a relatively expensive vegetable.

#### Asparagus

Asparagus is more expensive than other vegetables, because much of the harvesting and preparation during processing is done by hand. The spear, or stalk, consists of the stem and head (tip). There are two types of asparagus: green and white. Green asparagus is canned or frozen; white asparagus is canned. White asparagus is a delicacy, produced by mounding earth around the plants so that the stalks develop entirely underground. Sometimes canned asparagus is packed in glass jars with a note on the label that a color preservative (stannous chloride) has been added. Some canned asparagus is such a delicate product.

#### Beans, baked, kidney, and others

Many varieties of mature dry beans are processed by canning. Baked beans are processed in tomato sauce or brown sugar and molasses, usually with pork, and cooked in ovens. Small white beans and lima beans are also available in tomato sauce, sometimes with a small amount of pork or meat flavoring. Red or kidney beans are prepared in a sweetened sauce or clear salt brine.

Top-quality, mature dry beans have a smooth sauce, and few broken or mashed beans are found in a can. Because of the unusually high protein content and food energy of these vegetables, they may be used as main dishes as well as side dishes or ingredients in salads.

#### Beans, green and wax

Called string beans before the development of stringless varieties, or snap beans, pole beans, or bush beans when they are fresh, the canned and frozen products are usually known as green beans and wax beans. Wax beans are so called because of their waxy yellow color. There is little difference in nutritional value of the two types of beans, but green beans are better known. "Blue Lake," a popular variety of green beans used for canning and freezing, is often named on the can or package. Italian or "Romano" green beans are large flat beans.

Styles of both frozen and canned green and wax beans are: whole, French-style, cut, and a mixture of cuts of various lengths. Whole-style beans are sometimes packed vertically in cans. When beans are of about the same length and packed vertically, they may be labeled "whole asparagus style." Beans sliced lengthwise are labeled "French-style," "julienne," or "shoestring." Beans labeled "cuts" or "short cuts" are sliced crosswise. Beans cut diagonally are sometimes called "kitchen cuts" or "home cuts."

#### Beans, lima

Several types of lima beans are canned and frozen. The Fordhook variety, a name often shown on labels, is a large, thick bean. Several varieties of lima beans have small, thin beans. These are usually called baby limas. Lima beans are white, yellow, or green, depending on the variety and their maturity when harvested. Each color has its own flavor. Green limas are usually the youngest beans.

Speckled butter beans are another variety of lima bean, found mostly in frozen form. They are larger than most other lima beans and have a different flavor. These beans range in color from green, pink, and red to lavender and purple, with brown, purple, and other speckling.

Top-quality lima beans are less starchy than the lower grade and baby limas are less starchy than the larger beans.

#### Beets

Canned beets are available whole, sliced, quartered, diced, and in strips. Beets prepared in a slightly thickened, sweet vinegar sauce are called Harvard beets.

#### Broccoli

Frozen broccoli is prepared as whole spears or stalks, short spears or florets (the head with a short portion of the stalk), cuts or pieces, and chopped.

The highest quality frozen broccoli looks much like the fresh vegetable. It has compact bud clusters that are dark green or sage green, sometimes with a decidedly purplish cast. Second-quality broccoli may have slightly spread bud clusters.

#### **Brussels Sprouts**

Brussels sprouts are a member of the cabbage family and they look like miniature cabbages. They get their name from Brussels, Belgium, where they originated. Top-quality frozen Brussels sprouts have tight-fitting leaves and are free from defects.

#### Cabbage

Sauerkraut is one form of processed cabbage. The shredded cabbage is fermented in a brine of its own juice and salt, and it may be flavored with peppers, pimentos, tomatoes, and various spices. It is available canned and in refrigerated packages, and, at times, a semi-fresh product is sold from barrels or similar containers. "Sweet and sour" red cabbage is also sold.

#### Carrots

Canned and frozen carrots are available whole, quartered, diced, as strips, round slices (cuts), and chips (frozen only). Canned small baby whole carrots are especially flavorful.

#### Cauliflower

Frozen cauliflower is separated into florets before it is frozen. Top-grade cauliflower is white to creamywhite while the lower grade often looks slightly gray or brown, but usually turns white when cooked.

#### Corn

Processed sweet corn is found in various forms, styles, and grades. Canned corn may be cream style, with large or small pieces of kernels in a thick, creamy sauce prepared from corn, salt, sugar, water and sometimes small amounts of starch. Another canned style is whole-grain, with the kernels generally whole and packed in a relatively clear liquid. Vacuum-pack is a canning process with whole-grain kernels intact, but little or no liquid present. Most canned corn is prepared from yellow or goldencolored varieties, but some white corn also is canned. "Shoe peg" corn, a whole-grain white corn, has small, narrow kernels with a distinctly sweet flavor.

Most frozen corn is whole-grain yellow or golden corn. A considerable amount is frozen on the cob.

#### Both canned and frozen corn may have peppers or pimentos or other foods added for flavor or appearance.

# Hominy

Hominy is prepared from the mature kernels of sweet corn or regular field corn. The kernels are soaked and cooked slightly. Then the hard outer covering is removed before further processing. Hominy is available in plastic bags in refrigerator cases, but it is usually canned either in a brine or as jellied hominy. It is a starchy vegetable like potatoes or sweet corn and is served hot. Jellied hominy may be sliced and fried like potato cakes.

#### **Mixed Vegetables**

There are many varieties of mixed vegetables available, both canned and frozen. Most of them contain vegetables of top quality. These blends are usually more expensive than buying the vegetables individually, because they require more handling, but they are tasty and convenient to use.

Among the traditional vegetable blends are: peas and carrots, succotash, and the product called "mixed vegetables."

"Mixed vegetables" are usually a combination of green beans, lima beans, carrots, corn, and peas. Sometimes diced potatoes are added to this mixture when the product is canned.

Succotash is a mixture of beans and corn. Canned succotash may contain cream-style or whole-grain corn and lima or green beans, with or without tomatoes added. Frozen succotash normally consists of white or yellow corn and lima beans. The proportion of corn and beans in both canned and frozen succotash may vary somewhat from packer to packer.

These more traditional mixed vegetable products have been joined by many new combinations, especially frozen. Among the new frozen blends, which are

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sometimes packed with sauces, are peas and small onions; vegetables for making stew; oriental or other exotic mixtures; and a mixture of vegetables, such as peas and mushrooms with rice.

#### Mushrooms

Mushrooms are canned in several styles: whole (including the stems), as buttons (the top only), sliced, and stems and pieces. They are sometimes processed in butter, and broiled before they are canned. You may also find frozen mushrooms in some stores.

#### Okra

Sometimes called "gumbo," okra is quite popular in the Southern States. It is often used to flavor and thicken gumbos or thick soups. Since okra is now available canned and frozen, its use is spreading to other regions.

Small whole okra pods and pods cut into rings are available both canned and frozen. Canned, fermented okra is partially fermented in a salt brine and has an acid, kraut-like flavor. Usually firm, with a bright green color, canned, fermented okra may be served as a side dish, but is usually used in soups or other foods. Small okra pods are also available pickled.

### Onions

Whole onions are available both canned and frozen, and breaded onion rings are available frozen. Canned whole onions are usually packed in a salt brine. Topgrade canned and frozen onions are specially selected for variety, size, and shape so that they will keep their good appearance during processing.

#### Peas, Southern varieties

Several varieties of peas are known as black-eyed or Southern peas, and sometimes by other names such as "cream" and "purple hull." These immature, succulent peas are both canned and frozen. Sometimes a few "snaps," tender pieces of the pod, are included with the peas for flavor or garnish. Some canned Southern peas are prepared from mature dry peas. These peas are somewhat starchy and have a different flavor.

#### Peas, green

Either canned or frozen, peas are one of the most popular processed vegetables. Different varieties are grown for the two methods of processing, because of the different effects of canning and freezing on flavor and color. Two types of peas are used for canning: the smooth-skinned, early or early June type, and the dimple-skinned or sweet type. Most peas for freezing are of the sweet type, especially developed for deepgreen color.

Many canned peas are sorted for size: tiny, small, medium small, medium large, large, or extra large. Sizes are often shown on the label.

"Garden run" or "field run" means no size separation has been made. "Assorted sizes" means two adjacent sizes. "Mixed sizes" means three or more sizes. "Sifted" means that some sizes have been removed.

Frozen peas are not usually sized, although a limited supply of excellent-quality small round or early June type peas is frozen.

The higher quality canned peas are tender and flavorful. Their color is the typical soft pea-green and their packing liquid is slightly green and water-like. Offcolor peas are rarely found in a can. Lower grades of canned peas tend to be mealy and do not taste as sweet, although they are not off flavor. Their color may be variable with a few off-color or broken peas in a can. Also, the liquid may be slightly cloudy, or light green.

#### Peppers

Both green and red peppers are frozen whole, with or without stems, as well as halved, sliced, and diced. Frozen peppers are convenient to use for stuffing or a garnish. Red and green peppers are sometimes available canned.

#### Potatoes

Processed white potatoes are available in many forms, including canned, small whole, or sliced potatoes and french-fried shoe strings, vacuum-packed and readyto-eat. Frozen potatoes, in many sizes and shapes, are available either fried or unfried. The frozen unfried products are ready-to-cook patties and whole, sliced, diced, or shredded potatoes. Frozen french fried potatoes include the ever-popular strips, sliced or diced products, patties, and puffs. Most frozen french fries for home use are designed for preparation in the oven, although deep or shallow frying also produces excellent results.

Top-quality frozen french fries can range in length from 2 to 3 inches, although the length of the french fries in individual packages should be fairly uniform. Top-quality french fries also have a uniform color (from light to medium brown when "fried"). They are uniform in shape and have few if any defects such as dark spots and pieces of peel. Texture may vary a little from brand to brand depending on the variety of potato used by the packer, but french fries should be tender, cooked throughout, and not soggy. Traditional french fries are moderately crisp on the surface while shoestrings and dices may be quite crisp throughout.

#### Spinach and Other Greens

Various leafy greens are available in canned or frozen form. Among them are spinach, collards, kale, mustard, turnips (with or without immature roots), poke salad, endive, and Swiss chard. Spinach is processed whole leaf, cut leaf, and chopped styles, sometimes with various sauces and flavorings. The highest grade of these products is produced from young, tender plants.

#### Squash

Canned and frozen summer squash is prepared from small succulent squashes usually cut crosswise. Several varieties are available, including the flavorful zucchini. Canned and frozen winter squashes, very similar to pumpkin, are usually cooked and ready for use as a vegetable or in a pie filling.

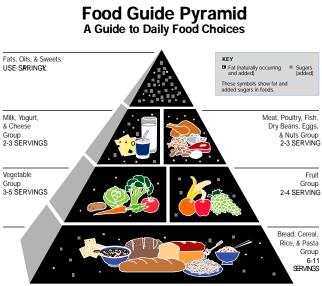
#### Sweet Potatoes

Processed sweet potatoes come in many forms. Canned sweet potatoes may be vacuum-packed (without any liquid), in a syrup with or without garnishes like mandarin oranges and pineapple, or solid pack (lightly packed with little liquid). They are canned in the styles of whole, halved, mashed, or as pieces. Frozen sweet potatoes are available whole or halved, baked, stuffed in a shell, sliced, french cut, diced, mashed, and sometimes formed into cakes.

#### Tomatoes

Canned tomatoes are usually peeled and packed in their own juice, but they may have some added tomato pulp or semi-solid paste. The higher grades have a better color, usually more whole than broken pieces, and are practically free from peel, core, and other defects.

Many canned tomato specialties are also available. They include pear or plum-shaped tomatoes and slices, dices, and wedges which are firm and have little juice. Many of these can be used in salads. Other specialties are: stewed tomatoes, which contain onion, pepper and other flavorful ingredients; tomatoes and okra; tomatoes and hot peppers; and crushed tomatoes. For information about nutrition, write: U.S. Department of Agriculture, Human Nutrition Information Service, 6505 Belcrest Road, Hyattsville, MD 20782.



Source: U.S. Department of Agriculture/U.S. Department of Health and Human Services

Use the Food Guide Pyramid to help you eat better every day...the Dietary Guidelines way. Start with plenty of Breads, Cereals, Rice, and Pasta; Vegetables; and Fruits. Add two to three servings from the Milk group and two to three servings from the Meat group. Each of these food groups provides some, but not all, of the nutrients you need. No one food group is more important than another - for good health you need them all. Go easy on the fats, oils, and sweets, the foods in the small tip of the Pyramid.

The "Food Guide Pyramid" booklet (U.S. Department of Agriculture, Human Nutrition Information Service, August 1992, Leaflet No. 572) can be purchased from the Consumer Information Center, Department 119-A, Pueblo, CO 81009. Make check or money order payable to the Superintendent of Documents.

# HOW TO BUY CANNED AND FRO-ZEN VEGETABLES

#### Look for the U.S. Grade Name

The U.S. Grade name on a can or package means the vegetable has been packed under continuous USDA inspection. The grade name or the continuous inspection statement may be shown within the USDA shield.

#### Know the Grade

**Grade A:** Top quality in tenderness, flavor, appearance, and uniformity. They make the most attractive servings for special luncheons or dinners.

**Grade B:** Very good quality, slightly more mature and not quite as tender as Grade A vegetables.

**Grade C:** Not as uniform in color and flavor as the higher grades and usually more mature. These vegetables are generally to be used as an ingredient in soups, souffles, casseroles, stews, etc.

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