

FREEZEN M S II FRUITS

WITHDRAWN
and

VEGETABLES for VARIETY

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The preservation of food by freezing, properly conducted, preserves the fresh color and flavor of the products better than any other method. Although frozen foods are not sterile, they are considered safe from a public health standpoint if properly handled. There is less vitamin destruction by this method of preservation than by the home-canning methods.



Figure 1. Container for vegetables; (1) End-opening paperboard container with a lining of moisture-proof, vapor-proof, heat-sealing paper; (2) Glass container; (3) Heavily waxed tub type container.



Figure 2. Different packs of Corn; (1) Corn-off-the-cob, packed in a 2 percent brine; (2) Corn off-the-cob, packed dry; (3) Corn on-the-cob.

STEPS IN PREPARATION

Recommended steps in the preparation of fruits and vegetables for freezing are summarized in Tables 1 and 2.

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TABLE I. PROCEDURE IN FREEZING DIFFERENT KINDS OF VEGETABLES

Vegetable	Variety ¹	Harvesting	Handling	Preparation	Scalding	Packing ²	Containers ¹
Asparagus	Mary Washington	Same as for canning	Handle immediately after harvesting	Cut stems in desired lengths, remove scales, wash (avoid using iron utensils)	2-3 minutes in boiling water	Dry pack or 2% brine	Glass jars or leakproof paperboard containers
Beans, lima (fresh)	Jackson Wonder Early Baby Potato	Discard mature, dry beans	Handle immediately after harvesting	Shell	2-3 minutes in boiling water	2% brine ¹	Glass jars or leakproof paperboard containers
Beans, green	Bountiful Green pod stringless Plentiful	Immature, free from fiber in side walls	Handle immediately after harvesting	As for canning	2-4 minutes in boiling water	Dry pack ¹ or 2% brine	Glass jars or leakproof paperboard containers
Beans, wax	Webber wax Topnotch golden wax	Immature, free from fiber in side walls	Handle immediately after harvesting	As for canning	2-4 minutes in boiling water	Dry pack ¹ or 2% brine	Glass jars or leakproof paperboard containers
Corn, on-the-cob ³	Kingscrot ML3 Golden Bantam	In the "milk stage." Discard all ears that are immature. Harvest in the cool of the morning.	Avoid self-heating. Place in ice water if delay in handling is unavoidable.	Husk	Scald 6-8 minutes in boiling water (The long scald is necessary to retard the enzyme activity of the cob)	Wrap each ear ¹ in moisture-proof, vapor-proof paper	Pack ears loosely in cardboard boxes of convenient size
Corn, wholecut	Kingscrot ML3 Golden Bantam	In the "milk stage." Discard all ears that are immature. Harvest in morning	Avoid self-heating. Place in ice water if delay is unavoidable.	Husk. After scalding, cut kernels from ear	2-3 minutes in boiling water	2% brine ¹	Glass jars or leakproof paperboard containers
Peas	Little Marvel Laxton's Progress Thomas Laxton	Just right for table; avoid immaturity	Handle immediately after harvesting	Shell; discard large, starchy peas	1-3 minutes in boiling water	2% brine ¹	Glass jars or leakproof paperboard containers
Spinach and other greens		Before blossom appears and while leaves are tender	Cool with ice water to hold for short periods	Wash thoroughly; discard tough or injured leaves and large tough stems	1-2 minutes in boiling water	Dry pack or 2% brine	Glass jars or leakproof paperboard containers

1/ Based on the results of 2 years research.

2/ The 2% brine can be made by dissolving 4 level teaspoonfuls of table salt in one quart of water.

3/ Corn frozen on the cob is not as good as corn frozen off the cob.

TABLE 2. PROCEDURE IN FREEZING DIFFERENT KINDS OF FRUITS

Fruit	Qualities Desirable For Freezing Storage	Harvesting	Handling	Preparation	Packing ¹	Containers
Raspberries	Rich color, flesh plump, resistant to crumbling, minimum seediness	Fully ripe, firm. Do not harvest after a rain or during very warm weather.	Discard poorly formed, sunburned and unripe berries. Keep fruit cool; handle immediately after harvesting.	Wash, drain thoroughly to empty cavity of berry.	Syrup pack.	Glass jars or leak-proof paperboard containers.
Strawberries	Good flavor, bright color, firm texture, no white centers or tips, no hollow centers, resistant to bruising.	Full red color, no over-ripe or soft berries.	Handle immediately after harvesting. Keep cool.	Hull, wash thoroughly, drain carefully. Use whole chopped or sliced.	Syrup pack.	Glass jars or leak-proof paperboard containers.
Peaches	Freestone varieties only, yellow-fleshed varieties preferred.	Firm, ripe stage, flesh gives slightly when pressed.	Avoid bruising, handle immediately after harvesting.	Scald in boiling water 1/2 min. so that skin can be removed easily. Slice directly into container.	Syrup pack. (Syrup <u>must</u> cover fruit)	Glass jars.
Plums	Tart flavor.	Fully tree-ripened.	Can be held for short periods before preparing.	Wash, halve, pit, slice if preferred.	Syrup pack.	Glass jars, leak-proof paperboard containers.
Rhubarb	Deep, red color, tender, absence of fibers.	As for fresh use.	Can be held for short period.	Wash, trim, cut into 1-inch pieces.	Syrup pack.	Glass jars, leak-proof paperboard containers.

¹/ Fruits should be packed in cold syrup. Syrups having concentration of 30-60% may be used. Following are the proportions of sugar and water to use for approximate concentration levels: 30% syrup, 2 cups sugar to 1 qt. water; 40% syrup, 3 1/4 c. sugar to 1 qt. water; 50% syrup, 4 2/3 c. sugar to 1 qt. water; 60% syrup, 7 cups sugar to 1 qt. water.

Note: In compiling the foregoing tables the following publications were referred to:

Diehl, H. C. and Miriam Birdseye.
1938. Storage of Fruits and Vegetables in Community Freezer Lockers.
U.S.D.A. Misc. Ext. Pub. 47, 35 pp.

Knowles, Darline and Ole Grottodden.
1941. The Suitability of Different Varieties of Vegetables for Sharp Freezing.
North Dakota Bimo. Bul. 3, No. 6.

GENERAL DIRECTIONS

1. The first step to successful freezing of fruits and vegetables is a *careful selection of varieties*. (See table)
2. Vegetables and fruits should be frozen the *same day* they are harvested.
3. *All vegetables must be scalded in boiling water*, the length of time depending upon the kind of vegetable. (See table)
4. After scalding, vegetable *must be cooled quickly* by plunging into a large volume of cold water.
5. Vegetables may be either packed dry or in a cold, weak salt brine. The kind of vegetable determined the kind of pack. (See table)
6. All fruits should be packed in a *cold sugar syrup*. Fruits packed in sugar syrup should be placed in the chill room at 30-35° F. for 1-2 hours before freezing. This allows the sugar to penetrate the fruit.
7. The best kind of a container to use is an *air-tight container*, such as glass jars. Paperboard containers made especially for frozen foods may be used, but they must be leak-proof.
8. Both fruits and vegetables should be *frozen at 0° F.* and stored at a *constant temperature of 0° F.*
9. *All vegetables must be cooked before eating*. It is best to cook the vegetables while frozen.
10. Fruits should be eaten when partially thawed or soon after they are completely thawed.