

South Dakota State University  
**Open PRAIRIE: Open Public Research Access Institutional  
Repository and Information Exchange**

---

Cooperative Extension Circulars: 1917-1950

SDSU Extension

---

6-1918

## Home Canning: One Period, Cold Pack Method

R. McNeill

Follow this and additional works at: [http://openprairie.sdstate.edu/extension\\_circ](http://openprairie.sdstate.edu/extension_circ)

 Part of the [Agriculture Commons](#)

---

### Recommended Citation

McNeill, R., "Home Canning: One Period, Cold Pack Method" (1918). *Cooperative Extension Circulars: 1917-1950*. Paper 4.  
[http://openprairie.sdstate.edu/extension\\_circ/4](http://openprairie.sdstate.edu/extension_circ/4)

This Circular is brought to you for free and open access by the SDSU Extension at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Cooperative Extension Circulars: 1917-1950 by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact [michael.biondo@sdstate.edu](mailto:michael.biondo@sdstate.edu).

# HOME CANNING

## One Period, Cold Pack Method

By

Roberta McNeill

State Home Demonstration Leader

EXTENSION DIVISION  
SOUTH DAKOTA STATE COLLEGE OF  
AGRICULTURE AND MECHANIC ARTS

C. LARSEN, Director

Cooperative Extension Work in  
Agriculture and Home Economics,  
South Dakota State College and  
U. S. Department of Agriculture,  
Cooperating

Brookings. South Dakota

## HOME CANNING

### One Period, Cold Pack Method

It is unnecessary to point out at the present time the necessity of home canning. Home canned vegetables and fruits will aid materially in solving the present food problems. Of all the methods used in home canning, the one period cold pack process has given the greatest satisfaction. This consists of preparing the material, packing it uncooked in clean jars and sterilizing the material and jars at the same time. The advantages of this method are:

1. Time is saved.
2. Flavor is retained.
3. Spoilage is lessened.
4. Texture is improved
5. Color is better.

By this method meats, and vegetables such as asparagus, beans, peas, corn and greens as well as fruits may be canned successfully, if directions are followed and ordinary precautions observed.

#### Equipment

In order to use the cold pack method elaborate equipment is not required. It is necessary to have a vessel deep enough to allow the cans to be entirely covered with water, such as a deep pail, lard can or wash boiler. This vessel will be more satisfactory, if it has a tight fitting cover to prevent the escape of steam. There must also be a rack so that the cans will be raised at least an inch from the bottom of the vessel. The rack may be either metal or wood, but in order to make sterilization more certain, should be open so the water can circulate freely about the cans. If the rack is of wood, it should be weighted so it will remain in place. Clean stones or pieces of metal may be used. Tongs or some device for lifting out the hot cans make the work easier. A square of cheese cloth to be used in blanching is useful. Such things as sharp knives, bowls, measuring cups, can fillers, etc., add to the ease of doing the work. A steamer deep enough to accommodate the cans may be used in place of the boiler. In using a steamer allow time for the material to come to the boiling point and then use the time table for the water bath method.

#### Commercial Canning Outfits

Commercial outfits\* are used because they accommodate more cans, may be used out doors or shorten the time for sterilizing, not because they do better work than the home made outfit. Directions for using these accompany each outfit and should be followed explicitly.

\*A list of firms manufacturing canning outfits will be mailed upon request.

### Containers

Any container that can be sealed air tight as soon as the sterilizing is finished may be used. For home canning, glass cans are the most satisfactory. These should be washed clean, fitted with new rubbers and tested before being used. To test a can: Fill partly with water, adjust rubber and top and fasten tightly. Invert for several minutes on a dry space. If the can leaks, find out the cause and remedy if possible, by re-placing rubber, re-adjusting top, tightening spring, etc. It is not necessary to sterilize the cans before filling with material, but it is advisable to have them hot, so that the boiling water or syrup will not crack the glass.

### Rubbers

Use new rubbers of the best quality available. Used rubbers should never be risked, as they in all probability will not stand the boiling, even if they do not show leakage when tested. If possible, get a rubber manufactured by a reliable establishment that puts its name on the package.

#### Description of good rubbers for standard pint and quart cans.

1. Should be 5-16 of an inch wide.
2. Should measure 12 to the inch.
3. Should stretch and return promptly to original shape.
4. Should be reasonably firm and stand abrupt bending without breakage.

**To test a rubber**, place on can, fill with hot water and boil for three hours. Texture of rubber should be good at end of the period.

## STEPS IN THE PROCESS

### Selection of Material

In order to have the best results, the material put into the cans must be of good quality. It should be fresh and crisp—canned as soon after gathering as possible. Woody peas, stringy beans or wilted greens etc., always result in a product that is below par.

### Preparation of Material

Prepare by washing carefully and removing blemishes. Sort and grade in order to have best appearance and fullest pack.

### Blanching and Scalding

All vegetables and the fruits that require peeling are blanched or scalded. This is done by placing the material in actively boiling water and allowing it to remain there for the specified time (see time table on last page.) Instead of boiling water steam may be used. Greens and asparagus are much more satisfactory if blanched

in steam. A wire basket or a square of cheese cloth makes blanching much easier. There are four reasons for blanching.

1. To shrink the material so the cans will be full.
2. To remove objectionable acids and flavors in some cases.
3. To improve color as the hot water starts the flow of coloring material to the surface.
4. To assist in the sterilizing process.

#### **Cold Dipping**

Blanche specified time; remove at once and plunge into water as cold as possible for a minute or so. Do not allow to soak. Reasons for cold dipping:

1. To make the texture firmer by stopping the cooking.
2. To improve the color—the cold water fixes the coloring matter started by the blanching process.
3. To assist in the sterilizing process.

#### **Packing**

Material should be placed in the hot cans, wasting as little space and having as attractive an appearance as possible. A long handled spoon or a spatula is useful in placing the larger fruits and vegetables. For smaller things or those that crush easily, it is advisable to shake into place. For corn leave a 1-4 in. to 1-2 in. space at the top of can to allow for swelling. Add 1 tsp. salt to one quart of vegetables and cover with boiling water. For fruits either boiling water or boiling syrup of the desired consistency may be used. Place rubber and adjust top. If a screw top, use no pressure (use thumb and little finger only.) If a spring top, place but not clamp spring. If a vacuum jar place top and spring as usual.

#### **Sterilizing**

Have water as near the boiling point as possible before putting in the cans to avoid over-cooking. Water should come over the tops of the cans at least an inch, and if it evaporates during the boiling process, boiling water should be added to replace it. The time should be counted after the water actively boils. Water should be kept actively boiling during the entire process. Cans should be removed as soon as the required time for sterilizing is up.

#### **Sealing**

Tighten cans completely as soon as removed from boiler. Invert till cool to test for leakage. If a rubber has bulged during the sterilizing, remove top and put on a new rubber. Place top, return to boiler and boil for a few minutes. If for any other reason it seems desirable to remove the top, proceed in the same way.

### **Making Syrup**

Fruits may be kept quite as well in water as in syrup. The flavor is usually somewhat better, if some sugar is added, however. The density of the syrup depends upon the fruit and individual tastes. A thick syrup usually results in better color. Either cane or beet sugar may be used with equally good results. Corn syrup or honey may be used to replace all or part of the sugar.

### **Storage**

Store cans in a dry place to avoid mold growth. A cool uniform temperature is best. Light does not cause spoilage, but it does fade the fruit.

### **For Satisfactory Canning**

1. Select first class material.
2. Prepare and can as soon after gathering as possible.
3. Use new rubbers of good quality.
4. Test cans before filling.
5. Sterilize in actively boiling water.
6. Count time accurately from the time water boils. Use a clock and mark down the time.
7. Take out as soon as time is up to avoid over-cooking.
8. Tighten tops as soon as cans come from water.
9. To avoid shrinkage: blanch and pack carefully, keep water over tops of cans when boiling, adjust tops moderately and allow water to circulate about cans.
10. To avoid the "flat sour" condition: use fresh materials, work quickly and follow directions carefully. Corn, peas, beans and asparagus seem most susceptible to "flat sour."
11. Cool cans as quickly as possible but avoid a draft.
12. Can a small amount at a time, work quickly and become thoroughly familiar with process before attempting large amounts.

### **Canning Compounds**

Commercial canning compounds as well as all acids, etc., used to preserve fruit and vegetables are not only unnecessary but detrimental to health when used in sufficient quantity to prevent spoilage.

**Recipes****TOMATOES**

Select ripe (not over-ripe) tomatoes. Scald to loosen skins, plunge into cold water, remove skins, pack, add tomato juice to fill can. Add one teaspoon salt to quart. Place rubber, put top on loosely—sterilize 22 minutes in boiling water, tighten covers and invert to cool.

**PEAS**

Blanch 5-10 minutes in boiling water. Plunge into cold water. Pack. Add boiling water and one level teaspoon salt to quart, place rubber, put top on loosely—sterilize 180 minutes in boiling water. Remove jars, tighten covers and invert to cool.

**GREENS AND ASPARAGUS**

Blanch by steaming 15-20 minutes. Plunge into cold water, pack into jars. Add one teaspoon salt to quart. Place rubber, put top on loosely and sterilize 120 minutes in boiling water. Remove jars, tighten covers and invert to cool.

**SWEET CORN**

Select when in prime condition. Can as soon after picking as possible. Husk and remove silks. Blanch 5-10 minutes. Plunge into cold water. Cut from cob. Fill can. Pack as closely as possible by shaking the can, leaving one-half inch of space at top. Add boiling water to cover corn and one teaspoon of salt to the quart. Place rubber, put top on loosely and sterilize 3 hours in boiling water. Remove jars, tighten covers and invert to cool.

**VEGETABLE COMBINATIONS**

Prepare, blanch and cold dip each vegetable as for canning. Combine and pack into cans. Add boiling water and one teaspoon salt to the quart. Place rubber, put top on loosely. If the combination contains tomatoes, sterilize 120 minutes, if not 180 minutes. Remove jars, tighten covers and invert to cool.

**SOFT FRUITS AND BERRIES**

Can fresh sound fruit. Cleanse by placing in colander and pouring water over. Pack in container. Add boiling syrup of desired consistency. Place rubber, put top on loosely. Sterilize 16 minutes in boiling water. Remove jars, tighten tops and invert to cool.

**STRAWBERRIES**

Prepare fresh strawberries. To one quart berries add 1 cup (8 oz.) sugar and 2 tablespoons water. Boil slowly for 15 minutes. Allow to set over night in covered vessel. Pack into jars. Place rubber, put top on loosely, sterilize 8 minutes in boiling water. Remove jars, tighten tops and invert to cool.

**Canning Meat**

Meat may be canned successfully by the one-period cold pack process. Beef, pork, mutton, chicken and game when in excess of actual needs should be canned for future use.

**BEEF, PORK AND MUTTON**

Use fresh meat. Sear the meat in a hot oven, hot fat or in boiling water. Steam, simmer or roast it for 30 minutes. Remove surplus fat and bones and pack into jars. Fill the space in the cans with hot stock or boiling water. Add one teaspoon of salt to each quart. Place rubber, put top on loosely—sterilize for 3 hours. Remove jars, tighten tops and invert to cool.

**FOWLS—CHICKEN, DUCK, ETC.**

After cooling cut into pieces and roast or steam till tender. Pack into jars. Add liquid, place rubber, put top on loosely and sterilize for 3 hours. Remove jars, tighten tops and invert to cool.

**SPRING CHICKEN**

Clean and prepare spring frys, season and fry as for table use. Cook till about three-fourths done. Pack into cans, pour liquid from griddle over the chicken, place rubber, put top on loosely and sterilize 90 minutes. Remove jars, tighten tops and invert to cool.



### Altitude Changes

Times given are calculated for quart cans at an altitude of 1000 feet. Increase this ten percent for each additional 500 feet above sea level. For larger cans increase time slightly.

### Time Table

Products	Scald or	Steri-	Products	Scald or	Steri-
	Blanch	lize in		Blanch	lize in
	Minutes	Home-		Minutes	Home-
		made			made
		Outfit			Outfit
		Minutes			Minutes
<b>Fruit—</b>			<b>Vegetables—</b>		
Apples .....	1½	20	Asparagus .....	15	120
Apricots .....	1-2	16	Beans .....	5-10	120
Blackberries .....		16	Beets .....	5	90
Blueberries .....		16	Brussels		
Buffalo			Sprouts .....	5-10	120
berries .....		16	Cabbage .....	5-10	120
Cherries .....		16	Carrots .....	5	90
Currants .....		16	Cauliflower .....	3	60
Dewberries .....		16	Corn .....	5-10	180
Gooseberries ..	1-2	16	Greens .....	15	120
Grapes .....		16	Hominy .....	3	120
Huckle-			Lima Beans .....	5-10	180
berries .....		16	Parsnips .....	5	90
Juices .....		15	Peas .....	5-10	180
Peaches .....	1-2	16	Peppers, Sweet..	5	90
Pears .....	1½	20	Peppers, Green		
Pine-apple .....	3	20	or ripe .....	5-10	120
Plums .....		16	Pumpkin .....	3	120
Quince .....	1½	20	Sauerkraut .....	3	120
Raspberries .....		16	Squash .....	3	120
Rhubarb .....	2	16	Sweet Potatoes..	5	90
Strawberries ..		16	Swiss Chard .....	15	120
			Tomatoes .....	1½	22
			Turnips .....	5	90
<b>Meats—</b>			<b>Vegetable com-</b>		
Beef .....		180	binations with		
Pork .....		180	tomato .....	5-10	120
Poultry .....		180	Without tomato	5-10	180
Spring Chicken					
(fried) .....		90			
Fish .....	5	180			