

GOVERNMENT OF THE PROVINCE OF SASKATCHEWAN

DEPARTMENT OF AGRICULTURE

PRESERVATION OF FOOD

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The preservation of all food-stuffs depends upon two principles:

1. The destruction of germ life.
 2. The prevention of further growth of germ life.
- The common methods used for the destruction of germ life are:
1. Employing temperatures unfavorable to germ life, viz. (1) cooking—in which the destruction of germ life is accomplished by heat; (2) cold storage—in which the growth of germ life is retarded or destroyed by cold.
 2. Use of antiseptics, viz. (1) sugar—antiseptic in large proportionate quantities; (2) spices; (3) acid (vinegar); (4) salt; (5) alcohol; (6) chemical preservatives, which may be looked upon as adulterants, such as borax (used to preserve milk and meat), salicylic acid, benzoate of sodium, etc. (used to preserve meat).
- The common methods used for the prevention of further growth are:
1. Sealing—to exclude air and hence germ life.
 2. Drying—to get rid of moisture, one of the conditions favorable to germ life.

HOUSEHOLD METHODS OF PRESERVING FRUIT AND VEGETABLES

1. **Canning**—In this process little or no sugar or any other preservative is used—preservation depends on perfect sterilization and exclusion of air by sealing.
2. **Preserving**—(applied to fruits). Large proportionate quantities of sugar are used. Fruit is sealed to prevent formation of moulds. The products come under the names of jam, jelly, marmalade, tutti-frutti. **Note**—Alcohol is used in tutti-frutti.
3. **Pickling**—Vinegar and salt are used as preservatives, with or without sugar or spice.
4. **Drying**—Used to preserve fruits, as apples, quinces, berries, etc., also vegetables, as herbs, peas, beans and lentils, cereals

CANNING

General directions where sugar is used:

- (1) Select fresh, firm fruit of good quality, not over-ripe.
- (2) Make a syrup of 1 lb. (2 cups) of granulated sugar to from two to three cups of water, according to the fruit. Boil sugar and water together for 10 minutes. Use only pure sugar. If the syrup looks discolored or dirty it is better not to use it. If necessary, skim the syrup but with a pure, clean sugar it should be unnecessary.
- (3) Use 1 quart of fruit to 1 quart of water used.
- (4) Large solid fruits like pears, plums, peaches and apples are best cooked in a kettle in the syrup, to ensure thorough cooking. It is best to cook a few at a time to prevent breaking. If fruit is very solid it may be necessary to cook in water or steam until soft, then cook in the syrup.

Where sugar or other preservative is not used, as is the case sometimes with fruit, oftener with vegetables, long and thorough cooking generally at a high temperature, is necessary for perfect sterilization, then followed by perfect sealing.

When fruit or vegetables are prepared, fill sterilized jars to overflowing (to exclude air), press fruit with a spoon to break air bubbles and press out air; screw down the tops and, when cool, screw tightly again.

If fruit is placed in cans before it is cooked fill the jar, which has been thoroughly cleaned and scalded, with fruit, shaking fruit down as jar is being filled, pour cold prepared syrup over the fruit, filling the jar two-thirds of its depth, put on the lid and screw very loosely. Set the jars on a rack in a boiler or large pan so that they do not touch one another, fill the boiler to one-half the height of the glass with cold water. Let the water come gradually to a boil and then cook the fruit for from 25 minutes to an hour, according to the size and solidity of the fruit. Remove the boiler from the range and when the water in it is sufficiently cooled, remove the jars, have ready some syrup and fill the jars to overflowing with it. Put on rubbers and screw down the lid tightly. A rack for the boiler can be made by boring holes in a piece of board cut to fit into the bottom of the boiler.

It may be necessary to use cloths to keep the jars apart during cooking. The method of cooking fruit in jars is to be preferred for small fruits which easily break, like raspberries.