

Preserving
Fruits and Vegetables
in the Home

Results from Experiments in Canning, Pickling and
Preserving, at the Central Experimental
Farm, Ottawa, Ontario.

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DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
BULLETIN No. 77—NEW SERIES

Published by direction of the Hon. W. R. MOTHERWELL, Minister of Agriculture, Ottawa, 1927.

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Preservation of Fruit and Vegetables in the Home

While the war was in progress, in 1917, it was decided to carry on experiments and demonstrations in the preservation of fruits and vegetables in order to assist in the conservation of food. The work begun then was continued in 1918 and 1919. At the close of the war operations were suspended for a time, but the experimental side of the work was again taken up in 1923. The work was in charge of Miss Laura Kirby in 1917 and Miss Margaret Macfarlane in 1918 and 1919. A bulletin entitled "Preservation of Fruits and Vegetables for Home Use" (Bull. No. 93), giving the results of the experiments with recommended recipes, was prepared by Miss Macfarlane and published in 1919. So popular was this that a new edition had to be published in 1921. This bulletin being now practically exhausted and many additional experiments having been carried on, the author, who has had charge of the work since 1923, has prepared a new bulletin, in which are many new recipes, together with details of the more recent experimental work.

The author wishes to acknowledge the assistance given by Miss W. A. Honey in the arrangement of this bulletin for the press. The photographs were taken by Dr. Frank T. Shutt, to whom grateful acknowledgement is made.

The canning industry has made rapid strides since Nicholas Appert first experimented with a glass bottle and a hand-made cork some hundred years ago. To-day canning is recognized to be the most practical and economic method of preserving large quantities of fruits and vegetables for home use during the winter months.

The efficiency of our body and mind depends largely upon a properly balanced diet. Too often fruit is considered as simply a luxury for occasional rather than daily use. The constant use of fresh and canned fruits and vegetables means better health for each member of the family as these edibles contain potash salts and other mineral compounds which are needed to keep the blood pure while the fibrous portions give bulk and tend to promote a healthy condition of the organs of excretion.

The slogan of every housewife should be: *a can of fruit, a can of vegetables, a can of greens for every family of six for every day in the year that the garden is not producing*, and also that *the best is not too good for canning purposes*.

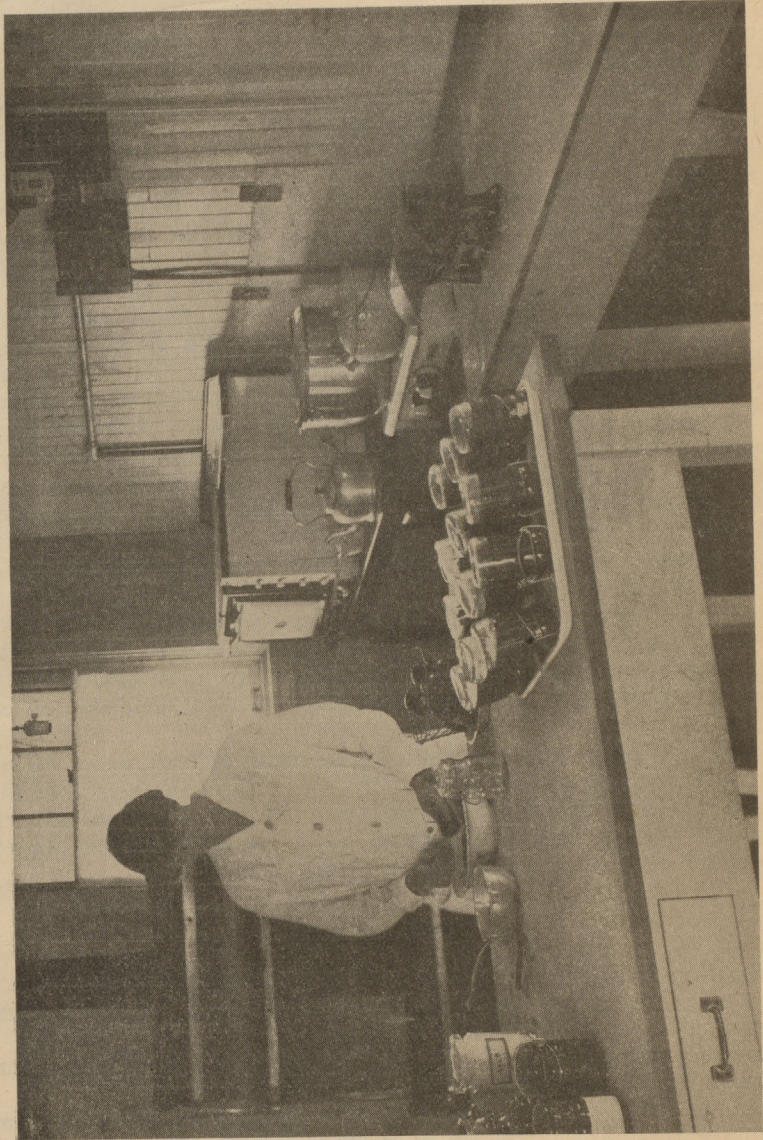
A pantry well stocked with canned goods means that the housewife can always prepare a well-balanced meal in a short time.

STERILIZATION

Sterilization means the destruction of all living organisms in the material being treated. These organisms include yeasts, moulds, and bacteria, all of which are capable of causing spoilage in food.

There are a number of methods of sterilization, but the one in common use, particularly in the canning and preserving industry, is heat.

It is important to note several points in connection with sterilization. First, that the material is heated sufficiently or for a long enough period to destroy all organisms, either yeasts, moulds or bacteria; second, that all the material under treatment receives the heat, *i.e.*, that all the material in the centre of the container is raised to the necessary temperature; third, that, in the case of bacteria, all spores or heat-resisting bacteria are subjected to enough heat to cause death. The temperature necessary for this is considerably greater, or the material must be heated for a longer period, than when destroying moulds, yeasts or non-spore-forming bacteria.



The experimental kitchen at the Central Experimental Farm where methods of canning, preserving, and dehydrating fruits and vegetables are tested.

APPEARANCE OF SPOILED CANNED GOODS AND CAUSE OF SPOILAGE

The common terms applied to spoiled canned fruit, etc., are that it is "soured" or "moulded".

The term moulded is easily understood. This is one common form of spoilage in canned goods, and consists of a growth of mould on the surface. This mould will vary in colour according to kind. The surface of the material is all that is affected. Fermentation may take place in some cases, and a mouldy taste always results.

Yeasts are another cause of spoiled canned goods. Yeasts thrive on acid material. The sugar is the material acted upon. Gas bubbles form in the fluid in the jars. Upon opening, a decided odour of fermentation may be noticed. The material may be broken up, due to the gas working through.

The other form of spoilage is due to bacteria, and this is generally known as "flat sour." It is due to the action of bacteria, and differs in the fact that no gas may be formed, but the contents of the jar may be ruined without any particular change in outward appearance. The liquid in the jar may become cloudy and the solid material may break down. Where a flat sour is found the entire contents of the jar have to be discarded.

EQUIPMENT

It is not necessary to have a special canning outfit for home use. The ordinary wash-boiler with wire or slatted rack can be utilized. If only a small number of jars are being processed fuel and time can be saved by using a galvanized enamelled pail or a deep kettle with rack. The false bottom must be at least three-quarters of an inch from the bottom of the sterilizer, and should be slatted to allow the water to circulate around the jars. Fill the sterilizer with warm water at least two inches above tops of jars.

CONTAINERS

Glass is the most satisfactory jar to use in home canning. Although the first cost of tin cans is less than that of glass jars, the latter are more satisfactory and economical because they do not require any special devices for sealing, and with care they can be used for several seasons.

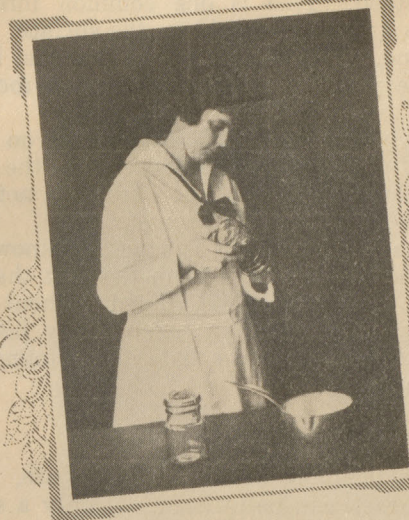
We have several good types of glass jars made in Canada, which will be found illustrated on page 10.

RUBBERS

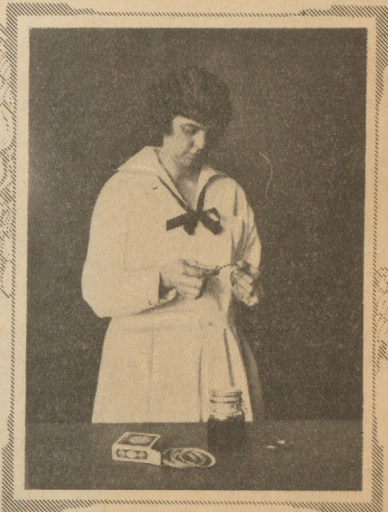
No matter how perfect your jar or how particular you are regarding the sterilization, your products will not keep unless your rubbers are of superlative quality. A good rubber should be soft and elastic. When stretched slightly it should be sufficiently elastic to return to normal size. Fold the rubber and press tightly; turn it over and reverse the fold in the same place; a perfect rubber will not break or crease. Examine very carefully the rubbers which come with new jars. It is poor economy to use a poor rubber or to use old rubbers the second time.

PREPARATION OF UTENSILS

Great care should be exercised in preparing the jars for canning, for absolute cleanliness is essential in all the steps of the process. Examine very carefully for air bubbles, cracks and sharp edges by running a finger around the top of the jar. These irregularities may be filed or scraped off. Wash jars thoroughly in warm, soapy water, using a small brush for necks with wire springs or screw tops. Then rinse in warm, clear water. Fill the jar half full of water, put on the rubber, and adjust the top. Invert to test for leaks. Remove rubbers and put jars on in warm water and sterilize for ten minutes and the rubbers for one minute. This also aids in tempering the jar. Do not sterilize until required.



*Fig. 2. Testing Jar--
Fill each jar half full of warm
water; adjust the rubber; put
on the cover; snap wire clamp;
turn jar upside down to test for
leakage.*

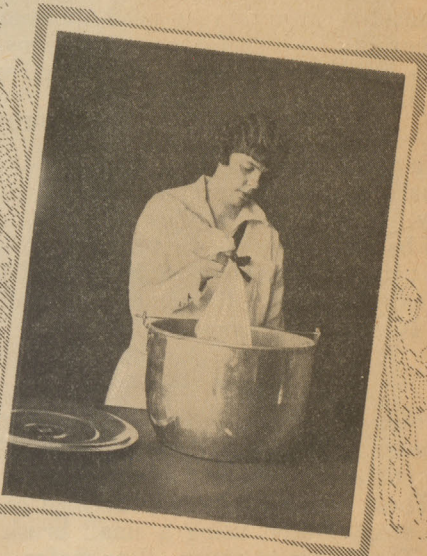


*Testing rubber. Fig. 3
Fold ring; press lightly; turn;
reverse the fold--A good rubber
will show no break or mark of
fold.*



*Blanching. Fig. 5--
Using a small square of cheese-
cloth and dipping in boiling
water for required time.*

*Fig. 4. Preparing Vegetables
Use a small brush
to clean.*



Sandwich Spread— Quick Pudding.

Dear Junia—We do enjoy "The Advocate," and I am sorry to have neglected writing, but couldn't just when I noticed Mrs. S. H's request for a sandwich spread. This one I have has no celery in it, but she may like it. We did like it, and I guess too well, so that we tired of it and I haven't made any for a couple of years, but think I will try to again this fall.

Twelve ripe tomatoes, 3 onions, cook and strain. $\frac{3}{4}$ cup sugar, $\frac{1}{4}$ cup salt, $\frac{3}{4}$ cup flour, mixed to a paste with tomato juice. 4 tablespoons mustard. Add these to the tomato juice and cook until thick. Then add 4 sweet peppers, 1 hot pepper, 4 tablespoons of vinegar, and cook a few minutes longer, then put into gems. I like pints for this.

We are fond of this pudding and sauce baked together.

Take 1 cup brown sugar, 2 cups water and butter size of an egg. I pour boiling



water on the sugar and butter and leave on stove while I mix up the batter. Take 1 cup flour, $\frac{1}{4}$ cup white sugar, 1 cup raisins, 1 large teaspoon baking powder, pinch of salt and mix with milk to a fairly stiff batter. Put this into your pudding dish and pour the sauce over it. Put into the oven and bake. The batter comes to the top, and sauce around keeps it from sticking. Bakes in half an hour or less. It is so simple and I have no trouble getting it eaten! We usually use milk on it too. The kiddies like it.

MISSISSIPPI.

(Thanks for two good recipes. Both sound delicious and I know how good a hot pudding like that can be for the chilly days that are just ahead. Do you notice how many things we are making these days all in one? Cakes with meringue baked right on and puddings ready to serve and casserole dishes in which the whole meal is cooked as one!—Junia.)

dressing: $\frac{3}{4}$
ite), 2 table-
tle cayenne
qt. vinegar,
oil the whole
le like this is
home.



akes the Best Pickles

KEEN'S

Standard

ED PURE

and write for Keen's Recipe Book

687

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THREE HO PICKLES



PRINCIPAL METHODS OF CANNING

1. One-period cold-pack method.
2. Fractional or intermittent sterilization.
3. Open kettle.
4. Steam-pressure.

1. The one-period cold-pack method is so called because the uncooked or partly cooked food is packed into a jar and covered with some liquid, such as syrup or water, and both the jar and its contents are heated simultaneously by boiling water or steam. This method may be used for all fruits and vegetables and is recommended for home use. It is a very simple process and completely sterilizes inasmuch as the product is placed in the sterilized jars which are closed during the cooking process so that the organisms present are killed and access by any bacteria from the air and other outside sources is rendered impossible. The appearance of the finished product is superior as each berry or slice remains intact. There is no crushing. The flavour, colour, and texture are more natural.

2. The fractional or intermittent method, which involves the carrying on of the sterilization period for three successive days, is used in the case of vegetables which are not strictly fresh, and is especially applicable and desirable for those vegetables lacking acid, such as peas, corn, and beans. It is more thorough as regards sterilization than the one-day process owing to the fact that spores, which may develop after the earlier sterilization, are bound to succumb during the successive periods of sterilization, but the intermittent sterilization involves considerably more handling than is necessary in the one-day method; also more fuel is consumed.

3. The open kettle method consists of cooking the fruit or vegetable in an open kettle and then pouring into a sterilized jar. Unless the jar, cover, and rubber and all utensils are thoroughly sterilized and the process is carefully done there is always a danger of bacteria entering the jar while filling. This method is not advisable on account of so frequently resulting in insufficient sterilization and a product of inferior quality, frequently nothing more than a conglomerate mass, the texture and colour of which has been greatly impaired in the process. The excess quantity of sugar so frequently used tends to destroy the fresh fruit flavour. There must be a constant watch of the product while cooking as there is great danger of scorching.

4. The steam-pressure canner is constructed of very strong material, and has a tightly fitted lid which when stamped into place allows the steam to be held under high pressure and temperature. It is fitted with a steam-gauge and a thermometer. These register the number of pounds pressure and the temperature. A great heat is necessary to bring the temperature up quickly on account of the canner being made of heavy material.

The advantages of this method are that it requires less time for complete sterilization to take place and is often the most successful.

The disadvantages are that it requires special apparatus, which costs more than the average housekeeper can afford to pay, and it is not as successful for fruits as for vegetables.

NON-COOKING METHODS

The non-cooking method of canning rhubarb, gooseberries, and sour cherries did not prove reliable. A peculiar flat taste was noticed when the product was tested.

Several methods were used, including the following: The jars were packed with fresh, sound fruit, placed in a receptacle deep enough so that the water came four inches over the tops of the jars. The receptacle was placed under a source of fresh running water and the water was allowed to run for from ten to twenty minutes until all the air bubbles had disappeared. The jars were then sealed under water.

Another method used: The jars after being packed with fresh sound fruit were filled with cold sterilized water and sealed.

Fig. 6. Cold dip--
Plunging into cold water



Fig. 7
Packing.

Fig. 9
Filling Jar with Liquid.



Fig 8. Adding Salt--
Fingers not touching inside of
cover or jar.

SCALDING

Scalding means to immerse in boiling water to facilitate the removal of skins, *i.e.* tomatoes.

BLANCHING

Blanching is a longer process than scalding, and is used to loosen the skins, reduce the bulk, and drive out objectional acids. Blanching may be done with either boiling water or steam. When done in boiling water only a small quantity of material should be blanched at one time in order that the water may be kept as near the boiling point as possible. For blanching in steam a deep kettle or wash-boiler can be used. The food is put in a piece of cheesecloth or colander and suspended in a tightly closed utensil. A very convenient process when using the wash boiler is to tie a piece of cheesecloth to handles, placing the food in the centre, covering tightly. When finished blanching, untie the ends and remove the cover, thus avoiding scalding yourself. The steam must penetrate to all parts of the mass and for this reason the products should not be crowded together, especially greens.

COLD DIP

All blanched or scalded products upon removal from the blancher should be immediately cold-dipped by plunging into cold water. While the food is to be cooled sufficiently to handle, it should not be allowed to remain long in the cold water as the water will become lukewarm, which softens the product and allows bacterial growth. The cold dip makes the products easier to handle, separates the skin from the pulp, firms the texture, and coagulates the colouring matter so it stays near the surface. Therefore, a better coloured finished product is obtained.

SYRUPS FOR CANNING

The thickness of syrup is governed by the kind of fruit used and the desired sweetness of the finished product. Therefore, in order to obtain a uniform richness, the syrups may be prepared in the following grades:

1. Thin syrup—1 cup sugar, 2 cups water; used for raspberries, peaches, pears.
 2. Medium syrup—1 cup sugar, 1 cup water; used for more acid fruit as rhubarb, cherries.
 3. Thick syrup—2 cups sugar, 1 cup water; used for strawberries, plums.
- All syrups are boiled for five minutes before using.

GENERAL RULES FOR CANNING FRUITS BY THE COLD-PACK METHOD

1. Select fresh, ripe fruits, allowing the shortest time possible between time of picking and canning. It is not advisable to use overripe or soft fruit. Do not use fruit picked immediately after a rain as it becomes soft, and, in the case of strawberries, often has sand or dirt adhering.
2. Grade the fruits according to size, shape, degree of ripeness, and colour so that the contents of each jar will be as nearly uniform as possible. Pick over and remove all fruit with bruised or decayed parts.
3. Wash the small fruits by placing in a colander and sprinkling water very carefully over them.
4. The large firm fruits should be thoroughly washed, then blanched, and cold-dipped where necessary to remove skins, etc. (See directions for blanching on page 9).
5. Pack the fruit carefully into tested sterilized jars, packing as firmly as possible without crushing the fruits.
6. Fill the jars to overflowing with boiling hot syrup.

Fig. 10 Jars clamped and ready for sterilization.

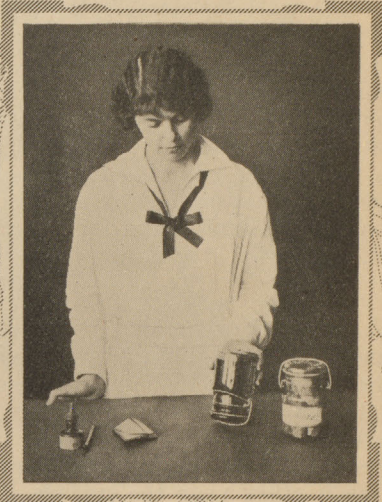
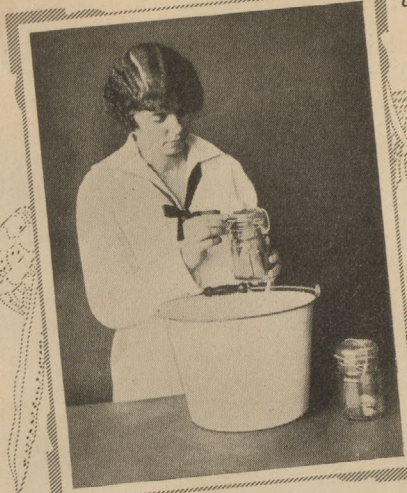


Fig. 11 Jars inverted to cool and to test for leaks—Labelling.



Fig. 12.—Three utensils found in the modern home that may be utilized for home canning.

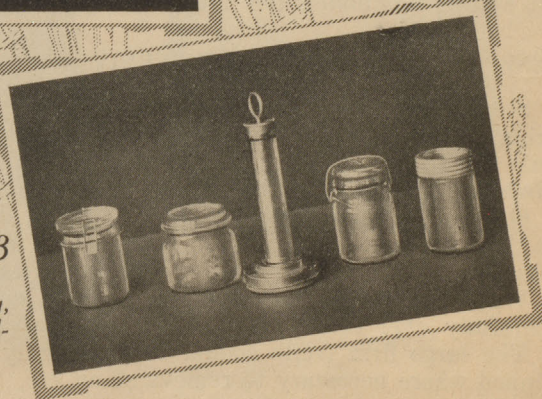


Fig. 13 Four Canadian Jar Types (Left to right) — Victory, Vacuum and pump for sealing, Safety seal, Jewel.

7. Adjust rubbers, cover and partly seal. Neither fingers nor utensils should touch the inside of jar or cover. Place jar in sterilizer and fill with warm water at least two inches over top of jar. The water should be about the same temperature as the jar to avoid breaking. Boil the required length of time.

8. Remove from sterilizer and seal tightly, invert, and cool as quickly as possible, but avoid draughts as this is liable to crack jars.

9. Wash, label, and store.

RECOMMENDED RECIPES FOR CANNING FRUITS

The following recommended recipes for fruits are based on experimental work in the Horticultural Division, Ottawa. Recommended varieties will be found tabulated toward the close of the bulletin.

APPLES

Wash, pare, and quarter, or slice and drop into weak salt water to prevent discoloration. Blanch $1\frac{1}{2}$ minutes. Cold-dip. Pack in sterilized jars, and cover with water or thin syrup, 1 cup sugar, 4 cups water to overflowing. Half-seal. Sterilize 60 minutes.

APPLE SAUCE

Pare, core, and cook until soft with a small quantity of water. Press through a colander or strainer and measure, $\frac{1}{2}$ cup sugar to 2 cups apple. Put into hot, sterilized jars, half-seal, and sterilize for 12 minutes. Canned apple sauce should be served as cold as possible.

GOOSEBERRIES

Wash and pick over berries and pack closely in sterilized jars, cover with boiling syrup, 1 cup sugar, 2 cups water. Partly seal, sterilize 16 minutes.

RASPBERRIES

Wash carefully, pack in sterilized jars. Cover with boiling syrup to overflowing, using syrup made with 1 cup sugar and 2 cups water. Sterilize 16 minutes.

RAW CANNING OF RASPBERRIES

Pack washed fruit in hot sterilized jars. Fill jars with boiling syrup and seal tightly. Place jars in a wash-tub, or similar vessel, and fill it with enough boiling water to come three inches over the top of the jars. Place a blanket over the tub and leave until cold, or overnight. Invert to test for leaks.

STRAWBERRIES

Wash and stem carefully. Pack in sterilized jars and fill with boiling syrup, using 2 cups sugar to 1 cup water. Partly seal and sterilize 16 minutes. See page 45 for best varieties.

PLUMS

Wash, pick and pack in sterilized jars, fill with boiling syrup, using 2 cups sugar to 1 cup water, partly seal and sterilize 20 minutes.

CHERRIES

Wash carefully and pit. Pack in sterilized jars and cover with boiling syrup, using 1 cup sugar to 1 cup water, partly seal, and sterilize 20 minutes.

PEACHES

Blanch fruit two minutes, cold-dip, remove skins, cut in halves and pack in sterilized jars. Fill with boiling syrup, using 1 cup sugar to 2 cups water. Partly seal and sterilize 16 minutes.

PEARS

Pare, cut in halves, drop in weak salted water to prevent discoloration. Pack in jars. Add boiling syrup using 1 cup sugar to 2 cups water. Partly seal and sterilize 30 minutes.

PINEAPPLE

Pare, remove eyes, shred or cut into slices or small uniform pieces. Pack in sterilized jars. Fill with boiling syrup, using 1 cup sugar to 2 cups water. Partly seal and sterilize 30 minutes.

RHUBARB

Wash, cut in inch pieces, blanch 1 minute, cold-dip and pack in sterilized jars. Fill with boiling syrup using 1 cup sugar to 1 cup water. Partly seal and sterilize 20 minutes.

GENERAL RULES FOR CANNING VEGETABLES BY THE COLD-PACK METHOD

1. Select freshly gathered vegetables.
2. Avoid using very dirty vegetables.
3. Can if possible the day they are picked.
4. Do not use wilted greens for canning; if only slightly wilted let stand in cold water until they become crisp again.
5. Wash thoroughly with a brush such vegetables as beets, carrots, etc.
6. Can only a small quantity of vegetables at a time, especially in hot weather. It is necessary to carry on the various steps in the canning process as rapidly as possible to prevent loss of flavour, and the development of flat sour, which is very injurious to health.
7. Grade as to size, shape and degree of tenderness and colour. Where vegetables are sliced or cubed, the pieces should be of uniform size and shape.
8. All vegetables should be blanched or scalded as described on page 9. This must be followed by the cold dip. It is advisable to blanch such vegetables as spinach, swiss chard, beet green in steam rather than in boiling water, as there is less loss of valuable mineral matter. Pack carefully into tested, hot, sterilized jars and add $\frac{1}{2}$ teaspoonfull of salt to each pint jar. Fill to overflowing with boiling water. Rubbers and caps are placed in position and the same method as given for fruit is applied.

RECOMMENDED RECIPES FOR CANNING VEGETABLES

The following recipes recommended for canning vegetables are based on experiments in the Horticultural Division, Ottawa. Recommended varieties of some vegetables will be found tabulated toward the close of the Bulletin.

ASPARAGUS

It is of greatest importance that asparagus for canning be fresh and tender. Select tips of uniform size and maturity. Wash carefully. Remove any tough, woody portions. Cut in right length for jars and tie in bunches. Blanch by immersing the lower ends in boiling water 3 minutes, then immerse the entire bunch for 2 minutes longer. Cold-dip and pack carefully in sterilized jars, tips up. Add $\frac{1}{2}$ teaspoonful of salt to each pint jar. Fill to overflowing with boiling water. Sterilize $1\frac{1}{2}$ hours, or by the intermittent method, $\frac{1}{2}$ hour, on three successive days.

GREENS

Can spinach, swiss chard, beet greens as soon after picking as possible. Reject any imperfect portions. Wash carefully and blanch in steam 15 minutes. Cold dip and pack firmly in sterilized jars adding $\frac{1}{2}$ teaspoonful salt to each pint jar. Fill to overflowing with boiling water. Sterilize for 2 hours.

BEANS (green and wax)

Wash, remove ends and strings. Leave whole or cut into inch lengths as desired. Blanch 5 minutes, cold-dip and pack in sterilized jars, adding 1 teaspoonful salt to each quart jar. Completely fill jar with boiling water. Sterilize 3 hours on one day, or 1 hour on three successive days.

PEAS

It is of the greatest importance that peas for canning be young and canned within five hours after picking. Blanch 5 minutes, cold-dip, pack in sterilized jars, add 1 teaspoonful of salt to each quart jar and fill completely with boiling water. Avoid too close a pack, as some of the peas may break, thereby giving an undesirable cloudy appearance to the liquid. Sterilize 3 hours on one day, or 1 hour on three successive days.

CORN

Great care in the selection of corn for canning is essential for success. It is preferable to can it within one-half hour after gathering, as spoilage is much more liable to occur if it is allowed to stand. However, it will keep fresh for some time if the husks and a considerable piece of the shank are left on. It is important to select corn at the proper stage of development for, if too ripe, it becomes dry and discoloured during the processing, whereas underripe corn is lacking in both flavour and food value.

METHOD No. 1, Sweet corn cut from cobs. Blanch the corn on the cob for 5 minutes; cold-dip. Cut off the kernels with a thin sharp knife and pack in sterilized jars. (The corn swells somewhat during sterilization, hence avoid too close a pack.) Add $\frac{1}{2}$ teaspoonful of salt to each pint jar. Completely fill jars with boiling water. Sterilize 3 hours, or 1 hour on three successive days.

In canning corn by this method it is advisable to use only pint jars, as the finely divided condition of the corn as well as the viscous condition of the liquid in the jars prevents them from rapidly attaining the boiling point, hence the smaller the jar the sooner that point is reached.

METHOD No. 2, Sweet corn on the cob. Select small cobs of uniform size and maturity. Cut off tips of ears if necessary to get them into the jar. Avoid leaving any broken kernels as they give a cloudy appearance to the liquid in the jar. Blanch 10 minutes and cold-dip. Pack cobs closely in wide-mouthed sterilized quart jars, alternating the butts and tips. Add 1 teaspoonful of salt to each jar. Fill completely with boiling water. Sterilize 1 hour on three successive days.

When required for table use, heat corn in a steamer, as it is much more attractive than if allowed to boil in water a second time.

BEETS

Select only young and tender beets and put uniform sizes together. Wash thoroughly, and cut off the tops, leaving at least 2 inches of stem; also leave the long tap-root to prevent loss of colour. Blanch 15 minutes, cold-dip and scrape off skins and stems. Pack, closely fitting the second layer into the first layer in sterilized jars. Add 1 teaspoonful of salt to each quart jar. Fill completely with boiling water. Sterilize 1 hour.

CARROTS

Wash and scrub carrots. Blanch 5 minutes. Cold-dip and pack whole or in uniform slices in sterilized jars. Add 1 teaspoonful salt to each quart jar and completely fill it with boiling water. Sterilize 2 hours.

TOMATOES

Choose medium-sized tomatoes of uniform ripeness and colour, wash and blanch until skins are loose; cold-dip; and remove the skins and cores. Pack whole in sterilized jars, filling the spaces with boiling strained tomato juice, made by cooking large and broken tomatoes until well cooked, and then straining, adding 1 teaspoonful salt to each quart of juice. Sterilize 22 minutes. Tomatoes may be cut in pieces, packed closely in jars, and sterilized 25 minutes. If this is done add no liquid. Tomatoes may also be packed in jars, 1 teaspoonful salt added to each quart jar, and jar filled to overflowing with boiling water. Sterilize 22 minutes.

CAULIFLOWER

Wash and divide head into uniform pieces for packing. Soak in salted water one hour to remove any insects which may be present. Blanch 5 minutes; cold-dip. Pack closely in sterilized jars. Add 1 teaspoonful salt to each quart jar. Completely fill with boiling water. Sterilize 1½ hours.

CANNED PUMPKIN AND SQUASH

(For pie-filling)

Cut into convenient sections. Remove soft pulp containing the seeds, also the skins. Cook for 30 minutes to reduce pulp. Add $\frac{3}{4}$ cups sugar and 1 teaspoonful salt to each quart of pulp. Pack into sterilized jars. Adjust rubber and top and sterilize 1 hour.

MUSHROOMS

Wash and trim the mushrooms. If small, can whole; if large, they may be cut into sections. Blanch for 5 minutes. Remove and cold-dip very quickly. Pack them in jars and add boiling water to cover. Add 1 teaspoonful salt to a quart jar. Half-seal and sterilize 90 minutes.

FRUIT JAM

When making jam, the whole small fruit or broken berries can be used to a good advantage, as they give a fine colour and flavour and the mixture is alike throughout when the product is finished. It is always best to select fresh, slightly underripe fruit, at least one half the quantity should be slightly underripe. This contains the pectin which gives a jelly-like consistency to the finished product. Cooking in small quantities is always advisable as the fruit is cooked more rapidly which aids in retaining colour and flavour.

Jam should always be cooked in a porcelain-lined vessel and stirred constantly with wooden spoon or paddle to prevent scorching. Move the spoon slowly across centre of vessel first one way then the opposite and next around the pan. Do not stir rapidly or beat the mixture.

One pound of sugar to each pound of fruit may be used, but very good results have been obtained from using three-fourths of a pound of sugar to each pound of fruit. The sugar acts as an antiseptic when cooked to the proper concentration. A thermometer will be found very useful in making jams, cooking to 220° Fahrenheit; or cook a small quantity in a spoon and when it flakes off the side of spoon remove from fire and pour at once into sterilized hot glasses and cool as quickly as possible. Cover with a thin sheet of hot paraffin. Seal and store in a dry, dark place.

RECOMMENDED RECIPES FOR FRUIT JAM

These recipes are based on experimental work in the Horticultural Division, Ottawa, Ont.

STRAWBERRY JAM

Wash and hull strawberries. Weigh, and to each pound of berries add 1 pound of sugar. Let stand overnight. In morning boil for 30 minutes (220° F.) Pour into sterilized jars, and when cool, seal over with paraffin.

GRAPE JAM

Wash grapes picked from the stems, press with thumb and forefinger on the grapes, one by one, to separate the pulp from the skin. Heat the pulp over the fire until it softens and changes colour a little, then rub through a sieve. To the pulp add the skins and equal weight of sugar. Mix and let cook about 15 minutes. Cool, cover with paraffin wax and seal.

PLUM JAM

Wash, weigh and pick fruit. Allow one pound of sugar to every pound of fruit and let stand overnight. Put on back of stove and bring slowly to boiling point and boil until 220° F. is reached.

RECIPE FOR PRESERVING PLUMS

The following recipe for preserving plums has been found to be the best for American plums. The recipe was supplied by Mrs. Dora M. Robson, Ottawa, Ont.

"The plums were not quite ripe, being partly red and partly yellow. No ripe or all red plums were used, and to this is attributed part of the success of this formula. The fruit was weighed and put into a preserving kettle at the back of the range, a few of the plums being crushed. The fruit was left here until the slow heat drew the juices out, then the preserving kettle was drawn forward and the plums cooked slowly until they were thoroughly done. One pound of heated sugar was then added to 1 pound of fruit, including stones and skin. The fruit was then left on the range just long enough to be sure all the sugar had melted and boiled up once, probably about 3 minutes. No water was put with the plums."

When a gas range is used, the plums might be left in a very slow oven, covered, until all the juices are drawn out, instead of leaving them on the back of the stove.

SAND CHERRY JAM

Wash and pick over cherries. To each pound of fruit add 1 pound of sugar and allow to stand overnight. Boil for 30 minutes or until jam (220° F.).

JELLY

With the average housekeeper you will always find an element of uncertainty as to the result of her work when making jelly. Two of the most frequent questions asked are "Why does my jelly not harden?" and "What causes it to become sticky?" After several years of experimenting it has been found that in order to make a good jelly it is essential to have fruits which contain pectin and acid. Pectin is a substance soluble in hot water which, when cooked in the presence of sugar and acid and cooled, gives the right consistency to jelly. The best fruits are those which contain both ingredients in the proper

proportions, such as, apples, grapes, currants, plums; while such fruits as strawberries, blueberries, etc., require the addition of a fruit high in pectin content, such as apples or currants.

Just ripe or slightly underripe fruit should be used. When it becomes overripe the pectin is changed and loses in value for jelly-making.

Examine the fruit very carefully and remove all decayed parts. Wash and cut the fruits into small pieces, using all the cores and skins. Put into a saucepan and add enough water to barely cover them, and cook slowly to draw out the juices. With juicy fruits like grapes, red currants and berries, mash well at the beginning and do not add any water. Heat thoroughly in a double boiler. Then drain through a moistened double cheesecloth, or flannel jelly-bag.

Some housekeepers take the second and third extraction and combine it with the first, or it may be used in the making of jams and marmalades.

Directions usually call for equal quantities of sugar and juice irrespective of the kind of juice. The amount of sugar may be based upon the amount of pectin in the juice. A large proportion of sugar can be used with those fruits which contain a large amount of pectin. The use of too small a quantity of sugar results in a tough jelly. With fruits having a small pectin content, as in some berries, three-fourths as much sugar can be used. A soft, sticky jelly indicates too much sugar, providing the pectin and acid are present.

To determine the amount of sugar needed, mix 1 tablespoon of juice with 1 tablespoon of grain alcohol. If a firm jelly forms, use equal measures of sugar and juice; if a loose, $\frac{3}{4}$ cup sugar, 1 of juice; and if a very loose jelly, $\frac{1}{2}$ cup sugar and 1 of juice are the best proportions.

After determining the proportions of sugar to be used, measure about 7 to 8 cups of juice into a saucepan, about four or five times as great in volume as the juice. There is a great tendency for juice to boil over once the sugar is added. Boil rapidly for ten to fifteen minutes and add the sugar which has been heated in a slow oven. By adding the warm sugar the temperature is only slightly lowered, therefore shortening the time of boiling. Long boiling gives a dark colour and strong flavour.

A candy thermometer will be found a great asset in the making of jelly or jam. Boil rapidly until it reaches 220°F. or, to test without a thermometer, dip a wooden spoon into the hot liquid and as the jelly leaves the spoon it should flake or sheet off, or two drops should merge as one. Remove from fire, skim and pour immediately into hot sterilized jars. To ensure clearness it may be strained through a double cheesecloth moistened in hot water. This will remove all particles that may be left in skimming.

Allow jelly to cool quickly, avoiding all dust, then cover with paraffin wax, put on covers, label and store in a cool dark place.

A good jelly should be clear and sparkling and firm enough to retain the shape of the mould when turned out, should be tender enough to quiver without breaking, and of a good flavour.

CRAB APPLE JELLY

Pick over, wash, remove blossom-end, and cut into quarters. Put into saucepan and almost cover with water and cook until soft. Strain the juice, and when cool test for pectin, to determine the proportion of sugar to be used. Measure the sugar and juice. If a good variety of fresh, slightly underripe crabs have been used it will take about equal proportions of sugar and juice. Boil the juice 20 minutes and add the warmed sugar. Cook rapidly till it reaches 220°F. Skim and pour into sterilized glasses. When cool seal, label, and store.

See page 34 for the best varieties of crab apples for jelly-making.

APPLE MINT JELLY

Extract the juice as for crab apple jelly and to each quart of juice add the crushed leaves and stalks from a bunch of mint. Let boil 20 minutes, then strain into a clean saucepan and add 3 cups of warmed sugar and boil until it reaches 220°F., and, if desired, tint delicately with green colour paste. Pour into hot sterilized glasses. Cool, seal, label, and store.

SPICED APPLE JELLY

For every half peck of apples use 3 pints of vinegar and 1 pint of water. Cook until soft, then drain. Boil the juice 20 minutes with 1 ounce whole cinnamon and $\frac{1}{2}$ ounce whole cloves tied in a bag. Add hot sugar, using $\frac{3}{4}$ cup to each cup juice and boil until it reaches 220°F. Cool, seal, label, and store. Each variety will need slight changes in proportion. This recipe applies particularly to Duchess apples.

PLUM JELLY

Proceed as for crab apple jelly.

GRAPE JELLY

Use slightly underripe grapes, wash, place a layer in saucepan and mash well, then add more grapes and mash and set saucepan over hot water to draw out juices. Strain juice through double chessecloth. Test for pectin and boil about 10 minutes and add heated sugar. It will take about equal proportions of sugar and juice. Continue boiling until it reaches the jelly stage. Pour into hot sterilized glasses, cool, seal, label, and store.

RED CURRANT JELLY

Wash and stem and proceed the same as for grape jelly.

BLACK CURRANT JELLY

Can be made the same as red currant jelly, but better results were obtained by adding a small quantity of water about one-third to one-half the quantity of currants, and proceed the same as for red currants.

ROWAN BERRY JELLY

Pick over, wash, and stem berries, put them into a preserving kettle with just enough water to cover. Boil until soft and strain through a jelly bag. Measure juice and sugar using equal proportions. Boil the juice 20 minutes and add the hot sugar and boil until jelly stage is reached 220°F.

Pour into hot sterilized glasses, cool, seal, label, and store.

This will be found quite nice to serve with cold meats and chicken.

RASPBERRY JELLY

Pick over and put fruit into a double boiler to draw out juices. Then strain and measure juice. Allow $\frac{3}{4}$ cups sugar for every cup of juice. Boil juice rapidly for 20 minutes, add the warm sugar, and continue boiling until it reaches 220° F. If a firmer jelly is desired, apple juice may be used in proportion of half-in-half, or one-third raspberry juice to two-thirds apple juice.

BARBERRY JELLY

Gather the barberries as soon as they have been touched by the frost. Stem, wash, and to every 4 quarts allow 1 cup of water. Cook until the juice presses out easily, remove from the fire, mash, strain and measure the juice.

Use equal proportions of sugar and juice. Cook the juice for 20 minutes, then add the warmed sugar and cook until it reaches the jelly stage. Pour into hot sterilized glasses, cool, seal, label, and store.

MARMALADES

When properly made, marmalades show a decided jelly-like consistency with the solid portions of fruit distributed evenly through the mixture which should be bright and sparkling.

The colour and flavour are most effectively retained by rapid cooking over a hot fire, constant stirring being essential to prevent scorching.

Marmalades should be cooked to 220° F., and allowed to cool to 176° F. before placing in hot sterilized jars, as the cooling causes a better distribution of the sliced portions throughout the syrup.

The varieties of fruits most commonly used in the preparation of marmalades are the citrous fruits: oranges, lemons and grapefruit, all of which have a high pectin content in the white inner skin. However, many other kinds of fruit may be utilized for this purpose, such as currants, cranberries, crabapples, pears, pineapples, apricots, etc.

When large fruits are used it is necessary to cut them into thin slices to ensure an even consistency throughout. Generally speaking, the amount of sugar used varies from $\frac{3}{4}$ pound to 1 pound to every pound of fruit, depending on the pectin content of the fruit.

MARMALADE

1 orange, 1 grapefruit, 1 lemon.

To a pint of finely sliced fruit add 3 pints of cold water and let stand overnight. Cover seeds and white fibre with water in a separate bowl, and strain liquid off seeds into the orange the next morning. Boil 15 minutes, and again let stand overnight. The following day weigh, and to each pound of fruit add 1 pound of granulated sugar. Stir well and boil until a little will jelly.

Pour into jars and when cold cover with melted paraffin.

ORANGE MARMALADE

12 thin-skinned oranges, 3 lemons.

Wash the fruit and slice very thinly or grind in a food-chopper. Measure the fruit, add $1\frac{1}{2}$ quarts water to every quart of fruit and allow to stand overnight. Place over slow heat and cook until tender (about 2 hours). Add sugar to equal the amount of cooked fruit. Cook until the jelly stage is reached (about 1 hour).

MOCK ORANGE MARMALADE

2 pounds carrots (grated), juice of 4 lemons, 3 oranges.

Scrape young and tender raw carrots and grate enough to weigh 2 pounds. Squeeze over the carrot the juice of 4 lemons. Place in a double boiler and let cook 1 hour or until the carrot is tender; then add the grated rind and juice of 3 oranges and 2 pounds (4 cups) of sugar. Let cook until thick.

This marmalade is very palatable but it does not have the jelly-like consistency of one made entirely of citrous fruits. It is especially suitable for children.

PUMPKIN CHIPS

12 pounds pumpkin, 1 pound green ginger, 2 lemons.

Cut the fruit into strips 1 inch square and $\frac{1}{8}$ inch thick. Prepare ginger by paring and slicing thinly and boiling 1 hour in a syrup of equal parts sugar and water. Slice lemons as for marmalade. Put all in a preserving kettle and let stand 24 hours, after adding an equal weight of sugar. Boil about $1\frac{1}{2}$ hours, or until fruit is transparent, and then can.

PEAR MARMALADE

To every pound of peeled and cored pears which have been sliced very thinly add $\frac{3}{4}$ pound of sugar, $\frac{1}{2}$ ounce of green ginger root, scraped or grated, and half a large lemon.

Place the pears in the preserving-kettle in layers, sprinkling each with sugar, lemon juice and grated ginger root. Allow to stand 2 or 3 hours, then heat slowly to the boiling point. Cook until clear and thick. If preferred, the ginger root may be crushed and placed in a little bag which can be removed from the mixture before it is stored in glasses.

PEAR AND PINEAPPLE MARMALADE

4 quarts pears, 2 large pineapples, 4 pounds (8 cups) sugar.

Pare the pears, remove cores, cut into quarters and slice thinly. Prepare pineapples, being careful to remove all eyes and tough central portion, cutting into very small cubes, grating, or putting through a food-chopper.

Combine the fruit with the sugar and boil until clear and thick.

CONSERVES

Either large or small fruits or a combination of both may be used for conserves, usually with the addition of nuts and raisins. When nuts are used they should be added to the mixture not more than 5 minutes before it is removed from the fire. As with the marmalade, careful stirring and rapid cooking are essential; also, it is advisable to cool the product slightly before it is placed in the hot sterilized glasses as this ensures an even distribution of the fruit.

RHUBARB CONSERVE

2 pounds rhubarb, $\frac{1}{2}$ pound shelled walnuts, $\frac{1}{2}$ pound seeded raisins,,
2 pounds sugar, 2 small oranges.

Wash freshly picked rhubarb and cut into inch-length pieces without peeling. Put raisins through a food-chopper and shred oranges finely, being careful to remove seeds. Place alternate layers of rhubarb and sugar in the preserving kettle and let stand over night. In the morning add raisins and oranges, and cook until thick. Add finely chopped nut meats and cook 5 minutes longer. Pour into hot sterilized jars and seal.

RHUBARB AND PINEAPPLE CONSERVE

3 quarts sliced rhubarb, 1 quart grated pineapple,
1 cup chopped walnuts, granulated sugar.

Wash freshly picked rhubarb and cut into inch pieces without peeling. Add grated pineapple and boil together for fifteen minutes over a gentle heat. Measure, and to each cup of pulp allow $\frac{3}{4}$ cup of sugar. Boil until thick. Add nut meats and boil 5 minutes longer. Place in hot sterilized jars and seal.

MEDLEY CONSERVE

$1\frac{1}{2}$ quarts rhubarb, 2 oranges, $1\frac{1}{2}$ quarts pineapple,
 $2\frac{1}{2}$ quarts sugar.

Prepare rhubarb as in the last recipe. Cut the pineapple and orange pulp finely. Place in preserving-kettle, add sugar and allow to stand overnight. Shred the orange rind, cover with cold water and soak overnight. In the morning cook until tender in the same water in which it has soaked. Add the rind to the fruit mixture and cook until thick (about $\frac{3}{4}$ hour). Place in hot, sterilized jars and seal.

STRAWBERRY CONSERVE NO. 1

1 quart strawberries, 2 oranges, $\frac{1}{2}$ pound seeded raisins,
 $\frac{1}{2}$ pound chopped walnut meats, 1 lemon, 1 quart sugar.

Wash the strawberries carefully, and drain. Place them in the preserving-kettle with the sugar, raisins (which have been chopped finely) and grated rinds and pulp of the oranges and lemon. Cook slowly until thick (about $\frac{1}{2}$ hour). Add the chopped walnuts and cook 5 minutes longer. Place in hot, sterilized jars and seal.

STRAWBERRY CONSERVE NO. 2

1 pound strawberries, 2 lemons, 3 oranges,
 $\frac{1}{2}$ pound chopped walnut meats, 1 pound sugar,

Preparation is the same as that given above for strawberry conserve No. 1.

GRAPE CONSERVE

2 pounds grapes, 1 pound sugar, 1 orange, $\frac{1}{2}$ pound seeded raisins,
 $\frac{1}{4}$ pound shelled walnuts.

Remove skins from the grapes and boil the pulp until soft and slightly changed in colour, then press through a sieve to remove seeds. Add the skins, chopped raisins, shredded orange and sugar to the pulp and boil until thick. Add chopped nuts and boil 5 minutes longer. Put into hot sterilized jars, and seal.

CANDIED FRUIT PEELS

Candying is the process by means of which the juice is extracted from the fruit and replaced, with sugar syrup which, upon hardening, preserves the fruit from decay and at the same time the natural shape and flavour of the fruit are retained.

Candied peels are chiefly of the citrus family, e.g., lemon, orange, grapefruit and citron. The housewife can economize by saving the rinds after the pulp has been removed for other purposes.

CANDIED CITRON

*Candied
Oct. 81*

Peel and cut into sections, removing the soft portion containing the seeds. Weigh the citron and let it stand overnight in a brine made of $\frac{1}{2}$ cup of salt to a gallon of water. Drain, rinse thoroughly and cook in fresh water until tender, allowing it to cool in the water. Take sugar equal in weight to the citron before cooking. Add 1 cup of water to every pound of sugar; boil until sugar is dissolved, and skim. Cook the citron in this syrup until it is transparent, then remove it and let the syrup simmer until quite thick. Replace the citron in the syrup and set aside overnight. Remove the citron, bring the syrup to a boil and pour it over the citron. Let stand overnight and repeat every morning until the citron will take up no more syrup. Dry off the citron, rolling the sections in sugar if desired. Place in an air-tight container with waxed paper between the layers of peel.

CANDIED ORANGE PEEL

1 pound orange peel, 2 pounds sugar
 $\frac{1}{2}$ teaspoon powdered ginger, 3 pints water

Soak the peels in a solution made of $\frac{1}{4}$ cup of salt to 2 quarts of water. Change it every night for five nights. Rinse the peel well and boil it with the sugar, water and powdered ginger until the syrup is thick. Remove from

the fire and spread the peel out on a platter. Pour the syrup over it and allow it to form a hard crust on each piece. Roll in sugar if desired. When thoroughly dry the sections will be curled up and crisp. Store in an air-tight container, placing waxed paper between the layers.

CANDIED LEMON PEEL

See method for candied orange peel.

CANDIED GRAPEFRUIT AND ORANGE PEEL

Remove peel, free from blemishes, in quarter sections. Weigh and take its weight in sugar. Cover the peel with cold water, adding 1 teaspoonful of salt to each $1\frac{1}{2}$ quarts of water. Let stand overnight, then rinse well and simmer in fresh water until the peel is very tender (5 or 6 hours will be required). Use a large flat kettle so that the peel may not be broken up during the long slow cooking. Set the kettle aside overnight. Drain off the liquid. Make a syrup, using one cup of water to every two cups of the sugar. Add the peel and simmer very slowly until the syrup is thick and nearly all absorbed. The peel should seem transparent. When partly cooled, remove the sections of peel rolling them in granulated sugar and set aside to dry. Store in the same manner as citron peel.

If the peel becomes too hard it may be simmered in a little hot syrup until it becomes soft, then again rolled in sugar.

CANDIED PEARS

Peel, core, and halve the pears. Drop them into a boiling syrup made of 1 cupful of water to each 2 cupfuls of sugar. Cook until tender, being careful not to allow them to become broken. Remove from the fire and set aside for 2 days. Remove the pears and allow them to drain thoroughly. Roll carefully in sugar. Dry slowly, either in the sun or in a very slow oven with the door partly open. Pack in layers with waxed paper between in an air-tight container.

CANDIED APPLES

Pare, core, and quarter medium-sized apples. Have ready a syrup made by boiling together for five minutes 2 cups of sugar and 1 cup of boiling water. Add the juice of a lemon and apples to cover the bottom of kettle. Cook until fruit is tender and clear, then remove and roll in granulated sugar each day until no more sugar is absorbed. Store in the same manner as candied pears.

PRESERVATION OF VEGETABLES BY FERMENTATION AND SALTING

One advantage of this method of preserving vegetables is that containers, such as old kegs, butter tubs, or stone crocks may be used.

SALTING WITHOUT FERMENTATION

The vegetables are washed, the water drained off, and the vegetables weighed. The best results are obtained when 25 pounds of salt are used to every 100 pounds of vegetables.

Spread a layer of the vegetable 1 inch deep in the bottom of the crock and sprinkle with salt, being careful to distribute the salt evenly throughout the crock. Continue making alternate layers of vegetable and salt until the crock is nearly full. Cover with a piece of cotton or a double thickness of cheesecloth. Over this put a plate or a piece of board and on top, a clean brick or stone.

The container should now be set aside in a cool place. If at the end of 24 hours the salt and the pressure on the vegetables have not extracted brine enough to cover, add a brine made by dissolving 1 pound of salt in 2 quarts of water. Enough brine should be added to come above the plate or board. Set aside in a place where it will not be disturbed and cover with hot paraffin wax.

The following vegetables may be preserved by this method: beet tops, spinach, string beans, green peas, corn and cabbage.

The beans should be cut in two-inch pieces; the peas shelled; the corn cooked for 10 minutes to set the milk, and cut off the cob with a sharp knife.

It has been found that in preparing salted beans for the table, it is much better to soak the beans for 2 hours in the morning, changing the water several times, and also changing the water while cooking, than it is to soak the beans over night. Long soaking softens the beans.

FERMENTATION WITH DRY SALTING

In this method the vegetables are washed, the water drained off and the vegetables weighed, using 3 pounds of salt to every 100 pounds of vegetables. No water is used. The salt extracts the water from the vegetables.

Spread layers of vegetables 1 inch thick in a crock, covering each with a very thin layer of salt, being careful to distribute the salt evenly, until the crock is three parts full.

Place a cloth over the top, then a plate turned upside down or a piece of clean board, and a weight. A 10-pound weight is sufficient for a 5-gallon crock.

The container should be allowed to stand in a warm room for from eight to ten days. When the bubbles of gas cease to appear the fermentation is complete.

A layer of hot paraffin wax about $\frac{1}{2}$ -in thick is poured over the top to prevent a scum forming. It is very important that the wax should not be added before the fermentation ceases.

The following vegetables may be preserved by this method: cabbage (sauerkraut), string beans, beet tops.

FERMENTATION IN BRINE

Wash the vegetables, drain off the water, and pack in a crock until nearly full. Prepare a weak brine, using $\frac{1}{2}$ pint of vinegar and $\frac{3}{4}$ cup of salt to each gallon of water. If a 5-gallon crock is used, $2\frac{1}{2}$ gallons of brine will be necessary. This must be covered with a cloth, a piece of clean board or a plate, and a weight. The container must be left in a warm place until the fermentation has ceased, and then taken to a cool place where it will not be disturbed after covering with hot paraffin wax.

The following vegetables may be preserved by this method: Cucumbers, string beans, tomatoes, beets, peas, and corn.

When salting cucumbers, a layer of dill and a handful of mixed spice may be placed on the bottom and top of the crock. Green tomatoes may also be prepared with dill and spices. Beets should not be peeled or sliced before being fermented or they will lose their colour and flavour. Fermented corn may be used in the preparation of such dishes as chowders or omelets, where the acid taste may not be objectionable, as it might be to some people if the corn were eaten alone.

SAUERKRAUT

In making sauerkraut the outer green leaves of the cabbage and any decayed or bruised leaves should be discarded, as well as the core.

The cabbage should be shredded with a slaw-cutter or a sharp knife. After weighing, pack immediately in a water-tight receptacle. It has been found that 1 pound of salt to 40 pounds of cabbage gives the best flavour to the finished product.

The cabbage should be pressed down as firmly as possible and covered with a cloth, board and weight. The weight should be sufficient to cause the brine to rise above the board.

The container should be set in a warm place until fermentation is complete. Before adding a layer of paraffin, the scum should be taken off.

It is not necessary to add a layer of paraffin if the sauerkraut is made late in the fall, and can be frozen as soon as the fermentation is complete.

PICKLES

In pickles, the preservation is effected by the use of vinegar and spice. This means that the strength of the vinegar must be sufficient to exert a preservative action, also that there must be enough of it to cover the material pickled. Pickles have little food value, but they make a meal more palatable. They should never be given to children. There are three main classes of pickles: (1) sweet fruit or vegetable pickles; (2) sour pickles which include mustard pickles; and (3) that large variety of pickles in which the material is chopped finely. There are many and varied recipes, but the following are a few that have been tested in our kitchen.

SWEET PICKLED FRUIT

(Peaches, pears, sweet apples, crab apples, etc.)

✓ 1 peck prepared fruit	2 ounces stick cinnamon
1 quart of vinegar	1 ounce cloves
1 cup water	4 pounds sugar

Boil the sugar, vinegar and spices, 20 minutes. Dip peaches in boiling water and rub off the fur, but do not peel; pare pears and apples. The crab apples may be pickled with the skins on. Stick fruit with whole cloves. Put into syrup and cook until soft, using a quarter or half of the fruit at a time.

SOUR PICKLES, VEGETABLES

(Onions, cucumber, cauliflower and green tomato)

These vegetables may be used separately or mixed. Wash and prepare vegetables. Make a brine, using 2 quarts of boiling water and $1\frac{1}{2}$ cups salt. Pour over the vegetables and let stand 2 days. Drain and cover with more brine. Let stand 2 days and drain again. When using onions, take fresh brine and heat to a boiling point; put in onions and boil three minutes; drain. Cover vegetables with a special vinegar made as follows:—

1 gallon vinegar	2 sticks cinnamon
1 cup sugar (optional)	2 tablespoons whole spice
4 red peppers	2 tablespoons mace

Tie the spices in a cheesecloth bag and boil in vinegar for ten minutes; pour over vegetables; bottle

MUSTARD PICKLE FOR MIXED VEGETABLES

Prepare the vegetables and give them the brine treatment described in the recipe for sour pickles. Make a dressing from the following recipe.

$\frac{1}{4}$ to $\frac{1}{2}$ cup sugar	2 tablespoons flour
1 ounce ground mustard	1 pint vinegar

Mix the ingredients and stir into the hot vinegar. Cook until well thickened. Pour while hot over the vegetables; bottle.

BEAN PICKLES

Take 1 peck of butter beans; cut in 1-inch lengths; and cook $\frac{1}{2}$ hour in weak salt water. Take 3 pints of cider vinegar, bring to a boil and mix in 3 pounds sugar, 1 cup mustard, $1\frac{3}{4}$ cups of flour, 2 tablespoons tumeric, 2 tablespoons celery seed, wet with cold vinegar. Cook 5 minutes, stirring constantly. Pour over beans; and bottle when cold.

SPICED RIPE CUCUMBERS

12 ripe cucumbers	1 tablespoon whole cloves
$1\frac{1}{2}$ cups sugar	1 tablespoon whole allspice
2 cups vinegar	2 tablespoons cinnamon bark
1 teaspoon salt	1 tablespoon white mustard seed

Cut the cucumbers in slices 1-inch thick. Place in a bowl and sprinkle over them $\frac{1}{2}$ cup salt. Let stand overnight. Drain and wash them in cold water. Mix the sugar, vinegar and spices, and boil them together for 5 minutes. Add cucumbers, and cook slowly until tender. When done, the cucumbers should have a clear appearance and the liquid should be the consistency of a medium thick syrup.

RIPE CUCUMBER PICKLE

Cut cucumbers in halves lengthwise. Cover with alum-water, allowing 2 teaspoons powdered alum to each quart of water. Heat gradually to a boiling point, then let stand on back of range for 2 hours. Remove from alum water and chill in ice-water.

Make a syrup by boiling for 5 minutes 2 pounds of sugar, 1 pint of vinegar with 2 tablespoons each of whole cloves and a stick of cinnamon tied in a piece of muslin. Add cucumbers and cook 10 minutes. Remove cucumbers to a stone jar, and pour over them the syrup. Scald syrup three successive mornings and return to cucumbers.

UNRIPE CUCUMBER PICKLE (GHERKIN)

Wipe 4 quarts small unripe cucumbers. Put in a stone jar and add 1 cup of salt dissolved in 2 quarts boiling water, let stand 3 days. Drain cucumbers from brine, bring brine to boiling point, pour over cucumbers, and again let stand 3 days; repeat. Drain, wipe cucumbers, and pour over 1 gallon boiling water in which 1 tablespoon of alum has been dissolved. Let stand 6 hours, then drain from alum water. Cook cucumbers 10 minutes, a few at a time, in quarter of the following mixture heated to the boiling point, and boil ten minutes.

1 gallon vinegar	2 tablespoons allspice
4 red peppers	2 tablespoons cloves
	2 sticks cinnamon

Strain remaining liquid over pickles which have been put in a stone jar.

GREEN TOMATO PICKLE

4 quarts green tomatoes
4 green peppers
4 small onions

Slice the tomatoes and onions, sprinkle with $\frac{1}{2}$ cup of salt and leave overnight in a crock. The next morning drain off the brine. Put in a preserving kettle 1 quart of vinegar, 1 level teaspoon each of black pepper, mustard seed, celery seed, cloves, allspice and cinnamon and $\frac{3}{4}$ cup of sugar. Bring to a boil and add the prepared tomatoes, onions and peppers, cook slowly for 30 minutes. Fill jars, and seal.

GREEN TOMATO SAUCE

2 dozen large tomatoes. 2 pounds brown sugar.
1 $\frac{1}{2}$ dozen apples. 2 ounces mustard.
 $\frac{1}{4}$ pound salt. 2 tablespoons ground ginger.
4 large green sweet peppers. 2 pints vinegar.
1 red pepper. 6 large onions.

Boil 1 $\frac{1}{2}$ hours.

GREEN TOMATO MINCE MEAT

1 peck green tomatoes. 2 teaspoons cinnamon.
1 peck apples. 2 pounds raisins.
6 pounds brown sugar. 2 teaspoons cloves.
2 pounds currants. 2 teaspoons allspice.

Cook 3 hours.

CHILI SAUCE NO. 1

12 tomatoes. 1 onion.
6 apples. 2 green peppers.
1 bunch celery. 3 cups vinegar.
2 red peppers. 3 tablespoons cinnamon.
1 $\frac{3}{4}$ cup sugar. $\frac{1}{2}$ teaspoon allspice.
1 teaspoon ginger.

Chop and mix all together and boil 1 $\frac{1}{2}$ hours.

CHILI SAUCE

18 ripe tomatoes. 1 tablespoon mustard.
2 or 3 red peppers. 1 tablespoon cinnamon.
2 tablespoons salt. 1 tablespoon celery seed.
1 tablespoon ginger. 1 quart vinegar.
1 tablespoon allspice. $\frac{1}{2}$ cup sugar.
1 tablespoon cloves. 2 onions.

Remove skins from tomatoes and cut in pieces. Cut up peppers and onions very finely. Add spices and vinegar and boil for about 2 hours, until mixture is right consistency, being careful it does not scorch.

BORDEAUX SAUCE

4 quarts finely chopped cabbage. 6 quarts finely chopped red peppers.
2 quarts finely chopped green tomatoes. 6 quarts finely chopped onions.
2 pounds sugar. 1 ounce mustard seed.
 $\frac{1}{2}$ cup salt. $\frac{1}{2}$ ounce celery seed.
2 quarts vinegar. $\frac{1}{2}$ ounce, or less tumeric.

Mix all together and boil until thick and bottle.

APPLE CHUTNEY

Pare and core five pounds tart apples. Cook gently with two pounds of brown sugar and two quarts of vinegar until thick and smooth. Remove from fire and add two pounds of finely chopped raisins, a minced clove of garlic, 2 tablespoons of mustard, and 2 of ginger; salt to taste, and three red peppers, chopped. Mix well and let stand eight hours. It may be sealed in small jars for future use.

SPICED GRAPES

Weigh out 7 pounds of grapes and slip the pulps from the skins. Put the pulp over the fire and let simmer until softened, then press through a sieve fine enough to retain seeds. Add this sifted pulp to the skins with 4 pounds of sugar, 1 pint of vinegar, 1 nutmeg grated, $1\frac{1}{2}$ tablespoonfuls of ground cinnamon and a scant tablespoonful of ground cloves. Let the whole simmer very gently for 2 hours. Put in sterilized jars, and seal.

PICKLED ROSE HIPS

Pick rose hips that are not too ripe; leave a short piece of stem on each, but cut them even; wash; put them in a saucepan with sufficient boiling water to cover, and let simmer until tender. Drain off the water and reserve it.

When the fruit is cold, cut a small piece off the flower-end and remove seeds, being careful not to break the fruit. Make a syrup, allowing 2 cupfuls of vinegar and 1 cupful of the water in which the hips were cooked to every 2 pounds of fruit. Strain into a saucepan, adding 4 cupfuls of sugar, $\frac{1}{4}$ ounce of cloves, and $\frac{1}{4}$ ounce of cinnamon stick, and stir over the fire until the sugar is dissolved; then boil the syrup for 15 minutes, add the hips, and boil for 20 minutes longer. Bottle. This will be found excellent to serve with lamb or game.

STORAGE

A cool, dark, dry place is ideal for the storage of canned products. Heat favours the growth of bacteria; light causes fading; while dampness furthers the growth of moulds and may even cause rust on the metal fastenings of jars.

Do not allow canned goods to lie about under uncertain conditions. Wash the jars and label neatly with name of product and date when canned. If dark storage is not available wrap all jars in paper to exclude the light. If a damp atmosphere is positively unavoidable examine the rubbers on the jars from time to time, as mould may attack them, making possible the admission of air and bacteria to the contents of the jar.

A container for canned goods should be of a size to suit the needs of the household; not so large that its contents cannot be consumed shortly after opening, or deterioration and spoilage will occur.

It is a wise precaution to boil canned vegetable products for a few minutes after they are removed from the jar. This does not imply that they must be eaten hot. When the vegetables are required for salads, etc., they may be set aside after boiling and chilled before use.

TIME TABLE FOR CANNING

	Blanching	STERILIZATION		
		Hot water Bath	Steam pressure 5 to 10 lb.	Steam pressure 10 to 15 lb.
		Minutes	Minutes	Minutes
VEGETABLE—				
Asparagus.....	3 to 5	90	60	40
Beets.....	10 to 15	60	60	40
Brussels Sprouts.....	5 to 10	120	60	40
Cabbage.....	5 to 10	120	60	40
Cauliflower.....	3	60	30	20
Carrots.....	5	120	60	40
Corn.....	5 to 10	180	90	60
Greens.....	15	120	60	40
Lima Beans.....	5 to 10	180	60	40
Peas.....	5 to 10	180	60	40
Pumpkin.....		60	60	40
String Beans.....	5 to 10	180	60	40
Squash.....		120	60	40
Tomatoes.....	To loosen skins	22	60	40
Mushrooms.....	5	90	50	30
FRUIT—				
Apples.....		60	8	
Apricots.....	1 to 2	16	10	
Blackberries.....		16	10	
Blueberries.....		16	10	
Cherries.....		20	10	
Currants.....		16	10	
Gooseberries.....		16	10	
Pears.....	1½	30	8	
Peaches.....	To loosen skins	16	10	
Plums.....		20	10	
Pineapples.....	3	30	10	
Quinces.....	1½	20	8	
Raspberries.....		16	10	
Rhubarb.....	1½	20	15	
Strawberries.....		16	10	

RELATIVE VALUE OF DIFFERENT VARIETIES OF FRUITS AND VEGETABLES WHEN CANNED AND PRESERVED

BEANS—CANNED 1919

Variety	Relative colour, 15 points	Relative clearness before opening, 10 points	Relative clearness after opening, 10 points	Texture, 15 points	Flavour, 20 points	Relative Uniformity, 10 points	Total number of points, 80
Bountiful Green Bush.....	13	10	10	13	18	8	72
Budder Boys.....	12½	9½	9½	12	17	7	67½
Burpee Stringless Green Pod.....	13	9½	9½	10	14	7	63
Challenge Black Wax.....	13½	9½	9½	12	16	8	68½
Davis Wax.....	14	9½	9½	13	17	8	68
Dwarf French Excelsior.....	14	10	10	14	16	8	72
Extra Early Valentine.....	13	8	8	13	16	7	65
Grennell Rustless Wax.....	12½	9½	9½	8	12	7	58½
Hodson Wax.....	11½	9½	9½	8	12	7	58½
Masterpiece.....	10	9	9	12	17	8	65
May Queen.....	13½	6	6	10	15	8	58½
Pencil Pod.....	13½	9½	9½	12	16	8	68½
Plentiful French.....	12	9½	9½	14	18	7	70
Plentiful Green Bush.....	10	8½	8½	10	13	8	58
Prolific Black Wax.....	12½	9½	9½	13	17	8	69½
Wardwell Kidney Wax.....	11	9½	9½	9	16	7	62
Yellow Eye.....	14½	9½	9½	11	16	8	68½

CORN—CANNED 1919

Variety	Relative colour 15 points	Relative clearness before opening, 10 points	Relative clearness after opening, 10 points	Texture, 15 points	Flavour, 20 points	Total number of points, 70
Early Iowa.....	9	7	7	12	14½	49½
Golden Bantam.....	13	8½	8½	14	12	60
Kloochman.....	10	6½	6½	14	14½	51½
Nordheim Extra Early.....	12	9	9	11½	13	54½
Assiniboine.....	12	7½	7½	11	13	51
Early Mayflower.....	11½	7	7	11	13½	50
Earliest Catawba.....	12	7½	7½	12	13	52
Early Malcolm.....	14	9	9	12½	15	59½
Otto.....	14	8	8	12½	14	56½
Pickaninny.....	10	7½	7½	13	16	54
Sweet Squaw.....	14	9	9	12	14	58

TOMATOES—CANNED 1919

Variety	Relative colour 15 points	Relative clearness before opening, 10 points	Relative clearness after opening, 10 points	Texture, 15 points	Flavour, 20 points	Total number of points, 70
Alacrity A.....	13½	.....	7	12½	18	51
Alacrity.....	13½	.....	8	12	17½	51
Adirondack.....	13	.....	8	12	17½	50½
Baleh Fillbasket.....	12½	.....	7½	12	17½	39½
Bonny Best.....	13	.....	7	13½	18	51½
Burbank Early.....	13½	.....	6	13	18	50½
Carter Sunrise.....	14	.....	8	13	17½	30½
Chalk Early Jewel.....	14	.....	7½	11	16	48½
Danish Export.....	13	.....	9½	14	18	54½
Dobbie Champion.....	13½	.....	7½	12	16	49
Earliana.....	13	.....	7	12	16	48
First and Last.....	13	.....	7	12	16	48
Holmes Surprise.....	13	.....	6½	12½	17½	49½
Glory.....	14	.....	8	12	17	51
Inchwood Favourite.....	15	.....	7½	12	17	51½
John Baer.....	14	.....	7½	11	16	48½
McGillivray No. 1.....	13½	.....	7½	11	16	48
McGillivray No. 2.....	12	.....	8	13	18	51
McGillivray No. 3.....	11	.....	7½	12½	18	49
Millet Dakota.....	13	.....	8	13	18	52
Northern Adirondack.....	11	7½	7½	13	18	57
The Cropper.....	12½	7½	.....	11	16	47
Rennie XXX.....	10	7½	.....	11	16	44½
Ryder King of Earliest.....	12	.....	8½	13	18	51½
Stirling Castle.....	13	.....	7	12	18	50
Sutton Best of All.....	13	.....	9	13	18½	53½
Sutton Perfection.....	13	.....	7	11½	17½	49
Sutton Winter Beauty.....	13	.....	7½	12	18	50½

APPLE SAUCE—1919.

Variety	Proportion of sugar	Relative Translucency before opening, 10 points	Relative appearance before opening, 10 points	Relative appearance after opening, 10 points	Colour, 10 points	Consistency 10 points	Flavour: Very good, Good, Medium, Poor	Relative Flavour, 10 points	Sweetness: Too sweet, Too sour, Just right
Antonovka.....	$\frac{1}{2}$ c. sugar 2 c. apple	6	7	6	7	8	Medium	7	Too sour
Battle.....	$\frac{1}{2}$ c. sugar 2 c. apple	9	9	8 $\frac{1}{2}$	9	7	Good	9	Just right
Crimson Beauty.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	5	7	7 $\frac{1}{2}$	Poor	5	Too sour
Duchess.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	6	5	7	6	Medium	7	Just right
Dudley.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	6	7	8	8 $\frac{1}{2}$	Medium	7	Just right
Fameuse.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	2	5	4	Medium	6	Too sweet
Golden White.....	$\frac{1}{4}$ c. sugar, 2 c. apple	6	7	3	7	6	Good	7	Just right
McIntosh Red.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	3	5	6	Medium	5	Too mild
McMahan.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	3	5	6	Medium	7	Too sour
Milwaukee.....	$\frac{1}{2}$ c. sugar, 2 c. apple	9	8	9	9	9	Good	8 $\frac{1}{2}$	Just right
Ostrakoff.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	7	7	8 $\frac{1}{2}$	Good	8 $\frac{1}{2}$	Just right
Patten Duchess.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	7 $\frac{1}{2}$	8	8 $\frac{1}{2}$	Poor	7	Flat
Pedro.....	$\frac{1}{2}$ c. sugar, 2 c. apple	6	7	7	8	9	Medium	6	Too sour

Rupert.....	$\frac{1}{4}$ c. sugar, 2 c. apple	6	6	7	6	8 $\frac{1}{2}$	Poor	6	Flat
Walter.....	$\frac{1}{4}$ c. sugar, 2 c. apple	7	7	6	8	5	Good	8	Just right
Wealthy.....	$\frac{1}{4}$ c. sugar, 2 c. apple	6	6	6	8	8	Medium	6	Too sour
Yellow Transparent.....	$\frac{1}{4}$ c. sugar, 2 c. apple	6	6	6	7	7	Medium	6	Flat
Winter Stripe.....	$\frac{1}{4}$ c. sugar, 2 c. apple	6	7	6	4	7	Poor	5	Flat

GOOSEBERRY JELLY

Variety	Proportion of sugar	Relative Translucency before opening, 10 points	Relative appearance before opening, 10 points	Relative appearance after opening, 10 points	Colour, 10 points	Consistency Too thick, Too thin, Just right	Flavour: Very good, Good, Medium, Poor	Relative Flavour, 10 points
Carrie.....	1 c. sugar, 1 c. juice	6	7	7	7	7	Medium	7
Downing.....	1 c. sugar, 1 c. juice	6	7	7	6	7	Medium	7
Lorne.....	1 c. sugar, 1 c. juice	6	7	7	7	7	Medium	7
Mabel.....	1 c. sugar, 1c. juice	7	8	8	8	9	Very good	9
Pearl.....	1 c. sugar, 1 c. juice	7	8	8	8	9	Very good	9
Ralph.....	1 c. sugar, 1 c. juice	8	9	9	9	7	Good	8
Red Jacket.....	1 c. sugar, 1 c. juice	7	8	8	7	7	Medium	7

GOOSEBERRY JAM—1919

Variety	Proportion of sugar	Relative Translucency before opening, 10 points	Relative appearance before opening, 10 points	Relative appearance after opening, 10 points	Colour, 10 points	Consistency 10 points	Flavour: Very good, Good, Medium, Poor	Relative Flavour, 10 points
Carrie.....	6 c. fruit, 4 c. sugar 1 c. water	.....	5	4	5	6	Medium	7
Downing.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	9	9	Good	8
Lorne.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	6	6	7	8	Medium	7
Mabel.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	5	5	6	6	Medium	7
Pearl.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	6	6	7	6	Medium	7
Ralph.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	8	9	5	Very good	9
Red Jacket.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	5	5	6	6	Medium	7

BLACK CURRANT JAM—1919.

Variety	Proportion of sugar	Relative Trans-lucency before opening, 10 points	Relative appearance before opening, 10 points	Relative appearance after opening, 10 points	Colour, 10 points	Consistency 10 points	Flavour: Very good, Good, Medium, Poor	Relative Flavour, 10 points	Sweetness: Too sweet, Too sour, Just right
Beauty.....	6 c. fruit, 4 c. water, 1 c. sugar	.....	9	9	9	8	Very good	9	
Buddenborg.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	9	8	Good	8	
Clipper.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	9	9	Very good	9	
Boskoop Giant.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	8	8	Good	8	
Eagle.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	8	8	8	Good	8	
Eclipse.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	8	6	6	6	Good	8	
Kerry.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	8½	8½	9	Good	8	
Magnus.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	8	8	Good	8	
Saunders.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	8	9	9	8	Medium	7	Too sour
Topsy.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	9	9	Medium	7	Too sour
Victoria.....	6 c. fruit, 4 c. sugar, 1 c. water	.....	9	9	9	8	Medium	7	Too sour

CRAB APPLE JELLY

Variety	Proportion of sugar	Colour, 10 points			Flavour, 10 points			Consistency, 10 points		
		1919	1924	1925	1919	1924	1925	1919	1924	1925
Alberta.....	1 c. sugar, 1 c. juice	7	.....	.....	9½	.....	.....	8½	.....	.....
Burgess.....	1 c. sugar, 1 c. juice	6	9	9	9	7	9	8	7	9
Childs.....	1 c. sugar, 1 c. juice	6½	9	.....	9	7	.....	6	7	.....
Florence.....	1 c. sugar 1 c. juice	8½	.....	.....	5	.....	.....	8	.....	.....
Hyslop.....	1 c. sugar, 1 c. juice	9	.....	7	8	.....	7½	9	.....	8
Lora.....	1 c. sugar, 1 c. juice	8	.....	.....	9	.....	.....	8	.....	.....
Lyman Prolific.....	1 c. sugar, 1 c. juice	.....	9	.....	.....	8	.....	.....	8	.....
Macprince.....	1 c. sugar, 1 c. juice	.....	9	8	.....	8	.....	7	9	7
Martha.....	1 c. sugar, 1 c. juice	5	8	7	9	7	8	8	7	8½
Orange.....	1 c. sugar, 1 c. juice	5	.....	.....	8	.....	.....	8	.....	.....
Otto.....	1 c. sugar..... 1 c. juice	5	.....	.....	8	.....	.....	7½	.....	.....
Phenomenal.....	1 c. sugar, 1 c. juice	.....	9	.....	.....	9	.....	.....	9	.....
Piotosh.....	1 c. sugar, 1 c. juice	6	.....	.....	8	.....	.....	9	.....	.....
Quaker Beauty.....	1 c. sugar, 1 c. juice	7	8	.....	8	9	.....	8	9	.....

Rosilda.....	1 c. sugar, 1 c. juice	8	.....	.....	8	.....	.....	7½	.....	.....
Transcendent.....	1 c. sugar, 1 c. juice	8	9	9	9	9	9½	9	9	9½
Virginia.....	1 c. sugar, 1 c. juice	8	9	8	8	9	8½	8	9	9

ASPARAGUS

Variety	Proportion of salt	Colour, 10 points				Flavour, 10 points				Texture, 10 points				Remarks
		1919	1923	1924	1925	1919	1923	1924	1925	1919	1923	1924	1925	
Columbian Mammoth.....	½ tsp. to 1 pt.	.....	.....	.....	8½	.....	.....	.....	8	.....	.....	.....	8½	
Conover Colossal.....	½ tsp. to 1 pt.	.....	.....	.....	9	.....	.....	.....	9½	.....	.....	.....	9	Very good.
Donald Elmira.....	½ tsp. to 1 pt.	.....	.....	.....	9	.....	.....	.....	8½	.....	.....	.....	8½	
Eclipse.....	½ tsp. to 1 pt.	.....	.....	.....	5	.....	.....	.....	5½	.....	.....	.....	6	
Monarch.....	½ tsp. to 1 pt.	.....	.....	.....	6	.....	.....	.....	6½	.....	.....	.....	.....
Palmetto.....	½ tsp. to 1 pt.	.....	.....	.....	8½	.....	.....	.....	8½	.....	.....	.....	9	Very good.
Mary Washington.....	½ tsp. to 1 pt.	.....	.....	.....	9	.....	.....	.....	9½	.....	.....	.....	9	Very good.

PEAS

Variety	Proportion of salt	Colour, 10 points				Flavour, 10 points				Texture, 10 points			
		1919	1923	1924	1925	1919	1923	1924	1925	1919	1923	1924	1925
McLean Advancer.....	$\frac{1}{2}$ tsp. to 1 pt.	10			$7\frac{1}{2}$	6			$8\frac{1}{2}$	$6\frac{1}{2}$			7
Aleros.....	$\frac{1}{2}$ tsp. to 1 pt.				8				8				$8\frac{1}{2}$
Alaska.....	$\frac{1}{2}$ tsp. to 1 pt.				$8\frac{1}{2}$				7				$6\frac{1}{2}$
American Wonder.....	$\frac{1}{2}$ tsp. to 1 pt.	8				$8\frac{1}{2}$				9			
English Wonder.....	$\frac{1}{2}$ tsp. to 1 pt.				$5\frac{1}{2}$				8				$7\frac{1}{2}$
Gradus.....	$\frac{1}{2}$ tsp. to 1 pt.	6				8				$8\frac{1}{2}$			
Gregory Surprise.....	$\frac{1}{2}$ tsp. to 1 pt.	9				5				$5\frac{1}{2}$			
Heroine.....	$\frac{1}{2}$ tsp. to 1 pt.	9				$6\frac{1}{2}$				$7\frac{1}{2}$			
Hustler.....	$\frac{1}{2}$ tsp. to 1 pt.				7					$6\frac{1}{2}$			6
Laxtonian.....	$\frac{1}{2}$ tsp. to 1 pt.	8				6				$6\frac{1}{2}$			
Lincoln.....	$\frac{1}{2}$ tsp. to 1 pt.												
Magnus.....	$\frac{1}{2}$ tsp. to 1 pt.	6				$7\frac{1}{2}$				8			
McLean Little Gem.....	$\frac{1}{2}$ tsp. to 1 pt.	5				$9\frac{1}{2}$				9			
Stratagem.....	$\frac{1}{2}$ tsp. to 1 pt.				6					8			8
Sutton Excelsior.....	$\frac{1}{2}$ tsp. to 1 pt.	8				$6\frac{1}{2}$				7			

RED CURRANT JELLY—1925*

Variety	Proportion of sugar	Colour, 10 points	Flavour, 10 points	Consistency 10 points	Remarks
Franco-German.....	1 c. sugar, 1 c. juice	9½	9½	9½	
Greenfield Red.....	1 c. sugar, 1 c. juice	8½	9½	9½	
London Market.....	1 c. sugar, 1 c. juice	7	9	9½	Darker in colour.
London Red.....	1 c. sugar, 1 c. juice	8½	9½	9½	
Moore Seedling.....	1 c. sugar, 1 c. juice.	8½	9½	9½	
Perfection.....	1 c. sugar, 1 c. juice	9	9½	9½	
Prince Albert.....	1 c. sugar, 1 c. juice	9½	9½	9½	
Red Cross.....	1 c. sugar, 1 c. juice	8	9½	9½	
Red Grape.....	1 c. sugar, 1 c. juice	8½	9½	9½	
Ringens.....	1 c. sugar, 1 c. juice	8½	9½	9½	
Simcoe King.....	1 c. sugar, 1 c. juice	7	9	9½	Darker in colour.

*All varieties made excellent jelly.

GRAPE JAM

Variety	Proportion of sugar	Colour, 10 points			Flavour, 10 points			Consistency, 10 points		
		1923	1924	1925	1923	1924	1925	1923	1924	1925
Agawam.....	1 c. sugar, 1 c. juice	7	.....	.....	5	.....	.....	9	.....	.....
Aminia Black.....	1 c. sugar, 1 c. juice	.....	9	.....	.....	7	.....	.....	6	.....
Barry.....	1 c. sugar, 1 c. juice	9	.....	.....	8	.....	.....	8	.....	.....
Beauty.....	1 c. sugar, 1 c. juice	.....	6	.....	.....	7	.....	.....	5	.....
Brighton.....	1 c. sugar, 1 c. juice	5	.....	.....	5	.....	.....	7	.....	.....
Campbell Early.....	1 c. sugar, 1 c. juice	.....	10	.....	9	.....	.....	.....	8	.....
Concord.....	1 c. sugar, 1 c. juice	8	.....	.....	8	.....	.....	9	.....	.....
Delaware.....	1 c. sugar, 1 c. juice	7	.....	.....	8	.....	.....	8	.....	.....
Eumelan.....	1 c. sugar, 1 c. juice	.....	10	.....	.....	7	.....	.....	8	.....
Herbert.....	1 c. sugar, 1 c. juice	7	.....	.....	9	.....	.....	8	.....	.....
Hubbard.....	1 c. sugar, 1 c. juice	.....	.....	9	.....	.....	6	.....	.....	8
Jewel.....	1 c. sugar, 1 c. juice	9	.....	.....	8	.....	.....	9	.....	.....
Lamonto.....	1 c. sugar, 1 c. juice	7	.....	.....	7	.....	.....	8	.....	.....
Lincoln.....	1 c. sugar, 1 c. juice	9	.....	.....	8	.....	.....	9	.....	.....

Lindley.....	1 c. sugar, 1 c. juice	5			7			7	
Lutie.....	1 c. sugar, 1 c. juice	7			8			8	
Manito.....	1 c. sugar, 1 c. juice	8			8			9	
Marion.....	1 c. sugar, 1 c. juice		10	9		6	6	9	8½
Mary.....	1 c. sugar, 1 c. juice	7		6	7		6½	7	8
McKinley Early.....	1 c. sugar, 1 c. juice	7			8			8	
Merrimac.....	1 c. sugar, 1 c. juice	8		9	5		6	8	8
Moore Diamond.....	1 c. sugar, 1 c. juice	5			5			9	
Moore Early.....	1 c. sugar, 1 c. juice	8			9			9	
President.....	1 c. sugar, 1 c. juice	8		8½	7		6	9	8
Salem.....	1 c. sugar, 1 c. juice	7			9			9	
Vergennes.....	1 c. sugar, 1 c. juice	8			8			8	
Wilder.....	1 c. sugar, 1 c. juice	9			9			8	
Worden.....	1 c. sugar, 1 c. juice	8			9			9	

GRAPE JELLY

Variety	Proportion of sugar	Colour, 10 points				Flavour, 10 points				Consistency, 10 points				Remarks
		1919	1923	1924	1925	1919	1923	1924	1925*	1919	1923	1924	1925	
Abyssinia.....	1 c. sugar, 1 c. juice	9				9½				9				
Agawam.....	1 c. sugar, 1 c. juice		9				8				8			
Aminia Black.....	1 c. sugar, 1 c. juice			8				9				10		
Barry.....														
Beauty.....	1 c. sugar, 1 c. juice			6				9				5		
Brighton.....	1 c. sugar, 1 c. juice		9				8				8			
Campbell Early.....	1 c. sugar, 1 c. juice	9		10		9½		9		7		10		
Canada.....	1 c. sugar, 1 c. juice		8				5				9			
Concord.....	1 c. sugar, 1 c. juice	10	9			9	8			7	9			
Cottage.....	1 c. sugar, 1 c. juice	9				9½				9				
Delaware.....	1 c. sugar, 1 c. juice	8	9			5	7			7	9			
Early Daisy.....	1 c. sugar, 1 c. juice		8				7				9			
Eumelan.....	1 c. sugar, 1 c. juice	9		9		9		9		9		10		
Green Mountain.....	1 c. sugar, 1 c. juice	6				9				7				

Herbert.....	1 c. sugar, 1 c. juice	9	8			8	8			9	8			
Jewel.....	1 c. sugar, 1 c. juice		7				7				9			
Lamonto.....	1 c. sugar, 1 c. juice		8				7				9			
Lincoln.....	1 c. sugar, 1 c. juice		8				7				9			
Lindley.....	1 c. sugar, 1 c. juice	8	9			5	9			7	8			
Lutie.....	1 c. sugar, 1 c. juice		9				7				9			
Manito.....	1 c. sugar, 1 c. juice		7				8				9			
Marion.....	1 c. sugar 1 c. juice			10	8½			8	6			8	6	Slightly more sour than other varie- ties tested in 1924.
Mary.....	1 c. sugar, 1 c. juice	8	9		7	5	7		6	7	7		6	
McKinley Early.....	1 c. sugar, 1 c. juice		7				9				8			
Merrimac.....	1 c. sugar, 1 c. juice		8		8		9		6		7		6	
Moore Diamond.....	1 c. sugar, 1 c. juice		7		6		9		6		7		6	
Moore Early.....	1 c. sugar, 1 c. juice		8				9					9		
Peabody.....	1 c. sugar, 1 c. juice	9	9			5	7			7	7			
Pearl of Csaba.....	1 c. sugar, 1 c. juice	7				5				9				
President.....	1 c. sugar, 1 c. juice		7		8½		8		6		8		6	
Read Hybrid.....	1 c. sugar, 1 c. juice	9				5				7				

GRAPE JELLY=*Concluded*

Variety	Proportion of sugar	Colour, 10 points				Flavour, 10 points				Consistency, 10 points				Remarks
		1919	1923	1924	1925	1919	1923	1924	1925*	1919	1923	1924	1925	
Rogers.....	1 c. sugar, 1 c. juice	9	.....	.....	.....	8	.....	.....	.....	9	.....	.....	.....
Salem.....	1 c. sugar, 1 c. juice	.....	9	.....	.....	.....	9	.....	.....	.....	8	.....	.....
Telegraph.....	1 c. sugar, 1 c. juice	9	.....	.....	.....	9½	.....	.....	.....	9	.....	.....	.....
Vergennes.....	1 c. sugar, 1 c. juice	.....	7	.....	.....	.....	8	.....	.....	.....	8	.....	.....
Wilder.....	1 c. sugar, 1 c. juice	.....	8	.....	.....	.....	5	.....	.....	.....	9	.....	.....
Wilkins.....	1 c. sugar, 1 c. juice	6	.....	.....	.....	9½	.....	.....	.....	9	.....	.....	.....
Worden.....	1 c. sugar, 1 c. juice	.....	9	.....	.....	.....	9	.....	.....	.....	8	.....	.....

*NOTE.—In 1925 all varieties were touched by frost before picking, hence the natural flavour of the grapes was much impaired.

BLACK CURRANT JELLY

Variety	Proportion of sugar	Colour, 10 points		Flavour, 10 points		Consistency, 10 points		Remarks
		1919	1925	1919	1925	1919	1925	
Boskoop Giant.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	
Buddenborg.....	1 c. sugar, 1 c. juice	8	.....	9	.....	9	.....
Climax.....	1 c. sugar, 1 c. juice	8	8	8	9½	8	9	An outstanding variety, but others obtaining the same number of points were equally good.
Clipper.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	
Eagle.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	
Eclipse.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	
Kerry.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	
Magnus.....	1 c. sugar, 1 c. juice	.....	8	.....	8½	.....	9	
Ontario.....	1 c. sugar, 1 c. juice	.....	8	.....	8½	.....	9	
Saunders.....	1 c. sugar, 1 c. juice	.....	8	.....	8½	.....	9	Slightly acid.
Topsy.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	
Victoria.....	1 c. sugar, 1 c. juice	.....	8	.....	9½	.....	9	

PLUM JAM

Variety	Proportion of sugar	Colour, 10 points			Flavour, 10 points			Consistency, 10 points		
		1919	1924	1925	1919	1924	1925	1919	1924	1925
Admiral Schley.....	1 lb. sugar, 1 lb. fruit	7	8	.....	7½	6	.....	6	4	.....
Alma.....	1 lb. sugar, 1 lb. fruit	.....	8	.....	.....	8	.....	.....	6	.....
Anderson.....	1 lb. sugar, 1 lb. fruit	.....	8	7	.....	7	5	.....	7½	5
Atkins.....	1 lb. sugar, 1 lb. fruit	7	.....	.....	7½	.....	.....	6	.....	.....
Bixby.....	1 lb. sugar, 1 lb. fruit	6	7	.....	5	7	.....	6	9	.....
Brackett.....	1 lb. sugar, 1 lb. fruit	.....	8	.....	.....	9	.....	.....	8	.....
Cheney.....	1 lb. sugar, 1 lb. fruit	8	9	8	8½	8	5	6	9	5
Cheresoto.....	1 lb. sugar, 1 lb. fruit	7½	.....	.....	9½	.....	.....	8	.....	.....
Corona.....	1 lb. sugar, 1 lb. fruit	.....	9	.....	.....	8	.....	.....	7	.....
Dara.....	1 lb. sugar, 1 lb. fruit	.....	.....	8½	.....	.....	5	.....	.....	4
Don.....	1 lb. sugar, 1 lb. fruit	.....	6	8	.....	7	6½	.....	5	5
Emerald.....	1 lb. sugar, 1 lb. fruit	7	.....	.....	7½	.....	.....	7½	.....	.....
Ezaptan.....	1 lb. sugar, 1 lb. fruit	7½	.....	7½	9	.....	5	8	.....	6
Fourth of July.....	1 lb. sugar, 1 lb. fruit	9½	.....	.....	9	.....	.....	8	.....	.....
Gloria.....	1 lb. sugar, 1 lb. fruit	.....	.....	7½	.....	.....	5	.....	.....	4
Golden Queen.....	1 lb. sugar, 1 lb. fruit	8½	.....	.....	7	.....	.....	8	.....	.....
Hawkeye.....	1 lb. sugar, 1 lb. fruit	.....	.....	7½	.....	.....	5	.....	.....	4
Hazel.....	1 lb. sugar, 1 lb. fruit	.....	6	.....	.....	6	.....	.....	6½	.....
Joseph.....	1 lb. sugar, 1 lb. fruit	9	.....	.....	8	.....	.....	9	.....	.....
Jewel.....	1 lb. sugar, 1 lb. fruit	7	6	.....	7½	6	.....	6	5	.....
Legal Tender.....	1 lb. sugar, 1 lb. fruit	8½	.....	8	7	.....	5	8½	.....	6
Mankato.....	1 lb. sugar, 1 lb. fruit	.....	9	.....	.....	8½	.....	.....	8	.....
Odegard.....	1 lb. sugar, 1 lb. fruit	7½	.....	.....	8½	.....	.....	8	.....	.....
Omaha.....	1 lb. sugar, 1 lb. fruit	.....	.....	9	.....	.....	6½	.....	.....	8

PLUM JAM—Concluded

Variety	Proportion of sugar	Colour, 10 points			Flavour, 10 points			Consistency, 10 points		
		1919	1924	1925	1919	1924	1925	1919	1924	1925
Quaker.....	1 lb. sugar, 1 lb. fruit	9	.....	.....	7½	.....	.....	7	.....	.....
Rhoda.....	1 lb. sugar, 1 lb. fruit	.....	9	.....	.....	8	.....	.....	9	.....
Red Glass.....	1 lb. sugar, 1 lb. fruit	.....	7	.....	.....	8	.....	.....	7	.....
Sansoto.....	1 lb. sugar, 1 lb. fruit	7½	5	8½	8½	8	8	7½	7	8
Scarlet.....	1 lb. sugar, 1 lb. fruit	9	8	7	6½	7	5	9	7	5
Surprise.....	1 lb. sugar, 1 lb. fruit	.....	8	7	.....	8	5	.....	7	5
Terry.....	1 lb. sugar, 1 lb. fruit	7	5	7	7½	4	5	8	5	5
Toka.....	1 lb. sugar, 1 lb. fruit	.....	.....	9	.....	.....	6½	.....	.....	8
W. J. Bryan.....	1 lb. sugar, 1 lb. fruit	7½	.....	8½	5	.....	5½	6	.....	4
Waneta.....	1 lb. sugar, 1 lb. fruit	.....	7	.....	.....	7	.....	.....	7½	.....
Yellow American.....	1 lb. sugar, 1 lb. fruit	.....	.....	8½	.....	.....	5½	.....	.....	4

RASPBERRIES CANNED

Brighton.....	1 c. sugar, 2 c. water	.....	6	.....	.....	8	.....	.....	.....	.....
Count.....	1 c. sugar, 2 c. water	.....	6	.....	.....	8	.....	.....	.....	.....
Herbert.....	1 c. sugar, 2 c. water	.....	7	.....	.....	9	.....	.....	.....	.....
Latham*.....	1 c. sugar, 2 c. water	.....	9	.....	.....	9	.....	.....	.....	.....
Newman No. 23.....	1 c. sugar, 2 c. water	.....	8	.....	.....	7	.....	.....	.....	.....

*Latham proved much superior to the other varieties tested, although all were very good.

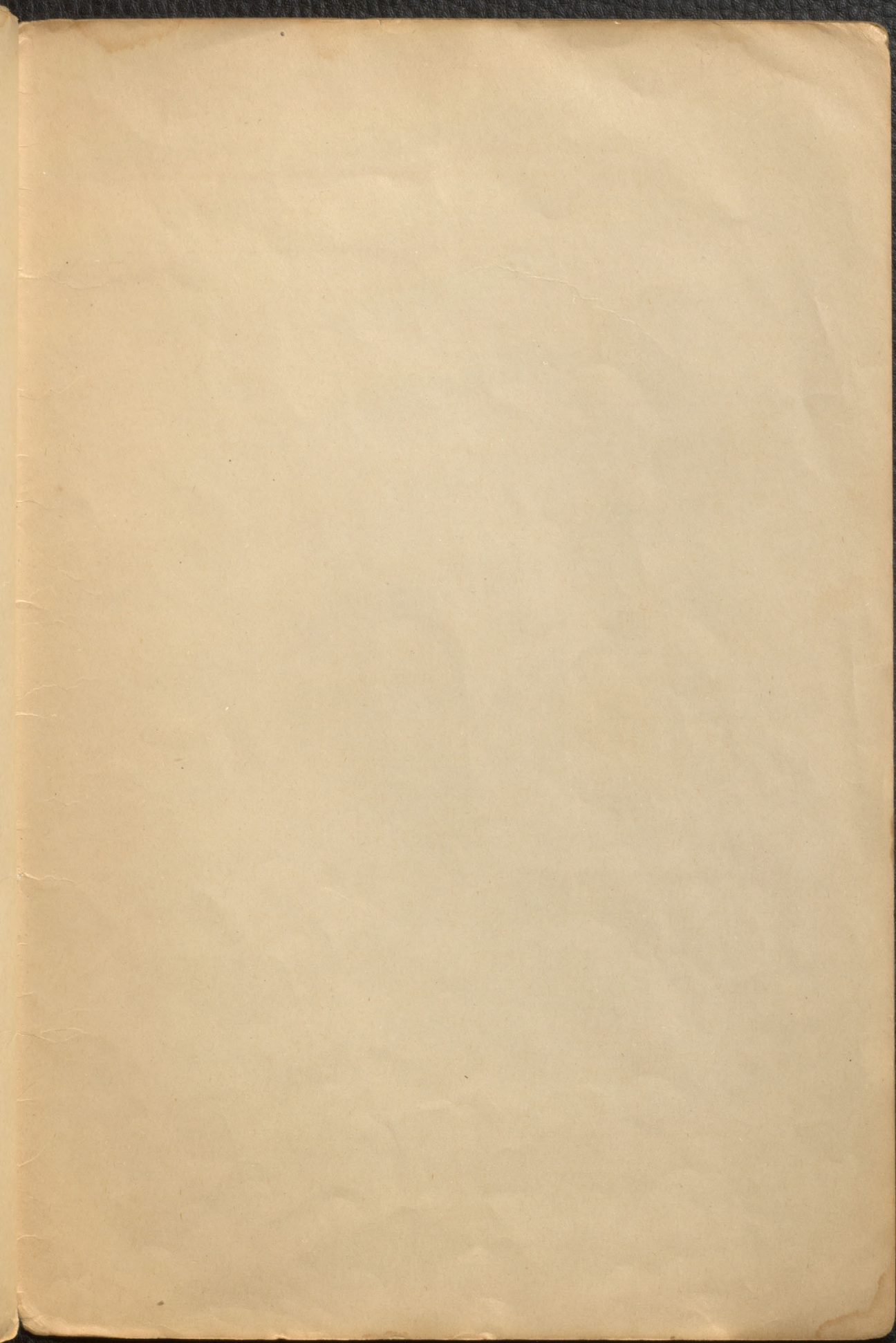
STRAWBERRIES CANNED

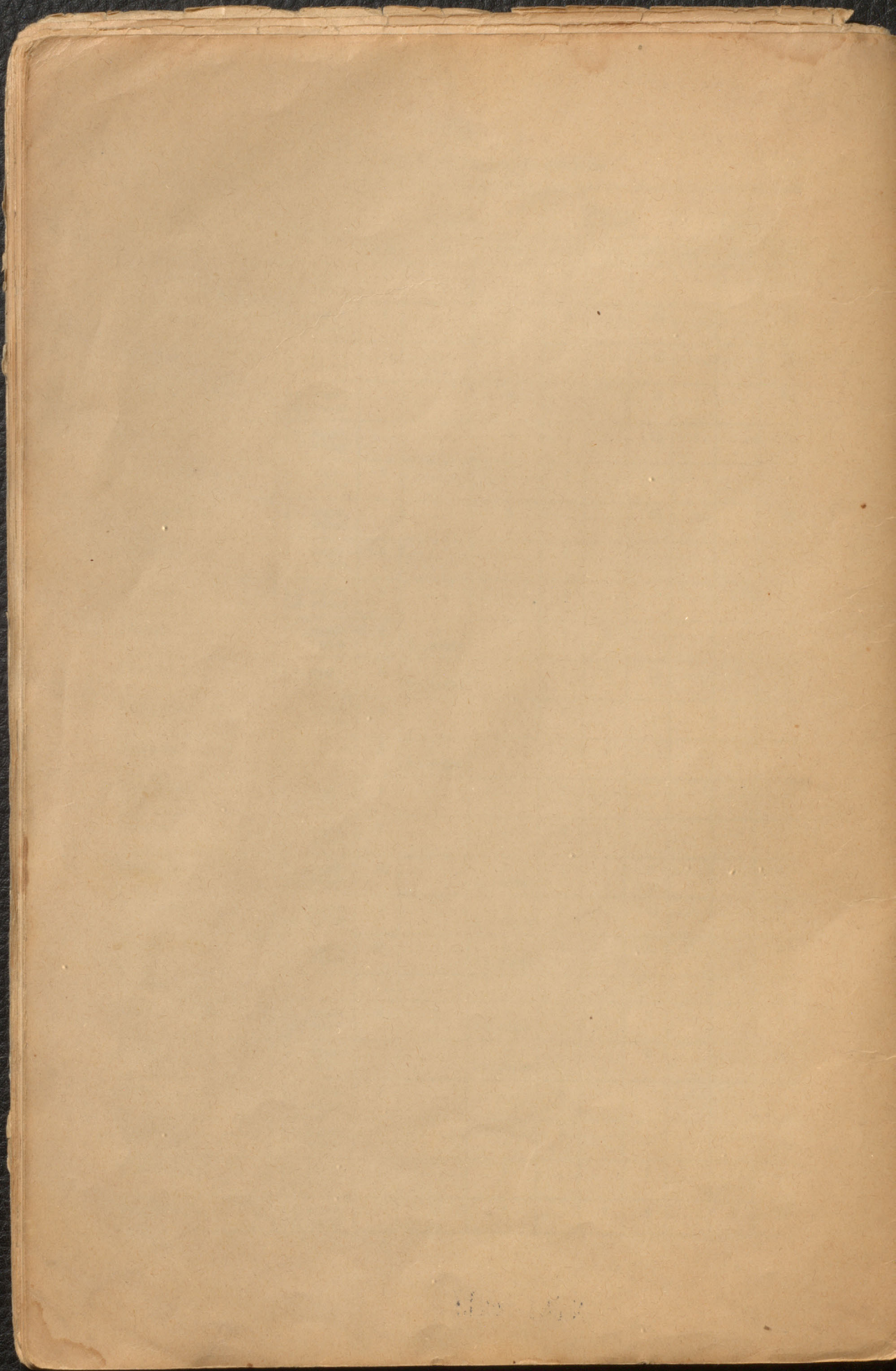
Variety	Proportion of sugar	Colour, 10 points			Flavour, 10 points			Consistency, 10 points		
		1919	1924	1925	1919	1924	1925	1919	1924	1925
Americus.....	1 c. sugar, 1 c. water	9	.....	.....	7	.....	.....	.....	.....	.....
Beder Wood.....	1 c. sugar, 1 c. water	4	.....	.....	5	.....	.....	.....	.....	.....
Bianca.....	2 c. sugar, 1 c. water	.....	8	8	.....	7	8	.....	7	6½

STRAWBERRIES CANNED—*Concluded*

Variety	Proportion of sugar	Colour, 10 points			Flavour, 10 points			Consistency, 10 points		
		1919	1924	1925	1919	1924	1925	1919	1924	1925
Bisel.....	1 c. sugar, 1 c. water	7	.....	.....	6	.....	.....	.....	.....	.....
Boquet.....	2 c. sugar, 1 c. water	7	.....	5	6	.....	4½	.....	.....	6½
Cassandra.....	2 c. sugar, 1 c. water	.....	.....	8	.....	.....	4½	.....	.....	7½
Delicious.....	2 c. sugar, 1 c. water	.....	.....	9	.....	.....	9½	.....	.....	8½
Desdemona.....	2 c. sugar, 1 c. water	.....	.....	9	.....	.....	8½	.....	.....	7½
Francesca.....	1 c. sugar, 1 c. water	2	.....	.....	6	.....	.....	.....	.....	.....
Governor Fort.....	2 c. sugar, 1 c. water	.....	.....	8	.....	.....	8½	.....	.....	7½
Greenville.....	1 c. sugar, 1 c. water	5	.....	.....	6	.....	.....	.....	.....	.....
Heritage.....	1 c. sugar, 1 c. water	8	.....	.....	8	.....	.....	.....	.....	.....
Hermia.....	1 c. sugar, 1 c. water	3	8 2 c. sugar	.....	8	8	.....	.....	8	.....
Lavinia.....	1 c. sugar, 1 c. water	6	7 2 c. sugar	9	7	7	7½	.....	7	8½
Lloyd Favourite.....	1 c. sugar, 1 c. water	9	.....	.....	8	.....	.....	.....	.....	.....
Mariana.....	1 c. sugar, 1 c. water	8	8 2 c. sugar	.....	7	9	.....	.....	8	.....
New Globe.....	1 c. sugar, 1 c. water	4	.....	.....	7	.....	.....	.....	.....	.....
Ophelia.....	1 c. sugar, 1 c. water	7	.....	.....	8	.....	.....	.....	.....	.....
Parson Beauty.....	1 c. sugar, 1 c. water	8½	.....	7 2 c. sugar	7	.....	6	.....	.....	7
Pocomoke.....	1 c. sugar, 1 c. water	9	.....	5 2 c. sugar	9	.....	4½	.....	.....	6
Portia.....	1 c. sugar, 1 c. water	10	.....	9 2 c. sugar	9	.....	8	.....	.....	9
Premier.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Senator Dunlap.....	1 c. sugar, 1 c. water	5	9	9 2 c. sugar	7	9	9	.....	9	9
Victor.....	1 c. sugar, 1 c. water	.....	.....	9 2 c. sugar	.....	.....	9	.....	.....	9
Viola.....	1 c. sugar, 1 c. water	9	.....	.....	8	.....	.....	.....	.....	.....
Warfield.....	1 c. sugar, 1 c. water	9	7
F. E. Willard.....	2 c. sugar, 1 c. water	7	7	7
Wm. Belt.....	2 c. sugar, 1 c. water	8	7	7	6	7	7½

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