



Home Canning of Fruits and Vegetables

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The aim in canning fruits and vegetables is to retain the natural shape, colour and fresh flavour of the foods.

In order to avoid waste of sugar or fruit through spoilage, care should be taken to follow directions given in this bulletin. If this is done, even the beginner may feel confident of successful results.

**CAN HIGH
QUALITY
FRUITS AND
VEGETABLES**

Vegetables should be canned within a few hours of gathering. Pack only tender, young vegetables. Green or wax beans should be canned before the beans are too developed in the pod; asparagus, while the tips are compact and the stalks tender. Peas should be freshly picked and should not be too mature. Corn should be canned while kernels are milky and tender.

Fruit to be used for canning should be well-formed and mature.

**CHECK
CANNING
EQUIPMENT**

Equipment essential for successful home canning consists of comparatively few articles, most of which are found in the average kitchen. Before commencing to can, it is important to see that the necessary equipment is on hand and in good order.

STEPS IN CANNING

1. Check Containers (page 7).
2. Prepare Containers (page 7).
3. Prepare Fruits and Vegetables (page 8).
4. Pack Containers (page 9).
5. Close Containers (page 10).
6. Process Fruits and Vegetables (pages 11-13).
7. Seal Containers (page 13).
8. Cool Containers (page 13).
9. Store Containers (page 14).

EQUIPMENT FOR CANNING

A boiling water bath, a pressure canner, an oven with automatic heat control or a steamer may be used for processing.

Boiling Water Bath

A large kettle, pail or wash boiler with closely fitting cover may be used. It should be fitted with a rack which allows circulation of water under sealers or cans. The canner should be deep enough to allow water to cover the containers by at least two inches. If the water does not cover the containers, the food will not cook evenly and the portion above the water line may become discoloured.

The boiling water bath is the processor most generally used for fruits, tomatoes and peppers.

Pressure Canner

This canner is specially designed to heat foods to a higher temperature than can be reached in the boiling water bath, oven or steamer. This high temperature kills the harmful bacteria which may not be destroyed at boiling temperature in non-acid foods. For this reason, the pressure canner is particularly recommended for all vegetables, except tomatoes.

If using a pressure canner, carefully follow specific directions supplied by the manufacturer.

Oven

An oven with an **automatic heat control** is the only type which should be used for canning. This control should not be confused with an oven door thermometer. The control must register accurately. If in doubt, have it checked before starting to can.

Make sure sealers stand level on the oven rack to avoid tipping. Never process tin cans in the oven because of the danger of the seams bursting. The use of vacuum-type sealers with metal lids is not recommended for oven canning.

Vegetables should never be canned in the oven. Fruits and tomatoes only should be canned in the oven.

EQUIPMENT FOR CANNING

Steamer

This type of processor is not commonly used. A steamer should not be confused with a pressure canner.

A well-constructed steamer with tight-fitting lid or door is satisfactory for processing fruits and tomatoes. Such a steamer consists of a reservoir for boiling water and, above it, a cooking compartment through which a lively current of steam circulates during the entire processing period.

Small Utensils

Sharp knives, preferably stainless steel, a colander, bowls, measuring cups and spoons, towels, pie plates and wooden spoons are essential. In addition, a jar lifter, wide-mouth funnel, strawberry huller, cherry pitter, small brush, wire basket and cheesecloth are useful.

Glass Sealers

Screw-top sealer—with glass lid, rubber ring and metal screw band.

Spring-top sealer—with glass lid, rubber ring and wire bails.

Vacuum-type sealer—(1) with metal or glass lid, rubber ring and metal screw band or clamp.

(2) with metal lid, edge lined with sealing compound, metal screw band or clamp.

Glass sealers are sold in three sizes:—

Small (so-called pint)—capacity about 2 cups.

Medium (so-called quart)—capacity about 4 cups.

Large (so-called half gallon)—capacity about 8 cups.

Rubber Rings

Rubber rings are made in two widths. Be sure to buy the right sized ring. The narrower ring should be used only on screw-top sealers and the wider ring only on spring-top sealers. The boxes of rings made in Canada are marked with the trade-names of the sealers on which the rings should be used.

EQUIPMENT FOR CANNING

Can Sealing Machines

For canning in tin cans, there are several types of sealing machines available. When buying a machine, choose one that is guaranteed to seal satisfactorily. The machine should be well made, durable and easy to operate.

The machine should be tested occasionally to see that it is sealing perfectly. To do this, place a little cold water in an empty can and seal it. Then, using a pair of tongs, immerse the can in very hot water, keeping the newly-sealed end up and holding the can immersed for a minute or two. If no bubbles are seen coming from the top of the can, the seal is perfect and the sealing machine is operating properly.

Tin Cans

There are three types of tin cans sold for home canning . . . Plain, R or Standard and C-enamel. Be sure to use the cans as recommended below :
Plain can—a general-purpose can which may be used for all foods except those for which the R or Standard enamel can is recommended. Use only Plain cans for tomatoes or tomato juice.

R or Standard enamel can—with bright reddish gold lining, should be used for red berries, cherries, red plums, rhubarb and beets. The special enamel lining prevents the fading of the colour which occurs when these foods are canned in Plain cans. Do NOT use R or Standard enamel cans for tomatoes or tomato juice.

C-enamel can—with dull gold lining This special lining prevents discoloration in corn. C-enamel cans may also be used for peas and pumpkin. Do NOT use C-enamel cans for fruits or tomatoes.

Can covers—Plain, R or Standard enamel and C-enamel, to correspond with the three types of tin cans. The inside edge of the cover is lined with either a rubber compound or a paper gasket.

Tin cans for home canning are sold in two sizes :—

20 ounce capacity about 2½ cups
28 ounce capacity about 3½ cups

C-enamel cans are sold in 20 ounce size only.

STEPS IN CANNING

1. CHECK CONTAINERS

Glass Sealers

Carefully examine each part of the sealer. See that the sealer is not cracked and that the rim or glass lid is not chipped. Use new metal screw bands to replace any that have become cracked, bent, stretched or corroded. Be sure that the wire bails on the spring-top sealers spring into position with a snap. Metal lids having edges lined with sealing compound should not be used a second time.

Tin Cans

See that the rim of each can is smooth and in good condition. Do not use any cans that are badly dented.

2. PREPARE CONTAINERS

Glass Sealers

Wash sealers and glass lids thoroughly in hot, soapy water and rinse well with clear, hot water.

Half fill each sealer with water and stand on rack in large kettle or boiler containing sufficient water to come about half way up the sealers. If using glass lids, place on sealers. Bring water to boiling point and leave sealers in the water until ready to fill.

If using the oven, place empty sealers on oven rack. If glass lids are used, place on sealers. Heat oven to 200°F., using bottom heat only. Remove from oven as needed and place on dry cloth or folded paper for filling.

Rubber Rings and Metal Lids

Dip rubber rings and metal lids into boiling water before placing on sealers.

Tin Cans

Wash cans thoroughly in hot, soapy water, rinse with boiling water and invert to drain.

Can Covers

Since some covers have paper gaskets, do not put them into water. Simply wipe carefully with clean, slightly dampened cloth.

STEPS IN CANNING

3. PREPARE FRUITS AND VEGETABLES

Sort

Sort fruit or vegetable for size and maturity. Immature or overmature fruits and vegetables should not be canned. Unripe fruit and tomatoes should be allowed to ripen before canning. Bruised or spotted fruit should not be canned. If bruises are cut out, the good portion of the fruit may be used for jam or fruit juices.

Wash

Fruits and vegetables must be thoroughly washed. Wash only a small quantity at a time. To remove all sand, lift fruits or vegetables from the water instead of draining it off. A wire basket is excellent for this purpose. Greens should be washed in several waters. Strawberries should be washed before hulling.

Blanch

Blanching consists of placing peaches or tomatoes in boiling water for 15 to 60 seconds, depending on maturity or variety, and then dipping immediately in cold water. The peaches or tomatoes should be removed from the water as soon as cool enough to handle. Blanching loosens the skins so that they will slip off easily. Only sufficient fruit for two or three containers should be blanched at one time. A wire basket, large strainer or a square of cheesecloth may be used for blanching.

Peel

Some fruits and vegetables need peeling or scraping with a knife, in which case the thinnest possible portion should be removed.

Brine Bath

To prevent discoloration, peaches, pears and apples should be dropped, as soon as peeled, into a brine bath made in the proportion of 1 teaspoon salt to 1 quart (5 cups) cold water. Put in only sufficient fruit to fill two or three containers. Long standing in brine gives a definitely salty taste. Change brine as it becomes discoloured. Drain fruit thoroughly before packing or pre-cooking.

STEPS IN CANNING

4. PACK CONTAINERS Work as quickly as possible when packing prepared fruits and vegetables into containers. To prevent sealers cracking, place the hot, empty sealers on a dry cloth or folded paper. Fill the containers, one at a time, packing the food to within 1 inch of top of sealer. Then add liquid, leaving necessary headspace. After filling, work out air bubbles by running the blade of a knife down the sides of the container. With large fruits, tilt containers to allow any trapped air to escape. Do not fill more containers than your processor will hold.

Two methods of packing are commonly used in canning, Cold Pack and Hot Pack. The Cold Pack method should be used for fruits and tomatoes only. The Hot Pack method **must** be used for all vegetables, except tomatoes, but it may also be used for tomatoes and most fruits.

Cold Pack Method

Fruits—Prepare syrup according to directions on page 18. Pack fruit raw and cold into containers, then completely cover with hot syrup.

Tomatoes—Pack raw tomatoes into containers, cover with hot tomato juice and add salt OR pack raw tomatoes into containers, pressing down until they are covered with their own juice and add salt.

Hot Pack Method

Vegetables—Place prepared vegetables in a kettle, add water (see Time Tables, pages 15-17), cover and pre-cook. Then pack hot into containers, cover with the water in which they were cooked or with fresh boiling water and add salt. If there is not sufficient cooking liquid, add boiling water

Corn, peas, greens and broad beans should be packed loosely to allow the heat to penetrate more readily into the centre of the container during processing.

Fruits—Prepare syrup according to directions on page 18. Place the fruit in a broad saucepan or kettle and add syrup. Simmer (see Time Tables, pages 20-22), then pack into containers and cover with hot syrup, adding extra syrup if necessary. Fruit sufficient to fill only 3 or 4 containers should be simmered at a time, otherwise the fruit may be unevenly cooked.

When processing peaches, pears, apricots or apples in the oven, the Hot Pack method should be used. If these fruits are packed cold and oven-processed, they are apt to discolour.

STEPS IN CANNING

Headspace

Headspace is the space between the surface of the liquid and the rim of the container. Care should be taken not to fill the container with fruit or vegetable beyond the level of the liquid. Leaving proper headspace helps to prevent loss of liquid from sealers or bursting of tin cans.

Fill glass sealers with liquid to within $\frac{1}{2}$ inch of top except in the case of corn and peas which expand more than other foods during processing. For corn and peas, allow 1 inch headspace.

Fill the cans with liquid to within $\frac{1}{4}$ inch of top except with corn and peas which require $\frac{1}{2}$ inch headspace.

- 5. CLOSE CONTAINERS** After filling each container make sure there are no seeds or particles of food adhering to the rim. Close as directed below :

Glass Sealers

Screw-top sealer :—Fit wet rubber ring (see page 5 for correct size) on sealer, making sure it is flat, then put lid in place. Partially seal by screwing metal band tightly. Loosen slightly, unscrewing not more than 1 inch.

Spring-top sealer :—Fit wet rubber ring (see page 5 for correct size) on sealer, making sure it is flat, then put lid in place. Partially seal by pushing the long wire bail into groove on lid, but do not spring down the lower bail.

Vacuum-type sealer :—For the type with separate rubber ring, place wet rubber ring on lid, then put lid in place. For the type having edge of metal lid lined with sealing compound, dip lid in boiling water and put in place. Then screw metal band as tightly as possible or adjust metal clamp.

Tin Cans

Place lid on top of can and close with sealing machine according to manufacturer's directions.

DO NOT USE CHEMICALS OR CANNING COMPOUNDS

Air-tight containers and sufficient processing are all that are needed to preserve fruits and vegetables satisfactorily. Such chemicals as boracic acid, salicylic acid and saccharine are prohibited for commercial canning and may be harmful. Others, such as sulphur compounds, are restricted in commercial use.

STEPS IN CANNING

6. PROCESS FRUITS AND VEGETABLES

Have processor ready so that the containers may be placed in it immediately after closing. **Never allow filled sealers or tin cans to stand and cool before processing.**

Processing is the heating of filled containers to a sufficiently high temperature for a sufficiently long time to destroy any bacteria, yeasts or moulds that might cause the food to spoil.

Allow exact processing time. Count time from the moment the water in the boiling water bath starts to boil vigorously or the gauge on the pressure canner registers the required pressure or the temperature in the oven returns to 275°F

When Using a Boiling Water Bath

1. Place filled sealers on rack, 1 inch apart. The water in the bath should be near the temperature of the filled containers. Cans may be stacked but they must be arranged so that there is sufficient space for circulation of water around, over and under each can.
2. Add boiling water to cover tops of sealers or cans by at least 2 inches. Do not pour boiling water directly on sealers as tops may crack.
3. Put cover on boiling water bath.
4. Bring water to boiling point. Start to count processing time from moment water is actually boiling vigorously, not just beginning to show bubbles.
5. Keep water boiling until processing is finished. If necessary, add boiling water to keep 2-inch depth over containers.
6. Process the required time for fruit (see pages 20-23) or vegetable (see pages 15-17).
7. Immediately remove sealers or cans from water bath to prevent overcooking.

STEPS IN CANNING

6. PROCESS FRUITS AND VEGETABLES

When Using a Pressure Canner

1. Keep the pressure canner clean, particularly the openings to the petcock, safety valve and pressure gauge... a toothpick or sharpened match may be used. Make sure the gasket is clean and fits perfectly. Replace if necessary. Never immerse the pressure gauge in water.
2. Use sufficient water to provide steam during the entire processing time. If the canner is being filled to capacity, a depth of about 2 inches of water (before sealers are added) is required. If, however, the canner is not filled to capacity, 2 cups extra water should be added for each sealer missing. This additional water helps to prevent liquid being drawn from the sealers.
3. Place filled containers on rack in canner at least 1 inch apart. Tin cans may be stacked, if they are arranged so that there is good circulation of steam around, over and under them.
4. Adjust lid of canner and fasten securely.
5. Open petcock and keep open until steam escapes with a distinctly audible sound. This takes from 5 to 10 minutes.
6. Close petcock and allow pressure to rise slowly until the gauge indicates the required pressure. Start to count processing time at this point.
Regulate heat to keep pressure constant. Liquid will be drawn out of sealers if pressure fluctuates.
7. Process fruit or vegetable the required time (see last note, page 20, and Time Tables, pages 15-17).
8. At end of processing time, remove canner from heat and place on board or heavy rack. Allow pressure to drop gradually to zero of its own accord. **Sudden cooling** will cause loss of liquid from sealers and may crack canner.
9. After gauge has reached zero, allow canner to stand for 1 to 2 minutes, then slowly open petcock. Let canner cool for 2 or 3 minutes before removing lid.
10. Remove lid in such a way that the steam will be directed away from the face. Immediately cover open canner with a dish towel and let stand 1 or 2 minutes.
11. Remove towel and leave sealers in canner until bubbling in sealers ceases. Then remove from canner.
12. With tin cans, the petcock may be opened as soon as the gauge registers zero. Remove cans immediately and cool.

STEPS IN CANNING

6. PROCESS FRUITS AND VEGETABLES

When Using An Oven (with Automatic Heat Control)

1. For canning, use only an oven with automatic heat control, not with just an oven-door thermometer.
2. Heat oven to required temperature, 275°F. Do not use top oven burner or element or a higher temperature than 275°F. since the sealers may break.
3. Be sure that screw-top and spring-top sealers are only partially sealed. **Never process tin cans in the oven.** Vacuum-type sealers with metal lids are not recommended for oven canning.
4. Place oven rack on second slide from bottom. Place sealers 2 inches apart directly on oven rack. Put a shallow pan on bottom oven rack to catch any liquid which might drip from sealers.
5. After placing sealers in the oven, wait until temperature returns to 275°F. Then start to count processing time (see Time Tables, pages 20-23).
6. After processing time is completed, leave the oven door open for 1 or 2 minutes before removing sealers.

7. SEAL CONTAINERS

1. After removing glass sealers from processor, place on folded dry cloth or newspapers. To avoid cracking, do not place hot sealers in draughts or on metal or porcelain surfaces.
2. As soon as all bubbling in sealers has ceased, tighten tops on screw-top or spring-top sealers by giving the metal bands a final turn or springing down the lower bail. Vacuum-type sealers require no further tightening since the seal is formed as they cool.

Never open a sealer after processing. Sometimes the contents of a sealer will shrink in processing, leaving space at the top of the sealer. Opening the sealer to fill up the space may cause contamination and spoilage. If the sealer is air-tight and sufficiently processed, the food will keep perfectly.

8. COOL CONTAINERS

1. Cool sealers in an upright position, out of draughts and uncovered.
2. Leave space between sealers while cooling.
3. Never tighten or remove the band after a screw-top sealer is cold. This may break the seal.
4. Cool tin cans by plunging them immediately into cold water after removing them from processor. Leave until cold, changing the water so that they will cool rapidly.

STEPS IN CANNING

Test for Seal

Screw-top or spring-top sealers:—When cold, carefully invert each one for a minute or two to see if there is leakage.

Vacuum-type sealers with metal lids:—When cold, gently tap lids with a spoon. If properly sealed they will give a clear ringing note and be curved slightly inward. It is not necessary to invert vacuum-type sealers to test for seal.

If the seal is not air-tight, use up the food before it spoils. Re-processing is not recommended since the food would be badly overcooked.

9. STORE CONTAINERS

1. Before storing, wipe containers with a damp cloth, then dry thoroughly.
2. Label containers, especially tin cans.
3. After one week examine each sealer for any signs of spoilage and tin cans for leakage or bulging.
4. Store containers in a dry, dark place where the temperature is uniform, preferably cool, but where there is no danger of freezing. If the storage place cannot be kept dark, wrap each sealer in newspaper or store in cartons since light affects the colour of the food.
5. As each sealer is emptied, wash thoroughly and be sure the sealer is **completely dry**, before putting top in place and storing. Set aside any sealers with nicks in the rim or glass top. These may be used for jam and pickles. Discard broken or corroded screw bands.
6. Freezing may change the appearance and texture of canned fruits and vegetables. There is no danger, however, in using canned fruits or vegetables which have been frozen so long as there is no sign of leakage or spoilage.
7. If tin cans are stored in a damp place the outside of the cans may rust. There is no danger, however, in using the food from rusted cans so long as there is no sign of leakage.

PROCESSING TIME TABLE FOR VEGETABLES

- When using glass sealers, allow 1 inch headspace for corn and peas and 1/2 inch headspace for all other vegetables.
- When using tin cans, allow 1/2 inch headspace for corn and peas and 1/4 inch headspace for all other vegetables.
- Salt: Add 1/2 teaspoon to each "small" (pint) sealer or 20-oz. can; 1 teaspoon to each "medium" (quart) sealer or 28-oz. can.

	DIRECTIONS		"Small" Sealers (pint) 20-oz. Cans	"Medium" Sealers (quart) 28-oz. Cans
ASPARAGUS	Wash, break off tough end of stalks. Remove scales if necessary. Cut in lengths to fit containers. Tie in uniform bundles, stand upright in sufficient boiling water to come half way up stalks. Cover, bring to boil and boil 3 minutes. Pack hot, all tips up, except 3 with tips down, in centre. Add salt. Cover with boiling water, leaving headspace.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	30 mins. 2 hrs.	35 mins. 2 hrs.
BEANS Green or Wax	Wash young tender beans. Trim ends, string if necessary. Leave whole or cut in pieces. Cover with boiling water. Bring to boil and boil, covered, 3 minutes. Pack hot. Add salt. Cover with hot cooking liquid from beans, leaving headspace.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	30 mins. 2 hrs.	35 mins. 2 hrs.
BEETS	Wash small, young beets. Leave on roots and 2 inches of stem. Cover with boiling water. Bring to boil and boil, covered, until skins slip off easily, about 20 minutes. Remove skins and roots. Pack hot. Add salt. Cover with boiling water, leaving headspace.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	30 mins. 2 hrs.	35 mins. 2 hrs.

READ ALL DIRECTIONS CAREFULLY — PAGES 2-14.

PROCESSING TIME TABLE FOR VEGETABLES

	DIRECTIONS		"Small" Sealers (pint) 20-oz. Cans	"Medium" Sealers (quart) 28-oz. Cans
CARROTS	Wash and scrape young tender carrots. Cover with boiling water. Bring to boil and boil, covered, 5 minutes. Pack hot in upright position, alternating stem and root ends. Add salt. Cover with boiling water, leaving headspace.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	30 mins. 2 hrs.	35 mins. 2 hrs.
CORN Whole Kernel	Cover cobs with boiling water. Bring to boil and boil, covered, 4 minutes. Cold dip. Cut whole kernels from cob. Add boiling water, using half as much water as corn. Bring to boil and pack hot, very loosely, leaving headspace. Add salt.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	60 mins. 3 hrs.	70 mins. 3 hrs.
CORN Cream Style	Wash cobs. Slice thin layer from kernels of cob. Next, slice remainder of kernels from cob and finally scrape cob to remove any cream or juice. Add boiling water, using half as much water as corn. Bring to boil, stirring to prevent scorching. Pack hot, very loosely, leaving headspace. Add salt.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	75 mins. 3 hrs.	
GREENS Spinach Chard Beet Tops Kale	Wash thoroughly. Cook, covered, in very little water until thoroughly wilted, about 5 to 8 minutes, turning several times during cooking. Pack hot, loosely. Cut greens crosswise with a sharp knife to bottom of container. Add salt. Cover with boiling water, leaving headspace.	PRESSURE CANNER (10 lb. pressure) Boiling Water Bath	50 mins. 3 hrs.	60 mins. 3 hrs.

READ ALL DIRECTIONS CAREFULLY — PAGES 2-14

PROCESSING TIME TABLE FOR VEGETABLES

	DIRECTIONS		"Small" Sealers (pint) 20-oz. Cans	"Medium" Sealers (quart) 28-oz. Cans
PEAS	Shell and wash young tender peas. Cover with boiling water. Bring to boil and boil, covered, 1 minute. Pack hot, loosely. Add salt. Cover with hot cooking liquid from peas, leaving headspace.	<p style="text-align: center;">PRESSURE CANNER (10 lb. pressure)</p> <p style="text-align: center;">Boiling Water Bath</p>	<p>40 mins.</p> <p>3 hrs.</p>	<p>45 mins.</p> <p>3 hrs.</p>
PUMPKIN and SQUASH	Cut or break apart. Remove seeds and stringy fibres. Cut into pieces. Steam, bake or boil in small amount of water until tender. Scrape from skins and mash or sieve. Bring to boiling point, adding a little water, if necessary, to prevent scorching. Pack hot, leaving headspace.	<p style="text-align: center;">PRESSURE CANNER (10 lb. pressure)</p> <p style="text-align: center;">Boiling Water Bath</p>	<p>70 mins.</p> <p>3 hrs.</p>	<p>80 mins.</p> <p>3 hrs.</p>
MUSH- ROOMS	Wash and peel. Drop into acidulated water (1 tablespoon vinegar per quart water). Drain. Boil 3 minutes in fresh water to which vinegar and salt are added (1 tablespoon vinegar and 1 teaspoon salt per quart water). Pack hot. Cover with boiling water, leaving headspace.	<p style="text-align: center;">PRESSURE CANNER (10 lb. pressure)</p> <p style="text-align: center;">Boiling Water Bath</p>	<p>30 mins.</p> <p>2 hrs.</p>	<p>35 mins.</p> <p>2 hrs.</p>

- It is strongly recommended that all vegetables, except tomatoes, be processed in a pressure canner rather than in the boiling water bath (see "Pressure Canner", page 4). If a pressure canner is not available and the boiling water bath must be used for canning vegetables, great care must be taken to allow the full processing time
- Any vegetable, except tomatoes, processed in the boiling water bath should be boiled for 10 minutes in an uncovered saucepan before using or even tasting. Discard any canned food that has a bad odour or looks spoiled.
- Vegetables, with the exception of tomatoes, should never be processed in the oven.

When using the pressure canner, increase the pressure by 1 pound for each 2,000 feet above sea level.

READ ALL DIRECTIONS CAREFULLY — PAGES 2-14

APPROXIMATE YIELDS OF CANNED FRUIT

FRUIT	TYPE OF STANDARD CONTAINER (Box, basket, etc.)	Weight of Fruit (pounds)	Medium (quart) Sealers of Canned Fruit (approximate)
APRICOTS	Box (crate)	18	11
BERRIES except STRAW- BERRIES	12 qt. boxes	15	12
	24 pt. boxes (crate)	15	12
CHERRIES	6 qt. basket (flat)	8	5
	4 basket crate	20	13
	Small box (lug)	15	10
	Large box	25	16
PEACHES	6 qt. basket (heaped)	10	5
	Box (crate)	18	9-10
PEARS	6 qt. basket (heaped)	11	5
	11 qt. basket (flat)	15	7
	Box	42	18-20
PLUMS and PRUNES	6 qt. basket (flat)	8	5
	6 qt. basket (heaped)	11	7
	Small box (lug)	15	9
BERRIES, STRAW-	12 qt. boxes	15	9-11
	24 pt. boxes (crate)	15	9-11

Quantity of Syrup to Make

Using the above yield chart, estimate the amount of syrup required for fruit to be canned. Make syrup before preparing fruit by adding water to sugar and bringing to boil. Skim syrup if necessary, keep hot.

When canning by the Cold Pack method, for each "medium" (quart) sealer allow :

¾ to 1 cup syrup for blueberries and saskatoons

1 to 1½ cups for raspberries, strawberries, gooseberries, cherries and rhubarb

1½ to 2 cups syrup for apricots, plums, pears and peaches

When canning by the Hot Pack method, use the minimum amounts of syrup suggested above.

Syrups to Use

TYPE OF SYRUP	SUGAR	WATER	YIELD
Very Thin	1 cup	3 cups	about 3½ cups syrup
Thin	1 cup	2 cups	about 2½ cups syrup
Moderately Thin	1 cup	1½ cups	about 2 cups syrup
Medium	1 cup	1 cup	about 1½ cups syrup
Heavy	1 cup	¾ cup	about 1¼ cups syrup

NOTE :—In making any of the above syrups, up to ¼ of the sugar may be replaced with an equal quantity of honey or corn syrup. A mild-flavoured honey or white corn syrup is suggested for bland or light-coloured fruits.

SPECIAL METHODS OF CANNING FRUITS

DRY SUGAR METHOD

Half fill sealer or can with fruit, then add sugar and fruit in alternate layers. Cover fruit with boiling water, leaving headspace. Close container and tilt several times to dissolve sugar. Process as for Cold Pack (see Time Tables, pages 20-23).

Quantities of Sugar to Use in Dry Sugar Method

For 1 "medium" (quart) sealer (large fruit)		For 1 "medium" (quart) sealer (small fruit)	
SUGAR	EQUIVALENT SYRUP	SUGAR	EQUIVALENT SYRUP
$\frac{1}{2}$ cup	Very thin	$\frac{1}{3}$ cup	Very thin
$\frac{2}{3}$ cup	Thin	$\frac{1}{2}$ cup	Thin
$\frac{3}{4}$ cup	Moderately thin	$\frac{2}{3}$ cup	Moderately thin
1 cup	Medium	$\frac{3}{4}$ cup	Medium
$1\frac{1}{4}$ cups	Heavy	1 cup	Heavy

SOLID PACK METHOD

This method is especially recommended for rhubarb, blueberries and cherries to be used in making pies or puddings. It may also be used for other fruits.

Wash, prepare fruit and crush part of it in the bottom of a preserving kettle. Add remaining fruit and heat for a few minutes. Stir occasionally and, if necessary, add a little water to prevent scorching. Pack in sealers or cans, crushing fruit down slightly so that it is covered with its own juice. Sprinkle between layers of fruit the amount of sugar recommended for dry-sugar canning. Leave headspace and process as for Cold Pack (see Time Tables, pages 20-23).

SUGARLESS METHOD

Follow Solid Pack method but omit sugar. The keeping quality of canned fruit does not depend on the addition of sugar but rather on sufficient processing and the use of airtight containers. However, the colour and flavour of some fruits are retained better when some sugar is added.

RAW CANNING METHOD

This method may be used for raspberries, strawberries and rhubarb. Pack raw fruit in sterilized sealers or cans and cover with boiling syrup, leaving headspace. Completely seal. Put several layers of newspapers under and in the bottom of a large kettle or tub. Place sealers in tub and pour in enough boiling water to cover tops of containers by at least 3 inches. When adding boiling water, care should be taken not to pour it directly on sealers. Cover closely and place a blanket or rug over the kettle or tub, tucking it in well around the sides. Leave 10 to 12 hours.

PROCESSING TIME TABLE FOR FRUITS

- See page 19 for Special Methods.
- See page 18 for directions for making syrups.
- Allow ½ inch headspace when using glass sealers, and ¼ inch headspace when using tin cans.
- To help prevent any possible darkening of light coloured fruits, ascorbic acid (Vitamin C) may be added to the sealer just before filling with fruit. The suggested amount of ascorbic acid is 200 milligrams for each quart and 150 milligrams for each pint. When the processing is complete and the sealer is cold, invert for a short time to distribute the dissolved ascorbic acid more evenly.
- Tin cans may be processed in the boiling water bath or pressure canner. **Do not process tin cans in the oven.** When processing tin cans, allow same time for 20-oz. cans as for "small" (pint) sealers and same time for 28-oz. cans as for "medium" (quart) sealers.
- If pressure canner is used for fruits or tomatoes, use the Cold Pack Method and allow 5 minutes at 5 pounds pressure for all containers of fruit and 8 minutes at 5 pounds pressure for tomatoes.

	DIRECTIONS	"Small" Sealers (pint)	"Medium" Sealers (quart)
APPLES	<p>Syrup to use—Thin HOT PACK—Wash, peel, core and slice or quarter, drop in brine bath. Drain. Bring to boil in syrup and simmer 3 minutes. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>mins.</p> <p>15 25</p>	<p>mins.</p> <p>15 25</p>
APPLE- SAUCE	<p>HOT PACK—Make applesauce, sweeten if desired. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>15 25</p>	<p>15 25</p>
APRICOTS	<p>Syrup to use—Moderately thin COLD PACK—Wash, halve and pit or leave whole. Pack, cups down if halved. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath</p> <p>HOT PACK—Wash halve and pit or leave whole. Bring to boil in syrup and simmer 3 minutes. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>20</p> <p>15 25</p>	<p>25</p> <p>15 25</p>
BERRIES except STRAW- BERRIES	<p>Syrup to use Blueberries—Very thin Blackberries, saskatoons—Thin Raspberries—Moderately thin or Medium Gooseberries, loganberries—Medium or Heavy COLD PACK—Wash. (Top and tail gooseberries.) Pack. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>15 25</p>	<p>20 30</p>

READ ALL DIRECTIONS CAREFULLY — PAGES 2-14

PROCESSING TIME TABLE FOR FRUITS

	DIRECTIONS	"Small" Sealers (pint)	Medium Sealers (quart)
CHERRIES	<p>Syrup to use— Sweet Cherries—Thin Sour Cherries—Medium or Heavy</p> <p>COLD PACK—Wash, stem, pit if desired. Pack. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p> <p>HOT PACK—Wash, stem, pit if desired. Bring to boil in syrup and simmer 3 minutes. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>20 30</p> <p>15 20</p>	<p>25 35</p> <p>15 20</p>
PEACHES	<p>Syrup to use—Moderately thin</p> <p>COLD PACK—Blanch 15 to 60 seconds, cold dip. Remove skins and pit. Drop in brine bath. Drain. Leave in halves or slice. Pack, cups down if halved. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath</p> <p>HOT PACK—Blanch 15 to 60 seconds, cold dip. Remove skins and pit. Drop in brine bath. Drain. Leave in halves or slice. Bring to boil in syrup and simmer 3 minutes. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>20</p> <p>15 25</p>	<p>25</p> <p>15 25</p>
PEARS	<p>Syrup to use—Very thin</p> <p>COLD PACK—Wash, peel, halve or quarter, remove core. Drop in brine bath. Drain. Pack, cups down. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath</p> <p>HOT PACK—Wash, peel, halve or quarter, remove core. Drop in brine bath. Drain. Bring to boil in syrup and simmer tender-fleshed varieties 3 minutes; firm-fleshed varieties 5 minutes. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>20</p> <p>15 25</p>	<p>25</p> <p>15 25</p>
PLUMS	<p>Syrup to use— Sour Plums—Moderately thin Prune Plums—Thin</p> <p>COLD PACK—Wash. Leave whole, or halve and pit. Pack. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p> <p>HOT PACK—Wash. Leave whole or halve and pit. Bring to boil in syrup and simmer 2 minutes. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>15 30</p> <p>10 20</p>	<p>20 35</p> <p>10 20</p>

READ ALL DIRECTIONS CAREFULLY — PAGES 2-14

PROCESSING TIME TABLE FOR FRUITS

	DIRECTIONS	"Small" Sealers (pint)	"Medium" Sealers (quart)
RHUBARB	<p>Syrup to use—Medium COLD PACK—Wash, cut in 1/2-inch pieces. Pack. Cover with boiling syrup, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>Mins.</p> <p>10 20</p>	<p>Mins.</p> <p>15 25</p>
STRAW-BERRIES	<p>Syrup to use—Medium or Heavy COLD PACK—Wash, hull. Bring slowly to boil in syrup. Cover, remove from heat and let stand 1 hour. Pack, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p> <p>HOT PACK—Wash, hull. Bring syrup to boil in kettle, add strawberries. Cover, remove from heat and let stand 1 hour. Bring to boil. Pack hot, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>15 30</p> <p>10 20</p>	<p>20 35</p> <p>10 20</p>
SWEET RED PEPPERS	<p>COLD PACK—Wash. Cover peppers with boiling water, bring to boil and boil, covered, for 10 minutes; OR place on a tray in a very hot oven (450°F.) for 6 to 8 minutes, turning several times, until skins blister. Cold dip. Remove skins, cores and seeds. Pack cold. Add 1/2 teaspoon salt per "small" (pint) sealer. Do not add any liquid.</p> <p style="text-align: right;">Boiling Water Bath</p>	<p>40</p>	<p>—</p>
TOMATOES	<p>COLD PACK</p> <p>1. Blanch 15 to 60 seconds, cold dip, remove stem end, peel. Pack. Add 1/2 teaspoon salt per "small" (pint) sealer. Cover with hot tomato juice, leaving headspace.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p> <p>2. Blanch, cold dip, remove stem and, peel. Quarter or leave whole. Pack, pressing down until tomatoes are covered with their own juice, leaving headspace. Add 1/2 teaspoon salt per "small" (pint) sealer.</p> <p style="text-align: right;">Boiling Water Bath</p> <p>HOT PACK—Blanch, cold dip, remove stem end, peel. Quarter or leave whole. Heat to boiling point. Pack hot, leaving headspace. Add 1/2 teaspoon salt per "small" (pint) sealer.</p> <p style="text-align: right;">Boiling Water Bath Oven—275°F.</p>	<p>30 40</p> <p>35</p> <p>15 20</p>	<p>35 50</p> <p>40</p> <p>15 20</p>

READ ALL DIRECTIONS CAREFULLY — PAGES 2 - 14

PROCESSING TIME TABLE FOR JUICES

	DIRECTIONS	"Small" Sealers (pint)	"Medium" Sealers (quart)
TOMATO JUICE	HOT PACK 1. Wash tomatoes, remove core, cut into pieces. Bring to boil and simmer, covered, 5 minutes. Press through sieve or pureer. Bring juice to boiling point. Pour into containers, leaving headspace. Add ½ teaspoon salt per "small" (pint) sealer. <div style="text-align: right;">Boiling Water Bath Oven—275°F.</div>	Mins. 15 20	Mins. 15 20
	2. Wash, remove core. Extract juice, using juice extractor. Heat juice to boiling point. Pour into containers, leaving headspace. Add ½ teaspoon salt per "small" (pint) sealer. <div style="text-align: right;">Boiling Water Bath Oven—275°F.</div>	15 20	15 20
CURRANT JUICE	HOT PACK —Wash, measure and crush currants thoroughly. Add 1 cup water per cup of currants. Bring to boil and simmer, covered, 10 minutes. Strain through moistened jelly bag. Add sugar if desired. Reheat to boiling point. Pour into hot containers, leaving headspace. <div style="text-align: right;">Boiling Water Bath Oven—275°F.</div>	10 15	10 15
GRAPE JUICE	HOT PACK —Wash, stem and crush grapes. Add water, allowing 2½ cups per 6-quart basket of grapes. Bring to boil, and simmer, covered, 15 minutes. Strain through moistened jelly bag. Add sugar if desired. Reheat to boiling point. Pour into hot containers, leaving headspace. <div style="text-align: right;">Boiling Water Bath Oven—275°F.</div>	10 15	10 15
RHUBARB JUICE	HOT PACK —Wash and cut rhubarb into small pieces. Add water, using half as much water as rhubarb. Bring to boil and simmer, covered, 5 minutes. Strain through moistened jelly bag. Add sugar if desired. Reheat to boiling point. Pour into hot containers, leaving headspace. <div style="text-align: right;">Boiling Water Bath Oven—275°F.</div>	10 15	10 15

When using the boiling water bath, increase the processing time by one-fifth for each 1,000 feet over 1,500 feet above sea level.

READ ALL DIRECTIONS CAREFULLY — PAGES 2-14

JAMS AND CONSERVES

STEPS IN MAKING JAM

1. Wash, rinse and sterilize jars. Jars may be sterilized in one of several ways:
 - (a) Cover the rinsed jars with hot water, or invert them in 1 to 2 inches of hot water, bring to boil and boil 15 minutes. Leave in hot water until needed.
 - (b) Set jars on rack in oven. Heat at 225°F. for at least 10 minutes. Remove from oven as needed, allowing to cool slightly before using.
2. Select firm, ripe fruit, and prepare fruit according to directions given in recipes. Measure prepared fruit accurately, using not more than 3 quarts for one lot of jam.
3. Put fruit in uncovered preserving kettle, adding water where indicated in recipe. Pre-cook all fruits, except apricots, peaches and pears, before adding sugar. Bring to the boil and pre-cook, uncovered, for required time. Count time from the moment fruit begins to boil vigorously, stirring frequently to prevent sticking. With apricots, peaches and pears, mix sugar with fruit and allow to stand at least 1 hour before boiling to the jam stage.
4. After pre-cooking, add sugar, bring to the boil and boil, uncovered, for required time, stirring frequently. Count time from the moment jam begins to boil vigorously.
5. As final temperatures of jams vary considerably, depending on fruits used, and as recommended boiling times can be only approximate, the jam should be tested for consistency. To test jam, remove kettle from heat, place a teaspoon of jam on a cold saucer and chill quickly. If jam does not set to proper thickness, cook a few minutes longer and test again.
Since gooseberry and Damson plum jams thicken considerably after cooling, care must be taken not to cook jam to too thick a consistency.
6. Pour hot jam into hot sterilized jars, leaving at least $\frac{1}{4}$ inch head-space at top of jar. Using a slightly moistened clean cloth, carefully remove any trace of fruit or syrup clinging to the inside of the jars above the jam level. Then wipe with a clean, dry cloth. This ensures a better seal when paraffin is added.
7. Cool slightly, then pour a thin layer of melted paraffin over the jam rotating the jar so that the wax will adhere to the glass to form a close seal. Leave until hardened, then add a second layer of melted wax, again rotating the jar. Cover with paper or metal lid and store in a cool, dry place.

Honey or corn syrup may be added to replace up to one-third the amount of sugar called for in the jam recipes.

If using commercial pectin to make jams, follow the manufacturer's directions exactly.

JAMS AND CONSERVES

Fruit	Amount of Prepared Fruit	DIRECTIONS	Water		Sugar	Boiling Time		Approx. Yield
			Cups	Mins.		Cups	Mins.	
APRICOT	12 cups, quartered or cut in pieces	Wash, remove pits and cut into quarters or small pieces. Add sugar, let stand 1 hour. Add 2 tablespoons vinegar or lemon juice. Bring to boil and boil, uncovered, to jam stage.	-	-	7	10 to 12	9	
BLACK CURRANT	6 cups	Wash, top and tail. Add water, bring to boil and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	5	15	6½	5 to 8	7½	
BLACK CURRANT and RHUBARB	4 cups 4 cups, cu	Wash, top and tail black currants. Wash, trim and cut rhubarb into ½-inch pieces. Combine fruit, add water and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	2½	10	6½	4 to 7	7	
BLUE-BERRY and RHUBARB	8 cups 4 cups, cu	Wash fruit. Cut rhubarb into ½-inch pieces. Combine fruit, add water and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	1	10	4	7 to 10	7	
GREEN GOOSE-BERRY	12 cups (3 quart-boxes)	Wash, top and tail. Add water, bring to boil and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	3	15	7½	5 to 7	8	
PEACH	12 cups, cut in pieces	Wash, blanch 15 to 60 seconds, cold dip. Remove skins, pit and cut into pieces. Add sugar and let stand 1 hour. Add 2 tablespoons vinegar or lemon juice. Bring to boil and boil, uncovered, to jam stage.	-	-	6	15 to 20	9	
PLUM (except Damson)	12 cups, quartered	Wash, remove pits and cut into quarters. Add water, bring to boil and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	½	10	7	6 to 8	9½	
PLUM, DAMSON	8 cups	Wash. Add water, bring to boil and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage. Remove as many pits as possible as they rise to the surface.	3	15	7	6 to 8	7½	
RASP-BERRY	8 cups, crushed (4 quart-boxes)	Wash, crush and measure. Bring to boil and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	-	15	6	12 to 15	7	
STRAW-BERRY and RHUBARB	6 cups, crushed (3 quart-boxes) 4 cups, cu	Wash, hull, crush and measure strawberries. Wash, trim stalks and cut rhubarb into ½-inch pieces. Combine fruit, bring to boil and pre-cook, uncovered. Add sugar, bring to boil and boil, uncovered, to jam stage.	-	15	6	10 to 12	6½	

JAMS AND CONSERVES

Cantaloupe and Peach Jam

5 cups peeled, diced cantaloupe 3 medium oranges, grated rind and juice
5 cups peeled, diced peaches 5 cups sugar

Mix all ingredients and let stand until sugar is dissolved—about 1 hour. Bring to boil and boil, uncovered, to jam stage—about 30 minutes. Pour into hot, sterilized jars. Cool slightly and seal. Yield: about 6½ cups.

Grape Jam

Wash and stem grapes. Press pulp from skins. Cook pulp 10 minutes and put through a sieve to remove seeds. Add skins to pulp and measure the mixture. Measure the sugar to be added later, allowing ⅔ cup to each cup of fruit. Bring skins and pulp to boil and boil, uncovered, about 10 minutes or until skins are tender. Add sugar, bring to boil and boil to jam stage—about 20 minutes, stirring frequently. Pour into hot, sterilized jars. Cool slightly and seal.

Grape and Pear Jam

5 cups blue grapes 10 cups chopped pears
3 cups water 4½ cups sugar

Wash grapes, separate skins from pulp. Add 1½ cups water to skins and 1½ cups to pulp. Simmer skins and pulp separately until tender—about 15 minutes. Press pulp through a sieve to remove seeds. Add cooked grape skins, chopped pears and sugar to the pulp. Bring to boil and boil, uncovered, to jam stage—about 45 minutes, stirring frequently. Pour into hot, sterilized jars. Cool slightly and seal. Yield: about 8½ cups.

Jewel Jam

6 cups unpitted cherries 4 cups red currants
(4 cups pitted) 4 cups raspberries
4 cups gooseberries 8 cups sugar

Wash fruit. Pit cherries, top and tail gooseberries, stem currants. Combine the fruits, crush slightly, bring to boil and boil, uncovered, 15 minutes. Add sugar, bring to boil and boil, uncovered, to jam stage—10 to 12 minutes. Pour into hot, sterilized jars. Cool slightly and seal. Yield: about 10 cups.

Pear Marmalade

10 cups sliced pears 2 lemons, grated rind and juice
6 cups sugar ¼ cup preserved or candied ginger

Place pears in preserving kettle in alternate layers with sugar, lemon rind and juice. Let stand 2 to 3 hours. Add ginger, bring to boil and boil, uncovered, stirring frequently, until thick and clear—about 45 minutes. Pour into hot, sterilized jars. Cool slightly and seal. Yield: about 6 cups.

JAMS AND CONSERVES-JELLIES

Strawberry Jam

8 cups washed, hulled strawberries
8 cups sugar
 $\frac{1}{2}$ cup lemon juice

Place berries and sugar in alternate layers in preserving kettle or bowl. Let stand 2 to 3 hours. Bring to boil and boil, uncovered, for 5 minutes. Add lemon juice and boil to jam stage... about 5 minutes. Remove from heat. Skim and stir for 5 minutes to prevent fruit floating. Pour into hot, sterilized jars. Cool slightly and seal. Yield: about 7 cups.

Rhubarb Conserve

14 cups rhubarb, cut in $\frac{1}{2}$ -inch pieces	Juice of 2 oranges
3 cups raisins	Rind of 2 oranges, thinly sliced
7 cups sugar	$\frac{1}{2}$ to 1 cup walnuts

Combine rhubarb, raisins, sugar, orange rind and juice. Let stand $\frac{1}{2}$ hour. Bring to boil and boil, uncovered, 40 minutes, stirring frequently. Add walnuts, coarsely chopped, and boil to jam stage—about 5 minutes. Pour into hot, sterilized jars. Cool lightly and seal. Yield: about 12 cups.

Citron Preserve

Cut citron in $\frac{1}{2}$ -inch slices, peel, remove seeds and cut into cubes. Cover with weak brine, allowing 1 teaspoon of salt to 1 quart of water, and let stand overnight. In the morning drain thoroughly, place over a very low heat, adding a little water if necessary to prevent scorching, and cook until tender. Measure citron and, for every 6 cups of the fruit, add 2 cups sugar and grated rind and juice of 1 lemon. If desired, $\frac{1}{4}$ cup chopped, preserved or candied ginger may be added. Bring slowly to a boil and cook until clear. Pour into hot, sterilized jars. Cool slightly and seal.

JELLIES

To make a perfect jelly, pectin, acid, sugar and water must be in the right proportions. Fruits vary in the amounts of pectin and acid they contain.

Fruits rich in both pectin and acid:—crabapples, sour apples, cranberries, currants, gooseberries, sour plums, grapes.

Fruits rich in pectin, but low in acid:—quinces, sweet apples.

Fruits rich in acid, but low in pectin:—strawberries, cherries, rhubarb, pineapple, raspberries, loganberries.

Fruits low in both pectin and acid:—peaches, pears, blueberries.

If a fruit is low in either pectin or acid, it may be combined with one or more fruits rich in the needed pectin or acid.

Pectin and acid change with the maturity of the fruit, both decreasing as the fruit ripens. For best results, therefore, use a mixture of slightly under-ripe and ripe fruit. Never use over-ripe fruit for making jelly.

If using commercial pectin to make jelly, follow the manufacturer's directions exactly.

JELLIES

STEPS IN MAKING JELLY

1. Sterilize jelly glasses or jars as for jam making.
2. Select sound fruit, using about equal parts of ripe and slightly under-ripe fruit.
3. Wash thoroughly and discard any damaged spots.
4. Prepare fruit according to directions given below.
5. Add cold water, using proportion of water to prepared fruit, as given below.

Fruit	PREPARATION	Amount of Cold Water
APPLE	Wash, remove stems and blossom ends, cut into eighths, or slice.	To completely cover prepared fruit.
CHOCHECHERRY and APPLE	Wash and stem chokecherries, crush in bottom of kettle. Wash apples, stem, cut into eighths. Prepare equal quantities of both fruits.	To come just below top layer of prepared fruit.
CRABAPPLE	Wash, stem, cut into quarters.	To completely cover prepared fruit.
CURRANT, RED	Wash, stem.	$\frac{3}{4}$ cup water for each cup prepared fruit.
CURRANT, BLACK	Wash, stem.	$1\frac{1}{4}$ cups water for each cup prepared fruit.
GOOSEBERRY (GREEN)	Wash, stem.	$\frac{3}{4}$ cup water for each cup prepared fruit.
GRAPE	Wash, stem.	To come just below top layer of prepared fruit.
PLUM, SOUR	Wash, stem, cut into halves or quarters, leave in pits.	To come just below top layer of prepared fruit.
QUINCE and APPLE	Wash quinces and apples thoroughly, remove stems and blossom ends, cut into quarters. Prepare equal quantities of both fruits.	To completely cover prepared fruit.
QUINCE and GRAPE	Wash quinces, remove stems and blossom ends, cut into quarters. Wash and stem grapes. Prepare equal quantities of both fruits.	To come just below top layer of prepared fruit.
RASPBERRY and RED CURRANT	Wash raspberries. Wash and stem currants. Prepare equal quantities of both fruits.	$\frac{1}{4}$ cup water for each cup prepared fruit.

6. Simmer fruit and water in a covered kettle until fruit is soft and mushy, crushing during cooking.
7. Pour hot cooked fruit into a moistened jelly bag made of factory cotton, flannel or several thicknesses of fine cheesecloth. Hang up over a bowl and allow to drain until dripping ceases.
Squeezing the bag increases the quantity of juice, but the jelly will not be so clear.

JELLIES

STEPS IN MAKING JELLY

8. Work with small amounts of extracted juice at a time —not more than 8 cups. Measure each lot of juice accurately to determine the amount of sugar to be added after boiling.
9. Boil juice, uncovered, in a broad saucepan for 3 minutes. Remove saucepan from heat and test for pectin. If clot does not form, continue boiling, testing frequently, until pectin test is satisfactory.

PECTIN TEST

Measure 1 teaspoon fruit juice and 1 teaspoon rubbing alcohol into a cup or small dish. Blend quickly together and let stand 30 seconds. If a jelly-like mass or clot is formed, the juice contains sufficient pectin. Sugar may then be added.

DO NOT TASTE THIS MIXTURE — RUBBING ALCOHOL IS POISONOUS.

10. Measure sugar, allowing $\frac{3}{4}$ cup sugar for each cup of extracted juice, except when a heavy solid clot forms when pectin test is made at the end of the 3-minute boiling period. This heavy clot indicates that the juice is so rich in pectin that 1 cup of sugar for each cup of extracted juice should be used.
11. Add measured sugar slowly to juice. Boil briskly, uncovered, removing scum as it forms.
12. To test when jelly is done, dip up the boiling hot syrup with a metal spoon, holding well above kettle, and allow it to run off the edge. When two drops form and then flow together to form a "sheet," the jelly stage has been reached. Immediately remove from the heat. Longer boiling will give a stiff, tough jelly.
13. Let hot juice stand in kettle for about 1 minute and remove last bit of scum with a cold fork or spoon.
14. Pour into hot, sterilized jelly glasses, filling to within $\frac{1}{4}$ inch of the top. Using a slightly moistened clean cloth, carefully remove any trace of jelly clinging to the inside of the glass above the jelly level. Then wipe with a clean dry cloth. This ensures a better seal when paraffin is added.
15. Let stand until partially set, then pour a thin layer of hot, melted paraffin wax to completely cover the jelly and leave until hardened. Then add a second layer of hot melted wax, rotating the jar so that the wax will adhere to the glass to form a close seal. Cover with paper or metal lid and store in a cool, dry place.

PICKLES AND RELISHES

POINTS ON PICKLING

1. Use firm, fresh vegetables and fruits for making pickles. Fruits may be slightly under-ripe.
2. Some vegetables, such as cucumbers, require soaking in brine before covering with vinegar. This soaking helps to keep the vegetables firm during the succeeding pickling process. It also reduces bitterness. Cucumbers for gherkins should be placed in brine as soon after picking as possible. Cucumbers for dills should be placed in cold water. Holding cucumbers at room temperature for even a few hours may result in hollow centres.

When making brine, use the proportion of 1 cup fine salt or $1\frac{1}{2}$ cups coarse salt to 2 quarts (10 cups) water. If not enough salt is used, pickles will be soft or slippery; if too much salt is used, they may shrivel and become tough. Do not use free-running salt. Salt, treated to make it free-running, causes cloudiness in the brine.

3. Use good quality vinegar. If vinegar is too weak, pickles will be soft. Both cider and blended vinegars have good flavour, but white, spirit vinegar gives better colour where light-coloured foods, such as onions, cauliflower or pears, are used.
4. The use of a small amount of alum during the pickling process develops a crisp quality in certain pickles.
5. Spices should be used with caution. This is particularly true of cloves, allspice and hot peppers since they are exceptionally strong-flavoured. A dark colour or bitter flavour may result from using too much spice, or from boiling the spice too long with the vinegar.

Whole spices give better colour and flavour than ground spices. Whole spices should be tied loosely in a cheesecloth bag, cooked with the vinegar or pickle and then removed. The bag should be large enough to allow the vinegar to boil through the spices.

6. In making pickles, use enamel, aluminum or stainless steel cooking utensils. Since vinegar and salt react with iron, copper and brass, causing discoloration, utensils made of these metals should not be used.
7. Pickles should be stored in clean glass jars, sealers or crocks. If kept in crocks, pickles should be well covered with vinegar solution to prevent moulding. A plate or wooden board, cut to fit inside the crock, should be placed on top of the pickles and weighted down. A clean stone or other weight may be used.

Relishes and sauces should be packed in hot, sterilized jars and completely sealed

PICKLES AND RELISHES

Gherkins

4 quarts cucumbers 2 to 3 inches long	8 cups blended vinegar
4 quarts (20 cups) boiling water	¼ cup salt
1 cup table (bag) salt or 1½ cups coarse salt	¼ cup sugar
	spices (see NOTE below)
	7 cups sugar

Wash cucumbers, scrub well, rinse, drain well and place in a crock. Cover with hot brine made by combining boiling water and salt. Pour over cucumbers, cover and let stand overnight. Drain cucumbers thoroughly and place in clean, dry crock. Prepare pickle mixture by combining the cold vinegar, salt, the ¼ cup sugar and spices. Pour over cucumbers. Each morning for the next 14 days, add ½ cup sugar, stirring well to dissolve the sugar. When last of sugar is added, remove pickles from liquid and pack into sterilized jars. Strain pickle mixture to remove spices, pour over pickles and seal. Yield: Approx. 4 quarts.

Nine Day Pickles

4 quarts cucumbers 2 to 3 inches long	1 teaspoon alum
4 quarts (20 cups) boiling water	4 quarts (20 cups) boiling water
2 cups table (bag) salt or 3 cups coarse salt	8 cups blended vinegar
	6 cups sugar
	spices (see NOTE below)

Wash cucumbers, scrub well, rinse, drain well and place in a crock. Cover with hot brine made by combining 4 quarts boiling water with the salt. Let stand 3 days. Drain cucumbers from brine, bring brine to boiling point, pour over cucumbers and again let stand 3 days. Repeat this and again let stand 3 days. Drain cucumbers and place in a crock. Add alum to remaining 4 quarts boiling water and pour over cucumbers. Let stand 6 hours, then drain and rinse thoroughly. Pack pickles into sterilized jars. Prepare pickle mixture by combining the vinegar, sugar and spices. Boil mixture for 5 minutes. Strain through cheesecloth, pour over pickles and seal. Yield: Approx. 4 quarts.

Note:—Suggested combinations of spices:

- | | | |
|------------------------------|-----|----------------------------|
| (1) ¼ cup mustard seed | and | ½ cup mixed pickling spice |
| (2) 1 ounce cinnamon stick | and | 2 tablespoons celery seed |
| (3) 1 tablespoon celery seed | and | 2 teaspoons whole cloves |
| (4) 1 ounce cinnamon stick | and | 2 teaspoons whole cloves |

Dill Pickles

Use freshly picked cucumbers 3 to 5 inches long. Wash, soak overnight in cold water. Drain thoroughly. Place pieces of dill in the bottom of clean jars. Pack cucumbers into jars and place more dill on top. Combine:

½ cup table (bag) salt or ¾ cup coarse salt	6 cups water
2 cups white vinegar	

Bring to boil and pour hot liquid over cucumbers. Seal. Let stand in a cool place at least 6 weeks before using. Yield: sufficient liquid for 4 quarts pickles. If desired, a small piece of garlic may be added to each quart of pickles.

PICKLES AND RELISHES

Cherry Olives

Select and wash 3 pounds firm, ripe black or sweet white cherries. Clip off end of stem, leaving $1\frac{1}{2}$ to 2 inches on cherry. Do not remove pits. Pack into clean jars. Combine:

2 cups cider or blended vinegar	2 tablespoons salt
2 cups cold water	1 tablespoon sugar

Stir until thoroughly blended and pour cold syrup over cherries in jars and seal. Yield: about 4 pints.

Bread and Butter Pickles

6 quarts small cucumbers 1 to $1\frac{1}{2}$ inches in diameter	9 cups water
1 quart small white onions	8 cups vinegar
4 green peppers	4 cups sugar
1 sweet red pepper	1 tablespoon turmeric
1 cup table (bag) salt or $1\frac{1}{2}$ cups coarse salt	1 teaspoon mustard seed
	1 teaspoon celery seed

Wash all vegetables. Slice cucumbers and onions thinly. Remove seeds and dice peppers. Make a brine of the salt and water. Cool and pour over vegetables. Let stand overnight. Drain thoroughly. Combine vinegar, sugar and spices. Bring to boil and add vegetables. When thoroughly heated, pack in hot, sterilized jars and seal. Yield: about 6 quarts.

Chili Sauce

1 tablespoon whole cloves	$2\frac{1}{2}$ cups chopped, seeded green or sweet red peppers (6 medium)
3 tablespoons whole allspice	
1 gallon peeled, chopped ripe tomatoes (8 lb.)	$1\frac{1}{2}$ cups sugar
$2\frac{1}{2}$ cups chopped, peeled onions (6 medium)	2 tablespoons salt
	4 cups vinegar

Tie spices in a cheesecloth bag. Combine with remaining ingredients in saucepan. Cook, uncovered, $2\frac{1}{2}$ to 3 hours or until quite thick, stirring frequently. Remove spice bag. Pour into hot, sterilized sealers or jars and seal. Yield: about 12 cups.

Corn Relish

3 cups corn (cut from cob)	2 cups chopped onions
2 cups coarsely chopped cucumber	$1\frac{1}{2}$ tablespoons salt
2 cups coarsely chopped ripe tomatoes	1 tablespoon dry mustard
2 cups coarsely chopped celery	$\frac{1}{2}$ tablespoon turmeric
$\frac{1}{2}$ cup chopped green pepper	$2\frac{1}{2}$ cups vinegar
$\frac{1}{2}$ cup chopped sweet red pepper	$1\frac{1}{4}$ cups brown sugar

Mix ingredients well. Simmer, uncovered, until thickened—about 50 minutes, stirring frequently. Pour into hot sterilized jars and seal. Yield: about 8 cups.

PICKLES AND RELISHES

Green Tomato Pickles

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| 30 medium green tomatoes (7½ lb.) | 1 tablespoon dry mustard |
| 6 large onions | 1 tablespoon peppercorns |
| ½ cup table (bag) salt or ¾ cup coarse salt | ½ lemon |
| 1 tablespoon mustard seed | 2 sweet red peppers |
| 1 tablespoon whole allspice | 2½ cups brown sugar |
| 1 tablespoon celery seed | 3 cups vinegar |
| 1 tablespoon whole cloves | |

Slice tomatoes and onions thinly and place in a crock or enamel vessel in alternate layers with the salt. Let stand overnight. In the morning, drain thoroughly, rinse in cold water and drain well again. Tie all spices loosely in a cheesecloth bag; slice lemon thinly; remove stem and seed cores from peppers and slice thinly. Add spice bag and sugar to vinegar, bring to boiling point, then add tomatoes, onions, lemon and peppers. Cook for ½ hour, stirring gently to prevent sticking. Remove spice bag and pack pickles in hot, sterilized jars and seal. Yield: about 12 cups.

Fruit Tamale

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| 8 large or 12 medium ripe tomatoes (3 lb.) | 1 small hot red pepper (2 tbsps. chopped) or 6 small dried chili peppers |
| 1½ cups coarsely chopped peaches | 2½ cups brown sugar |
| 1½ cups chopped pears | 2 teaspoons salt |
| 2 cups chopped apples | 1½ cups vinegar |
| 1½ cups chopped onions | |
| 1 cup chopped celery | |
| 2 tablespoons whole mixed pickling spice | |

Combine chopped vegetables and fruits. Tie spices (including dried chili peppers if used) loosely in a cheesecloth bag. Add spice bag, sugar and salt to vinegar, bring to boiling point and add other ingredients. Cook, uncovered, until thickened—about 1 hour, stirring occasionally. Remove spice bag; pack in hot, sterilized jars and seal. Yield: about 8 cups.

Pepper Relish

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| 3½ lb. (15-18) sweet red peppers | 1 teaspoon mustard seed |
| 3 lb. (12-15) green peppers | 1 tablespoon dry mustard |
| 3 lb. (12-15) medium onions | 1 tablespoon celery seed |
| 4 cups vinegar | 2 tablespoons salt |
| 1 cup sugar | |

Wash peppers, remove seed cores. Peel onions. Put vegetables through food chopper, using coarse blade. Place in large preserving kettle, cover with boiling water and let stand 5 minutes. Drain thoroughly. Add vinegar, sugar, spices and salt; cook until vegetables are tender—about 10 minutes, stirring occasionally. Pour into hot, sterilized jars and seal. Yield: about 12 cups.

PICKLES AND RELISHES

Mustard Beans

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| 2 pounds yellow beans (8 cups-cut beans) | 1½ teaspoons salt |
| 2 teaspoons tumeric | 2 cups brown sugar |
| ½ cup mustard | 4 cups vinegar |
| ½ cup flour | 4 teaspoons celery seed |

Wash beans, trim ends and string if necessary. Cut into 1-inch lengths. Cook in boiling, salted water until just tender. Do not over-cook. Mix tumeric, mustard, flour, salt and brown sugar to a smooth, thin paste with ½ cup of the vinegar. Heat remaining vinegar and celery seed to the boiling point. Slowly add hot vinegar to the mustard paste, blending well. Cook, stirring constantly, until slightly thickened, about 5 minutes. Add beans to mustard sauce, blending well. Bring to boil and pour into hot, sterilized jars and seal. Store in a cool, dry place. Yield: about 8 cups.

Chow Chow

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| 30 medium green tomatoes (7½ lb.) | 3 medium onions |
| ½ cup table (bag) salt or ¾ cup coarse salt | 6½ cups vinegar |
| ½ medium cabbage (3 cups minced) | 2 cups sugar |
| 3 green peppers | 1 tablespoon celery seed |
| 2 sweet red peppers | 1 tablespoon mustard seed |
| | ½ tablespoon whole cloves |

Put tomatoes through food chopper, using coarse blade. Combine with salt and let stand ½ hour. Put into cheesecloth bag and let drain overnight. Add cabbage, peppers and onions which have been put through food chopper. Mix vegetables together and add vinegar, sugar and spices, tied loosely in a cheesecloth bag. Cook, uncovered, over low heat until vegetables are tender, about 20 minutes. Pour into hot, sterilized jars and seal. Yield: about 12 cups.

Curry Slices

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| 1 tablespoon whole mixed pickling spice | ¼ teaspoon pepper |
| 2 cups vinegar | 2 quarts sliced, peeled medium cucumbers |
| ½ cup brown sugar | 2 cups sliced, peeled small white onions |
| 1 teaspoon curry powder | ½ green or sweet red pepper, chopped |
| 1 teaspoon dry mustard | |
| 1 tablespoon salt | |

Tie whole spice loosely in cheesecloth bag. Combine vinegar, sugar, curry powder, mustard, salt and pepper and bring to boil with spices. Add cucumbers, onions, and chopped pepper and bring to boil. Boil 5 minutes. Drain and save liquid. Remove spice bag and pack vegetables into hot, sterilized jars. Bring vinegar mixture to boiling point and pour over pickles, to overflowing. Seal. Yield: about 8 cups.

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