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CANNING IN GLASS JARS

in SCHOOL and INSTITUTIONAL KITCHENS

Fruits and Other Acid Foods

U.S. DEPARTMENT OF AGRICULTURE
Production and Marketing Administration
AGRICULTURE HANDBOOK NO. 11

811389

PREFACE

Many schools and institutions find it desirable to do some canning in their kitchens. It is a good way to take care of surpluses that might otherwise go to waste. These surpluses may be commodities grown in school gardens or on institutional farms or those donated by the U. S. Department of Agriculture under its program to remove surplus agricultural commodities from the market.

To help these schools and institutions do the job easily and quickly, this handbook has been prepared. It covers the canning of most fruits and acid vegetables that may be safely processed by the boiling water-bath method. This method of canning can be used in any school or institutional kitchen. The equipment needed is on hand, or can be easily set up.

The water-bath method should not be used for canning low-acid vegetables, such as corn, beans, and spinach, or for canning meats, poultry, or fish. Such foods, to be safe for use, must be canned in a pressure canner at a temperature of 240° F.

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CONTENTS

	Page
Introduction	1
Water-bath canner	1
Labor-saving equipment	3
Parers, cutters, knives	3
Kitchen truck	3
Glass jars and lids	3
Choose jars with care	3
Get jars and lids ready	4
Quality of foods for canning	4
Amounts to prepare at one time	4
Washing food	4
To peel tomatoes and some fruits quickly	4
To prevent browning	4
To sweeten fruit	5
Pointers on filling jars	5
To seal jars with different type lids	6
Processing time based on preparation method	8
Processing time at high altitudes	8
Directions for using water-bath canner	8
Cooling of jars	9
Testing for proper seal	9
Labeling jars	9
Storing food canned in glass jars	10
10 points to remember when canning	10
If spoilage occurs	10
Apples	10
How to store apples	11
To figure your jar needs	11
To sweeten apples	11
Labor-saving equipment	11
Thermometer for jelly-making	12
To can sliced or quartered apples	12
Whole apples in sirup	12
Spiced whole apples	12
Applesauce	12
Apple butter	13
Apple jelly	13
Apricots	14
To figure your jar needs	14
To sweeten apricots	14
To can apricots	14
Apricot jam	15
Berries	15
To figure your jar needs	16
To sweeten berries	16
To can berries	16
Strawberry or other berry jam	16
Cherries	17
To stone cherries	17
To figure your jar needs	17
To sweeten cherries	17
To can sour cherries	17
To can sweet cherries	18
Cherry preserves	18
Peaches	18
To figure your jar needs	18
To sweeten peaches	19
To can freestone peaches	19
Sliced peaches for pies	19
Peach jam	19
Pickled peaches	19
Pears	20
How to ripen pears	20
To figure your jar needs	21
To sweeten pears	21
Tools for peeling and coring pears	21
Pulper	21
To can Bartlett pears	21
Spiced pears	22
Pear butter	22
Plums and fresh prunes	23
To figure your jar needs	23
To sweeten plums	23
To can plums or fresh prunes	23
Plum butter	23
Plum jam	24
Sauerkraut	24
Equipment and supplies needed	25
To make sauerkraut	26
To can sauerkraut	26
To prepare bulk kraut for storage	26
Tomatoes	27
How to ripen tomatoes	27
To figure your jar needs	27
Tomato coring knife	27
To can tomatoes	28
To can tomato juice	28

CANNING IN GLASS JARS IN SCHOOL AND INSTITUTIONAL KITCHENS

FRUITS AND OTHER ACID FOODS

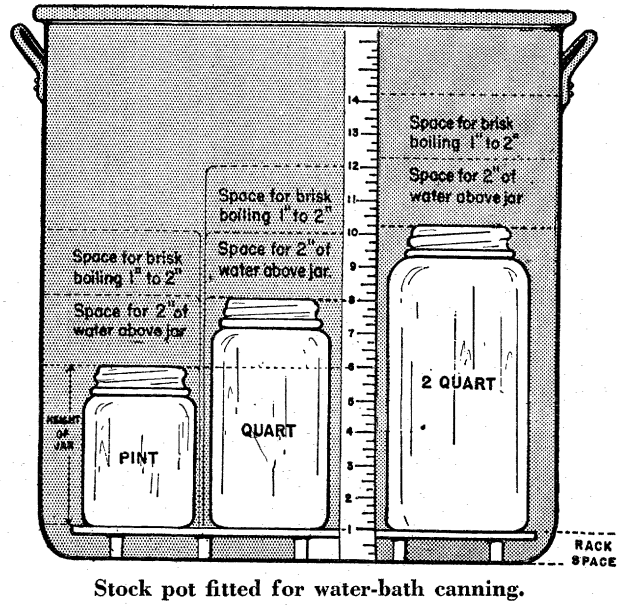
Prepared by BERTHA F. OLSEN, *Food Distribution Branch, Production and Marketing Administration*[1]

INTRODUCTION

These instructions are for canning fruits, tomatoes, and sauerkraut in glass jars. These foods are acid foods. Therefore, they may be safely canned in a boiling water-bath. Boiling water is hot enough to kill bacteria which may cause spoilage of these foods. If other organisms are present, the acid in the food will keep them from growing. The water, however, must be kept boiling for the full time given for each product; otherwise, the product may spoil. Follow the instructions carefully.

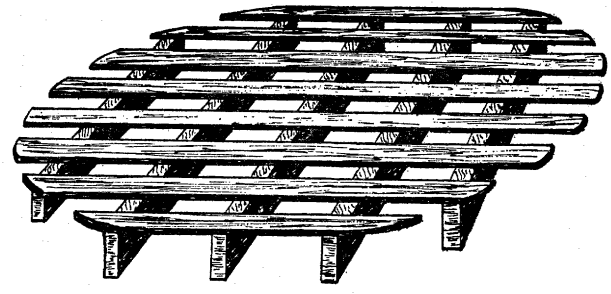
WATER-BATH CANNER

Any large stock pot, lard can, or boiler may be used for a water-bath canner. It must be deep enough to permit water to reach 1 or 2 inches over the tops of the jars and to allow a little extra space for boiling.



Stock pot fitted for water-bath canning.

Fit canner with a rack made from wooden slats or heavy wire to keep jars from touching bottom. This rack will permit water to circulate under jars during processing.



Wooden rack to fit stock pot.

A pressure canner also may be used for a water-bath canner if it is deep enough. Be careful, however, not to let pressure build up in the canner. Keep the pet cock wide open to allow the steam to escape. Do not fasten the cover when you set it in place.

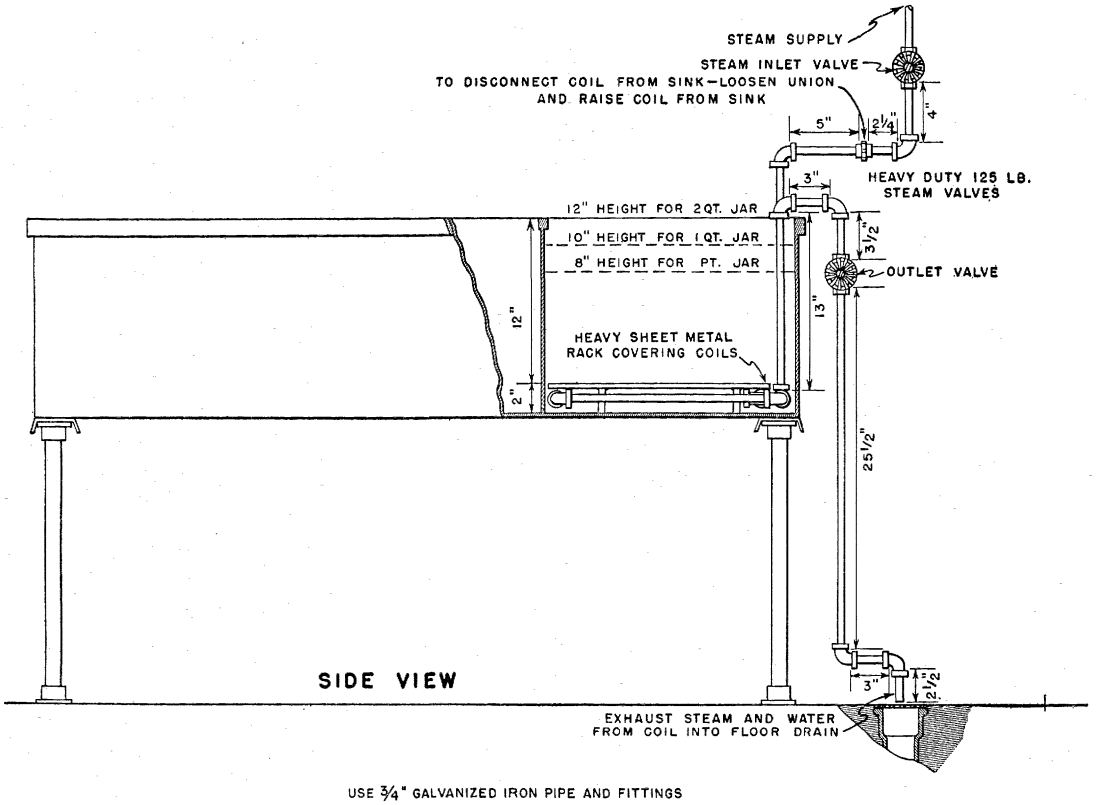
Thirty- or forty-gallon steam-jacketed kettles make good water-bath canners, too. They are wide enough and deep enough to hold 24 to 30 1- or 2-quart jars. Have a basket made like the one shown to hold the jars. For 2-quart jars, the bottom of the basket must be at least 12 inches from the top of the kettle.

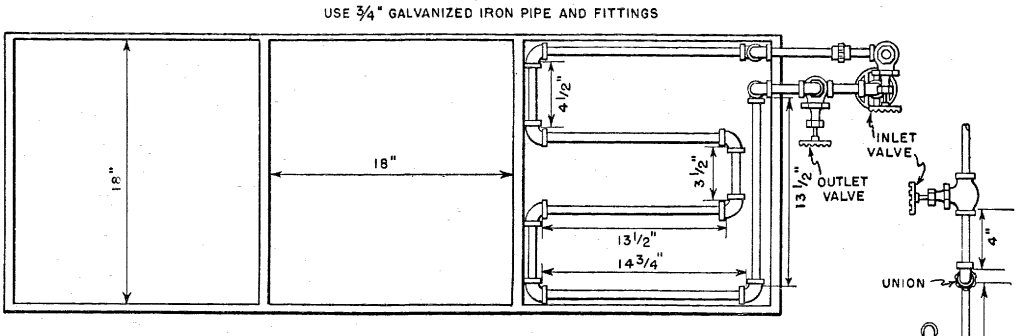
Use 1/8- by 3/4-inch strap iron for the basket frame. Weld or rivet the frame together and line the bottom with heavy sheet metal punched with 1/2-inch holes. Unpunched sheet metal may be used for the sides. To keep the basket from tipping hang it from the sides of the kettle with hooks and chains. To do this fasten four light-weight chains to the strap iron frame and attach a hook to each chain as shown.

Strap iron, sheet metal, chains, and hooks may be bought at a hardware store or sheet metal shop.

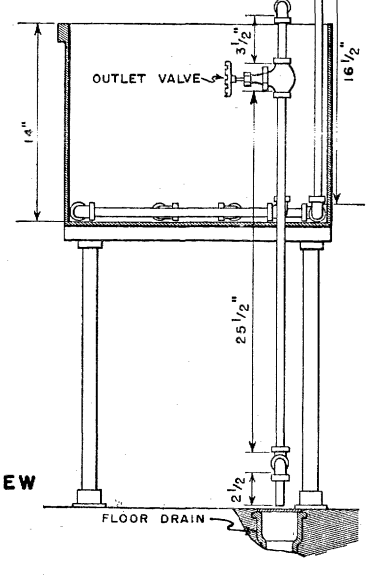
A school or an institution having a steam supply in its kitchen may use one of the compartments of the sink for a water-bath canner. To do so, fit the compartment with steam pipes as shown. An engineer or a plumber can do this. Have him install the steam pipes in such a

[1] The author is indebted to Esther H. Scott for assistance in the preparation of the manuscript. Acknowledgment also is made to Dr. Howard Reynolds of the Bureau of Human Nutrition and Home Economics, USDA, James M. Reed of the National Canners Association, and Dr. William B. Esselen, Jr., of the University of Massachusetts, for assistance and helpful suggestions.



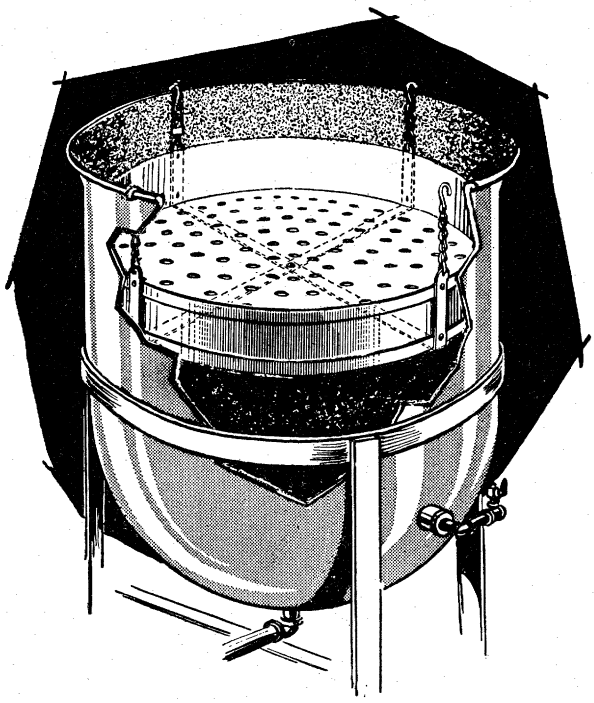


TOP VIEW



END VIEW

Compartment sink fitted for water-bath canning.



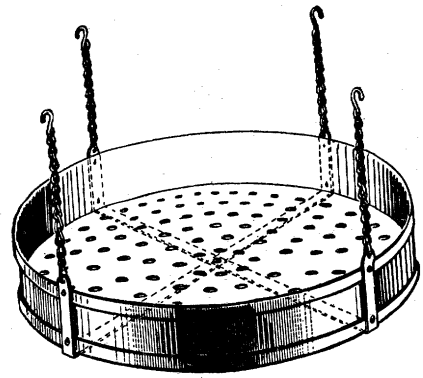
Steam-jacketed kettle fitted for water-bath canning.

way that they can be taken out for cleaning. A heavy sheet-metal rack, punched with ½-inch holes on 2-inch centers, is needed to fit over the steam pipes to hold the jars. The rack should be supported on legs to keep the weight of the jars off the pipes. This type of heating unit in a sink is ideal also for sterilizing dishes. Steam passing through the pipes will heat the water quickly to boiling. Be sure that you know how to work the steam valves. Have the engineer show you.

LABOR-SAVING EQUIPMENT

Parers, Cutters, Knives

To make your canning job easy, use labor-saving equipment. Some of these items are apple parers, juice extractors, cherry stoners, kraut cutters, and special knives for peeling and coring fruit and tomatoes. They will save you much time and will have many uses in your kitchen when the canning job is done. Illustrations of this equipment are shown in the instructions given for preparing each product. A partial list of companies from which each item can be bought is also given in the instructions. In furnishing these partial lists of suppliers no guarantee of reliability is implied and no discrimination is intended.



Basket for holding jars in steam-jacketed kettle.

Kitchen Truck

A kitchen or dish truck such as the one shown here or a table mounted on wheels is another labor-saving item. It is excellent for moving trays of filled jars to and from the water-bath canner. Wheels can be attached to any small table. Cut a few inches off the legs of the table, if necessary, to make it a good working height. Trucks or tables should not be higher than 35 inches. Trucks may be purchased from the following suppliers:

American Metal Ware Co., 368 West Huron St., Chicago, Ill.
Colson Equipment and Supply Co., Willow and Mateo Streets, Los Angeles, Calif.
Wright Co., Inc., Atlanta, Ga.

Kitchen or dish truck.

GLASS JARS AND LIDS

Choose Jars with Care

For best results, use standard-sized jars made for canning. Use only the sizes for which processing times are given. For canning fruits and other acid foods, these sizes are pint, quart,

and 2-quart jars. When possible use wide-mouthed jars as they are easier to fill. To simplify operations, use self-sealing metal lids.

Do not use odd-sized jars, such as mayonnaise or coffee jars. The processing times may not be right for them.

Before starting to can, have enough jars ready to complete the day's job. The number needed to can a bushel or crate of produce is given in the canning directions. This will help you figure how many jars you should have on hand.

Be sure that jars are perfect. Don't use those with cracks or chips. Such defects prevent air-tight seals. Using jars and lids from the same manufacturer helps to insure a good seal.

Get Jars and Lids Ready

Before you start canning, wash glass jars in hot, soapy water, and rinse well. Old jars may need an extra washing to get them clean. Jars to be filled with hot food, should be hot, too. Dip them into hot water just before filling.

Wash and rinse all lids except those with sealing compound. Heat the lids in clean water just before using. Some metal lids that have sealing compound need boiling; others need only a dip in hot water. Follow the manufacturer's directions. If you use rubber rings, have clean, new rings of the right size for the jars. Be careful not to stretch them. If metal lids with sealing compound are used, get new ones for each canning. The screw bands for this type of lid, however, may be used several times — but not after they become rusty. Screw bands for glass lids and for metal lids should not be mixed. The wrong type of screw band will prevent a good seal.

QUALITY OF FOODS FOR CANNNING

Foods for canning should be in good condition. Fruits and tomatoes should be firm — yet ripe enough to have good flavor. Do not use products that have green spots or those that are overripe. Such products may cause spoilage. If slightly bruised products or those with hard spots or cracks are used, trim them carefully. Cut well around the defective part and smell the product to make sure that it is not sour. These defects, if not removed, may also cause spoilage.

Remember that your canned food will be no better than the fresh food you start with. For best results use only sound products. Sort them for size and ripeness so they will cook evenly.

AMOUNTS TO PREPARE AT ONE TIME

Get ready at one time only enough food to fill the jars your canner will hold. For example, if you are canning apples and your canner holds 16 quart jars, you will need to get 1 bushel of apples ready at a time. If the canner holds 8 quart jars, you will need to prepare only ½ bushel. The canning directions for each product tell you how many jars are needed for each bushel or crate of produce. While one batch is being processed get the next batch ready. Work fast. Get the food ready quickly and process it at once.

WASHING FOOD

Wash all foods carefully even though some of them may be peeled before canning. Use plenty of water and change it often. Fruits and tomatoes grown near the ground may need several washings. Lift products out of water each time instead of pouring off water so dirt that is washed off won't be drained back over them. Use a strainer or wire basket when washing small fruits, such as berries. Dip them up and down in the water until dirt and sand are removed.

TO PEEL TOMATOES AND SOME FRUITS QUICKLY

To peel tomatoes and fruits such as free-stone peaches, pears, and apricots, dip them first in boiling water. Keep them in the boiling water until skins slip. This will take from 30 seconds to 1½ minutes if the product is ripe enough and the water is boiling. If the product is too ripe or is scalded too long it will become mushy and hard to handle. Be sure to use plenty of water so it will continue to boil when the product is added. Water below the boiling point will cook the product before it will loosen the skins.

Use a wire basket to hold the tomatoes or fruit so they can be dipped up and down in the water while being scalded.

When you can slip skins, remove the product at once and plunge it in cold water. This will shrink the skins and make them easy to remove. Rub skins off with hands under cold water or pull them off with peeling knife. Core tomatoes while they are being peeled.

TO PREVENT BROWNING

Fruits such as pears, peaches, and apples turn brown very quickly after peeling. To prevent this browning can them, if possible, as soon as they are peeled. If this cannot be done,

put the fruit in a weak salt brine made by adding 3 tablespoonfuls of salt to 1 gallon of water. Make fresh brine as needed. It weakens with use. If fruit is kept in brine longer than 1 hour, rinse it off with clear water before filling into jars. Otherwise the fruit will have a salty flavor. It is best to work fast and get the fruit canned quickly.

TO SWEETEN FRUIT

Use a sugar sirup for sweetening fruit. To make sirup, boil sugar and water for 5 minutes. Skim off any scum that forms on top. Be sure that sirup is boiling when added to the fruit. Do not keep it boiling when not in use or it will thicken.

The amount of sugar to use in each gallon of water will depend upon how sweet you want the sirup. The amounts given in table 1 will serve as a guide. If you like a sirup heavier than the medium weight, add more sugar.

Fruit may also be canned without sugar, but it will not hold its shape as well. Sugar not only helps canned fruit to hold its shape but also improves its color and flavor. Sugar is not needed to prevent spoilage. If fruit is canned without sugar, follow the directions given for canning with sirup, but use boiling water instead.

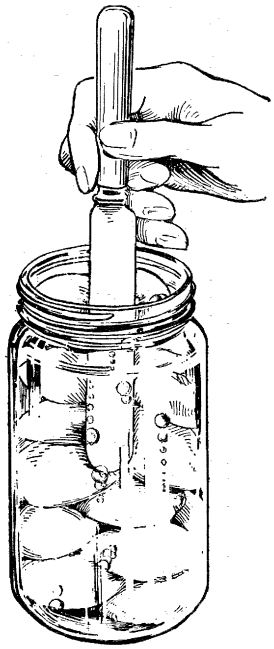
TABLE 1.—*Amounts of sugar needed per gallon of water to make different weight sirups, and yield in sirup*

Weight of sirup	Sugar needed per gallon of water	Yield in sirup
Light	1¼ quarts or 5 cups	4½ quarts
Medium-light	2 quarts or 8 cups	5 quarts
Medium	3 quarts or 12 cups	5½ quarts

POINTERS ON FILLING JARS

1. When canning fruits such as peaches or pears, place halves in jars in overlapping layers — cut side down as shown. This will make best use of space in jar. Tomatoes are pressed down to fill spaces. Be sure to leave the required head space at top of jar.

2. Use boiling sirup to cover fruit, leaving head space at top of jar, as recommended in the canning directions. A pot with a spout such as the one shown is good to use for adding sirup.



3. Before sealing jars, remove air bubbles. To do this, work blade of table knife down sides of jar. Add more liquid, if needed, to cover food — but be sure to leave the required head space.

4. If there are particles of food on rim of jar or on rubber ring, wipe them off. Use a clean, damp cloth. A smooth, clean surface is necessary to get a good seal.

TO SEAL JARS WITH DIFFERENT TYPE LIDS

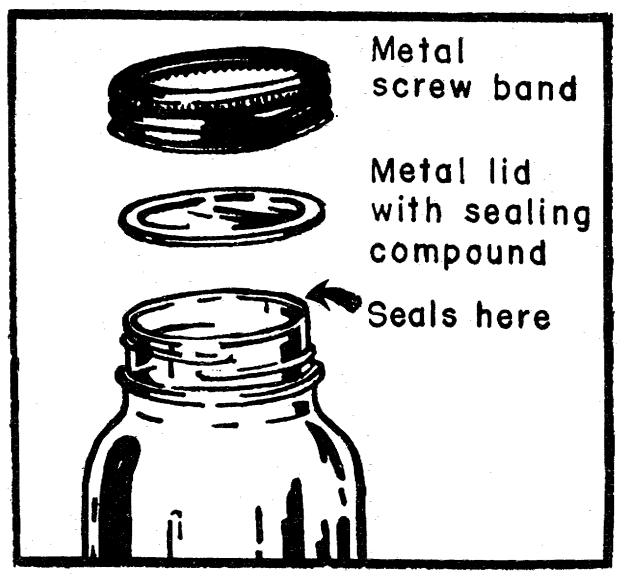
1. After filling jar, wipe top clean.

2. Put lid on with sealing compound next to glass.

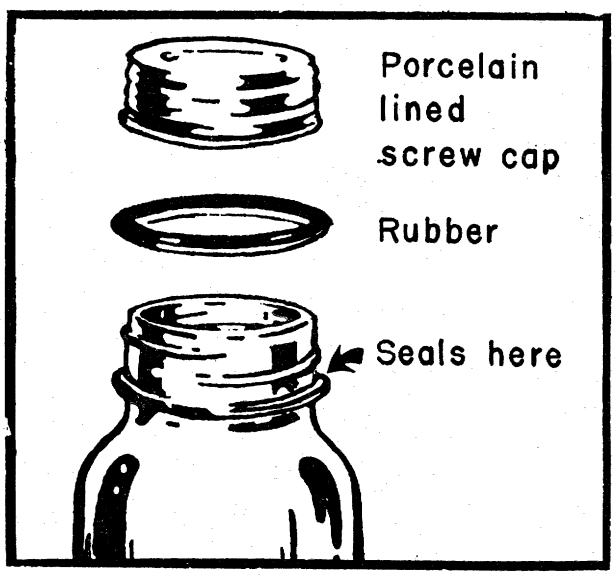
3. Screw metal band down tight — by hand. Screw firmly, as this lid has enough "give" to let air escape during processing.

4. This type of lid is *self-sealing*. Don't tighten further when you take jar from canner; you may break the seal.

5. After jars have cooled overnight, take off screw bands if you want to use them on other jars. Do not use force in removing the band or you may break the seal. If band sticks, cover for a moment with hot, damp cloth to loosen it.

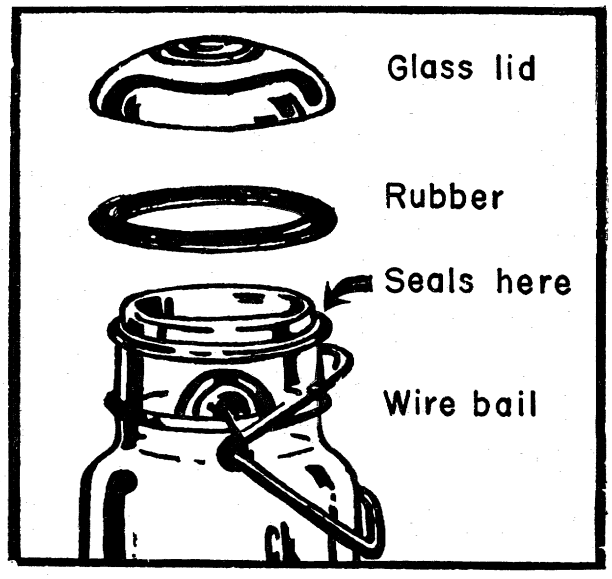


Metal lid with sealing compound, with metal screw band, to fit standard mason jar.



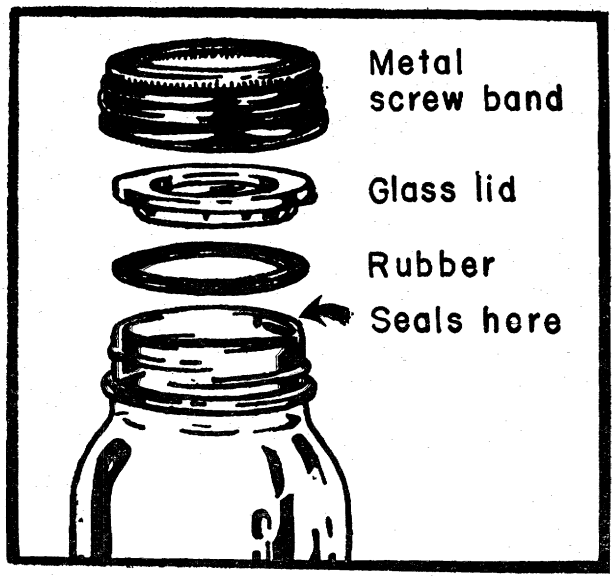
Porcelain-lined zinc cap with rubber ring, to fit standard mason jar.

1. Fit wet rubber ring down on jar shoulder before filling jar. Do not stretch it more than necessary. Be sure ring lies flat.
2. After filling jar, wipe top and rubber ring clean.
3. Screw cap down firmly by hand. Loosen slightly by turning cap back a fraction of an inch (about ¼ inch).
4. As soon as you take jar from canner, screw cap down tightly to complete seal.



Wire-bail type jar with glass lid and rubber ring.

1. Fit wet rubber ring down on ledge near top of jar before filling jar. Be sure ring lies flat.
2. After filling jar, wipe rubber ring and top clean.
3. Put on glass lid. Push long wire over top of lid, so it fits into groove. Leave short wire up.
4. As soon as you take jar from canner, push short wire down, to complete seal.



Glass lid and top-seal rubber ring, with metal screw band, to fit standard mason jar.

1. After filling jar, wipe top clean.
2. Fit wet rubber ring on glass lid. Put lid on jar, rubber side down.
3. Screw band on until it is almost tight. Then turn back almost a quarter turn (one-fourth turn). ***Caution:*** If band is screwed too tight, jar may break during processing.
4. As soon as you take jar from canner, screw band down tight, to complete seal.
5. After jars have cooled overnight, take off screw bands if you want to use them on other jars. Do not use force in removing a band or you may break the seal. If band sticks, cover for a moment with hot, damp cloth to loosen it.

PROCESSING TIME BASED ON PREPARATION METHOD

Only one method is given for canning each fruit or acid vegetable. Some products are packed hot into the jars. Others are packed cold. The method of packing each food determines, in part, how long it must be processed in the water-bath canner. Therefore, to have a good product that will keep, each step in the directions must be followed carefully. Unless you do so, the times for processing may not be right.

PROCESSING TIME AT HIGH ALTITUDES

The times given for processing in the water-bath canner are for use at sea level only. If canning is done at altitudes higher than sea level, you will need to cook the foods longer. This is true because boiling water is not as hot at altitudes above sea level. For example, the temperature of boiling water at sea level is 212° F. At 2,000 feet above sea level, the temperature of boiling water is only 208°. Therefore, foods must be cooked longer at higher altitudes to heat them enough to prevent spoilage.

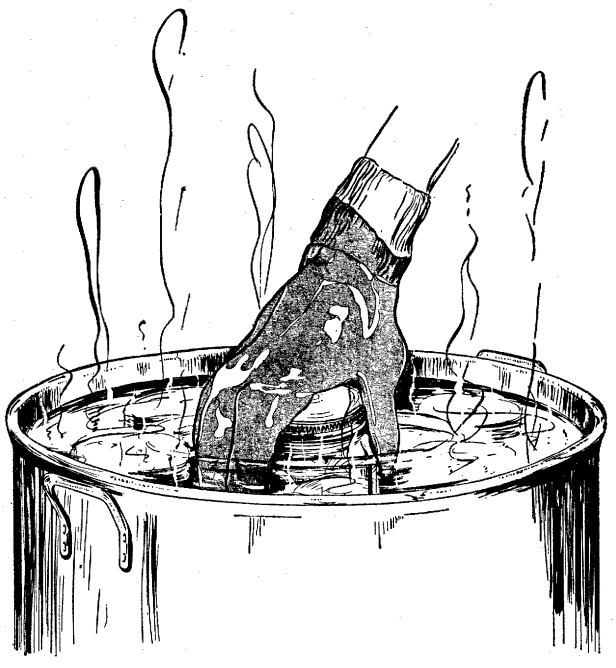
You will need to add 1 minute to the cooking time for *each* 1,000 feet above sea level if the cooking time given in the canning directions is 20 minutes or less. If the cooking time is more than 20 minutes you will need to add 2 minutes for each 1,000 feet. The amount of time to add is given in the canning directions for each product.

DIRECTIONS FOR USING WATER-BATH CANNER

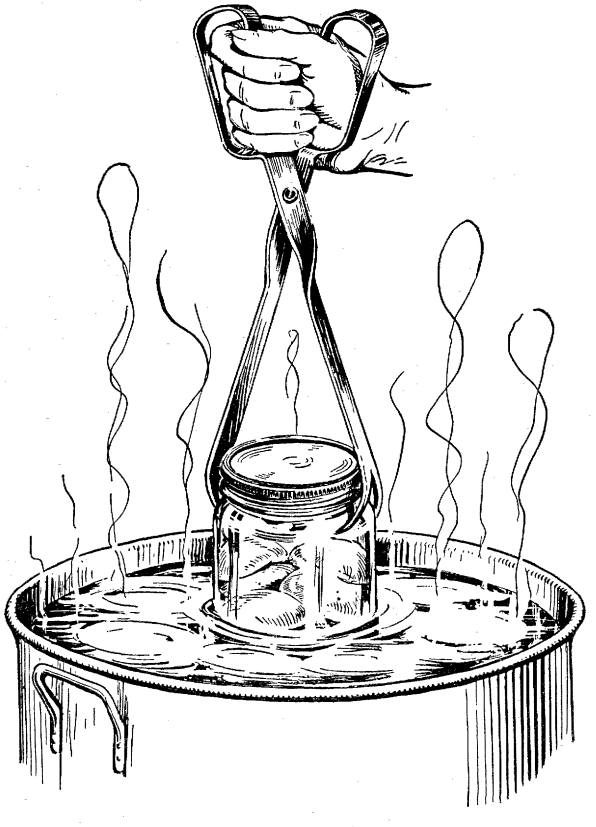
Regardless of the type of water-bath canner used, the general directions given here should be followed:

1. Fill canner about two-thirds full of water.
2. Heat water in canner. Have the water boiling if the food to be processed was packed hot into jars. If the food was packed cold into jars have the water hot, but not boiling. This will help to prevent breakage.
3. Put filled jars in canner. Place them in an upright position so that the bottom of each jar rests on the canner rack. Do not crowd jars. Use tongs or waterproof, rubberized canvas gloves[2] as shown to put jars in canner or to take them out.

[2] If your local hardware or dry goods store does not carry rubberized canvas gloves you can order them from one of the following suppliers: Buckeye Glove Co., Hoag and Pinewood, Toledo, Ohio; Dunn Products, 1222 West Madison St., Chicago, Ill.; Hood Rubber Co., Inc., Watertown, Mass.



Rubberized canvas gloves for putting jars in canner.

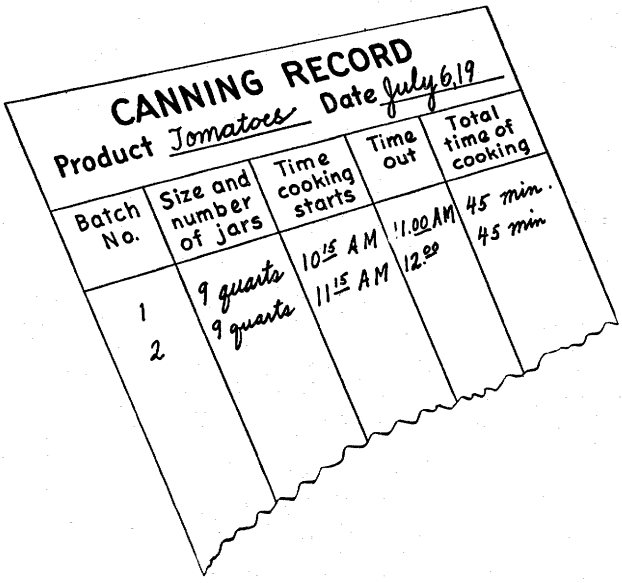


Tongs for putting jars in canner.

4. If your water-bath canner is deep enough, two layers of jars may be put in at one time. Use a divider rack between the layers of jars as shown to permit good circulation of water. The rack may be made of wooden slats or of sheet metal punched with ½ inch holes.

5. When all jars have been placed in canner, add boiling water, if necessary, to bring water up over top of jars by 1 or 2 inches. Don't pour boiling water directly on glass jars, as this may break them.

6. As soon as water returns to a rolling boil, start counting the processing time. Write the time down on a canning record such as the one shown below. Also put down the time when the jars should be taken from the canner. Be sure to allow extra time if the altitude where canning is being done is more than 1,000 feet above sea level. (See page 8 for processing time at high altitudes.) Keep the water at a full boil for the required length of time. Add boiling water during processing, if needed, to keep jars well covered.



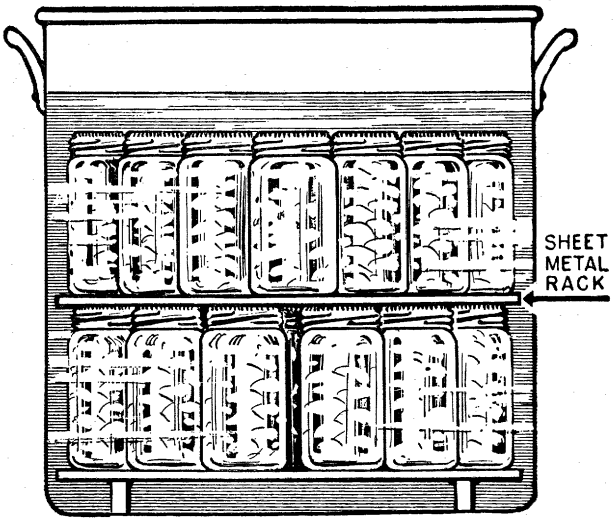
CANNING RECORD

Product *Tomatoes* Date *July 6, 19*

Batch No.	Size and number of jars	Time cooking starts	Time out	Total time of cooking
1	9 quarts	10:15 AM	11:00 AM	45 min.
2	9 quarts	11:15 AM	12:00	45 min

Canning record.

7. As soon as processing time is up, take the jars from canner, one at a time. Place them on a dry wooden surface or heavy wire rack. Complete seals at once if lids are not the self-sealing type. (See directions for sealing different types of lids, page 6.) If liquid has boiled out in canning, seal the jar just as it is. Do not open it to put in more liquid.



Water-bath canner with two layers of jars.

COOLING OF JARS

Cool jars top side up. Give each jar room so air can get to all sides. Never set a hot jar in a draft or on a cold or wet surface. Sudden cooling may break a jar. Do not cover jars while they are cooling. Let jars cool overnight before storing them.

TESTING FOR PROPER SEAL

As soon as jars are cold, test them to see if they are sealed. Turn each jar partly over in your hands to see if it leaks. Another test for jars with flat metal lids is to tap center of lid with a spoon. A clear ringing sound means a good seal. A dull note, however, does not always mean a poor seal. If there is no leakage, store jar and watch for signs of spoilage.

Food in leaky jars should be used right away. Or can it again. Empty the jar, heat food, pack, and process as if it were fresh. Before using jar or lid again, check for defects. Do not re-use self-sealing metal lids or rubber rings.

LABELING JARS

Before storing jars of canned food, wipe them clean. Label to show contents, date of canning, and batch number. If spoilage occurs in one jar you can watch for signs of spoilage in other jars canned at the same time. If jars are stored in cardboard boxes, label the box also to show name of product and date canned.

STORING FOOD CANNED IN GLASS JARS

Store foods canned in glass in a cool, dark, dry room. Dampness will cause metal lids to rust. Heat and light will cause food to lose flavor and vitamins. Some may lose color. Keep canned food away from hot pipes, radiators, or furnace. The cooler the storeroom, the better, as long as foods do not freeze. Freezing may crack a jar or break a seal and let in bacteria that will cause spoilage. If freezing does not damage jar or seal, the food will be safe to eat. It will not taste so good, however. Provide shelves for canned foods not kept in cases. Put cased goods on racks to keep them off the floor.

10 POINTS TO REMEMBER WHEN CANNING

1. Use only good quality products for canning. If they must be held for a time, keep them cool and where they can get air. Do not keep fresh products in a warm room. If you do they may lose color, flavor, and food value. Furthermore, spoilage organisms will grow faster.
2. Wash all foods carefully — even when they are to be peeled. Washing helps to remove spoilage organisms as well as dirt. Use clean utensils, too.
3. Choose jars and lids with care. Be sure they are perfect. Put lids on properly. Poor seals will result in spoilage, since air and spoilage organisms can get into the jars after processing.
4. Work fast after you start to prepare foods for canning. Get the food into jars as quickly as possible. Process it at once. To let tomatoes stand around before canning may cause flat-sour spoilage. Fruits left to stand too long before canning may darken. Such foods may be eaten without harm, but they will not look or taste so good.
5. Do not pack jars too tightly. If you do the food may not get heated through in the time given for cooking. Undercooking may cause spoilage.
6. Follow carefully the cooking times given for each product. Be sure that water covers jars by 1 or 2 inches. Keep it boiling for the full time given. If you are canning at altitudes above sea level, increase cooking times as directed. Undercooking of products is one of the main causes of spoilage. It may also cause the food to turn brown.
7. Do not cook products longer than necessary. Overcooking will make them soft and mushy. It may even cause pears or apples to turn pink. This will not make these fruits unsafe to eat but they will not look very good.
8. Complete seals as soon as jars are taken from the canner, if the self-sealing type lid is not used. Delay in sealing jars may cause spoilage.
9. Cool jars at room temperature, but space them so that air can get to all sides. Slow cooling may cause foods to spoil.
10. Store canned foods in a cool place. Even when carefully canned, some foods may spoil if kept too warm.

IF SPOILAGE OCCURS

Don't use, or even taste, canned fruits, tomatoes, or kraut that show any sign of spoilage. Look closely at each jar before opening it. Bulging jar lids or rings, or a leak may mean that food has spoiled. When you open a jar, look for other signs — spurting liquid, an odd smell, or mold. A cloudy brine or sirup may also mean spoilage. Burn or dispose of all spoiled food. See that it is not eaten by humans or animals.

APPLES

Apples will be more readily used if they are canned in a number of ways — as applesauce; in slices for pies, cobblers, and apple crisp; as whole apples for salad or garnish. Make some into apple butter or jelly to add interest to your menus.

Some varieties of apples are better for canning than others. A good cooking apple will usually be good for canning. Most varieties, however, will make good applesauce if they are used at their best stage of ripeness for

eating and before they become overripe or mealy. Remember that most apples become mellow after picking, and the longer they are

held, the poorer they will be for canning. Tart, firm apples are best for canning as slices or for whole apples in sirup. Apples that will not hold their shape when cooked should not be canned whole or in slices.

Good apple butter can be made from parings and cores if the apples are carefully washed and trimmed before peeling. The stem and blossom ends should be discarded.

Parings and cores may also be used to make apple jelly. These parts of the apple are rich in pectin, the substance necessary for making good jelly. They may be used alone or combined with quartered apples. Some apples are better for jelly making than others. Even the best apples will not make good jelly if they are overripe. To avoid waste, make a small trial batch of jelly from the apples on hand. Be sure that they will jell before cooking larger quantities.

How to Store Apples

If you cannot use the apples promptly, store them where they will be kept cool — the cooler the better, as long as they do not freeze. Keep the apples in cold storage, if possible, at a temperature of 30° to 32° F. Do not store them in the same room with potatoes. If you do, they will absorb undesirable odors. Check the apples often, and sort them if necessary. One spoiled apple will ruin many good ones.

To Figure Your Jar Needs

It will take from 2½ to 3 pounds of apples to fill a quart jar. Therefore, you will need from—

16 to 20 quart jars for 1 bushel (48 pounds) of apples.

Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the amount of apples you have on hand.

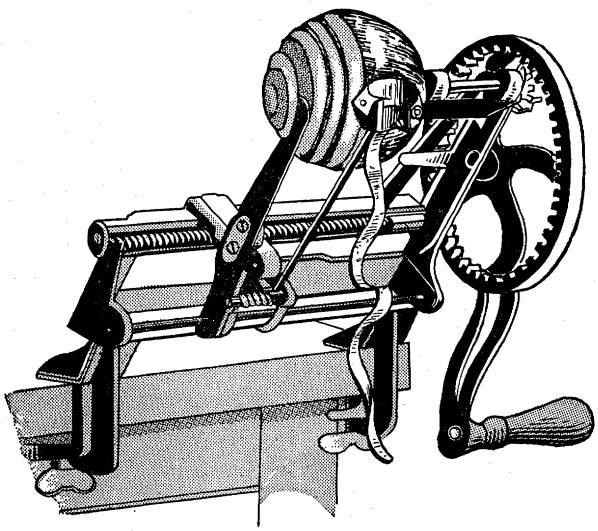
To Sweeten Apples

At least 3 to 4 pounds of sugar will be needed per bushel of apples canned in a light sirup. For apple butter, allow 6 to 7 pounds of sugar per bushel of apples.

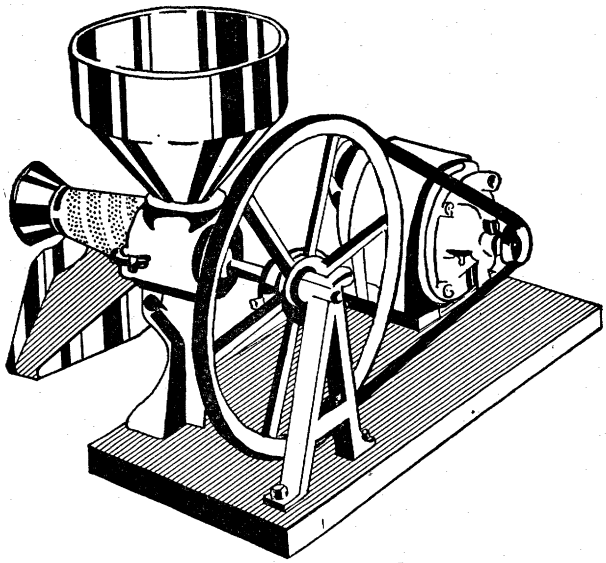
Labor-Saving Equipment

To prepare apples for canning quickly and easily, use labor savers. An apple parer and a juice extractor such as those shown here will speed up your work. Depending on your needs, you may get hand-operated or motor-driven models. Some apple parers will pare and core. Others will pare, core, and slice. Some are equipped to handle one apple at a time, others will handle several apples.

The juice extractor is used for pulping fruits for sauce or butter as well as for making fruit and tomato juices. When ordering, state the products for which the juice extractor will be used. This will assure your getting the right attachments.



Apple parer.



Juice extractor or pulper.

Some suppliers of apple parers and juice extractors are:

Chisholm-Ryder Co., Inc., Niagara Falls, N. Y., and Chicago, Ill.

Dixie Canner Co., Athens, Ga.

Food Machinery Corporation, 101 East Maple St., Hoopeston, Ill.; 23 West Twenty-first St., Baltimore, Md.; 2025 San Fernando Road, Los Angeles 41, Calif.; 710 South Commerce St., Harlingen, Tex.; and Lakeland, Fla.

A. K. Robins & Company, Inc., 713-729 East Lombard St., Baltimore, Md.

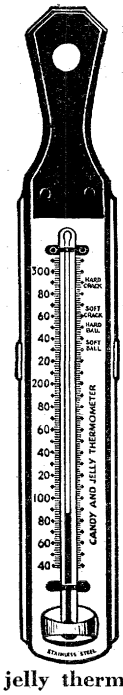
Thermometer for Jelly-Making

A thermometer will help to take the guesswork out of your jelly making. Get a regular candy or jelly thermometer that will clip on to the side of the kettle. A mercury thermometer with a temperature range like the one shown is a good kind to buy. If your hardware store does not carry candy or jelly thermometers, order from one of the following suppliers:

Food Machinery Corporation, 101 East Maple St., Hoopeston, Ill.; 23 West Twenty-first St., Baltimore, Md.; 2025 San Fernando Road, Los Angeles 41, Calif.; 710 South Commerce St., Harlingen, Tex.; and Lakeland, Fla.

Taylor Instrument Co., Rochester 1, N. Y.

The Palmer Co., 2501 Norwood Ave., Cincinnati, Ohio.



Candy or jelly thermometer.

To Can Sliced or Quartered Apples

1. Wash apples carefully. Pare, core, and cut out brown spots and other defects. Quarter or slice them.
2. Put apple sections in salt water to keep them from browning. Use 3 tablespoonfuls of salt to each gallon of water.
3. Make a thin sirup by using 5 cups of sugar to 1 gallon of water. About 1½ times this much sirup will be needed for each bushel (48 pounds) of apples.
4. Cook the apples in boiling sirup for 5 minutes. Boil gently, not briskly, or apples will break up.
5. Pack hot apples into clean, hot jars. Fill jars to within ½ inch of top.
6. Cover fruit with boiling sirup, leaving ½-inch space at top of jar.
7. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.
8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 15 minutes.
    Quart jars — 15 minutes.
    Two-quart jars — 20 minutes.
    Do not count cooking time until water returns to boiling temperature. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

Whole Apples in Sirup

To can whole apples in sirup, follow the directions given for canning sliced or quartered apples, with the following exceptions:

1. Core the washed, pared apples and leave whole.
2. Cook the whole apples in boiling sirup until partially tender and heated through. This will take from 10 to 15 minutes, depending on size and kind of apples.
   Use a medium sirup made by adding 12 cups (3 quarts) of sugar to 1 gallon of water.
3. Fill into jars and process for the same length of time as that given for sliced or quartered apples.

Spiced Whole Apples

To can spiced whole apples follow the directions given for canning whole apples in sirup. Add a small amount of stick cinnamon and whole cloves to the sirup in which the apples are cooked. A few drops of food coloring may also be added.

Applesauce

1. Wash apples carefully. Peel, quarter, and core them. Cut away bruises and blemishes.
2. Place apple quarters in salt water to keep them from browning. Use 3 tablespoonfuls of salt to each gallon of water.
3. When ready to cook, drain apples and heat them to boiling temperature in a small amount of water.
4. Cook only enough to soften the fruit. Stir often to prevent sticking and to break up the apples.

5. When apples are soft and lumpy, add sugar to taste. Use at least 1 cup of sugar to each gallon of sauce. Use more sugar if you want a sweet sauce.
6. Stir to blend sugar and sauce and reheat to boiling point before filling into jars.
7. Put hot applesauce into clean, hot jars. Fill jars to within ¼ inch of top.
8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

Variation.—Applesauce may also be made from unpeeled apples but the color will be darker. Wash, quarter, and cut off stem and blossom ends of apples before cooking. After cooking, put apples through a sieve or pulper to remove peelings and cores. Add sugar to pulped apples and reheat to boiling point before filling into jars. Process in the boiling water-bath for the same length of time as that given for applesauce from peeled apples.

Apple Butter

1. Use clean, good, apple parings and cores or quartered apples. Cut off and discard stem and blossom ends.
2. Cook in a small amount of water — not more than half as much water as fruit — to soften. Stir often to prevent scorching.
3. Put hot apples or parings through a sieve or pulper to remove skins, cores, and seeds.
4. Make apple butter as follows:
    3 gallons apple pulp;
    3 pounds sugar (granulated or brown);
    3 teaspoonfuls ground cinnamon;
    2 teaspoonfuls ground allspice;
    1½ teaspoonfuls ground cloves.
    Sugar and spices may be varied to taste. Brown sugar will add flavor to the apple butter.
5. Add sugar to apple pulp.
6. Boil until apple butter is thick and smooth. This stage is reached when a spoonful dropped onto a saucer is smooth, and liquid does not separate from the apple pulp. Stir often to prevent scorching. As butter cooks down, turn down the heat to prevent spattering.
7. Mix spices together in a small amount of water and add to the butter. (Spice that is added dry may become lumpy.)
8. Cook for only 10 minutes after adding spices. When spices are cooked too long they will lose flavor.
9. Pour hot apple butter into clean, hot jars. Fill jars to within ¼ inch of top.
10. Wipe tops of jars with clean, damp cloth.
11. Seal or partly seal jars, depending on type of lid used.
12. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
13. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
14. Cool jars, label them, and store in cool, dry room.

Apple Jelly

1. Use clean, good apple parings and cores or quartered apples. Cut off and discard stem and blossom ends.
2. Add just enough — no more — water to cover apples or parings.
3. Boil rapidly for 20 minutes — no longer. Count time after the fruit starts to boil. Stir as needed to keep apples from scorching.
4. Strain off the liquid as soon as cooking time is up. Pour hot fruit and liquid into jelly bag that has been wrung from hot water. (Use a heavy canton flannel bag — fleece side in — or use several layers of heavy cheese cloth.)
5. Strain juice again if it is not clear. Use a fresh jelly bag for each straining.
6. Add sugar to juice, using 3 quarts of sugar to each 4 quarts (gallon) of juice. Measure sugar and juice carefully. Work with small lots of juice — not more than 2 gallons — at a time.
7. Add 1 teaspoonful of vegetable oil or vegetable shortening to each gallon of juice. This will keep jelly from boiling over and from forming scum. It will not affect the flavor or quality of the jelly.
8. Heat mixture quickly to a boil. Stir only until sugar is dissolved — no longer. Cook jelly in a large, flat-bottomed pan or a steam-jacketed kettle.

9. Boil rapidly until the jelly stage is reached.

(*a*) To test for the jelly stage — dip a large spoon into the boiling sirup. Lift spoon so that sirup runs off the side. When sirup separates into two distinct drops which sheet together, stop the cooking promptly.

(*b*) Another test for the jelly stage can be made with a jelly thermometer like the one shown on page 12. Place or hold the thermometer in a straight up and down position so that the bulb of the thermometer is well covered with the boiling juice. Do not let the bulb touch the bottom of the kettle. With the eye on a level with the mercury column, read the temperature. At sea level, the sirup will be ready to jell when the thermometer reading is at 219° to 220° F. For each 1,000 feet above sea level, the temperature of the sirup, when ready to jell, will be 2° less. The following temperatures show when sirup jells at various altitudes:

Altitude above sea level (feet):	*Temperature °F.*
1,000	217 to 218
2,000	215 to 216
3,000	213 to 214
4,000	211 to 212
5,000	209 to 210
6,000	207 to 208

10. Pour hot jelly into clean, hot jars. Fill the jars completely.
11. Seal jars completely. No further processing will be necessary if jelly is poured when boiling hot into clean, hot jars, and jars are sealed promptly.
12. Cool jars, label them, and store in cool, dry room.

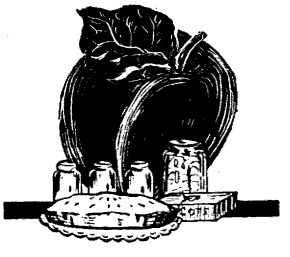
Precaution: Follow directions carefully. Jelly failures may occur —

If too much sugar is used.
If jelly is overcooked.
If apples are overripe.
If apples are too low in pectin or acid, or both.
If too much water is used when making juice.
If apples are cooked too long or not quickly enough when making juice.

Variation. Instead of making jelly at once, the juice may be canned and made into jelly later. To can juice:

1. Fill hot juice into clean, hot jars to completely fill them.
2. Seal jars and process for 20 minutes in water-bath.
   Keep water at simmering temperature, 180° F. (below boiling).

APRICOTS



Can apricots whole or in halves — peeled or unpeeled. Either way, they make a good dessert. When halved, they may be used for pies and other baked dishes. Make some apricot jam, too — or combine apricots with other fruits for making jam.

Apricots for canning should be firm-ripe. They should have an even golden-yellowish color. The flesh should be firm, but juicy. Apricots that are hard and greenish yellow in color will have little flavor. Soft-ripe apricots, if in good condition, should be used for making jam. Do not try to can the soft-ripe ones in sirup — they will not hold their shape.

If you have more apricots on hand than you can process in a day, store some of them where they will be kept cold. Firm-ripe apricots will keep for 1 to 2 weeks at a temperature of 31° to 32° F. Check them daily, however, for signs of spoilage. When you remove apricots from storage, can them at once. Ripe apricots spoil quickly at room temperature.

To Figure Your Jar Needs

It will take from 2 to 2½ pounds of apricots to fill a quart jar. Therefore, you will need from —

18 to 24 quart jars for 1 bushel (48 pounds); or

8 to 10 quart jars for 1 crate (22 pounds).

Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the apricots you have on hand.

To Sweeten Apricots

You will need from 6 to 8 pounds of sugar to can 1 bushel (48 pounds) of apricots in a medium-light sirup.

To Can Apricots

1. Wash apricots carefully. Peel them — or leave the skins on.

2. To peel apricots dip them in boiling water until skins slip easily — about ½ minute.
3. Dip quickly in cold water to stop the cooking and loosen the skins.
4. Slip skins off, cut apricots in half, and take out pits — or leave apricots whole.
5. Make a medium-light sirup, using 8 cups of sugar to 1 gallon of water. You will need about 1½ times this much sirup for a bushel (48 pounds) of apricots if you can them in halves. If you can them whole, you will need twice as much sirup.
6. Pack raw apricots into clean jars. Fill jars to within ½ inch of top.
7. Cover fruit with boiling sirup, leaving ½-inch space at top of jar.
8. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.
9. Wipe tops of jars with clean, damp cloth.
10. Seal or partly seal jars, depending on type of lid used.
11. Put jars in water-bath at once, and boil as follows:
    Pint jars — 25 minutes.
    Quart jars — 35 minutes.
    Two-quart jars — 40 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 2 minutes to the processing time for each size jar.
12. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
13. Cool jars, label them, and store in cool, dry room.

Apricot Jam

1. Wash apricots carefully.
2. Dip them in boiling water until skins slip easily — about ½ minute.
3. Dip quickly in cold water to stop the cooking and loosen the skins.
4. Slip skins off, cut apricots in half, and take out pits.
5. Crush the apricots. To each pound of crushed apricots (about 3 cups), add 1½ to 2 cups of sugar and 2 tablespoonfuls of lemon juice. Stir until sugar is dissolved. Let stand until some of the juice is extracted from the fruit — about 3 or 4 hours. (Lemon juice may be omitted, but it improves the flavor of apricot jam.)
6. Boil slowly until fruit is clear and jam is thick. Stir often while cooking to prevent scorching.
7. Pour hot jam into clean, hot jars. Fill jars to within ¼ inch of top.
8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

Variation.—Apricot jam can be varied by using equal amounts of crushed peaches or crushed pineapple. Follow the same directions as those given for making apricot jam.

BERRIES

The directions given for canning berries in sirup are for all berries except strawberries. Use strawberries for jam. They will not hold their shape or keep their color if canned in sirup. All berries for canning should be ripe enough to have good color and flavor. They should be fresh and clean. Leaky and overripe berries, if in otherwise good condition, should be used for jam.

If you grow your own berries, can them as soon after picking as possible. Don't delay. Once berries are picked and boxed, they soften and mold quickly. Even in storage at a temperature of 31° to 32° F., they will not keep for more than a few days.

Soft berries, such as raspberries and loganberries, break up easily. Handle them with care when you wash them. Use a fine wire basket or

colander to hold the berries. Dip them up and down carefully in the water — then drain them. Do not let soft berries stand in water.

Firmer berries, such as blueberries and huckleberries, may be put into the sink or a large pan for washing. Use plenty of water so that leaves, stems, and shriveled berries will float, making their removal easy.

Wash strawberries before capping. Do not wash them again after capping, unless sand and dirt are still present.

To Figure Your Jar Needs

It will take from 1½ to 2 quart boxes of berries to fill 1 quart jar. Therefore, to can berries you will need from —

12 to 18 quart jars for one 24-quart crate. Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the amount of berries you have on hand. Use only pint and quart jars for soft berries, such as raspberries.

To Sweeten Berries

From 4 to 6 pounds of sugar will be needed for a 24-quart crate of berries if you can them in a medium-light sirup.

To Can Berries

1. Cap berries or remove stems, if necessary. Discard moldy or underripe fruit. Wash carefully and drain.
2. Make a medium-light sirup, using 8 cups of sugar to 1 gallon of water. This amount of sirup will be needed for each crate (24-quart boxes) of berries.
3. Pack berries into clean jars. Shake the jars while filling, to get a full pack. Fill to within ½ inch of top.
4. Cover fruit with boiling sirup, leaving ½-inch space at top of jar.
5. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover the fruit.
6. Wipe tops of jars with clean, damp cloth.
7. Seal or partly seal jars, depending on type of lid used.
8. Put jars in water-bath at once, and boil as follows:
   Pint jars — 20 minutes.
   Quart jars — 20 minutes.
   Two-quart jars — 25 minutes.
   Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for pint and quart jars. Add 2 minutes for 2-quart jars.
9. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
10. Cool jars, label them, and store in cool, dry room.

Strawberry or Other Berry Jam

1. Sort berries. Discard moldy or otherwise defective fruit. Wash the berries carefully, drain, and remove the caps or stems.
2. Crush the berries. To each pound of crushed berries (about 3 cups), add 1 pound (2 cups) of sugar.
3. Boil slowly until jam is thickened and jellylike. Stir often while cooking to prevent scorching.
4. Pour hot jam into clean, hot jars. Fill jars to within ¼ inch of top.
5. Wipe tops of jars with clean, damp cloth.
6. Seal or partly seal jars, depending on type of lid used.
7. Put jars in water-bath at once, and boil as follows:
   Pint jars — 10 minutes.
   Quart jars — 10 minutes.
   Two-quart jars — 15 minutes.
   Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
8. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
9. Cool jars, label them, and store in cool, dry room.

CHERRIES

Sour cherries are pitted and packed in water or sirup for use in pies and cobblers. They are also good for making preserves.

Sweet cherries (Royal Anne, Bing, and other varieties) are used for dessert or salad. They are usually canned without being pitted.

Both sweet and sour cherries spoil quickly at room temperature. Even when held in cold storage at a temperature of 31° to 32° F. they will not keep for more than a few days. If you store them, watch them carefully for mold and decay. It is better to can cherries as soon as you get them. Can only well-matured cherries that are plump, fairly firm, and juicy. They should also be well colored for the variety. Mature-ripe cherries that have been split or otherwise damaged from heavy rains may be canned, if they are picked without delay after the damage is done. To prevent spoilage, however, they must be canned at once.

To Stone Cherries

When canning sour cherries, use a cherry stoner such as the one shown. This little machine will pit cherries easily and quickly. Get one, or several, depending upon your needs. If you are unable to get them at your local hardware store write to one of the following suppliers:

George W. Ashlock Co., 3435 Peralta Ave., Oakland, Calif.
Dunkley Co., Lake at Vander Weele, Kalamazoo, Mich.
Enterprise Mfg. Co., Third and Dauphin Streets, Philadelphia, Pa.
F. H. Langsenkamp Co., Indianapolis 4, Ind.

To Figure Your Jar Needs

It will take from 2 to 2½ pounds of cherries to fill 1 quart jar. Therefore, you will need from —

28 to 32 quart jars for a bushel (64 pounds) of sour cherries (picked without stems); or
25 to 28 quart jars for a bushel (56 pounds) of sweet cherries (picked with stems).

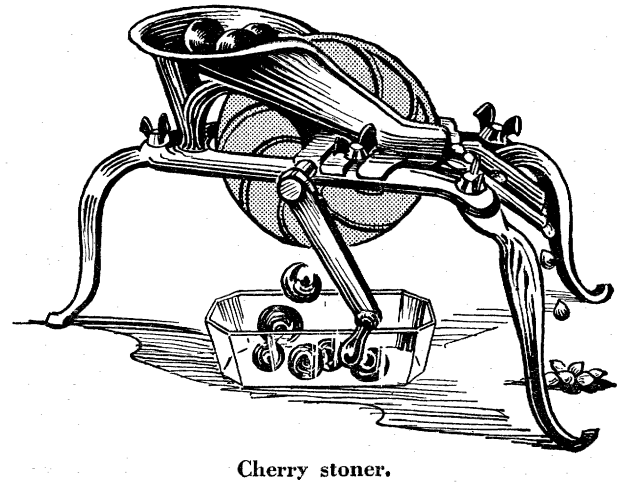
Use these figures as a guide to determine how many pint, quart, and 2-quart jars you will need to can the amount of cherries you have on hand.

To Sweeten Cherries

From 6 to 9 pounds of sugar will be needed for a bushel of sour cherries canned in a medium sirup. For sweet cherries canned in a light sirup, you will need from 4 to 5 pounds of sugar.

To Can Sour Cherries

1. Wash cherries carefully.
2. Chill them in cold running or iced water for 10 or 15 minutes. This will make cherries more plump and easier to pit. Remove fruit that floats on top of water. It may be wormy.
3. When cherries are chilled through, pit them. If possible, use a cherry stoner.
4. If cherries are to be sweetened, make a medium sirup. Use 12 cups (3 quarts) of sugar to 1 gallon of water. About 1½ times this much sirup will be needed for each bushel (64 pounds) of sour cherries.
5. Fill raw pitted cherries into clean, glass jars. Shake the jars while filling to get a good pack. Fill jars to within ½ inch of top.
6. Cover cherries with boiling sirup or water, leaving ½-inch space at top of jar.



Cherry stoner.

7. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.
8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal the jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 20 minutes.
    Quart jars — 20 minutes.
    Two-quart jars — 25 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for pint and quart jars. Add 2 minutes for 2-quart jars.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

To Can Sweet Cherries

Sweet cherries are canned by the same method as that for sour cherries, with the following exceptions:

1. Pit cherries or can them with the pits in.
2. Make a light sirup, using 5 cups of sugar to 1 gallon of water. About twice this much sirup will be needed for each bushel (56 pounds) of sweet cherries. Fill raw cherries into jars, cover with boiling sirup, and process for the same length of time as that for sour cherries.

Cherry Preserves

1. Use sour cherries — wash them carefully.
2. Chill them in cold water as for canning — then take out pits.
3. To each pound of pitted cherries (about 3 cups), add 1½ to 2 cups of sugar and ¼ cup of water.
4. Boil rapidly until the sirup thickens and the cherries look glazed or clear. Stir often while cooking to prevent scorching.
5. Pour hot preserves into clean, hot jars. Fill jars to within ¼ inch of top.
6. Wipe tops of jars with clean, damp cloth.
7. Seal or partly seal jars, depending on type of lid used.
8. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
9. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
10. Cool jars, label them, and store in cool, dry room.

PEACHES

For best flavor, can only firm, ripe peaches. Can most of them in halves for dessert or salad. Slice some, if desired, for pies and cobblers. If you have many peaches on hand, pickle a few and make some into peach jam.

Peaches for canning should be firm and ripe when you get them. Unlike some fruits, such as pears, peaches do not ripen well in storage. When firm ripe, they will keep in storage for a short time. It is better, however, to can them as soon as you get them. If you need to store them, keep them at a temperature of 31° to 32° F. Do not hold peaches longer than 2 to 3 weeks. If kept for longer periods they will lose their flavor and color. Furthermore, the flesh may turn brown and become dry and mealy.

If you have peaches that are not evenly ripened, sort them. Can the ripe ones first. Keep the greener ones at room temperature (about 70° F.) for a few days. When they begin to soften, can them. Cook them in light sirup until tender before filling into jars — or use them in making jam. Bruised and overripe peaches, if carefully trimmed, may also be used for making jam.

To Figure Your Jar Needs

From 2 to 2½ pounds of peaches are needed to fill a 1-quart jar. Therefore, you will need —

20 to 24 quart jars for 1 bushel (48 pounds);
or
8 to 10 quart jars for 1 lug box (20 pounds).

Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the amount of peaches you have on hand.

To Sweeten Peaches

To can 1 bushel of peaches in a medium-light sirup you will need about 6 pounds of sugar. If a medium sirup is used, you will need 9 pounds.

To Can Freestone Peaches

1. Wash peaches carefully.
2. Dip them in boiling water until skins slip easily — about 1 minute.
3. Dip quickly in cold water to stop the cooking and loosen the skins.
4. Slip skins off, cut peaches in half, and take out pits.
5. Put peach halves in salt water to keep them from browning. Use 3 tablespoonfuls of salt to each gallon of water.
6. Make a medium-light sirup, using 8 cups of sugar to 1 gallon of water. About 1½ times this much sirup will be needed for a bushel (48 pounds) of peaches.
7. Pack raw peach halves into clean jars — cut side down. Fill jars to within ½ inch of top.
8. Cover fruit with boiling sirup, leaving ½-inch space at top of jar.
9. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.
10. Wipe tops of jars with clean, damp cloth.
11. Seal or partly seal jars, depending on type of lid used.
12. Put jars in water-bath at once, and boil as follows:
    Pint jars — 25 minutes.
    Quart jars — 35 minutes.
    Two-quart jars — 40 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 2 minutes to the processing time for each size jar.
13. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
14. Cool jars, label them, and store in cool, dry room.

Sliced Peaches for Pies

To pack sliced peaches for use in making pies, follow the directions given for canning freestone peaches with the following exceptions:

1. Use soft-ripe peaches. Be sure they are in good condition.
2. Add sugar to sliced peaches. Use ½ cup sugar per quart of sliced peaches. Or can them without sugar. Do not add water.
3. Heat peaches slowly to boiling temperature. Stir carefully, as needed, to heat them evenly.
4. Pack hot sliced peaches into clean, hot jars. Fill jars to within ¼ inch of top.
5. Seal and process for the same length of time as for freestone peaches canned in sirup.

Peach Jam

1. Wash peaches carefully.
2. Dip them in boiling water until skins slip easily — about 1 minute.
3. Dip quickly in cold water to stop the cooking and to loosen the skins.
4. Slip skins off — cut peaches in half and take out pits.
5. Crush the peaches. To each pound of crushed peaches (about 3 cups), add 1½ to 2 cups of sugar. Let stand 3 to 4 hours or until some of the juice is extracted from the fruit.
6. Heat slowly to boiling point and cook until fruit is clear and jam is thick. Stir often to prevent scorching.
7. Pour hot jam into clean, hot jars. Fill jars to within ¼ inch of top.
8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

Pickled Peaches

1. Sort out small or medium-sized peaches for pickling — wash them carefully.
2. Dip them in boiling water until skins slip easily — about 1 minute.
3. Dip quickly in cold water to stop the cooking and loosen the skins.
4. Slip skins off — leave peaches whole.
5. Put peaches in salt water to keep them from browning. Use 3 tablespoonfuls of salt to each gallon of water.
6. Make a pickling sirup. For each 8 pounds of peaches use:
    4 cups of sugar;
    1 quart vinegar;
    2 tablespoonfuls of whole cloves;
    8 two-inch pieces of stick cinnamon.

Tie the cloves and cinnamon loosely in a clean cheesecloth bag. Cook together spices, sugar, and vinegar, for 10 minutes. Instead of putting cloves in sirup, they may be stuck into peaches. Put 2 whole cloves in each peach.

7. Cook whole peaches slowly in the sirup, until tender. Let stand in sirup overnight.
8. Remove spice bag. Drain sirup from peaches, and boil until thickened.
9. Pack peaches into clean jars. Fill the jars to within ¼ inch of top.
10. Cover fruit with boiling sirup, leaving ¼-inch space at top of jar.
11. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.
12. Wipe tops of jars with clean, damp cloth.
13. Seal or partly seal jars, depending on type of lid used.
14. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time.
15. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
16. Cool jars, label them, and store in cool, dry room.

PEARS

Can pears in a light sirup so that their delicate flavor will not be lost. Canned in this way, they may be used for desserts, salads, or fruit cocktails. For variety, make some pear butter. If you have many pears on hand, spice some, too, to serve with meat. Bartlett and other tender-skinned pears may be canned without peeling them. The skins add flavor and color to the pears. Kieffer pears should be peeled before canning.

Pears are usually green when shipped. If they are still green when you get them, let them ripen. Pears must be ripened before canning to develop their flavor and to make them tender. Do not can green pears if you can help it. They will be hard and tasteless. Therefore, they may not be eaten.

How to Ripen Pears

Bartlett pears, the best variety for canning, ripen quickly at room temperature (about 70° F.). Even when quite green they will ripen in 2 or 3 days. Their flavor is better, however, if they are ripened more slowly at a lower temperature. A cool root cellar will do very well for ripening pears, if it is clean and free from odors.

If you need to delay ripening, keep pears where they will be cold — preferably at a temperature of 40° to 45° F. At this temperature it will take green Bartletts from 2 to 3 weeks to ripen. Many locker plants can provide these temperatures.

Regardless of where you store pears, keep them in their boxes. Leave their wrappers on, too. The wrappers help in ripening the pears. They also protect the good pears from the bad ones in case there is any spoilage. Look at the pears every day to see how they are ripening. Cut some of them in half to be sure that they are not turning brown at the core. When ripe, a Bartlett pear will be golden yellow. It will also be sweet and juicy. As soon as the pears reach this stage but are still firm, can them. Don't delay. They spoil quickly once they are ripe. Use overripe pears, if otherwise in good condition, for making pear butter. Do not try to can overripe pears in sirup; they will not hold their shape.

Winter pears such as the D'Anjou, Bosc, Winter Nelis, and Comice make a good canned product. However, they do not keep their shape as well as the Bartletts. They also ripen slower than Bartletts. It takes from 4 to 12 days at room temperature (about 70° F.) for winter pears to ripen. When sweet and juicy they are ready for canning.

Kieffer pears are more difficult to ripen than other varieties. They must be kept at a temperature of 60° to 65° F. if they are to become mellow. When they start to soften near the stem end and are sweet and juicy, they are ready to

can. It usually takes from 16 to 20 days to ripen Kieffers.

If winter or Kieffer pears are fully ripe when canned, follow the directions given for Bartletts. They should, however, be peeled before canning. If you are unable to ripen these varieties properly and must can them while they are still hard, cook them first in water or light sirup. When they are tender, fill into jars and process in the same way and for the same length of time as Bartletts. Sand pears, a hard variety which never softens, must be cooked before filling into jars.

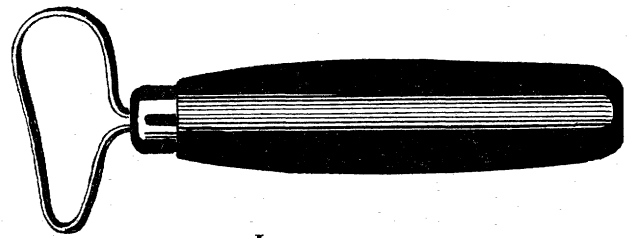
To Figure Your Jar Needs

It will take from 2 to 2½ pounds of pears to fill a quart jar. Therefore, you will need from—

18 to 23 quart jars for one box (46 pounds). Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the amount of pears you have on hand.

To Sweeten Pears

From 4 to 5 pounds of sugar will be needed for each box (46 pounds) of pears canned in a light sirup. About 15 pounds of sugar will be needed for the same quantity of pears made into butter.



Loop corer.

They will save you much time and make your canned pears look better. Some suppliers of fruit knives and corers are:

Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.; and Chicago, Ill.

Dixie Canner Co., Athens, Ga.

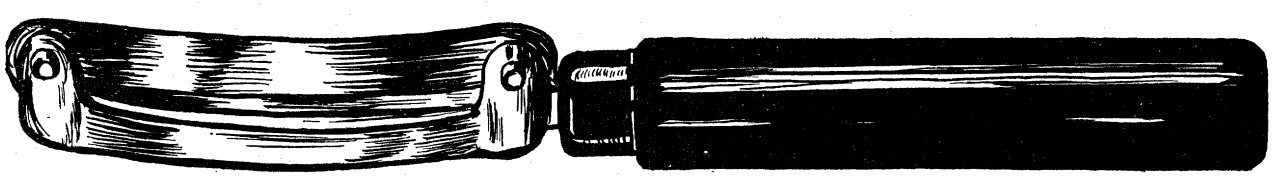
Food Machinery Corporation, 101 East Maple St., Hoopeston, Ill.; 23 West Twenty-first St., Baltimore, Md.; 2025 San Fernando Road, Los Angeles 41, Calif.; 710 South Commerce St., Harlingen, Tex.; and Lakeland, Fla.

F. H. Langsenkamp Co., Indianapolis 4, Ind.

A. K. Robins & Company, Inc., 713-729 East Lombard St., Baltimore, Md.

Pulper

If pear butter is to be made, a sieve or pulper such as the one shown on page 11 will save much time.



Curved fruit knife.

Tools for Peeling and Coring Pears

To do a good job of peeling pears, use a curved fruit knife such as the one shown. The blade is made to follow the shape of the fruit. This makes peeling easy. It also keeps you from cutting away some of the fruit with the peeling.

If you do not have a good fruit-peeling knife, scald the pears in boiling water to loosen the peel. This method is quick to use if the pears are ripe. Follow the directions given on page 4. A loop corer, such as the one shown, is excellent for coring pears. Use the large loop to take out the center core and the blossom end. Turn the pear in your hand and remove the center stem with the small loop. The loop corer does a smooth job if you handle it right. It will also keep you from wasting the fruit.

Both the fruit knife and the loop corer may be obtained for right- and left-handed workers.

To Can Bartlett Pears

1. Wash pears carefully. Peel them, or can them with the peeling on.
2. Cut pears in half and take out cores.
3. Put pear halves in salt water to keep them from browning. Use 3 tablespoonfuls of salt to each gallon of water.
4. Make a light sirup by using 5 cups of sugar to 1 gallon of water. About twice this much sirup will be needed for a box (46 pounds) of pears.
5. Pack raw pear halves into clean jars — cut side down. Fill jars to within ½ inch of top.
6. Cover fruit with boiling sirup, leaving ½-inch space at top of jar.
7. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.

8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 25 minutes.
    Quart jars — 35 minutes.
    Two-quart jars — 40 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 2 minutes to the processing time for each size jar.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

Spiced Pears

To can spiced pears in sirup, follow the directions given for canning Bartlett pears in sirup, with the following exceptions:

1. Make a medium-light sirup, using 8 cups of sugar to each gallon of water.
2. Put 1 or 2 pieces of stick cinnamon and a few whole cloves in each jar of pears.

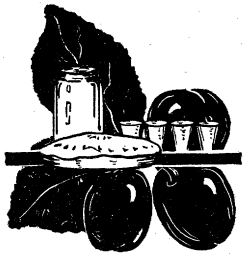
Process for the same length of time as that given for Bartlett pears in sirup.

Pear Butter

1. Wash pears carefully. Peel, core, and quarter them.
2. Cook in a small amount of water — not more than half as much water as fruit — to soften. Stir often to prevent scorching.
3. Put hot pears through a sieve or pulper.
4. Make pear butter as follows:
    2 gallons pear pulp;
    3 quarts (12 cups) sugar;
    ½ teaspoonful of salt.
    The juice of 1 or 2 lemons will add to the flavor of pear butter. Small amounts of cinnamon, allspice, and cloves can also be used, if desired.
5. Add sugar and salt to pear pulp. Heat to boiling in an uncovered vessel.
6. Boil until pear butter is thick and smooth. This stage is reached when a spoonful dropped onto a saucer is smooth, and the liquid does not separate from the pulp. Stir often to prevent scorching. As the butter cooks down, turn heat down to prevent spattering.
7. If spices and lemon juice are used, mix them together — then add to butter. If lemon juice is not used, mix spices in a small amount of water. (If spice is added dry, it may become lumpy.)
8. Cook only 10 minutes after adding lemon juice and spices. When spices are cooked too long they will lose flavor.
9. Pour hot pear butter into clean, hot jars. Fill jars to within ¼ inch of top.
10. Wipe tops of jars with clean, damp cloth.
11. Seal or partly seal jars, depending on type of lid used.
12. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time.
13. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
14. Cool jars, label them, and store in cool, dry room.

Variation.—Pear butter may also be made from quartered, unpeeled pears. However, it will not be so smooth as that made from peeled pears, because pieces of skin will pass through the sieve or pulper.

PLUMS AND FRESH PRUNES



Plums and fresh prunes (also known as prune-plums) are not good keepers. If possible, can them as soon as you get them. Once ripe they spoil quickly at room temperature. When placed in cold storage at a temperature of 31° to 32° F. firm-ripe plums will keep for a short period of time. If held in storage for more than 2 weeks, however, the soft-fleshed varieties will get too soft. Fresh prunes will shrivel and become mealy. Furthermore, their flesh may turn brown. Freestone varieties, such as the Italian prune-plum, may be cut in half for canning. Their pits are easy to remove. Other varieties such as the Green Gage, Yellow Egg, and Lombard, are better when canned whole. The method of canning however, is the same for all varieties.

Sort out the bruised, moldy, and mushy or overripe fruit. Use only the firm-ripe fruit for canning. Soft-ripe plums, if in good condition, should be used for making butter or jam. Red plums and blue-black damsons, because of their tart flavor, are especially good for making butter or jam.

To Figure Your Jar Needs

It will take from 2 to 2½ pounds of plums to fill a quart jar. Therefore, you will need from—

11 to 14 quart jars for ½ bushel (28 pounds). Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the plums you have on hand.

To Sweeten Plums

You will need from 3 to 4½ pounds of sugar to can ½ bushel (28 pounds) of plums in a medium sirup.

To Can Plums or Fresh Prunes

1. Wash plums carefully.
2. Cut plums in half and remove pits — or leave them whole.
3. Make a medium sirup by using 12 cups (3 quarts) of sugar to 1 gallon of water. This will make enough sirup for 2 half-bushel baskets of plums, if you can them in halves. If you can them whole, you will need at least 1½ times as much sirup.
4. Pack raw plums closely into clean jars. Fill jars to within ½ inch of top.
5. Cover fruit with boiling sirup, leaving ½-inch space at top of jar.
6. Insert blade of table knife down sides of jar to remove air bubbles. Add more sirup, if needed, to cover fruit.
7. Wipe tops of jars with clean, damp cloth.
8. Seal or partly seal jars, depending on type of lid used.
9. Put jars in water-bath at once, and boil as follows:

   Pint jars — 20 minutes.
   Quart jars — 20 minutes.
   Two-quart jars — 25 minutes.

   Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 2 minutes to the processing time for each size jar.
10. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
11. Cool jars, label them, and store in cool, dry room.

Plum Butter

1. Use soft, ripe plums or prunes. Discard bruised or moldy fruit.
2. Wash plums carefully.
3. Cut in half and remove pits, or leave them whole.
4. Crush fruit and cook in its own juice. Or, if fruit is on the firm side, add a small amount of water before heating. Boil slowly until heated through and soft. Stir as needed, to prevent scorching.
5. Put plums through sieve or pulper to remove skins and seeds.
6. To each gallon of plum pulp, add 8 cups of sugar and ½ teaspoonful of salt. Sugar may be varied to taste. If prune-plums are used, add 2 tablespoonfuls of lemon juice. This will improve their flavor.
7. Boil until plum butter is thick and smooth. This stage is reached when a spoonful dropped onto a saucer is smooth, and liquid

does not separate from the pulp. Stir often while cooking, to prevent scorching. As the butter thickens, turn heat down to prevent spattering.

8. Pour hot plum butter into clean, hot jars. Fill to within ¼ inch of top.
9. Wipe tops of jars with clean, damp cloth.
10. Seal or partly seal jars, depending on type of lid used.
11. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time.
12. Remove jars from water-bath as soon as processing is completed. Complete seals, if jars are not the self-sealing type.
13. Cool jars, label them, and store in cool, dry room.

Plum Jam

1. Use damsons or any tart plum. Wash them carefully and pick off stems.
2. Remove seeds. To seed damson plums, put a small amount of plums in a colander and lower them into hot water. Heat slowly until hot. Do not boil. Press plums with fingers to squeeze out seeds.
3. For each pound of seeded plums (about 3 rounded cups), allow 1 cup of water and 1½ to 2 cups of sugar. Boil plums in water until skins are tender — about 10 or 15 minutes. Then add sugar and continue boiling.
4. Cook plums until thick and jellylike. Stir often while cooking, to prevent scorching.
5. Pour hot jam into clean, hot jars. Fill jars to within ¼ inch of top.
6. Wipe tops of jars with clean, damp cloth.
7. Seal or partly seal jars, depending on type of lid used.
8. Put jars in water-bath at once, and boil as follows:
    Pint jars — 10 minutes.
    Quart jars — 10 minutes.
    Two-quart jars — 15 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time.
9. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
10. Cool jars, label them, and store in cool, dry room.

SAUERKRAUT

Make some sauerkraut to use up your surplus cabbage. It is a good food and helps to vary the diet during the winter months. Both late and early varieties of cabbage make good kraut. Early cabbage is harder to handle, however, because it matures during the summer when the weather is warm. Spoilage organisms grow rapidly at warm temperatures. Therefore, when making kraut from early cabbage, take extra care to see that it is kept cool (65° to 70° F.) during the fermentation period.

Your success in making good kraut will depend on—

1. Using cabbage that is sound, well matured, and fresh. (Do not use badly bruised or frozen cabbage.)
2. Trimming and shredding cabbage carefully.
3. Using the right amount of salt for the amount of shredded cabbage. Too much salt will prevent fermentation and cause kraut to turn pink. Too little salt will cause the kraut to soften. It is important to weigh cabbage after trimming or shredding so that you may know how much salt to use.
4. Getting the salt evenly mixed with the shredded cabbage. Failure to spread salt evenly may cause kraut to be soft or pink in spots.
5. Packing the salted cabbage firmly into clean crocks or barrels, then weighting it down so that brine covers the kraut.
6. Storing the kraut at the right temperature to get good fermentation (65° to 70° F.).
7. Keeping the scum cleaned off top of brine. Scum will cause kraut to spoil.
8. Letting the kraut stand until fermentation is completed. Kraut lacks flavor unless it is completely fermented.

9. Canning the kraut as soon as fermentation is completed or storing it properly to prevent spoilage.

Equipment and Supplies Needed

Containers.—Stone crocks ranging in size from 1 to 50 gallons are best to use for making kraut. They are easily cleaned and do not dry out when stored, or rot when put in a damp place; neither do they take up flavors or odors. They have no hoops to rust or drop off.

Wooden kegs or barrels may also be used if they are tight and don't leak. If brine leaks out, kraut will spoil. Do not use wooden vessels made from yellow or pitch pine, as the pine odor and flavor will be taken up by the kraut. If barrels are used, those made of fir, cypress, spruce, or redwood are best. Get new barrels or kegs, if possible. Old barrels or kegs will need to be cleaned carefully, scalded with boiling water or steam, and coated with paraffin or some other waterproof material. It will take about 300 pounds of trimmed cabbage to fill a 50-gallon container. To can this amount of sauerkraut, you will need approximately 120 quart jars.

Weights.—Use a clean, hard stone for a weight. Be sure it is heavy enough to bring the brine up over the kraut. The kraut must be covered with brine at all times, otherwise it will spoil. A 5-gallon container should have about a 10-pound weight.

Clean Cloth.—Several thicknesses of cheesecloth or a muslin cloth is needed to cover the kraut.

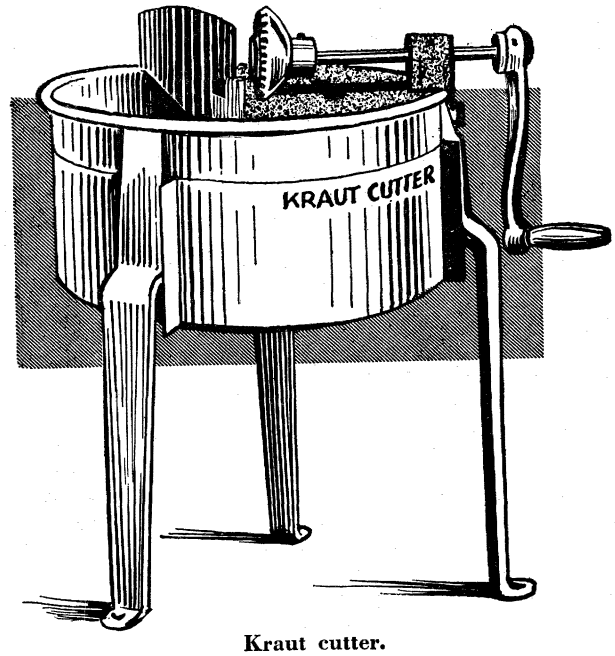
Boards.—Boards are placed on the cloth to provide a firm surface for the weight. Use two separate pieces of board other than pine, and shape them to fit crock or barrel. Make them slightly smaller than the container so that they may be removed easily.

Scales.—Scales should be on hand to weigh the cabbage and salt.

Salt.—For each 100 pounds of trimmed or shredded cabbage you will need 2½ pounds (5 cups) of salt. For 300 pounds of trimmed cabbage (enough to fill a 50-gallon container) you will need 7½ pounds of salt. Use a good grade of canning salt that is fine-grained and free from lumps. Do not use iodized salt.

Wooden Stomper.—A stomper is needed to press cabbage down into vessel. Make one from a piece of hard wood, 4 to 6 inches in diameter.

Kraut Cutter.—A kraut cutter, such as the one shown, will save much time when shredding cabbage for sauerkraut. The knives can be set to cut cabbage about the thickness of a dime, as recommended. Or, if you have an electric mixer or food cutter in your kitchen get a slicer-plate attachment, such as the one shown, to shred cabbage. Such attachments should be purchased from the company manufacturing your mixer or cutter. Kraut cutters can be purchased from the following suppliers:



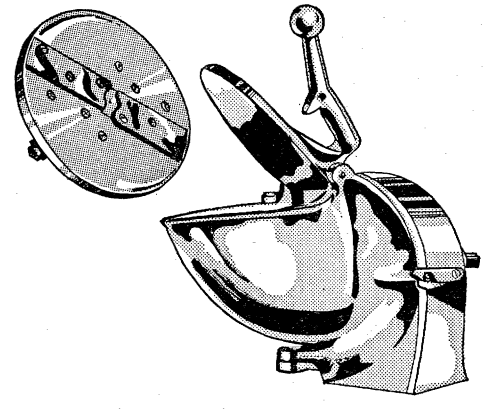
Kraut cutter.

Chisholm-Ryder Co., Niagara Falls, N. Y., and Chicago, Ill.

Food Machinery Corporation, 101 East Maple St., Hoopeston, Ill.; 23 West Twenty-first St., Baltimore, Md.; 2025 San Fernando Road, Los Angeles 41, Calif.; 710 South Commerce St., Harlingen, Tex.; and Lakeland, Fla.

F. H. Langsenkamp Co., Indianapolis 4, Ind.

A. K. Robins & Co., Inc., 713-729 East Lombard St., Baltimore, Md.



Slicer-plate attachment for electric mixer or food cutter.

To Make Sauerkraut

1. Trim heads of cabbage to remove loose, outer green leaves and leaves that may have spray residue on them. Cut heads in half, lengthwise, or quarter them. Cut out core.
2. Weigh after trimming or when shredded. Work with 5 to 10 pounds of cabbage at a time.
3. Shred cabbage — cut lengthwise of head, if possible, so that shreds will be long and slender. Make shreds about the thickness of a dime.
4. To each 10 pounds of cabbage, add ¼ pound (½ cup) of salt. (100 pounds of shredded cabbage requires 2½ pounds (5 cups) of salt.) Pack the shredded cabbage into clean crocks or barrels. Pack in thin layers. Sprinkle salt on each layer. Divide salt so that each layer will receive a small amount. It is better to have more salt on the top layer than to put too much on the bottom layers. As each layer is added, press the cabbage down firmly with a wooden stomper. This will force the air out and help get a better pack. It will also help to bring out the juice.
5. When crock or barrel is filled to within 2 to 3 inches of top, cover the cabbage with clean cheesecloth or muslin. Tuck the edges down to completely cover the kraut. Place boards on cloth.
6. Put clean, heavy stone on the boards to weight the kraut down. The weight should be heavy enough to keep the kraut below the surface of the brine. It is important to have the kraut covered with brine at all times to prevent spoilage.
7. To ferment kraut, store it at a temperature of 65° to 70° F., if possible. This is the best temperature for fermentation. Do not keep the kraut too cold (below 60° F.) — or too hot (above 85° F.). Fermentation is more rapid at warmer temperatures, but spoilage is more likely to occur. If kept too cold, the kraut will not ferment. Fermentation should begin within a day or two after packing. The level of the brine should come up and gas bubbles should form on the surface. A scum usually forms on the surface of the brine within a few days.
8. Remove scum from brine every other day. Scum left on kraut too long will cause spoilage.
9. Let kraut stand until fermentation is completed. This will take from 4 to 6 weeks, depending on the temperature of the room in which the kraut is stored. When fermentation is complete, bubbles cease to rise to the top of the liquid and the kraut settles. At this stage the kraut should have a good flavor.
10. As soon as fermentation is complete, can the kraut — or prepare it for storage in bulk.

To Can Sauerkraut

1. Heat sauerkraut in its own juice until hot. Do not boil. If the kraut lacks juice, add salt brine made by using ¼ cup (4 tablespoonfuls) of salt to 1 gallon of water. Turn the kraut often with a long fork so it will heat evenly. Use stainless steel or enamel kettles for heating the kraut. Aluminum kettles may be used but the acid of the kraut may cause them to pit. Do not use copper or iron kettles as they will cause the kraut to darken.
2. Fill hot kraut into clean, hot jars to within ½ inch of top.
3. Cover kraut with hot kraut juice, leaving ½-inch space at top of jar.
4. Push a pointed stick through the center of the kraut to the bottom of the jar and loosen the kraut. This will help the juice to spread evenly through the kraut and remove air bubbles. Add more juice, if needed, to cover kraut.
5. Wipe tops of jars with clean, damp cloth.
6. Seal or partly seal jars, depending on type of lid used.
7. Put jars in water-bath, and boil as follows:
   Pint jars — 25 minutes.
   Quart jars — 30 minutes.
   Two-quart jars — 35 minutes.
   Do not count cooking time until water returns to boiling. For each 1,000 feet above sea level, add 2 minutes to the processing time for each size jar.
8. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
9. Cool jars, label them, and store in cool, dry room.

To Prepare Bulk Kraut for Storage

When fermentation is completed, store kraut where it will be kept cool. The cooler the better, as long as it does not freeze. If kraut is kept in a hot place for any length of time, it will spoil. Scum on the kraut will also cause spoilage. The kraut becomes soft and tasteless. It may also turn brown.

Air helps scum to grow. Even when kraut is completely fermented, scum will grow on the surface of the brine if air is present. Therefore, when fermentation is completed, the kraut must be sealed to keep the air out. An easy method for doing this is as follows:

1. Remove all scum from kraut.
2. Remove head from a clean barrel or keg. Bore a ½-inch hole in the head.

3. Pack kraut to within 2 inches of top of barrel.
4. Fit the head into the top of the barrel or keg. Be sure it fits tightly.
5. Pour brine through the hole to completely fill the container. Use a brine made by adding ¼ cup (4 tablespoonfuls) of salt to 1 gallon of water.
6. Check the container often for leaks. Add more brine, if necessary, to keep the container full. Make fresh brine each time that additions are necessary.

TOMATOES

Put up plenty of tomatoes so you can serve them the year-round. They are a good source of vitamin C — one of the nutrients needed in the daily diet.

Can most of the tomatoes whole, as they keep their food value best this way. Put up some tomatoes as juice, but heat them before sieving or pulping. This method of making juice will save food value. The juice will be thicker, too, and it will not separate when canned. Use a stainless steel, aluminum, or enamelware kettle to heat the tomatoes. Do not use an iron or copper kettle. These metals will destroy the vitamin C in tomatoes, and they may also cause the juice to darken. Work fast when canning tomatoes or making juice. Any delay in getting these products processed may result in a poor flavor and loss of vitamin C.

Use firm, red-ripe tomatoes for canning. If possible, get vine-ripened ones. Be sure they are free from mold or rot. Sort them for size so they will cook evenly. If you use tomatoes with green spots, or cracked or slightly bruised ones, trim them carefully as you peel them. Smell each tomato to make sure that it is not sour. Do not use sunburned, shriveled, or overripe tomatoes for canning.

How to Ripen Tomatoes

If you have tomatoes on hand that were not fully ripened when picked, you can ripen them for fresh use or for canning. Tomatoes ripened after picking, however, will not have as good a flavor or color as vine-ripened ones.

Even green tomatoes, if mature, will ripen in a few days at room temperature (about 70° F.). Do not put them in the sun or where they will be too hot (above 80° F.). If you do, they may not develop a good red color. Furthermore, they may rot before they ripen.

To slow down ripening, keep tomatoes cool (below 70° F., but not lower than 55° F.). If kept too cold — at temperatures lower than 55° F. — tomatoes will not ripen well.

Tomatoes that are shipped in are usually green and need to be ripened. Leave them in their baskets or crates. Leave their wrappers on, too. They protect the good tomatoes from the bad ones in case there is any spoilage.

If you stack the baskets or crates, be sure they are spaced, so that air can get to the tomatoes.

Check them every day for ripeness. Sort them too, if necessary. Some tomatoes may ripen faster than others. Some may spoil. As soon as tomatoes are fully ripened, can them. Do not delay. Once ripe they spoil quickly at room temperature. If kept cold (not lower than 40° F.), however, ripe tomatoes may be held for 2 to 3 days.

To Figure Your Jar Needs

From 2½ to 3 pounds of tomatoes are needed to fill a quart jar. Therefore, to can tomatoes, you will need:

17 to 21 quart jars for 1 bushel (53 pounds);
or
10 to 13 quart jars for 1 lug box (32 pounds).

Use these figures as a guide to determine how many pint, quart, or 2-quart jars you will need to can the amount of tomatoes you have on hand.

Tomato Coring Knife

A tomato coring knife, such as the one shown, will make your peeling and coring job easy. Its narrow, spoon-shaped blade removes cores without waste. The core can be taken out in one movement if the knife is kept sharp. Knives made of high-grade carbon steel can be easily sharpened with a fine stone or file. Get one or several of these knives, depending on your

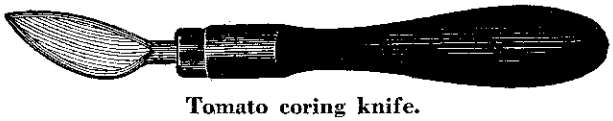
needs. They will have many uses in your kitchen. They are especially good for removing stems and hulls from berries. Order them from one of the following suppliers:

Dixie Canner Co., Athens, Ga.

Food Machinery Corporation, 101 East Maple St., Hoopeston, Ill.; 23 West Twenty-first St., Baltimore, Md.; 2025 San Fernando Road, Los Angeles 41, Calif.; 710 South Commerce St., Harlingen, Tex.; and Lakeland, Fla.

F. H. Langsenkamp Co., Indianapolis 4, Ind.

A. K. Robins and Co., Inc., 713-729 East Lombard St., Baltimore 2, Md.



Tomato coring knife.

To Can Tomatoes

1. Wash tomatoes carefully. Use 2 or 3 waters, if necessary, to remove sand and dirt.
2. Dip tomatoes in boiling water until skins slip easily — about ½ minute.
3. Dip quickly into cold water to stop the cooking and loosen the skins.
4. Rub skins off tomatoes with the hands or pull them off with a tomato coring knife. As you peel each tomato, cut the core out. Be sure to take out all of the core. If you leave any part of this hard center, tomatoes may spoil.
5. Pack raw tomatoes into clean jars. Leave small or medium-sized ones whole. Large tomatoes may need to be cut into halves or quarters. Press tomatoes gently to fill spaces in jar. Fill to within ½ inch of top. Do not add water.
6. Add salt, using ½ teaspoonful to each pint jar; 1 teaspoonful to each quart jar; and 2 teaspoonfuls to each 2-quart jar of tomatoes.
7. Wipe tops of jars with clean, damp cloth.
8. Seal or partly seal jars, depending on type of lid used.
9. Put jars in water-bath at once, and boil as follows:
   Pint jars — 35 minutes.
   Quart jars — 45 minutes.
   Two-quart jars — 50 minutes.
   Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 2 minutes to the processing time for each size jar.
10. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
11. Cool jars, label them, and store in cool, dry room.

To Can Tomato Juice

1. Wash tomatoes carefully. Use 2 or 3 waters, if necessary, to remove sand and dirt.
2. Remove stem ends, and quarter tomatoes.
3. Simmer tomatoes until heated through and softened. Use stainless steel, aluminum, or enamelware kettles. Stir as needed to prevent sticking.
4. Put tomatoes through a sieve or pulper to remove skins, seeds, and cores.
5. Add salt to pulped juice, using 1 teaspoonful for each quart of juice. Stir to blend.
6. Reheat juice at once — just to boiling temperature.
7. Pour hot juice into clean, hot jars. Fill jars to within ¼ inch of top.
8. Wipe tops of jars with clean, damp cloth.
9. Seal or partly seal jars, depending on type of lid used.
10. Put jars in water-bath at once, and boil as follows:
    Pint jars — 15 minutes.
    Quart jars — 15 minutes.
    Two-quart jars — 20 minutes.
    Do not count cooking time until water returns to boiling point. For each 1,000 feet above sea level, add 1 minute to the processing time for each size jar.
11. Remove jars from water-bath as soon as processing is completed. Complete seals, if lids are not the self-sealing type.
12. Cool jars, label them, and store in cool, dry room.

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