

Ball

BLUE BOOK

OF
CANNING
AND
PRESERVING
RECIPES

PRICE 10c



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Things Every Home Canner Should Know

HOME CANNED FOODS should be attractive in color, pleasing in texture and flavor, and rich in nutritive values. Neither unusual skill nor expensive equipment is necessary for the production of such foods, but it is essential that one be familiar with the selection, care, and use of equipment, the causes and prevention of spoilage, and the selection and preparation of material to be canned, preserved, or pickled. The rules of canning are simple, the work easy, and the results gratifying to those who follow instructions.

VARIETY AND QUANTITY TO CAN

HOME canning may be one person's hobby, another's habit, but now for millions, it is the only means of supplying a well-rounded diet. An estimate should be made of the amount of each variety of food needed during the months when not in natural season. The amount to be canned in order to supply this need varies with geographical location, but a fair yearly average for a family of five is between eight hundred and one thousand quarts. A budget or guide to be used in planning is given on page 12.

HOW TO SELECT CONTAINERS

GLASS JARS are the unanimous choice of home canners who understand and appreciate the importance of cleanliness, convenience, and economy because glass is easily cleaned, easily used, lasts indefinitely, and has no effect upon the color and flavor of any food.

Ball Jars are designed, tempered, and tested to serve every purpose of home canning. All Ball Jars and fittings are made from materials of superior quality and by modern, scientifically controlled machines. Ball Jars, caps, lids, and rubbers of each type and size seal equally well, therefore, one's selection should be governed by preference of style, shape of jar, size of family, and nature of the product to be canned.

Quart and pint size jars are more suitable than others for general canning; half gallons for large pickles and other brined products; half pints for baby foods, marmalades, and sauces. Wide mouth jars are more convenient for packing meats and large fruits, but neither wide mouth nor half pint jars are made in war time.

BALL JARS AND CLOSURES—HOW TO USE THEM

★ See Pages 52 and 53 for Pictures of Jars and Closures ★

BALL JARS are suitable for every type of home canning; i.e., steam pressure, water bath, steamer, open kettle and oven. They will stand intense heat, but please remember that glass should never be subjected to sudden change of temperature. *Putting cool jars into hot water, pouring hot materials into cool jars, and placing hot jars on cold surfaces or in a draft are the most common causes of breakage.*

MASON JARS

ON November 30, 1858, John Mason was granted a patent for a jar with glass threads which permitted a metal cap to be screwed down on a rubber washer to make a hermetic seal. This style home canning jar proved so economical and practical in every respect that it has retained its popularity down through the years. Regardless of how and where made, all glass fruit jars which seal with screw caps are called mason. The **Ball Perfect Mason** represents a perfection of beauty, quality, and strength seldom found in other mason jars.

The Ball Perfect Mason is made of clear (flint) glass, in pint, quart, and half-gallon sizes. It may be sealed with Ball Zinc Porcelain Lined Cap and Reliable Rubber, No. 10 Glass Top Seal, or Vacu-Seal Closure.



HOW TO USE BALL JARS

BALL JAR RUBBERS

Important

BALL PERFECT SEAL RUBBERS have long represented the highest quality in jar rings. Perfect Seal Rubbers cannot be made in war time because of the shortage of crude rubber. Ball Reliable Rubbers packed with jars, and sold in packages for shoulder and top sealing, are made in accordance with Government specifications and are the best quality that can be made under war conditions. They will give satisfaction when the following precautions are taken:

- 1 — Do not stretch to test,
- 2 — Boil a few minutes to sterilize,
- 3 — Place on jar while wet,
- 4 — Partly seal for processing,
- 5 — Turn zinc caps and glass top seal bands slowly when sealing as quick, jerky turns cause rubbers to push out.

ZINC CAPS

BALL ZINC PORCELAIN LINED CAPS are made of genuine rolled Zinc of heavier quality than commonly used for this type cap. New zinc caps may not be available during the war because zinc is required for war materiel. Used zinc caps should be boiled 30 minutes to sterilize before reusing. Brine, vinegar, and juices of acid fruits cause pin holes in metal, therefore, products containing noticeable amounts of acid or salt should be canned in jars sealing with glass or Ball Vacu-Seal lids.

The average person can tighten Zinc Caps by hand; the few who cannot should use a rubber wrench. Metal wrenches tend to press the cap's threads out of line. Never tighten a zinc cap after jar has cooled; doing so may break the seal.

TO SEAL BALL PERFECT MASON JARS WITH ZINC CAPS

Be Sure that Edges of Caps are Smooth

When Processing by Any Method: Fill jar to within 1 to ½ inch of top. Remove anything spilled on threads of jar. Then place a new, wet Ball Reliable Rubber flat on sealing shoulder. Screw cap tight, then loosen slightly. Caps which are screwed too tight may be forced or bulged out of shape by the steam and air pressure within the jar; the only other known cause of bulging is gas pressure caused by food spoilage. Each cap should be screwed tight the moment jar is removed from canner. Do not lift jar by top. Do not invert at any time.

When Using Open Kettle Method: Place a new, wet, Ball Reliable Rubber flat on sealing shoulder. Fill hot jar to top with boiling food, but do not overflow. Remove anything spilled on threads of jar. Screw cap tight. Do not invert jar at any time.

TO OPEN MASON JARS SEALED WITH BALL ZINC CAPS

Run the point of a thin knife between the jar and rubber. This will let air in to break the seal. If cap sticks, stand jar top down in hot water to expand the metal.

BALL NO. 10 GLASS TOP SEAL CLOSURES

THE BALL NO. 10 GLASS TOP SEAL CLOSURE consists of glass lid, rubber, and metal band.

This type closure must be used on jars with smooth, even top edges.



TO SEAL MASON JARS WITH BALL NO. 10 GLASS TOP SEAL CLOSURES

When Processing By Any Method: Fill Jar to within 1 to $\frac{1}{2}$ inch of top. Remove anything spilled on top of jar. Put a new, wet No. 10 Rubber around the projection on the bottom of lid. Place lid so that rubber rests on top edge of jar. Screw band tight, then loosen slightly. Screw band tight the moment jar is taken from canner. Do not invert jar. Next day, remove band and test seal. A tightly sealed lid cannot be lifted off with the finger tips. Do not replace band. Dry bands and save for re-use.

When Using Open Kettle Method: Put a new, wet No. 10 Rubber around the projection on the bottom of lid. Fill hot jar to within $\frac{1}{2}$ inch of top with boiling food. Remove anything spilled on top of jar. Place lid so that rubber rests on the top edge of jar. Screw band tight. Do not invert jar. Next day, remove band and test seal. A tightly sealed lid cannot be lifted off with the finger tips. Do not replace band. Dry bands and save for re-use.

TO OPEN MASON JARS SEALED WITH NO. 10 GLASS TOP SEAL CLOSURES

Break seal by running the point of a thin knife blade between jar top and rubber.

BALL VACU-SEAL CAPS

THE BALL VACU-SEAL — so named because it permits extra high vacuum in the jar — consists of a metal lid and metal screw band. The lid, lined with white enamel to prevent food touching metal, has a groove on the outer edge filled with rubber compound which serves the purpose of a regular jar ring. The lid is used once; the screw band many times. The lids usually make a clicking noise as vacuum draws them down in an air-tight seal. This type cap must be used on jars with perfect top edges.

TO SEAL MASON JARS WITH BALL VACU-SEALS

Examine jars. Use only those with smooth, even top edges.

When Processing: Drop lids in boiling water and leave in hot water until needed. Fill jar to within 1 to $\frac{1}{2}$ inch of top. Remove anything spilled on top or on threads of the jar. Place lid, white side down, on top of jar and screw band tight. Remove jars from canner at end of processing time. **DO NOT retighten bands.** Do not lift jars by top. Do not invert. Do not remove band for at least 12 hours; it should then be removed and re-used with a new lid. **Test the seal after jar is cold by pressing on lid with finger.** There is no "give" to a tightly sealed Vacu-Seal lid. The seal can also be tested by tapping the lid with a spoon. If a sharp ringing sound is produced, the seal is perfect.

When Using Open Kettle Method: Boil lids 5 or 10 minutes and leave in hot water until needed. Fill hot jar to within $\frac{1}{2}$ inch of the top with boiling food. Remove anything spilled on top or on threads of jar. Place lid, white side down, on top of jar and



screw band TIGHT. Do not lift jar by top. Do not invert. Do not remove band for at least 12 hours; it should then be removed and re-used with a new lid. **Test the seal by pressing on lid with finger.** There is no "give" to a tightly sealed Vacu-Seal lid. The seal can also be tested by tapping the lid with a spoon. If a sharp ringing sound is produced, the seal is perfect.

TO OPEN JARS SEALED WITH VACU-SEALS

Puncture, then pry off the lid.

ATTENTION

Bands for Glass Top Seal and Vacu-Seal Closures will last longer if wiped, after using, with cloth moistened with paraffin.

WIDE MOUTH JARS

The Ball Special — wide-mouth Mason — and the Ball Eclipse — all glass jar — are especially convenient when canning meat and large fruits but wide-mouth jars cannot be made during the war because they require too much rubber and metal for sealing.

BALL IDEAL JARS

THE BALL IDEAL JAR is made of clear (flint) glass in pint, quart, and half-gallon sizes. It seals with a Ball Reliable Rubber and glass lid held in place by high tension wires which are scientifically treated so that they do not stretch from repeated use.

Loose or Worn Wires: The wires formerly used on all lightning type jars had a tendency to stretch after being used a few times. Never try to take up the slack in these old-fashioned wires by using two rubbers. Temporary tightening may be done by crimping the wires with pliers, but the only reliable remedy for loose or worn bail wires is new ones. They may be ordered from Ball Brothers Company, Muncie, Indiana. Postage prepaid price per dozen: 3 wires (2 bail and 1 neck) for Ideal Jars, 20 cents; 2 bail wires for Ideal Jars, 15 cents; 2 bail wires for Eclipse (wide-mouth) Jars, 20 cents. Price 5 cents higher west of Kansas City.

TO USE BALL IDEAL JARS

Examine jars and lids. Test the tension of bails on old jars. An inexperienced canner, or one unaccustomed to using Ideal Jars, should heat used jars, fit with rubbers, fill with hot water, and seal immediately. Let jars stand until cold, then invert and examine for leaks. If there is no sign of leaks, it may be assumed that bails are tight.

When Processing By Any Method: Fill jar to within 1 to $\frac{1}{2}$ inch of top. Remove anything spilled on jar. Then place new, wet Ball Reliable rubber flat on sealing surface. Adjust lid so that long bail wire will, when pushed up, lie in the center of groove on top of lid. Leave short wire in the position it takes when long wire is pushed up over lid. When the wires are in these positions, the jar is partly sealed. The seal is completed at the end of processing by pushing the short wire down against side of jar. Do not lift jar by top. Do not invert while hot; when cold, invert slowly and examine for leaks.

When Using Open Kettle Method: Place new, wet Ball Reliable Rubber flat on sealing surface.

Fill jar to top with boiling food but do not overflow. Remove anything spilled on rubber. Adjust lid so that long bail wire will, when pushed up, lie in the center of groove in top of lid. Push short bail wire down against side of jar. Do not lift jar by top. Do not invert while hot; when cold, invert slowly and examine for leaks.

TO OPEN BALL IDEAL JARS

Raise lower bail, lower upper bail. Run point of thin knife under rubber to let in air to break the seal.

TO PREPARE BALL JARS, ZINC CAPS AND GLASS LIDS FOR USE

EXAMINE jars, caps, and lids for nicks, chips, cracks, and dents caused by rough handling. Wash in warm, soapy water, and rinse. Place jars, caps, and lids in a pan and cover with warm — not hot, water. If water bath, oven, steamer, or steam pressure canner is to be used, boil jars, caps, or lids 10 or 15 minutes. Keep hot until needed. If open kettle canning is to be done, boil jars, caps, or lids 20 to 30 minutes. Keep boiling hot until needed.

TO PREPARE RUBBERS AND VACU-SEAL LIDS FOR USE

Neither rubbers nor Vacu-Seal Lids should be used a second time. Wash and rinse. If processing is to be done, drop in boiling water and keep hot. If using Open Kettle method, boil 5 or 10 minutes and keep hot until needed.

SEALING BEFORE PROCESSING

The practice of completing the seal of the Ideal type jar before processing is recommended by some home economists, but the average person is likely to find the advantages of this practice outweighed by the disadvantages. The pressure of both steam and air is increased when heat is applied to a tightly closed jar. This increase of pressure within the jar tends to blow out the rubber and also imposes extra strain on the glass. A new jar should withstand this additional strain, but an old glass jar, or even a new one which has been handled roughly, is liable to break under it. Zinc caps are likely to bulge and break seal if tightened before processing. **Vacu-Seals should be tightened before processing only.** Never place a tightly sealed jar in an oven.

IF JARS FAIL TO SEAL

SEALING failures are practically unknown to those who follow the directions given in the preceding paragraphs.

If a jar of nonacid vegetables or meat fails to seal, it is best to use the food immediately, as the time required for reprocessing (from $\frac{1}{3}$ to $\frac{1}{2}$ the original time) spoils the flavor and texture of the product.

If a jar of fruit or tomatoes fails to seal, correct the cause; this may mean changing jar, lid, or rubber. Reheat jar, lid, and contents by boiling 5 minutes, then reseal. The reheating may be done in an open kettle or in a water bath canner. If another jar, rubber, or lid is needed, prepare as directed above and thus prevent spoilage.

CLASSIFICATION OF MATERIAL FOR CANNING

ACID FOODS: Fruits, tomatoes, rhubarb, ripe pimientos, and sauerkraut make up the acid group. These foods are easily canned by processing in a water bath or steamer, and may also be canned by the open kettle method.

NONACID FOODS: All vegetables, except those mentioned above, and all meats, are nonacid. Nonacid foods require long processing or processing at a high temperature in order to prevent spoilage. A pressure cooker should be used when canning nonacid vegetables, but some home canners prefer to use a water bath.

SELECTION OF MATERIAL FOR CANNING

None but clean, sound, strictly fresh material is fit for canning. All fruits, vegetables, and meats should be canned when at the most perfect stage for cooking. Only firm, ripe, well-flavored fruits, crisp, tender, freshly gathered vegetables, and meat from healthy animals can be expected to yield a satisfactory canned product. All raw products should be graded for size, color, and condition, prepared and canned according to the recipes in the Blue Book.

PACKING AND PROCESSING

THE term *Pack* refers to filling jars with material to be canned by processing. It has nothing to do with the method of processing. Packing should be done in a manner which neither crowds nor wastes jar space. Filling jars too full interferes with the seal and also permits loss of liquid. Crowded, or tight packing prevents proper heating and thus causes spoilage.

COLD PACK

Jars are *cold packed* — when they are filled with raw food or with that which has been blanched; i.e., scalded and dipped in cold water.

All fruits and tomatoes may be cold packed; all except tomatoes, grapefruit, and certain berries are more satisfactory when hot packed.

HOT PACK

Jars are *hot packed* — when they are filled with hot, partly cooked foods. **Most fruits, all non acid vegetables, and meats should be hot packed.**

The time required for precooking for hot packing depends upon the nature of the material used. Fruits and vegetables are heated through; whereas, meats are cooked until most of the pink color disappears.

PROCESSING

The application of heat to food after it is packed into jars is called *processing*. Processing is done in *water bath canners*, *pressure cookers*, *steamers*, and *ovens*. The time, temperature, and method of processing is determined by the kind, composition, and condition of the food to be canned.

The object of processing is to destroy minute organisms, which, if not destroyed, cause spoilage. Different foods attract different types of organisms, some of which are more easily destroyed than others; consequently, some foods which cook in a short time require long processing or processing at high temperatures in order to prevent spoilage.



CANNERS AND HOW TO USE THEM FOR PROCESSING

AUTHORITIES on home canning agree that two canners, *hot-water bath* and *steam pressure*, are needed in order to secure uniformly satisfactory results in home canning. However, other methods may be used with good results.

WATER BATH CANNER

The *water bath* is generally conceded to be the most satisfactory canner for processing fruits, juices, tomatoes, pickles, and preserves, and may be used when canning vegetables.

No money need be spent for a water bath canner. One may be made by fitting a lard can, wash boiler, or deep kettle with a rack of wire or wood to hold the jars about $\frac{1}{2}$ inch above the bottom of the vessel. The canner should have a well-fitting cover and be deep enough for water to stand an inch or more over the tops of jars.

TO PROCESS IN WATER BATH CANNER

The water should be steaming, but not boiling, when the jars are put into the canner. The jars should stand at least $\frac{1}{2}$ inch apart and be completely covered with water. Lower jars into the hot water slowly to avoid breakage.

Begin counting processing time when the water is actually boiling. Keep it boiling constantly and at the same rate of speed during the entire time. Remove jars from the canner the moment processing time is up and seal according to directions given for the style jar and closure used (see pages 4 to 6).

PASTEURIZING

Fruit juices, grapefruit, preserves, pickles, and relishes should, for best results, be pasteurized — heated, below the boiling point. The jars are placed in a water bath which is kept at a temperature of from 165° to 185° F. (simmering). The object of pasteurizing is to destroy yeast and molds. The time varies according to the nature of the material.

STEAM PRESSURE COOKERS

All nonacid vegetables and meats should be processed in a *steam pressure cooker* because it is the only kitchen utensil in which it is possible to raise the temperature much above 212° F. — boiling point of water at sea level. A hotter than boiling temperature is needed to destroy certain organisms which cause spoilage in canned foods.

A *steam pressure cooker* consists of a metal kettle and cover. The cover, equipped with safety valve, petcock, and pressure gauge, fastens to the kettle with thumb screws or clamps. It is essential that a pressure cooker be kept in good repair. Unless gauge is accurate, results will be disappointing.

TO PROCESS IN PRESSURE COOKER

★ *Directions for its care and operation are packed with every pressure cooker. Such directions should be followed* ★

Place jars on rack in a cooker containing 1 to 2 inches of water. Leave ample space between jars to permit free circulation of steam. Adjust and fasten lid securely. Do not close petcock until steam has escaped through it



in a steady stream from 5 to 7 minutes, depending upon the size of cooker; otherwise the temperature within the cooker may not be as high as indicated by the pressure gauge.

The hand on the pressure gauge begins to rise shortly after the petcock is closed. Begin counting processing time when the pressure reaches the required number of pounds. Keep pressure steady by adjusting heat under cooker. The pressure must be kept steady in order to count time accurately and to keep liquid in jars. Remove cooker from heat at end of processing time and let it stand until the hand on the gauge falls to zero, then open petcock slowly. Tilt lid, as it is removed, to throw the steam away from face. Spread a heavy cloth over the top of cooker. Catch handles of rack through the cloth and lift out. Seal jars according to directions given for the style jar and closure used, (see pages 4 to 6).

OVENS

Electric and gas ovens which have accurate heat controls may be used for processing fruits. Coal, gasoline, oil, and wood heated ovens should not be used for this purpose because they are not equipped with the type heat regulators required for canning.

TO PROCESS IN OVEN

Do not Use for Processing Vegetables.

Use jars which can be partly sealed. Two piece metal caps are unsuitable for oven canning. Leave 1 to 2 inches space in top of jars to give room for boiling.

Check heat regulator for accuracy. Preheat oven at 275° F. Do not use top unit when processing. Set jars 1 or 2 inches apart, directly on rack wires or on a cookie sheet which does not touch sides of oven. Begin counting time when the indicator shows oven temperature to be 275°. Remove and seal jars at end of processing time.

STEAM COOKERS AND "WATERLESS" COOKERS

Steam cookers and "*waterless*" cookers, of which there are several styles, should not be confused with steam pressure cookers. The temperature within steam and "*waterless*" cookers seldom rises much above boiling point of water — it more often falls below.

TO PROCESS IN STEAMERS AND "WATERLESS" COOKERS

Use the amount of water recommended by the manufacturer. Begin counting processing time after water has boiled 5 minutes. Keep boiling steadily. Process $\frac{1}{3}$ longer than the time given for processing in water bath. Remove jars and seal according to directions given for the type jar and closure used.

OPEN KETTLE

This method, commonly used for canning fruits and tomatoes, requires greater skill than any other. It should never, under any circumstance, be used for nonacid vegetables and meats.

A fairly deep, flat bottom kettle of unchipped enamelware is best for open kettle canning. Stainless steel is satisfactory, as is aluminum if kept bright; iron and tin should not be used.

Boil jars, new caps, lids, and rubbers 20 minutes. Boil used zinc caps 30 minutes or more. Leave in hot water until needed. Cook the food until thoroughly done, but not mushy. Remove jars from hot water one at a time, fit with wet rubber, fill to the top . . . unless a Glass Top Seal or Vacu-Seal is to be used; in which case, $\frac{1}{2}$ inch head space should be left. **Work at the stove so that food can be kept boiling hot.** A wide mouth funnel and a long handle ladle make

the work much easier. Remove anything spilled on top or on threads of jar.

Seal each jar as it is filled. Seal according to directions given for the jar used (see pages 4 to 6). Do not invert jars sealed with zinc caps or Vacu-Seals.

ATTENTION PLEASE!

Never taste canned food which has an unnatural odor or shows sign of spoilage. Boil canned vegetables (except tomatoes), soups, and meats fifteen minutes before tasting. Reboil those left over from one meal to another. This rule applies to both water-bath and pressure-cooker processed food. The purpose of boiling is to destroy any toxin that might be present.

CAUSES AND PREVENTION OF SPOILAGE

PLANT organisms, too small to be seen without a microscope, exist everywhere — in the air, water, and soil. These tiny organisms are called *molds*, *yeasts*, and *bacteria*; all of them need food and moisture for growth and reproduction. Their growth causes spoilage in canned food.

Molds form on any moist food; *yeasts* thrive on products containing sugars and acids; whereas *bacteria* grow best on nonacid foods.

Molds and *yeasts* are the main causes of spoilage of fruits, fruit juices, tomatoes, and preserves. *Molds* and *yeasts* are easily destroyed, therefore, fruits, tomatoes, and other acid products may be processed in a water bath canner, steamer, oven, or canned by the open kettle method.

Bacteria are the chief cause of spoilage of beans, corn, greens, peas, meats, and all other nonacid products which are preserved by canning. *Bacteria* exist in two forms; spore (seed) and vegetative (growing). The spores of some *bacteria* are difficult to destroy by boiling, that is why it is advisable to use a steam pressure cooker when canning meats and nonacid vegetables.

Fruits and vegetables which are in the least stale, decayed, bruised, cracked, or overripe are unfit for canning because they attract molds, yeasts, and bacteria, and even though such products may not invariably spoil, they are invariably poor in color, flavor, texture, and food value.

Vegetables should be canned immediately after gathering, and should be gathered when at the most perfect stage for cooking. Corn, lima beans, and peas may spoil before canning if left standing several hours after gathering or if time is wasted between steps in preparing, packing, and processing.

The lack of cleanliness is a frequent cause of spoilage. All utensils, cloths, table tops, and general surroundings, as well as jars, tops, rubbers, and material to be canned should be clean. Food can not be clean when exposed to dust and flies.

Packing jars too tight or with insufficient liquid helps cause spoilage. A pack which is too tight or too dry heats slowly thus giving time for *bacteria* to develop before enough heat (to destroy *bacteria*) reaches the center of the jar.

Spoilage is prevented by heating fresh, sound, clean, food material and clean jars, rubbers, and tops long enough to destroy molds, yeasts, and bacteria and then closing the jar air-tight before more of these organisms can reach the food. Please read pages 3 to 8 before canning anything.

STORAGE

JARS should be clean and dry. There is no reason for labeling because it is possible to see the contents. The date may be written on the jars with ink. The

storage space should be dry, ventilated, and moderately cool. Freezing spoils the texture of food and overheating may be an indirect cause of spoilage.

THE USE OF PRESERVATIVES

THE use of small amounts of vinegar or lemon juice with nonacid products is of no value and may prove harmful by preventing the detection of the odor of spoilage in canned foods.

Chemicals such as salicylic acid, benzoate of soda, and so-called canning powders should never be used. None of them are wholesome and some may be harmful; furthermore, they are unnecessary.

TO PREVENT LOSS OF LIQUID

CANNED food usually has better color and flavor if kept covered with liquid, but jars should not be opened to replace that which has disappeared. To keep liquid at the proper level: use tender, strictly fresh products; hot pack; pack loosely with enough liquid to fill space between pieces of food; leave from 1 to ½ inch head space; remove air bubbles; operate canners according to directions.

CHANGE OF COLOR IN FRUITS AND VEGETABLES

ALL fruits, meats, and vegetables contain *enzymes* — substances which cause various changes which affect color, flavor, and texture. To the home canner, the most obvious sign of *enzymic* activity is that of food turning dark in the top of the jar. The *enzymes* which cause fruit to darken are active in the presence of oxygen, thus canned foods should be protected from air. To protect from air: (a) drop such things as apples, pears, and peaches into weak salt water, as peeled; (b) hot pack; (c) pack with liquid to cover; (d) process immediately after packing; (e) start processing in hot canner; (f) if hard fruit, or that which is above average size, is to be cold packed, add 10 to 20 minutes to the water bath processing time.

Red fruits fade if cooked too rapidly at the start. They should be heated slowly until hot through, then finished quickly. Cooking in tin gives them a bluish color, and they may become brown if cooked in an iron or in a chipped enamel kettle.

Many things cause change of color in beets, but the fault is more often in the variety of beet than in the water, soil, or method of handling. Beets with deep red color throughout should be selected for canning whole. Neither skin, tap root, nor stems (close to beet) should be broken before the beets are pre-cooked. Soft water should be used for the pre-cooking. On the other hand, beets which do not have an even distribution of color usually have better color if pared, cut, and pre-cooked 5 minutes before canning. They usually fade and then reabsorb color when handled in this manner.

The brownish cast in corn (canned in glass) is usually due to caramelization. Caramelization is prevented by using juicy corn, plenty of water, and correct processing. Minerals in water also affect the color.

Olive green, varying from pale to deep, is the right color for all canned green vegetables. Brilliant green indicates the wrong method of canning or that some undesirable chemical has been added; even baking soda is undesirable for this purpose as it destroys certain vitamins. Green things turn brown from over-processing or from being too old for canning.

Murky liquid in canned vegetables is caused by: (a) products being too mature for canning; (b) over-processing; (c) spoilage; (d) using salt containing a starchy filler; (e) hard water.



TIME TABLE FOR PROCESSING FRUITS

This table is for use at altitudes of 1,000 feet or less. Table for use at higher altitudes is given on page 11. Time given in all tables is for processing quarts. Use same time for pints or reduce 5%. Results are approximately the same. Increase time one-half for half-gallons.

PRODUCT	SIRUP	PACK ★ Read Recipe ★	WATER BATH Process at Boiling	OVEN * Process at 275° F.
Apples	Medium to Heavy	Hot Pack	15 minutes	35 minutes Use jars that can be partly sealed.
Apricots	Medium to Heavy	Hot Pack Cold Pack	15 minutes 20 minutes	35 minutes 50 minutes
Berries, All	Medium to Heavy	Hot Pack Cold Pack	5 minutes 20 minutes	25 minutes 50 minutes
Cherries	Medium to Heavy	Hot Pack Cold Pack	10 minutes 20 minutes	35 minutes 50 minutes
Currants	Medium to Heavy	Hot Pack Cold Pack	5 minutes 20 minutes	25 minutes 50 minutes
Figs	Medium to Heavy	Hot Pack	30 minutes	50 minutes
Grapes	Light to Medium	Hot Pack Cold Pack	5 minutes 20 minutes	25 minutes 50 minutes
Peaches	Heavy to Extra Heavy	Hot Pack Cold Pack	10 minutes 20 to 30 minutes	35 minutes 50 to 60 minutes
Pears	Light to Medium	Hot Pack	20 to 25 minutes	50 minutes
Pineapple	Light to Medium	Hot Pack Cold Pack	15 minutes 30 to 40 minutes	35 minutes 60 to 80 minutes
Plums	Medium to Heavy	Hot Pack Cold Pack	10 minutes 20 minutes	35 minutes 50 minutes
Rhubarb	Heavy	Hot Pack Cold Pack	5 minutes 20 minutes	25 minutes 50 minutes
Strawberries		Hot Pack	5 minutes	35 minutes
Fruit Juices		Hot Pack	5 minutes	25 minutes

Note: Use oven time table when processing in a steamer. If using a steam pressure cooker for processing fruits: cold pack and process berries, grapes, and rhubarb, 8 minutes at 5 pounds pressure; pineapple, 25 minutes at 5 pounds pressure; and all other fruits, 10 minutes at 5 pounds pressure.

**Note: We cannot recommend oven canning because there is danger of food spoilage and jar breakage. The contents of a broken jar can seriously damage an oven.*

SIRUP FOR FRUITS

SIRUP	PROPORTION OF SUGAR TO LIQUID	TO MAKE
Light	1 part sugar to 3 parts water or fruit juice	Mix and boil until
Medium	1 part sugar to 2 parts water or fruit juice	sugar dissolves.
Heavy	1 part sugar to 1 part water or fruit juice	Keep hot.
Extra Heavy	2 parts sugar to 1 part water or fruit juice	

With corn sirup — 1 pint corn sirup — 1 pint sugar — ½ pint water — ⅛ teaspoon salt.

The type of sirup used may be varied to suit individual taste. All fruits may be canned with plain water or with unsweetened fruit juice. The method of preparing and processing is the same as when sirup is used.



TIME TABLE FOR PROCESSING VEGETABLES

THIS table is for use at altitudes of 2,000 feet or less. Table for use at higher altitudes is given on page 11. Time given is for processing quarts. Use same time for pints. Do not use half gallon jars when canning vegetables.

PRODUCT	PACK ★ Read Recipe ★	STEAM PRESSURE		WATER BATH Hours
		Pounds	Minutes	
Asparagus	Precook 3 minutes. Hot Pack	10	40	3
Beans:				
Baked	Bake 2 hours. Hot Pack	10	60	3
Green and Wax	Precook 5 minutes. Hot Pack	10	35 to 55	3
Lima and Butter	Precook 5 minutes. Hot Pack	10	55 to 65	3½
Soy	Precook 5 minutes. Hot Pack	10	70	3½
Beets	Cook. Skin. Hot Pack	10	35 to 40	2½
Broccoli and Brussels Sprouts	Boil 3 minutes. Hot Pack	10	40	2½
Cauliflower	Boil 3 minutes. Hot Pack	10	40	2½
Carrots	Boil 5 minutes. Hot Pack	10	35 to 40	2½
Celery	Boil 3 minutes. Hot Pack	10	35	2½
Corn:				
Cream Style	Boil 3 minutes. Hot Pack	15	70	Do not use.
Whole Grain	Boil 3 minutes. Hot Pack	10	70	3½
On Cob	Boil 3 minutes. Hot Pack	10	70	3½
Egg Plant	Boil 5 minutes. Hot Pack	10	55	3
Greens — All Kinds	Precook until wilted. Hot Pack	15	65	3½
Lye Hominy	Hot Pack	10	60	3½
Mushrooms	Boil 2 or 3 minutes. Hot Pack	10	35	2½
Okra	Boil 2 minutes. Hot Pack	10	40	3
Parsnips and Salsify	Boil. Skin. Hot Pack	10	35 to 40	2½
Peas:				
Green	Boil 3 minutes. Hot Pack	10	50 to 60	3½
Blackeyed	Boil 3 minutes. Hot Pack	10	60	3½
Field	Boil 3 minutes. Hot Pack	10	60	3½
Snap	Boil 3 minutes. Hot Pack	10	35 to 55	3½
Peppers, Green Pimientos	Cover with brine. Cold Pack Heat. Skin. Pack, no liquid	10	15	¼ ¾
Potatoes:				
Sweet	Precook. Skin. Hot Pack	10	120	4
New White	Precook. Hot Pack	10	45	2½
Pumpkin and Winter Squash	Precook. Hot Pack	15	70	3½
Sauerkraut	Cold Pack			½
Summer Squash and Chayote	Precook. Hot Pack	10	45	3
Tomatoes	Cold Pack			½ to ¾
Turnips, Rutabagas, and Kohlrabi	Precook. Hot Pack	10	40	2½



TIME TABLE FOR PROCESSING MEATS, POULTRY, FISH, GAME

THIS table is for processing quarts and pints at altitudes of 2,000 feet or less. See table below for processing at higher altitudes. Do not use half gallon jars when canning these products.

PRODUCT	PACK ★ Read Recipe ★	STEAM PRESSURE		WATER BATH Hours
		Pounds	Minutes	
Beef, Lamb, Pork, Veal, etc.	Hot Pack	15	60	3½
	Cold Pack	15	70	
All Poultry	Hot Pack	15	60	3½
	Cold Pack	15	70	
All Game, Birds, Rabbits, Squirrel, and Venison	Hot Pack	15	60	3½
	Cold Pack	15	70	
Fish	Hot Pack	10	90	
	Cold Pack	10	100	
Shellfish	Hot Pack	10	70	

TIME TABLE FOR PROCESSING SOUPS AND STEWS

Brunswick Stew	Hot Pack	15	60	3½
Chicken Gumbo	Hot Pack	15	60	3½
Fish Chowder	Hot Pack	10	100	
Purees (nonacid vegetables)	Hot Pack	10	60	3
Soup Stock	Hot Pack	10	50	3
Tomato Puree	Hot Pack			¾
Tomato Soup	Hot Pack	10	35	2
Vegetable Soup	Hot Pack	10	60	3

TABLE FOR PROCESSING AT HIGH ALTITUDES STEAM PRESSURE COOKER

ELEVATION	PRESSURE USED FOR VEGETABLES *	PRESSURE USED FOR MEATS
2,000 feet	10 pounds	15 pounds
3,000 feet	10 pounds	15 pounds
4,000 feet	11 pounds	16 pounds
5,000 feet	11 pounds	16 pounds
6,000 feet	12 pounds	17 pounds
7,000 feet	12 pounds	17 pounds
8,000 feet	13 pounds	18 pounds

WATER BATH CANNER

2,000 feet	Process 20 per cent longer than time given in tables and recipes
3,000 feet	Process 40 per cent " " " " " " " " " "
4,000 feet	Process 60 per cent " " " " " " " " " "
5,000 feet	Process 80 per cent " " " " " " " " " "
6,000 feet	Process 100 per cent " " " " " " " " " "
7,000 feet	Process 120 per cent " " " " " " " " " "
8,000 feet	Process 140 per cent " " " " " " " " " "

*Note: Cream style corn, pumpkin, and winter squash are processed at 15 pounds pressure at and below an altitude of 2,000 feet.

Boil all nonacid vegetables, vegetable and meat soups, and all meats 15 minutes before tasting. Never taste any canned product which has an unnatural odor. Always reboil left over canned vegetables before serving.



CANNING PLAN OR BUDGET

TO BE used as a guide when planning family canning budgets. The size of servings, as well as the variety of product, the length of time out of season, and the number of times needed during the nongrowing season should determine the quantity of any product needed. No provision is made here for guests or gifts. It is always wise to can a few more quarts of each thing than actually needed for one's family. This is particularly true of fruits, preserves, pickles, marmalades and relishes.

PRODUCT	NUMBER TIMES SERVED	APPROXIMATE SIZE SERVING	AMOUNT NEEDED FOR ONE PERSON	AMOUNT NEEDED FOR FAMILY OF FIVE
Fruits & Fruit Juices	5 per week — 36 weeks	1 cup	45 quarts	225 quarts
Tomatoes & Tomato Juice (Can more if fruit crop is short.)	3 per week — 36 weeks	½ cup	13½ quarts	67½ quarts
Beans — Green	2 per week — 36 weeks	½ cup	9 quarts	45 quarts
Beans — Lima or Shelled	1 per week — 36 weeks	½ cup	4½ quarts	22½ quarts
Beets	1 per week — 36 weeks	½ cup	4½ quarts	22½ quarts
Corn	2 per week — 36 weeks	½ cup	9 quarts	45 quarts
Carrots	1 per week — 36 weeks	½ cup	4½ quarts	22½ quarts
Greens — All Kinds	2 per week — 36 weeks	½ cup	9 quarts	45 quarts
Peas	1 per week — 36 weeks	¼ cup	2¼ quarts	11¼ quarts
Soup Mixture	2 per week — 36 weeks	1 cup	18 quarts	90 quarts
Preserves, Jams, etc.	6 per week — 52 weeks	2 Tbs.	9¾ quarts	48¾ quarts
Relishes	3 per week — 52 weeks	1 Tbs.	3 quarts	15 quarts
Pickles — Vegetables	2 per week — 52 weeks		4 quarts	20 quarts
Pickles — Fruit	2 per week — 52 weeks		4 quarts	20 quarts
Meats	3 per week — 36 weeks	½ cup	13½ quarts	67½ quarts
Mincedmeat	1 per week — 16 weeks	½ cup	2 quarts	10 quarts
Miscellaneous—Asparagus, Okra, Snap Peas, Succo- tash, Sauerkraut, etc., which are not used in all sections of country.	5 per week — 36 weeks	½ cup	22½ quarts	112½ quarts
		Total	178 quarts	890 quarts

AMOUNT OF STRAINED FRUITS AND VEGETABLES NEEDED BY BABY

First year 80 ½ pint jars
Second year 150 ½ pint jars

NUMBER OF JARS NEEDED FOR CANNING ONE BUSHEL RAW MATERIAL

Only approximate weights and yields can be given because fruits and vegetables vary with variety, season, condition of the product and manner of packing.

PRODUCT	MEASURE	WEIGHT	YIELD (QUART JARS)
Apples	1 bushel	40 to 50 pounds	20 to 22
Apricots	1 bushel	40 to 50 pounds	20 to 24
Blackberries	1 bushel	40 to 50 pounds	22 to 24
Cherries	1 bushel	40 to 50 pounds	18 to 24
Peaches	1 bushel	40 to 50 pounds	18 to 24
Pears	1 bushel	50 to 55 pounds	25 to 28
Pineapple	1 crate	12 to 16
Plums	1 bushel	50 to 55 pounds	24 to 26
Asparagus	1 bushel	40 to 50 pounds	12 to 14
Beans — Lima (In Pod)	1 bushel	28 to 30 pounds	6 to 8
Beans — Green	1 bushel	28 to 30 pounds	15 to 18
Beets	1 bushel	50 to 60 pounds	18 to 22
Carrots	1 bushel	50 to 60 pounds	18 to 22
Corn	1 bushel	60 to 70 pounds	8 to 12
Greens	1 bushel	12 to 14 pounds	6 to 8
Peas (In Pod)	1 bushel	28 to 30 pounds	6 to 8
Tomatoes	1 bushel	50 to 60 pounds	14 to 20





Fruits

MANY precious man hours will be lost unless every homemaker who can possibly manage to do so, cans a large amount of fruit. People must eat well to be well, and be well to do the work that must be done for Victory.

Home canned fruits help keep one well because they supply minerals, vitamins, and other properties necessary for good health.

Home canned fruits of good quality are tender, but unbroken, and have the flavor and color of freshly cooked ones. All fruits for canning should be fresh, firm-ripe, sound, unbruised, and clean. All should be sorted for size, color, and degree of ripeness so that pieces of approximately the same size, color, and ripeness may be canned together. That which is sound, but less choice may be used for butters, jams, juices, or canned for pies, etc.

Fruits keep equally well canned with or without sugar; however the color, flavor and texture is usually better when some sugar is used. To can juicy fruits when short of sugar: heat small fruits, sliced ripe peaches, and sliced ripe, juicy pears until juice runs free. Sweeten lightly with sugar or honey and process for time given for hot-pack fruit (see page 9). It is important that juice cover the fruit when packed in jar. If there isn't enough juice, add a little boiling water.

Those on sugar free diet (and those who run out of sugar when canning) should substitute fruit juice or plain water for the sirup called for in the Blue Book recipes. It is inadvisable to use saccharine as it is likely to cause an unpleasant flavor.



IMPORTANT

The amount of sugar called for in these recipes may be reduced to conform with the amount of sugar available for use in canning (see pages 13 and 15). Partly seal all jars before processing except when using Vacu-Seal Lids. Tighten Vacu-Seals before processing. Do not tighten again.

Please reread pages 3 to 8.

APPLES—BAKED

WASH and core apples. Fill cavities with sugar to which a little cinnamon, cloves, nutmeg, or ginger has been added. Add enough water to prevent sticking and bake until tender. Pack into hot BALL Jars. Cover with hot sirup made of equal parts of sugar and water or with water and honey. Process 15 minutes in hot-water bath; then complete seal.

APPLES—HOT PACK

WASH, pare, halve, and core apples. Drop into vinegar-salt water (2 tablespoons each to 1 gallon water). Boil equal parts sugar and water together 2 minutes. Rinse apples. Add to hot sirup. Cook gently 5 to 10 minutes. Pack in overlapping layers into hot BALL Jars. Process 15 minutes in hot-water bath; then complete seal.

APPLES—OPEN KETTLE

WASH, pare, halve, and core apples. Cook until tender in sirup made of equal parts sugar and water. Add lemon or orange peel, ginger, or spice to taste. Pack hot into hot BALL Jars. Cover with boiling sirup; seal at once.

APPLE SAUCE

WASH, pare, core, and slice apples. Add a little water to start cooking. Cook until soft. Press through strainer. Sweeten to taste. Reheat to boiling. Pack into hot BALL Jars. Process 15 minutes in hot-water bath; then complete seal.

Note: Apple sauce should be cooked in an enamel or granite-ware kettle and stirred with a wooden spoon to prevent discoloring.

APRICOTS

WASH, scald, cold dip, and skin firm-ripe apricots. Cut in halves and remove seed, or pack whole. Simmer 3 to 6 minutes in sirup made of equal parts sugar and water. Pack into hot BALL Jars. Process 15 minutes in hot-water bath; then complete seal.

APRICOTS—OPEN KETTLE

USE recipe for Peaches — Open Kettle, page 17.

Note: Apricots may be canned without skinning; in which case, they should be rubbed with a cloth to remove fuzz.

ALL BERRIES—COLD PACK

USE any variety of edible berry, *except strawberries*. Wash firm-ripe, freshly picked berries. Drain. Pack into hot BALL Jars as tightly as possible without crushing. Cover with hot sirup made of 2 parts sugar and 1 of berry juice or water. Process 20 minutes in hot-water bath; then complete seal.

ALL BERRIES—HOT PACK

USE any variety of edible berry, *except strawberries*. Wash and measure firm-ripe, freshly picked berries.

Drain. Use from $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar to 1 quart berries. Place layers of sugar and berries in a broad, shallow pan. Let stand 2 hours then cook by simmering, until the sugar is dissolved and berries heated through. Pack into hot BALL Jars. Process 5 minutes in hot-water bath; then complete seal.

ALL BERRIES—OPEN KETTLE

WASH berries. Add from $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar for each quart berries. Boil 5 minutes. Pour boiling hot into hot BALL Jars and seal at once.

BLUEBERRIES AND HUCKLEBERRIES

THESE berries may be canned by directions given for *all berries*, but the method given here is more desirable if berries are to be used in muffins, etc.

Place 2 or 3 quarts clean berries in a square of cheesecloth. Hold the cloth by the corners and dip into boiling water until spots appear. Then dip quickly in and out of cold water. Pack into hot BALL Jars. (Add neither sugar nor liquid.) Process 20 minutes in hot-water bath; then complete seal.

ELDERBERRIES

WASH, stem, and pack into hot BALL Jars. Cover with sirup made with 1 part sugar to 3 parts water. Process 20 minutes in hot-water bath; then complete seal.

Elderberries lack acidity, therefore, a small amount of lemon juice or vinegar is generally added to them when making pies.

GOOSEBERRIES

GOOSEBERRIES may be canned by recipes given for *all berries*, or they may be canned in a heavier sirup (3 parts sugar to 1 part water). Snip heads and tails from clean berries. Pack into hot BALL Jars. Cover with boiling sirup. Process 20 minutes in hot-water bath; then complete seal.

GOOSEBERRIES—OPEN KETTLE

WASH, drain, stem, and measure gooseberries. Add from $\frac{1}{2}$ to 1 cup sugar for each quart berries. Heat slowly to boiling, then boil rapidly 15 minutes. Pour hot into hot BALL Jars; seal at once.

RED RASPBERRIES

RED raspberries may be canned by any berry recipe, but they keep color and shape better if directions are followed for canning strawberries.

STRAWBERRIES

USE berries having small cells and deep red color throughout. Wash, cap, drain, and measure berries. Work with batches of 2 or 3 quarts. Use from 1 to 2 cups sugar to each quart of berries. Place sugar and berries in alternate



layers in a broad bottom pan. Let stand 2 hours. Simmer 5 minutes without stirring. Cover and let stand overnight. Pack cold berries into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

CHERRIES—COLD PACK

WASH, stem, and pit cherries or leave whole. (Prick each unpitted cherry with needle.) Pack into hot BALL Jars. Cover sour cherries with boiling sirup made of 2 parts sugar and 1 of water or cherry juice, and sweet cherries with sirup made of equal parts sugar and liquid. Process 20 minutes in hot-water bath; then complete seal.

CHERRIES—HOT PACK

WASH, pit, and measure cherries. Mix with $\frac{1}{3}$ to $\frac{1}{2}$ their measure of sugar. Let stand 1 to 2 hours; simmer 10 minutes. Pack into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

CHERRIES—OPEN KETTLE

WASH, drain, stem, pit, and measure cherries. Add from $\frac{1}{2}$ to 1 cup sugar for each quart pitted fruit. Heat slowly to boiling, then boil rapidly 15 minutes. Pour hot into hot BALL Jars; seal at once.

CRANBERRY SAUCE

WASH and stem cranberries. Boil 4 cups sugar with 4 cups water, 5 minutes. Add 2 quarts berries; boil without stirring until skins burst. Pour into hot BALL Jars; seal at once.

CURRANTS

Use recipe for any method of canning berries.

FIGS

SPRINKLE 1 cup soda over 6 quarts firm-ripe, unbroken figs. Cover with boiling water. Let stand 5 minutes. Rinse thoroughly. Combine with 4 cups sugar and 2 quarts water. Cook until tender. Pack into hot BALL Jars. Process 30 minutes in hot-water bath; then complete seal. *Or:* boil figs 5 minutes in sirup made of 6 cups sugar to 4 cups water. Process 2 hours in hot-water bath.

FRUITS WITHOUT SUGAR

SELECT and prepare fruits as for regular canning. Precook in water or juice and pack hot. Process according to time tables on page 9; also read page 13.

FRUITS WITH HONEY OR WITH CORN SIRUP

HONEY tends to change flavor and color of fruits but may be substituted for part or for all of the sugar when making canning sirups. Up to one-half of the sugar called for in canning sirup recipes may be replaced with corn sirup. (See page 9 for sirup recipes).

FRUIT FOR COLD STORAGE LOCKERS

WHILE cold storage rental lockers are still more or less in the experimental stage, it

has been clearly demonstrated that fruits to be frozen are more satisfactory if covered with sugar sirup before packing, and that glass jars are the best containers for storing fruits and vegetables because jars are leak proof, rust proof, have no effect upon the color and flavor of the product, and can be closed air-tight. BALL Jars will not break from freezing if used according to directions.

Select, wash, sort, and prepare fruit as for canning. Pack into BALL Jars which have been boiled 10 minutes and then cooled to room temperature. *Leave at least 2 inches head space in jars. This applies to both fruit and sirup.*

Cover all fruits with cold sirup. Make sirup by boiling sugar and water 5 minutes. Then cool. Cherries, cranberries, loganberries, and strawberries are usually covered with cold sirup made with $1\frac{1}{2}$ parts sugar to 1 of water. Sirup for other fruits is made of equal parts sugar and water. Seal jars before storing.

GRAPES—GREEN

Unripe grapes are used for pie fillings

USE grapes before the seeds harden. Remove from stems. Wash. Pack into hot BALL Jars. Cover with sirup made of 2 parts sugar to 1 of water. Process 25 minutes in hot-water bath; then complete seal.

GRAPES—RIPE

WASH, stem, and rinse, firm-ripe grapes. Pack into hot BALL Jars. Cover with hot sirup made of 1 part sugar and 2 parts water or grape juice. Process 20 minutes in hot-water bath; then complete seal.

GRAPES—OPEN KETTLE

USE either ripe or tender green grapes.

Wash, stem, drain, and measure. Add $\frac{1}{4}$ cup water and from $\frac{1}{4}$ to $\frac{1}{2}$ cup sugar to each quart ripe grapes. Use $\frac{1}{2}$ cup water and from $\frac{1}{2}$ to 1 cup sugar to each quart green grapes. Boil 10 minutes. Pour hot into hot BALL Jars; seal at once.

GRAPEFRUIT

WASH and dry firm, heavy, ripe grapefruit. Cut a slice from each end; then cut the peel off in broad slices reaching from end to end. (Cut deep enough to remove the thin skin which separates the fruit from the peel.) Run a thin knife blade between the flesh and membrane of each section and lift out the section or "heart" without breaking. Discard seed. Pack into hot BALL Jars. To each quart, add $\frac{1}{2}$ cup sirup made of 2 parts sugar and 1 of water or grapefruit juice. Process 30 minutes at simmering (180–190° F.) in hot-water bath or 10 minutes at boiling; then complete seal. Grapefruit may be canned without sugar, but it is less likely to discolor if sugar is added.

GUAVAS

WASH, peel, and cut in halves. The seed may be left in or removed as preferred. Cover with boiling sirup made of 1 part sugar and 2 of water. Let stand 30 minutes. Pack into hot BALL Jars. Process 20 minutes in hot-water bath; then complete seal.





LOQUATS

WASH, remove stems and blossom ends. (Seed may be removed if objectionable.) Cook 3 to 5 minutes in sirup made of 1 part sugar to 2 parts water. Pack into hot BALL Jars. Process 20 minutes in hot-water bath; then complete seal.

MIXED FRUITS—SALADS, ETC.

CANNED mixed fruits are both convenient and economical for use in cocktails, salads, and desserts. Certain firm ones, such as pineapple, may be canned when in season, opened, mixed with other fruits and recanned.

Prepare fruit as for canning. Leave whole, in large pieces, or dice. Simmer each fruit separately 5 to 10 minutes in smallest possible amount of water, then mix. Pack into hot BALL Jars. Cover with hot sirup made of 1 part sugar to 3 parts water. Process 10 minutes in hot-water bath; then complete seal.

Some good mixtures:

Pineapple, peaches, pears, white cherries.

Green gage plums, peaches, white grapes.

Pineapple, apricots, grapefruit, white grapes.

NECTARINES

WASH, scald, cold dip, and peel firm-ripe fruit or can with skin on. Cut in halves, if peeled. Pack into hot BALL Jars. Cover with hot sirup made of 3 parts sugar and 2 of water. Process 20 minutes in hot-water bath; then complete seal.

NECTARINES—OPEN KETTLE

USE recipe for peaches — Open Kettle, page 17.

PEACHES—PREPARATION

WASH and peel firm-ripe peaches after grading for size, color, and condition. Skins may be rubbed from some varieties after scalding and cold dipping (1 minute in boiling water — $\frac{1}{2}$ minute in cold water).

The lye method of peeling, while practical when a large quantity is to be canned, requires skill. To lye peel: Put 4 tablespoons concentrated lye in an enamel or granite kettle. Add 2 gallons water and heat to boiling. Put fruit in a basket and hold in the boiling lye from 30 to 60 seconds; then wash immediately in cold water. Rinse through several waters to remove all skins and all traces of lye. The fruit will darken if left in lye too long or if not well rinsed.

Paring with a knife is usually the best way to peel peaches. Cut peeled peaches in halves. Discard stones; scrape cavities of free stonefruit to remove the pink or red fibers. Drop peaches, as they are halved, into vinegar-salt water (2 tablespoons each to 1 gallon cold water). Rinse before canning.

From 1 to $1\frac{1}{2}$ cups sirup is needed for each quart of peaches; the exact amount depending upon the tightness of the pack. The amount of sugar used in making sirup depends upon individual preference.

PEACHES—COLD PACK

PACK peaches into hot BALL Jars, layers overlapping, cavity side down. Cover with boiling sirup made with 1 or 2 parts sugar to 1 of water. Process from 20 to 30 minutes in hot-water bath; then complete seal. Use the longer period of processing for extra large or very firm fruit.



PEACHES—HOT PACK

This is the best method of canning peaches

MAKE a sirup of 1 or 2 parts sugar to 1 of water. Add peaches, a few at a time, and simmer until hot through (4 to 8 minutes). Pack into hot BALL Jars, layers overlapping, cavity side down. Cover with sirup in which peaches were cooked. Process 10 minutes in hot-water bath; then complete seal. Can left over sirup for pudding or ice cream sauce.

PEACHES—OPEN KETTLE

ADD 2 parts sugar to 1 of water. Bring to a boil. Add peaches and cook until tender, but not broken. Pack hot peaches into hot BALL Jars. Fill with boiling sirup; seal at once.

PEACHES — BAKED

WASH and rub fuzz from hard-ripe fruit. Place in pan with small amount of water. Sprinkle with sugar to sweeten (about $\frac{1}{2}$ cup to 1 dozen peaches). Bake until tender. Pack into hot BALL Jars. Cover with sirup. Process 10 minutes in hot-water bath; then complete seal.

Note: Should there not be enough sirup to cover, finish out with plain sirup made by boiling equal parts sugar and water 5 minutes. Ginger or other spices may be added to sirup to give variety of flavor.

PEARS

UNLIKE other fruits, pears should be removed from the tree before ripe and stored in a cool place (60–65° F.) until ripe, but not soft. The Bartlett is considered superior to other pears for canning, but the Keifer and similar varieties are satisfactory if properly ripened and then cooked until almost tender in plain water before sugar is added to make sirup.

Wash, pare, halve, or quarter, and core pears. (The cores are not removed if the fruit is canned whole.) Drop the pared fruit into water containing salt and vinegar, (2 tablespoons of each to a gallon of water). Rinse. Boil gently from 4 to 8 minutes in sirup made of equal parts sugar and water. Pack into hot BALL Jars; layers overlapping, cavity side down. Cover with sirup in which cooked. Process 20 to 25 minutes in hot-water bath; then complete seal. Use the longer period for large or hard fruit.

Pears, because of their mild flavor, are well adapted to combination with other flavors. This is important to remember when other fruits are scarce.

For orange pears: Use the juice and rind of $\frac{1}{2}$ orange to each quart of sirup. Remove the rind before packing the pears.

For cinnamon pears: Use 2 or 3 tablespoons of "red hots" to each quart of sirup, or use stick cinnamon and a few drops red coloring.

For ginger pears: Use ginger tea (water in which ginger root is boiled) instead of plain water for making sirup.

For pineapple pears: Use pineapple juice instead of water for making the sirup.

For plum pears: Use tart, red plum juice instead of water for making sirup.

PEARS — BAKED

WASH, stem, and remove blossom end from firm-ripe pears. Place in pan with enough water to prevent sticking. Bake until tender.



Pack into hot BALL Jars and cover with sirup made of equal parts sugar or honey and water. Process 20 minutes in hot-water bath; then complete seal.

PEAR AND MELON BALLS

USE equal portions of balls or cubes of firm-ripe fruit. Cook pears in water until tender but not soft. Heat melon just to boiling. Drain and combine fruit. Cover with boiling sirup (1 part sugar to 3 parts water) and let stand until cold. Pack into hot BALL Jars. Add 1 tablespoon lemon juice to each quart and cover with the sirup. Process 20 minutes in hot-water bath; then complete seal.

PEARS—MINT

(Creme de Menthe)

MAKE sirup of 2 or 3 parts sugar to 1 of water. Add pears, halved, or whole, or sliced crosswise, and cook until tender. After cooking pears, add a few drops of mint flavoring and a small amount of green cake coloring to the sirup. Pack pears loosely into hot BALL Jars; cover with sirup. Process 10 minutes in hot-water bath; then complete seal.

PERSIMMONS

WASH ripe persimmons. Steam, or cook in small amount of water, until soft. Rub through a strainer to remove seed. Sweeten to taste if to be used as a sauce; otherwise add no sugar. Reheat to boiling. Pack into hot BALL Jars. Process 20 minutes in hot-water bath; then complete seal.

PERSIMMONS—WHOLE

SCALD until the skins crack. Remove skin. Pack in hot BALL Jars. Cover with sirup made of 1 cup sugar to 3 cups water. Process 20 minutes in hot-water bath; then complete seal.

PINEAPPLE

SCRUB firm-ripe pineapple with brush. Dry; twist out top. Cut thin slice from bottom then cut the pineapple into $\frac{1}{2}$ inch slices crosswise or into 8 wedge-shape slices lengthwise. (Cut into halves, then quarters, etc.) Remove peeling and core after slicing. (Use peelings and cores for making pineapple juice.) Use doughnut or cookie cutter for shaping round slices. Leave long slices whole or cut into pieces of uniform size.

Well ripened pineapple may be packed raw, covered with sirup made of equal parts sugar and water and processed 30 to 40 minutes in a hot-water bath, but hot packing usually gives better results.

PINEAPPLE—HOT PACK

MAKE sirup of equal parts sugar and water. Add pineapple. Simmer until tender. Pack into hot BALL Jars. Cover with hot sirup. Process 15 minutes in hot-water bath; then complete seal.

PINEAPPLE—OPEN KETTLE

MIX prepared pineapple with $\frac{1}{4}$ its measure of sugar. Let stand 1 hour; then cook until tender. Pack boiling hot into hot BALL Jars; seal at once.

PLUMS

GREEN gage and other meaty plums are better for canning than the more juicy varieties. Plums may be scalded and skinned, but the skins are usually left on. Prick with a needle. *Pricking does not necessarily prevent skins from cracking, but tends to prevent bursting of the fruit.*

Drop plums into boiling sirup made of 1 or 2 parts sugar to 1 of water, depending upon sourness of fruit. The plums should not be more than 2 deep in the pan. Remove pan from stove 2 minutes after adding fruit. Let stand covered from 20 to 30 minutes. Pack plums into hot BALL Jars. Cover with the sirup. Process 10 minutes in hot-water bath; then complete seal. The extra sirup may be canned to use in beverages, ices, etc.

Note: Plums may also be packed cold into hot BALL Jars, covered with boiling sirup and processed 20 minutes in hot-water bath.

PLUMS—OPEN KETTLE

WASH, prick, and measure plums. To each quart plums, add from $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar and $\frac{1}{2}$ cup water. Heat slowly to boiling. Boil until thoroughly cooked (10 to 20 minutes). Pour hot into hot BALL Jars; seal at once.

PRUNES—FRESH

FOLLOW directions for canning plums.

PRUNES—DRIED

WASH prunes. Cover with cold water and let stand overnight. Drain off and save water. Pack prunes into hot BALL Jars. Make sirup of the prune water and 2 tablespoons sugar for each quart of fruit. Pour hot sirup over prunes and process 30 minutes in hot-water bath; then complete seal.

QUINCES

USE firm-ripe fruit. Wash, peel, core, and cut into halves or quarters. Steam or cook in small amount of water until tender. Pack into hot BALL Jars. Cover with sirup made with equal parts sugar and water. Process 30 minutes in hot-water bath; then complete seal.

RHUBARB

WHEN possible, use *strawberry* rhubarb. Wash and cut unpeeled stalks into 1 inch pieces. Place in wide-bottom pan with alternate layers of sugar. Use $\frac{1}{4}$ to $\frac{1}{2}$ as much sugar as rhubarb. Let stand 2 or more hours. Heat slowly to boiling. Remove pan from heat when contents begin boiling. Let stand several hours. Pack cold rhubarb into hot BALL Jars. Cover with sirup reheated to boiling. Process 5 minutes in hot-water bath; then complete seal.

RHUBARB—BAKED

WASH and cut rhubarb into $1\frac{1}{2}$ inch pieces. Add from $\frac{1}{2}$ to 1 cup sugar to a quart of rhubarb. Bake until tender. Pack into hot BALL Jars. Process 5 minutes in hot-water bath; then complete seal.

RHUBARB—COLD PACK

PACK raw rhubarb into hot BALL Jars. Cover with sirup made of 1 part sugar to 1 of water. Process 20 minutes in hot-water bath; then complete seal.





Fruit Juices

HOME canned fruit juices add variety to the breakfast menu. They are inexpensive and useful for making cocktails, punches, congealed desserts, puddings, sauces, ice creams, sherbets, and molded salads.

Fruits from which juices are to be extracted should be fresh, sound, ripe, and of good color and flavor; all except citrus fruits and white grapes should be heated before the juice is extracted. The cooking should be done below boiling point because intense heat tends to destroy color, flavor, and vitamins.

Juices of uniformly high quality can be easily made at home if the directions are carefully followed and a dairy or a candy thermometer is used to determine temperatures. However, a satisfactory product can be made without the use of a thermometer.

The amount of sugar used varies from 1 to 2 cups to 1 gallon juice, depending upon preference. *That which is to be used for jelly should not be sweetened.*

Fruit juices should be processed 30 minutes in hot-water bath at simmering (175–185° F.).

Grape and berry juices are clearer if left standing 12 or more hours and then siphoned or poured from the dregs which settle at the bottom. Filtered juices are more attractive in appearance, but less so in flavor than unfiltered ones.

Partly seal all jars before processing except when using Vacu-Seal Lids. Tighten Vacu-Seals before processing. Do not tighten again.

Please reread pages 3 to 8.



APRICOT PUREE OR NECTAR

WASH and stone sound ripe apricots. Add enough water to prevent sticking. Simmer until soft. Press through a fine sieve. Add $1\frac{1}{2}$ cups sugar to each gallon strained pulp. Reheat until sugar dissolves. Pour into hot BALL Jars. Process 15 minutes in hot-water bath; then complete seal. Dilute with water and serve as other fruit juices or use in ice creams, sherbets, whips, and congealed desserts.

BERRY JUICES

Blackberries, Blueberries, Loganberries, Raspberries, Strawberries, etc.

WASH, crush, and simmer berries until soft. Strain through several layers of cheesecloth. Add from 1 to 2 cups sugar to each gallon of juice. Reheat to simmering and pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (175–185° F.); then complete seal.

BLACKBERRY CORDIAL

Nonalcoholic

To 1 quart blackberry juice add 2 cups sugar and 1 tablespoon each cloves, allspice, cinnamon, and nutmeg. (Tie spices in cloth bag.) Simmer 30 minutes. Bring to boiling. Pour boiling into hot BALL Jars; seal at once.

CIDER

POUR freshly made cider into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (165° F.); then complete seal. Strain before serving.

CRANBERRY JUICE

BOIL equal measures of cranberries and water together until the berries burst. Strain juice through cheesecloth. Sweeten to taste. Boil 1 or 2 minutes. Pour hot juice into hot BALL Jars; seal at once.

FRUIT PUNCH

Mix 2 cups lemon juice, 6 cups orange juice, 4 cups grapefruit juice, 4 cups pomegranate or red plum juice and 4 cups sugar. Simmer 20 minutes. Pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering; then complete seal.

GRAPE JUICE I

WASH, stem, and crush fresh, firm-ripe grapes. Add 1 cup water to each gallon crushed grapes. Heat 10 minutes at simmering. (Boiling develops a poor flavor.) Strain through several layers of cheesecloth. Let stand in a cool place, preferably in refrigerator, 24 hours. Strain again. Add 1 or 2 cups sugar to each gallon juice. Reheat to simmering. Pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (175–185° F.); then complete seal.

GRAPE JUICE II

WASH and stem firm-ripe, fresh grapes. Put 1 cup grapes into a hot BALL Jar. Add from $\frac{1}{2}$ to 1 cup sugar. Fill the jar with boiling water. Process 5 minutes in hot water bath; then complete seal.

GRAPEFRUIT JUICE

EXTRACT and strain juice. Sweeten to taste. Heat to simmering (165° F.). Fill hot BALL Jars to overflowing. Process 30 minutes in hot-water bath at simmering (165–175° F.); then complete seal.

PEACH PUREE OR NECTAR

FOLLOW recipe for Apricot Puree.

PINEAPPLE JUICE

SCRUB pineapple, slice, and remove the peel, but not "eyes." Grind through food chopper. Add $\frac{1}{2}$ as much water as pineapple and simmer until the fruit is tender. Strain through several layers of cheesecloth. Add 1 cup sugar to each gallon of juice. Heat to simmering. Pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (175–185° F.); then complete seal.

POMONA PUNCH

BOIL 4 cups sugar with 1 gallon water, 5 minutes. Add 1 gallon sweet cider, $1\frac{1}{2}$ cups lemon juice, 3 cups orange juice. Reheat to simmering. Pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (175° F.); then complete seal.

SHRUBS OR VINEGARS

WASH, cap, measure, and crush firm-ripe berries of any edible variety. For each gallon crushed berries: Boil 4 cups sugar with 2 cups vinegar 5 minutes and pour over the berries. Let stand 24 hours then strain through several layers of cheesecloth. Reheat to simmering. Pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (175–180° F.); then complete seal.

STRAWBERRY JUICE

WASH, cap, crush, and measure firm, red-ripe berries. Add 1 pint boiling water to each gallon crushed berries. Strain juice through cheesecloth. Let stand 2 hours. Strain again. Add 1 cup sugar to each gallon juice. Heat to simmering. Pour into hot BALL Jars. Process 30 minutes at simmering; then complete seal.

TOMATO JUICE I

No tomato juice is superior in flavor to that which is made, as needed, by pressing home canned tomatoes through a fine sieve.

TOMATO JUICE II

Use firm, red-ripe, freshly picked tomatoes. Discard any that are bruised or specked with decay or fungus. Wash carefully. Leave whole and bake in an oven; or steam; or cut into small pieces and cook until soft. (It is said that a smaller percentage of vitamins is lost when the cooking is done by steaming or baking.) Press the hot tomatoes through a fine, preferably cone-shaped, sieve. Reheat to simmering (190° F.). Pour into hot BALL Jars. Process 30 minutes in hot-water bath at simmering (185–190° F.); then complete seal.

Note: If the juice is to be used in infant feeding, omit salt. Otherwise add salt to season.



Vegetables

WISE, thrifty, and patriotic is the woman who stocks her pantry with a large variety of home canned vegetables, because they, with other home canned products, offer the most dependable means of providing her household with an adequate diet.

Canned vegetables have approximately the same food value as those cooked for immediate serving, *provided* the canned ones are selected, prepared, packed, and processed according to instructions in the Ball Blue Book.

The flavor, color, and texture of a home canned vegetable so closely resembles that of a freshly cooked one that it is practically impossible to distinguish one from the other.

Salt may be omitted when canning vegetables as the small amount used has no effect on keeping qualities. It is merely used for seasoning.

Food values are higher if vegetables are canned with the water in which they are pre-cooked, but fresh boiling water may be used if preferred.

All vegetables except tomatoes, ripe pimientos, and sauerkraut are called nonacid. The United States Department of Agriculture strongly recommends the use of a steam pressure cooker for processing all nonacid products. In this, we wholly agree but give time-tables for water bath processing for the convenience of those who prefer that method.

Never Taste canned food in order to decide whether it is spoiled. Never Taste nonacid vegetables until they have been boiled 15 minutes. Discard any canned food which has an unnatural odor.

Partly seal all jars before processing except when using Vacu-Seal Lids. Tighten Vacu-Seals before processing. Do not tighten again.

Please reread pages 3 to 8.

ASPARAGUS

GRADE freshly cut asparagus for size. Wash. Remove loose scales. Place upright in wire basket or in square of cheesecloth and hold 3 minutes in boiling water which reaches just below the tips. Pack upright into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

Note: If preferred, asparagus may be cut in 2 inch pieces before precooking for packing.

BAKED BEANS

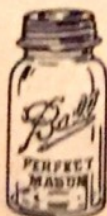
1 quart dry beans
1/2 pound salt pork
1 onion
1 tablespoon salt
1 teaspoon mustard
2/3 cup molasses

SOAK beans overnight. Drain. Add 2 quarts fresh water and simmer until skins begin to crack. Add pork, cut in 2 inch pieces, onion, salt, mustard, and molasses. Add more boiling water if needed to cover. Bake 2 hours. Pack into hot BALL Jars. Process 60 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

Note: Baked beans should be "soupy" when packed into the jars. Tomato sauce or puree may be used instead of molasses in the above recipe.

BEANS—DRIED

USE any variety of dried beans or dried peas. Soak beans over night in cold water to cover. Drain, cover with hot water and simmer about an hour—the beans should be



"soupy." Pour into clean, hot BALL Jars. Add one teaspoon salt to each quart and process 70 minutes at 10 pounds pressure, or 3 1/2 hours in a water-bath canner; then complete seal.

Note: If wanted, small pieces of salt pork and any other seasoning liked, may be added to the beans 20 minutes before the simmering is finished.

BEANS—GREEN, WAX, AND "SNAP PEAS"

WASH, string, break, or cut young, tender, freshly gathered pods into 2 inch pieces. Boil 5 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with water in which cooked. Process small, young pods 35 minutes and large ones 55 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

BEANS—BUTTER AND LIMA

Use only freshly gathered beans

WASH, shell, and wash again. Boil small green beans 3 minutes; large ones 10 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with water in which cooked. Process small, young beans 55 minutes; large ones 65 minutes at 10 pounds pressure or 3 1/2 hours in water-bath; then complete seal.

BEANS—SOY

USE Lima Bean recipe. Process 70 minutes at 10 pounds pressure or 3 1/2 hours in hot-water bath; then complete seal.



BEETS

WASH young, tender, deep red beets. Leave 2 inches of stems and tap root. Boil until the skins can be slipped. Slip skins, trim beets, and pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal.

Note: Beets may be pared with a knife, cut into cubes or slices, boiled 10 minutes before packing, but the method given in the recipe is much easier when a large quantity is to be canned.

BROCCOLI

WASH tender, all-green broccoli. Cut in 2 inch pieces or leave in longer branches. Boil 3 minutes in salt water (1 teaspoon salt to 1 quart water). Pack into hot BALL Jars. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal.

BRUSSELS SPROUTS

WASH, trim, and boil Brussels Sprouts 5 minutes in salt water (1 teaspoon salt to 1 quart water). Pack

into hot BALL Jars. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 2½ hours in water bath; then complete seal.

CABBAGE

WASH; cut in pieces suitable for packing. Cook until wilted in salt water (1½ teaspoons salt to 1 quart water). Pack into hot BALL Jars. Cover with fresh boiling water. Process 35 minutes at 10 pounds pressure or 2 hours in hot-water bath; then complete seal.

CARROTS

WASH, scrape, and rinse. Slice, dice, or leave whole. Boil 3 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 2½ hours in water bath; then complete seal.

CAULIFLOWER

CLEAN and separate cauliflower into small pieces. Soak 30 minutes in salt water (1 table-



spoon salt to 1 quart water). Drain. Boil 3 minutes. Pack into hot BALL Jars. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal.

CELERY

WASH and cut in 2 inch pieces. Boil 3 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with cooking water. Process 35 minutes at 10 pounds pressure or 2 hours in hot-water bath; then complete seal.

CORN

Use only tender, juicy corn which is strictly fresh. Can as quickly as possible after gathering. Do not can that which has stood overnight.

CORN—ON COB

BOIL corn 5 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 70 minutes at 10 pounds pressure or 3½ hours in hot-water bath; then complete seal.

CORN—CREAM STYLE

CUT tip ends from kernels. Scrape out pulp. Add 1 teaspoon salt and 2 cups boiling water to each quart of corn. Boil 3 minutes. Pour into hot BALL Jars. Process 70 minutes at 15 pounds pressure; then complete seal.

CORN—WHOLE KERNEL

CUT corn from cob. Do not scrape. Add 1 teaspoon salt and 1¾ cups boiling water to each quart of corn. Boil 3 minutes. Pour into hot BALL Jars. Process 70 minutes at 10 pounds pressure or 3½ hours in hot-water bath; then complete seal.

Note: Whole kernel corn usually has better color, flavor, and keeping qualities than that which is canned cream style.

EGG PLANT

WASH, peel, slice, or cube egg plant. Soak 45 minutes in brine (1 tablespoon salt to 1 quart water). Drain. Boil 5 minutes in clear water. Pack into hot BALL Jars. Cover with boiling water. Process 55 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

GREENS—CHARD—MUSTARD—SPINACH—TURNIP, ETC.

WASH thoroughly; discard large stems and tough, discolored, and wilted leaves. Heat until wilting, using just enough water to prevent sticking. (Turning the greens over when steam begins to rise around the edges of the pan will hasten the wilting and prevent overcooking.) Pack firmly into hot BALL Jars; then loosen by cutting through the pack several times with a sharp knife. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 65 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

KOHLRABI, RUTABAGAS, AND TURNIPS

WASH, pare, slice, or cube. Boil 5 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 40 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal.



LYE HOMINY

FOR each quart shelled corn: Dissolve 2 tablespoons concentrated lye in 1 gallon boiling water. Add corn and boil until hulls loosen (about 30 minutes). Rinse corn through several changes of water to remove lye; then rub vigorously or churn to remove hulls and black tips. Let stand in fresh water 2 or 3 hours. Change the water 3 or 4 times. Drain. Cover with boiling salt water (1 teaspoon salt to 1 quart water). Cook until almost tender. Pour into hot BALL Jars. Process 60 minutes at 10 pounds pressure or 3½ hours in hot-water bath; then complete seal.

MUSHROOMS

Use fresh mushrooms known to be edible.

WASH, pare, and drop into cold vinegar-water (1 tablespoon vinegar to 1 quart water). Drain. Cover with boiling vinegar-salt solution (1 teaspoon salt and 1 tablespoon vinegar to 1 quart water). Boil 2 or 3 minutes. Pack into hot BALL Jars. Add ½ teaspoon salt. Cover with fresh boiling water. Process 35 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal.

OKRA

USE small pods. Wash; remove stem ends without cutting into pods. Cover with boiling water. Cook from 1 to 3 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Process 40 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal. Okra which is to be used for soup should be sliced before precooking.

PARSNIPS

FOLLOW directions for canning carrots.

PEAS—GREEN

PEAS should be freshly gathered and green throughout. Wash pods. Drain. Shell. Grade for size. Rinse. Cover with boiling water. Boil small peas 3 minutes; large ones 5 minutes. Pour into hot BALL Jars. Add 1 teaspoon salt to each quart. Process small, young peas 50 minutes at 10 pounds pressure or 3 hours in hot-water bath, and more mature ones 60 minutes at 10 pounds pressure or 3½ hours in hot-water bath; then complete seal.

PEAS—BLACKEYED AND FIELD

WASH, shell, rinse, boil 5 to 10 minutes. Pour into hot BALL Jars. Cover with boiling water. Add 1 teaspoon salt to each quart. Process 60 minutes at 10 pounds pressure or 3½ hours in hot-water bath; then complete seal.

PEPPERS—GREEN

USE Bell peppers or "mangoes." Remove stems and seed. Pack into hot BALL Jars. Cover with hot brine made by dissolving ½ cup salt in 1 quart water. Process 10 minutes in hot-water bath; then complete seal. Freshen in cold water before using.

PIMIENTOS

FRY peppers 2 or 3 minutes in hot oil or roast 6 or 8 minutes in hot oven. Remove skins, stem end, and seed. Flatten and pack, without liquid, into hot BALL Jars. Add 1 teaspoon salt to each pint. Process 15 minutes at 10 pounds pressure or 45 minutes in hot-water bath; then complete seal.

POTATOES — NEW

WASH, scrape, and rinse freshly dug, new potatoes. Boil 10 minutes. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with boiling water. Process 45 minutes at 10 pounds pressure or 2½ hours in hot-water bath; then complete seal.

POTATOES — SWEET

CAN potatoes immediately after digging. Use potatoes of uniform size and color and unbroken skins. Wash carefully. Boil or steam slowly until skins can be rubbed off. (Do not stick with fork.) Slice, quarter, or leave whole. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Cover with fresh boiling water; or with boiling sirup; or can without liquid. Process 2 hours at 10 pounds pressure or 4 hours in hot-water bath; then complete seal.

PUMPKIN AND WINTER SQUASH

Use firm, fully ripe, pumpkin or squash. Wash; discard seed. Pare, cut into cubes, cook with water, or steam or bake until tender. If steamed or baked, scoop out pulp and mix with water to give consistency of pie filling. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Process 70 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal. Sugar and spices may be added at time of canning.

SALSIFY OR "OYSTER PLANT"

SCRUB freshly dug salsify. Cook 15 minutes in vinegar-water (1 tablespoon vinegar to 1 quart water). Scrape to remove skin. Cut in pieces or can whole. Pack into hot BALL Jars. Cover with fresh boiling water. Process 45 minutes at 10 pounds pressure or 2 hours in hot-water bath; then complete seal.

SAUERKRAUT

REMOVE outside leaves from fresh, hard, sound cabbage. Quarter. Discard cores. Shred. Thoroughly mix 1 cup salt (approximately ½ pound) with 20 pounds cabbage. Pack firmly into stone jar or tight keg. Cover with wooden lid or dinner plate which fits down on the inside of the container. Place a jar filled with water on the lid to hold the kraut under the brine which forms as the salt draws juice from the cabbage. Keep at a temperature of about 86° F. Remove scum each day. Sauerkraut is cured and ready to can in from 10 to 20 days, depending upon the temperature at which it is kept. Pack into hot BALL Jars which seal with glass lids or Vacu-Seal Closures. Should there not be enough juice to cover the kraut, add brine made by dissolving 2 tablespoons salt in 1 quart water. Process 30 minutes in hot-water bath; then complete seal.

Sauerkraut may also be made by mixing 1 scant tablespoon salt with 1 quart shredded cabbage and packing directly into BALL Jars. Do not seal jars. Remove scum as it forms. When cured, process 30 minutes in hot-water bath; then complete seal.

SUCCOTASH

BOIL fresh corn 5 minutes. Cut from cob. Do not scrape. Mix with from ½ to equal amount of green string or green lima beans which have been boiled 5 minutes. Reheat to boiling and pour into hot BALL Jars. Cover with boiling water. Add 1 teaspoon salt to each quart. Process 70 minutes at 10 pounds pressure or 3½ hours in hot-water bath; then complete seal.

SUMMER SQUASH AND CHAYOTE

USE only young, tender vegetables. Wash. Cut into small pieces and steam or boil until tender. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. Process 45 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

TOMATOES — ALL METHODS

Tomatoes are one of the most useful and the easiest of vegetables (*really a fruit*) to can, provided one uses fresh, firm, sound, ripe fruit, washes it carefully before scalding, scalds in small quantities, prepares, packs, and processes as quickly as possible after scalding.

Tomatoes are likely to flat sour if left standing after scalding. They lose food value (*vitamin C*) if left exposed to the air after skinning. Always cut out hard cores and green spots. Never can tomatoes from which decayed spots and fungus growths have been removed.

TOMATOES — OPEN KETTLE

WASH, scald, cold dip, drain, core, and skin. Boil 20 minutes. Salt to taste. Boil jars, rubbers, and lids 20 minutes and keep hot. Pour boiling hot tomatoes into hot BALL Jars and seal each jar as quickly as possible after filling. Fill and seal one jar at a time. Do not invert jar.

TOMATOES — REGULAR PACK

WASH firm, fresh, sound, ripe tomatoes. Scald (*a few at a time*), cold dip, and drain. Cut out all core and all hard or green spots. Skin. Pack solidly into hot BALL Jars. Add 1 teaspoon salt to each quart. (Add no liquid.) Process 45 minutes in hot-water bath; then complete seal.

TOMATOES — SALAD PACK

WASH small, smooth, firm, fresh, ripe tomatoes. Scald (*a few at a time*), cold dip, and drain. Remove core without cutting into seed pod. Pack into hot BALL Jars as closely as possible without crushing. Add 1 teaspoon salt to each quart. Cover tomatoes with hot tomato juice or puree. Process 30 minutes in hot-water bath; then complete seal.

TOMATOES WITH CORN

Mix 2 parts chopped skinned tomatoes with 1 part fresh corn. Add 1 teaspoon each salt and sugar to each quart. Boil 20 minutes. Pour into hot BALL Jars. Process 60 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

TOMATOES WITH OKRA

MEASURE equal parts sliced okra and chopped tomatoes. Cook tomatoes 20 minutes. Add okra. Boil 5 minutes. Add 1 teaspoon salt to each quart. Pour into hot BALL Jars. Process 35 minutes at 10 pounds pressure or 2 hours in hot-water bath; then complete seal.

TOMATO SAUCE A LA CREOLE

Mix 3 quarts chopped tomatoes, 1 quart sliced onions, 1 pint chopped green peppers, 1 tablespoon chopped parsley, salt to taste, and a small pod of hot pepper. Cook slowly until thick. Pour while boiling into hot BALL Jars. Process 20 minutes in hot-water bath; then complete seal.





Meat — Poultry — Game — Fish

THE term *meat*, as used here, refers to the edible parts of any animal, fish, or fowl. **Meat** is one of the easiest of foods to can in glass and is the most valuable one from the standpoints of economy in time, labor, cash, and convenience.

Although easy and simple to accomplish, success in canning meat is dependent upon paying careful attention to the general instructions given on pages 3 to 8 and to the specific directions given in this chapter.

It should be remembered that canning preserves and makes tender, but can not improve the flavor and texture of meat. It is for this reason that those who want good canned meat must begin with a good raw product. The quality of the raw product depends upon the breed, feed, and manner of handling the animal at the time of slaughtering.

All meat products should, for best results, be hot packed and processed in a steam pressure cooker. Directions for cold packing and for water bath processing are given in the Blue Book for the benefit of those who prefer to use those more convenient, but less reliable methods of packing and processing. The United States Department of Agriculture and all authorities on home canning advise the use of steam pressure cookers for processing meats.

All canned meat products should be heated at boiling 15 minutes before tasting.

Partly seal all jars before processing except when using Vacu-Seal Lids. Tighten Vacu-Seals before processing. Do not tighten again.

Please reread pages 3 to 8.



TO PREPARE MEAT FOR CANNING

CAN only the flesh of healthy, correctly slaughtered animals. Confine 24 hours before killing. Give water, but no feed. Neither chase nor frighten before slaughtering. Hang, head down, immediately after killing to permit thorough bleeding. Skin or scrape immediately after bleeding. Draw, then drench the carcass with cold water to remove blood. Wipe dry with clean cloth. Chill thoroughly — pork, mutton, and veal, 24 to 36 hours; beef, 36 to 48 hours. Avoid freezing. Canned frozen meat is inferior in flavor and texture. Frozen meat is hard to handle and gives a canned product of poor quality.

Cut meat into pieces of convenient size for cooking or canning. Cut slices across grain and about 1 inch thick; jar size pieces with grain; that for stew in uniform cubes or squares.

Trim meat free of excess fat (the less fat used, the better the keeping qualities), heavy connective tissue, gristle, and bruised spots. Bones may be removed or left in, depending upon their size.

Wipe meat with clean, damp cloth, if necessary, but do not let stand in water. *Exceptions to this rule: Fish and strong-flavored game are usually soaked in salt water before canning.*

PACKING

We Advise Hot Packing

Cold Pack: Pack raw meat into hot jars. Add salt only. The meat will make its own juice.

Hot Pack: Cook meat $\frac{1}{3}$ to $\frac{1}{2}$ done or until the pink color has almost disappeared at the center. Pack while hot. Cooking may be done in any manner. Steaming, baking, boiling, broiling, and roasting are more desirable than frying. Canned fried meat tends to be dry and lacking in flavor. Meat should not be dipped into flour, meal, batter, or crumbs before canning. Fried meat should be packed with 2 or 3 tablespoons of the cooking fat or covered with gravy. Flavor will be better if gravy is used. To make gravy: add 1 cup hot water for each tablespoon fat left in pan after meat is cooked. Boil 2 or 3 minutes.

The majority of hot packed meats have better color and flavor if covered with gravy or broth. From 1 to 2 teaspoons salt should be used to each quart of meat, the amount depending upon taste.

Pack pieces of meat up and down in the jar. Leave at least $\frac{3}{4}$ inch space at the top. Avoid crowding.

Hot pack frozen meat. Cut and start cooking just as if not frozen.

Process all meat immediately after packing.

BACKBONE

Cold Pack: Cut raw meat from bone and pack into hot BALL Jars. Add 1 or 2 teaspoons salt to each quart. Process 70 minutes at 15 pounds pressure; then complete seal.

Hot Pack: Boil, steam, or bake backbone until about $\frac{1}{3}$ done. Cut meat from bone. Pack into hot BALL Jars. Add 1 or 2 teaspoons salt to each quart. Cover with hot broth, skimmed free of fat. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath, then complete seal.

CHILI CON CARNE

$\frac{3}{4}$ pound suet	2 tablespoon salt
2 cups chopped onion	1 pod hot pepper
1 tablespoon chopped garlic	1 teaspoon comino seed
5 pounds coarsely ground meat	6 cups boiling water
	1 cup chili pepper or powder

MELT suet. Add onion and garlic and cook until deep yellow. Add meat. Sear until gray. Add other

ingredients. Boil 20 minutes. (If too thick, add more water.) Pack into hot BALL Jars. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath; then complete seal.

Note: Tomato puree may be substituted for all or part of the water. Comino seed and garlic may be omitted and amount of chili reduced to suit taste.

CHOPPED MEAT

Beef, Veal, Mutton, Lamb, etc.

(For Meat Loaf, Baked Hash, Stuffing Vegetables)

PUT meat through food chopper. Turn into hot skillet with small amount of fat. Stir until seared. Add from 1 to $1\frac{1}{2}$ cups boiling water, or meat stock, or tomato puree and 1 teaspoon salt to each quart of ground meat. Pack into hot BALL Jars. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in a hot-water bath; then complete seal.

CORNEB BEEF

COVER corneb beef with cold water. Bring to boil, then simmer 1 hour. Remove meat and cut into pieces suitable for packing. Skim broth. Season with pepper, bay leaf, and clove to suit taste. Reheat to boiling. Pack meat into hot BALL Jars. Cover with hot broth. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath; then complete seal.

CRACKLINGS

SPRINKLE with salt to season. Pack into hot BALL Jars. Process 60 minutes at 15 pounds pressure or 3 hours in hot-water bath; then complete seal.

GOULASH

6 pounds lean meat (any kind)	6 cups tomato juice
$\frac{1}{4}$ cup flour	1 tablespoon paprika
6 tablespoons fat	$\frac{1}{2}$ teaspoon black pepper
6 onions, chopped	$\frac{1}{4}$ teaspoon thyme
2 carrots, chopped	Salt to taste
	$\frac{1}{2}$ cup celery

CUT meat into small pieces of uniform size. Sprinkle with flour. Cook in the fat until brown. Add onions and cook until yellow. Add other ingredients and boil 10 minutes. Pour into hot BALL Jars. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath; then complete seal.

HEAD CHEESE

USE any good recipe for making head cheese. (Omit sage and garlic.) Pack hot head cheese into hot BALL Jars. Process 60 minutes at 15 pounds pressure; then complete seal.

LIVER

Plain: Remove skin and blood vessels from beef, calf, lamb, or pork liver. Slice or cube. (If mild flavor is wanted, soak in cold water 30 minutes.) Drop into boiling water 5 minutes. Pack hot into hot BALL Jars. Season with salt. Cover with water in which cooked. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath; then complete seal.

Fried: Brown liver in fat (do not flour). Season with salt. Pack into hot BALL Jars. Add 2 tablespoons of fat from pan or cover with gravy. Process 60 minutes at 15 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath; then complete seal.



LIVER PASTE

Use chicken, lamb, or veal liver.

3 pounds liver ¼ teaspoon tabasco sauce
¼ pound salt pork ¼ teaspoon black pepper
1 tablespoon onion 2 teaspoons salt

Simmer liver 20 minutes in water to cover. Boil pork until done. Chop liver and pork, mix with seasoning, and sufficient water to make medium stiff paste. (It should spread easily, but not run.) Heat to boiling. Pack into hot BALL Jars. Process 60 minutes at 15 pounds pressure; then complete seal.

MEAT BALLS

Beef, Lamb, Mutton, Veal, Liver, etc.

6 pounds chopped lean meat 1 tablespoon salt
½ pound chopped fat meat 1 teaspoon black
1 onion pepper
1 cup cracker meal

Mix ingredients and form into balls of uniform size. Drop balls, few at a time, into boiling water. Cook 5 minutes. Pack into hot BALL Jars. Cover with water in which cooked. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

Note: Meat balls may also be precooked by baking or by browning in fat. Cover with gravy or tomato sauce.

MINCEMEAT

2 pounds lean beef 2 teaspoons nutmeg
1 pound beef suet 1 tablespoon allspice
4 pounds apples 1 tablespoon cinnamon
2 pounds currants ¼ teaspoon ginger
1 pound Sultana raisins 1 teaspoon cloves
2 pounds raisins 1 tablespoon salt
½ pound citron 2 oranges
6 cups brown sugar 4 cups cider or grape juice

BAKE beef 40 minutes in moderate oven (350° F.). Cool. Chop. Mix with chopped suet, pared, cored, and chopped apples, currants, raisins, and citron. Add sugar, spices, juice of 2 oranges, finely chopped rind of 1 orange, and the cider or grape juice. Simmer 30 minutes. Pack into hot BALL Jars. Process 1 hour at 10 pounds pressure or 3 hours in water bath; then complete seal.

PICKLED PIGS' FEET

SCALD and scrape pigs' feet. Let stand in brine (2 cups salt to 1 gallon water) 12 to 24 hours. Freshen an hour or more in clear water. Cook slowly 2 or 3 hours depending upon size and age. Split and pack into hot BALL Jars. Cover with hot spiced vinegar. Process 60 minutes at 15 pounds pressure or 3 hours in hot-water bath; then complete seal.

Spiced Vinegar: Add 2 tablespoons horseradish, 1 bay leaf, 1 pod red pepper, 1 teaspoon whole black pepper, 1 teaspoon whole spice to ½ gallon vinegar and simmer until desired flavor is obtained. Strain before using.

PORK SAUSAGE

Use for any type sausage

FORM sausage into cakes or stuff into casings. Cook until lightly browned. If in casings,

prick before pre-cooking. Pack into hot BALL Jars. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

Note: Do not add large amounts of sage and spices to sausage which is to be canned.

PORK TENDERLOIN

Cold Pack: Remove all visible fat. Cut in serving size pieces. Pack into hot BALL Jars. Add 2 teaspoons salt to each quart — nothing else. Process 70 minutes at 15 pounds pressure; then complete seal.

Hot Pack: Steam, boil, or bake tenderloin from ⅓ to ½ done. Slice. Pack hot into hot BALL Jars. Add salt to taste. Cover with broth or gravy. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

ROAST MEAT

Beef, Veal, Mutton, Lamb, Pork, Venison

CUT meat in long, thick chunks weighing from 1 to 2 pounds. Cook ⅓ to ½ done by steaming, baking, or roasting. Meat may also be cooked until brown in deep fat. The partly cooked meat may be left in chunks or cut in thick slices. Season and pack hot into hot BALL Jars. Cover with hot gravy or broth or barbecue sauce (page 50). Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

STEAKS AND CHOPS

Beef, Veal, Mutton, Lamb, Pork, Venison

Cold Pack: Cut meat in 1 inch slices. Remove large bones. Pack raw into hot BALL Jars. Add 2 teaspoons salt to each quart — nothing else. Process 70 minutes at 15 pounds pressure; then complete seal.

Hot Pack: Cut meat in 1 inch slices. Remove large bones. Brown in small amount of fat, preferably its own suet. Cook from ⅓ to ½ done. Season to taste. Pack hot meat into hot BALL Jars. Add 2 or 3 tablespoons of fat in which fried or cover with gravy. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

SPARERIBS

CRACK ribs evenly. Steam, boil, bake, or broil until about ½ done. Cut in squares and remove bones. Season with salt and pepper. Pack into hot BALL Jars. Cover with gravy or broth skimmed free of fat. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

STEW

Beef, Veal, Mutton, Lamb, Venison, etc.

CUT meat into cubes of uniform size. Brown quickly in small amount of fat. Cover with boiling water. Boil 5 minutes. Add seasonings. Pack into hot BALL Jars. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

Or: Cubes of raw meat may be covered with boiling water; boiled 8 to 10 minutes before packing.

Or: Vegetables which have been boiled 3 to 5 minutes may be added to stew as it is packed into the jar. A better stew is made by combining meat and vegetables when needed for serving.





TONGUE

Boil and skin tongue. Season with salt and pepper. Pack into hot BALL Jars. Cover with water in which cooked. Spices and vinegar to suit taste may be added to this water either before or after cooking tongue. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

POULTRY

PREPARATION FOR CANNING

CONFINE 12 to 24 hours before killing. Give water, but no feed. Kill 6 to 12 hours before canning. Avoid bruising. Bleed thoroughly. Pluck, singe, and wash with mild soap. Rinse. Cut skin between legs and body. Bend legs until hip joints snap. Slip knife under ends of shoulder blades and cut up to wings. Pull back and breast apart. Remove entrails. Rinse. Dry. Chill. Do not salt.

Note: Use feet in broth. Do not can liver and gizzard with other parts of fowl.

CHICKEN ON BONE

Use for all poultry, pigeons, birds, and domestic rabbits

Cold Pack: Separate raw fowl at joints. Pack into hot BALL Jars. Add 1 teaspoon salt to each quart. (Add no liquid.) Process 70 minutes at 15 pounds pressure; then complete seal.

Hot Pack: Boil or steam until from ⅓ to ½ done, then separate at joints. Pack hot into hot BALL Jars. Cover with boiling broth. Salt to taste. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

CHICKEN—BONED

Use for all poultry

STEAM or boil until about ¾ done. Remove skin and bones. Keep meat in large pieces. Salt to taste. Pack pieces upright into hot BALL Jars. Cover with boiling broth. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

FRIED CHICKEN

Use for all young fowl and game

SEASON with salt and pepper and brown in fat. (Do not dip in flour or crumbs.) Pack hot into hot BALL

Jars. Add 1 or 2 tablespoons fat in which fried or cover with gravy. Gravy gives better results. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

ROAST FOWL

Use for all fowl, birds, rabbits, and squirrel

PREPARE and roast until about ¾ done. Cut meat from bones of large fowl; leave bones in small fowl. Season with salt and pepper. Pack into hot BALL Jars. Skim excess fat from gravy. Reheat gravy to boiling and pour over meat. Barbecue sauce (page 50) may be used instead of gravy. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

RABBIT AND SQUIRREL

SOAK wild rabbit and squirrel in salt water (1 tablespoon salt to 1 quart water) 1 to 2 hours to remove strong flavor. Can the same as Chicken.

SANDWICH SPREAD

GRIND skin and small pieces of meat from cooked chicken or other fowl. To each pint ground meat, add ¼ teaspoon mustard, 1 tablespoon vinegar, ½ cup broth, salt, pepper, and any other seasonings, to suit taste. Pack into hot pint BALL Jars. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

FISH

PREPARE fresh, thoroughly bled fish as for cooking. The backbone may be left in small fish — remove it from larger ones.

Soft-Flesh Fish

For mackerel, mullet, trout, whitefish, and other soft-flesh fish: Cut into jar-length pieces and soak in brine (1 cup salt to 1 gallon water) 60 minutes. Drain. Pack into hot pint BALL Jars, alternating heads and tails; the skin side next to the glass. Submerge the open jar in a kettle of hot brine (½ cup salt to 1 gallon water).



Boil 15 minutes. Remove jars and invert to drain 5 minutes. Process 100 minutes at 10 pounds pressure; then complete seal.

Firm-Flesh Fish

For salmon, shad, and other firm-flesh fish: Cut into jar-length pieces. Soak in brine (1 cup salt to 1 gallon water) 60 minutes. Drain 10 minutes. Pack into hot pint BALL Jars; skin side next to the glass. Process 100 minutes at 10 pounds pressure; then complete seal.

FRIED FISH

SOAK fish in brine ($\frac{1}{2}$ cup salt to 1 quart water) from 10 minutes to 1 hour. Rinse in clear water. Dry. Cut into pieces that can be easily packed into the jar. Brown fish in deep fat. Drain on clean, heavy, brown paper. Pack into hot BALL Jars (add nothing). Process 100 minutes at 10 pounds pressure; then complete seal.

SPICED FISH

SOAK fish in brine (1 cup salt to 1 gallon water) 60 minutes. Drain 10 minutes. Pack into hot BALL Jars. Cover with spiced vinegar. Process 60 minutes at 10 pounds pressure or $3\frac{1}{2}$ hours in hot-water bath; then complete seal.

To make Spiced Vinegar: Mix 1 quart vinegar, 1 pint water, 2 tablespoons sugar, 1 piece horseradish, 1 pod red pepper, 1 small clove garlic, 1 teaspoon each whole allspice, cloves, mustard seed, and celery seed. Simmer 30 minutes. Strain and add 4 tablespoons olive oil.

FROG LEGS

SKIN frogs immediately after killing. Wash legs in slightly salted water. Drop into boiling vinegar-water ($\frac{1}{2}$ cup white vinegar to 1 gallon water). Boil 5 minutes. Pack into hot BALL Jars. Cover with hot brine ($\frac{1}{3}$ cup salt to 1 gallon water). Process 60 minutes at 15 pounds pressure; then complete seal.

CLAMS AND OYSTERS

USE fresh clams or oysters. Wash and drain before opening. Use none from partly opened shells. Rinse in salt water ($\frac{1}{4}$ cup salt to 1 gallon cool water).

Drain. Pack into hot BALL Jars. Fill jars to within $\frac{1}{2}$ inch of the top. Strain the juice from the clams or oysters and heat to boiling. Pour over the meat. Add 1 teaspoon salt to each pint. Process 70 minutes at 10 pounds pressure; then complete seal.

CRAB MEAT

KILL crabs before cooking. Remove back shell and viscera. Wash bodies through several changes of clear water or under running water. Boil 20 minutes in acid-salt water ($\frac{1}{4}$ cup white vinegar or lemon* juice and 1 cup salt to 1 gallon water). Remove meat from body and claws as quickly as possible. Rinse meat in acid-salt water (2 cups white vinegar or lemon* juice and 1 cup salt to 1 gallon water). Squeeze meat to remove some of the liquid. Pack into hot $\frac{1}{2}$ or 1 pint BALL Jars. (nothing larger) and cover with brine (1 tablespoon salt to 1 quart water). Process 100 minutes at 5 pounds pressure; then complete seal. *Preferable to vinegar.

LOBSTER

PLUNGE live lobsters into boiling salt water (4 tablespoons salt to 1 gallon water). Boil rapidly 4 minutes, then simmer 15 minutes. Remove and dip into cold water. Drain. Remove meat from shell. Let meat stand 1 minute in water to which lemon* juice or vinegar has been added ($\frac{1}{2}$ cup lemon* juice to 1 gallon water). Pack into hot BALL Jars. Add 1 teaspoon each vinegar or lemon* juice and salt to each jar. Fill with boiling water. Process 80 minutes at 10 pounds pressure; then complete seal. *Preferable to vinegar.

SHRIMP

WASH and drain freshly caught shrimp. Drop into boiling brine (1 cup salt, 1 cup vinegar, 1 gallon water). Boil 10 minutes. Plunge into cold water. Drain and peel. Pack into hot pint BALL Jars. Add $\frac{1}{2}$ teaspoon salt and boiling water to fill the jar to within $\frac{1}{2}$ inch of the top. Process 45 minutes at 10 pounds pressure; then complete seal. If preferred, the shrimp may be packed dry and processed 60 minutes at 10 pounds pressure.

Note: The United States Bureau of Fisheries recommends the wet pack for home canning. The sand vein should not be removed until the shrimps are being prepared for serving.



Soups

THE frequent making of fresh soups in small quantities is a time and fuel consuming practice; it is also an expensive one when raw materials are out of season. It is, therefore, wise, when raw products are in season, to stock one's pantry with an ample supply of homemade, home canned soups.

Soups should be made of strictly fresh, clean, sound vegetables and meats of good color and flavor. We advise the use of a steam pressure cooker for processing all but tomato soup, but processing time for water bath canning is given for the benefit of those who do not use pressure cookers.

Boil all soups at least 10 minutes before tasting.

Partly seal all jars before processing except when using Vacu-Seal Lids. Tighten Vacu-Seals before processing. Do not tighten again.

Please reread pages 3 to 8.

BRUNSWICK STEW

- | | |
|--|--|
| 4 young squirrels or 4
frying size chickens | 1 pod hot pepper |
| 1 pound salt pork | 1 quart green lima beans |
| 4 onions | 3 quarts corn |
| 8 quarts boiling water | 1 tablespoon Worcester-
shire sauce |
| 2 quarts chopped tomatoes | Salt and pepper to taste |

SQUIRRELS were used in the original Brunswick stew. Nowadays it is more often made with chicken or a combination of both. Cut the squirrels (or chickens) as for frying. Dice the pork and cook until yellow. (Butter or bacon fat may be used instead of pork.) Add the squirrels (or chickens) and cook until slightly browned. Add the onions, cook until yellow, then add water, tomatoes, and pepper. Cook slowly until the meat begins to fall from bones. Discard all bones. Cut the meat into small pieces and return it to the liquid. Add beans, corn, and seasonings. Boil 20 minutes. Pour into hot BALL Jars. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal.

Before serving: Boil 15 minutes and add ½ cup toasted bread crumbs and 2 tablespoons butter to each quart of stew.

CHICKEN GUMBO

- | | |
|----------------------------------|------------------------|
| 2 fryers or 1 five-
pound hen | 12 tomatoes |
| 1 pound smoked ham | 2 bay leaves |
| 3 cups okra | 2 sprigs parsley |
| 2 onions | 1 pod hot pepper |
| | 6 quarts boiling water |

Salt and pepper to taste

MELT a small amount of the fat from the chicken, or ham, in a heavy kettle. Add chicken, cut as for frying; ham, cut in cubes; okra and onions, sliced. Cook until lightly browned. Remove skins from tomatoes

and seed from peppers. Chop. Mix all ingredients and cook slowly until the soup is fairly thick. Remove and discard chicken bones. Cut meat into small pieces and return it to the soup. Bring to boil and pour into hot BALL Jars. Process 60 minutes at 15 pounds pressure or 3½ hours in hot-water bath; then complete seal. Serve with boiled rice.

CHICKEN SOUP

Any fowl may be used

COVER the necks, wings, backs, feet, and bones from 4 four-pound fowls with 8 quarts cold water. Add 1 teaspoon whole black pepper, a few celery leaves, a sprig of parsley, 1 or 2 bay leaves, and cook slowly until the liquid is reduced to about 4 quarts. Strain through cheesecloth. Remove fat. Remove bits of meat from the bones. Add the meat to the broth. Salt to taste. Boil 3 minutes and pour into hot BALL Jars. Process 60 minutes at 15 pounds pressure or 3 hours in hot-water bath; then complete seal.

CHICKEN NOODLE SOUP

COVER 2 cups noodles with boiling salt water (2 tablespoons salt to 1 quart water). Cook 5 minutes. Rinse in cold water. Add to the chicken soup. Process 60 minutes at 15 pounds pressure or 3 hours in hot-water bath; then complete seal.

CLAM BROTH

OPEN fresh clams. Save juice. Cover the clams with cold water. Add the juice, a few celery leaves, salt and pepper to taste. Boil 10 minutes. Strain into hot pint BALL Jars. Process 100 minutes at 10 pounds pressure; then complete seal.



CLAM CHOWDER

2 quarts chopped clams
2 quarts water
Juice from clams
2 quarts diced potatoes
½ pound salt pork
Salt and pepper to taste

LEeks, celery, tomatoes, and thyme and other seasoning may be added if liked. Clean and chop clams. Save the juice. Dice and cook pork until light brown. Add chopped onions. Cook until yellow. Combine all ingredients. Boil 10 minutes. Pour into hot pint BALL Jars. Process 100 minutes at 10 pounds pressure; then complete seal.

FISH CHOWDER

5 pounds fish
2 quarts diced potatoes
¾ pound salt pork
2 quarts fish broth
4 onions, sliced
¼ pod red pepper
Salt and black pepper to taste

MAKE broth from head, tail, and bones of fish. Cut flesh into 1 inch pieces. Dice pork. Cook pork until light brown. Add onions. Cook until yellow. Add all other ingredients. Boil 10 minutes. Pour into hot pint BALL Jars. Process 100 minutes at 10 pounds pressure; then complete seal.

PUREE

Asparagus, Green Pea, Lima Bean, Spinach, etc.

Canned purees are particularly desirable for infant feeding and for making cream soups and souffles. To make puree: Select fresh vegetables and prepare as for cooking. Steam until soft or cook in the smallest possible amount of water. Press through a fine sieve. Add boiling water, if necessary, to make the puree about the consistency of thick cream. Do not salt if intended for infant feeding; otherwise use 1 teaspoon salt to each quart. Reheat to boiling and pour into hot BALL Jars. Process quart jars 60 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal. Process ½ pint jars 50 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

SCOTCH BROTH

4 quarts lamb or mutton stock
½ cup diced carrots
1 cup barley
½ cup chopped celery
1 onion
Salt and pepper to taste

BOIL the barley 5 minutes and rinse in cold water. Chop the vegetables. Add barley and vegetables to soup stock. Boil 5 minutes. Pour into hot BALL Jars. Process 50 minutes at 15 pounds pressure or 3 hours in hot-water bath; then complete seal.

SOUP STOCK

8 pounds beef, veal, or mutton
1 tablespoon whole black pepper
6 quarts cold water
¼ pod hot pepper
1 teaspoon mixed whole spices
1 tablespoon salt

USE equal portions of bone and lean meat. Crack bones. Cut meat in small pieces. If brown stock is wanted: brown meat in enough fat to prevent sticking. Cover the meat

(either browned or raw) with the water. Add salt and let stand 30 minutes. Add seasonings and simmer until liquid is reduced to about 4 quarts. Strain through cheese cloth. Chill. Remove fat. Boil 5 minutes and pour into hot BALL Jars. Process 50 minutes at 15 pounds pressure or 3 hours in hot-water bath; then complete seal.

TOMATO PUREE—SEASONED

4 quarts chopped tomatoes
3 carrots
2 cups chopped celery
6 onions
3 sweet peppers
Salt and pepper to taste

WASH, chop, and measure firm ripe tomatoes. Steam or simmer until soft. Press through fine sieve. Cook until thick. Chop other vegetables. Cover with boiling water and cook until soft, press through sieve, and add to the tomato pulp. Reheat and pour into hot BALL Jars. Process 45 minutes in hot-water bath; then complete seal.

TOMATO PUREE — UNSEASONED

WASH tomatoes and steam or bake until soft. Press through fine sieve. Cook until thick. Pour into hot BALL Jars. Process 30 minutes in hot-water bath; then complete seal. 1 teaspoon each salt and sugar may be added to each quart puree.

TOMATO SOUP

1 teaspoon mixed spices
1 ½ cups water
6 quarts chopped tomatoes
½ cup butter
1 cup chopped celery
¾ cup flour
4 onions
1 tablespoon sugar
2 sprigs parsley
Salt and pepper to taste

ADD spices to vegetables and water. Simmer until vegetables are soft. Drain off and save juice. Press vegetables through a fine sieve. Melt butter. Add flour, stir until blended, then add the juice. Stir until thick and smooth. Add vegetables, sugar, salt, and pepper. Cook until thick. Pour into hot BALL Jars. Process 35 minutes at 10 pounds pressure or 2 hours in hot-water bath; then complete seal. This soup should be quite thick. Thin with milk or water or soup stock for serving.

VEGETABLE SOUP MIXTURE

5 quarts chopped tomatoes
2 quarts corn
2 quarts sliced okra or 2 quarts small green lima beans
2 tablespoons sugar
2 tablespoons salt

COOK tomatoes until soft, then press through sieve to remove skin and seed. Add other ingredients and cook until thick. Pour into hot BALL Jars. Process 60 minutes at 10 pounds pressure or 3 hours in hot-water bath; then complete seal.

VEGETABLE SOUP MIXTURE II

USE any combination of vegetables liked in soup. Mix the vegetables and boil 5 minutes with water to cover or with tomatoes which have been skinned and chopped. Season with salt and pepper. Pour boiling hot into hot BALL Jars. Process for the time given in the time-table on page 11 for the vegetable (in the soup) requiring longest processing time; then complete seal.





Jellies

A GOOD jelly is a clear, tender, sparkling, fruit-flavored substance, firm enough to hold its shape when turned from the glass, yet soft enough to be spread with a knife. *Note:* As much as $\frac{1}{2}$ the sugar called for in a recipe may be replaced with honey or $\frac{1}{4}$ of the sugar with corn sirup.

SELECTION OF FRUIT FOR JELLY MAKING

To make a natural jelly, fruit juice must contain acid and a jellifying substance called pectin. Sugar must be added. The amount and quality of pectin in any variety of fruit varies at different stages of maturity and may vary from year to year.

Fruits which normally yield juice satisfactory for jelly making are: tart apples, blackberries, barberries, currants, cranberries, grapes, acid guavas, gooseberries, loganberries, mayhaws, most plums, quinces, and sour oranges.

Juice from fruits which are low in pectin may be combined with apple juice, or a commercial pectin may be used. When using a commercial pectin, follow directions which come with it.

If acid is lacking — tell by tasting — add from 1 teaspoon to 1 tablespoon lemon juice to each cup fruit juice.

Fruits for jelly should be barely ripe; i.e., a little more firm and acid than usually liked for eating raw. Juice from under-ripe fruit gives a jelly of poor flavor; that from over-ripe fruit may not jell.

PECTIN TESTS

Kitchen tests show neither the quality nor exact quantity of pectin in fruit juice. They merely furnish a basis for estimating the approximate amount present. Both quality and quantity of pectin govern the amount of sugar which should be cooked with the juice in order to make good jelly. If the pectin

content of the juice seems high, add from $\frac{3}{4}$ to 1 cup sugar to each cup juice; if low, use $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar to each cup juice.

There are four fairly simple tests for pectin: (1) Alcohol, either grain or denatured. (2) Epsom salts. (3) Cooking $\frac{1}{4}$ cup juice with 2 or 3 tablespoons sugar to see if it will jell. (4) An instrument called *jellometer*. Perhaps the easiest of these is the alcohol test: Pour 1 tablespoon fruit juice and 2 tablespoons alcohol into a cup. Move cup gently to blend the liquids. The formation of a large clot indicates the presence of a considerable amount of pectin. Small scattered clots indicate insufficient pectin for jelly.

GENERAL DIRECTIONS TO EXTRACT JUICE

WASH and drain sound, firm, barely ripe fruits. Remove hulls, stems, blossom ends. Cut decayed and bruised spots from large fruits. Cut large fruits into small pieces without paring or coring. An exception to this rule is quinces which should be cored.

To soft fruits, add just enough water to prevent sticking. Heat gradually. Mash while heating. Boil gently from 10 to 20 minutes. To hard fruits, add water to barely cover. Cook until soft.

Drain juice through cotton flannel bag, several layers of cheesecloth, or sugar sack. Do not squeeze bag; to do so makes jelly cloudy.

If a second extraction of juice is to be made from the fruit, return the pulp to kettle, add 1



I use my colander first, & add a little water to the second batch.

cup water to each cup pulp, cook slowly 15 minutes, and let stand 10 minutes before dripping.

A satisfactory jelly may be made by combining the first and second extractions of juice, though it may not be as clear nor have as fine flavor as when made from the first extraction.

TO COOK

Do not cook more than 2 quarts of juice at one time. Measure juice. Heat to boiling. Add sugar. See page 34 for amount. Stir until sugar dissolves, then boil rapidly without stirring or skimming until the jellying point is reached.

JELLY TEST

How to know when jelly is done.

Dip a large spoon into boiling jelly sirup. Tilt spoon until sirup runs over the side. When the liquid has reached the jellying stage it will stop flowing from the spoon in a stream and divide into two distinct drops which run together and leave the edge of the spoon in one large flake or sheet. *Stop the cooking at this point.*

A thermometer affords a helpful but not entirely dependable guide for determining the finish point of jelly because this point varies with different fruits; also with the same fruit at different stages of maturity and with the ratio of sugar to fruit juice. The range of temperature at the finish point is between 220° and 224° F.

TO FILL AND SEAL JELLY GLASSES

Use BALL Jelly Glasses which have been washed, covered with warm water, and boiled 20 minutes to sterilize. Leave in boiling water until jelly is cooked.

Let jelly stand while glasses are being removed from water, drained, and placed on a folded cloth. Skim jelly and pour directly into glasses to within $\frac{1}{4}$ inch of the top. Do not spill jelly on inside rim of glasses.

Let jelly stand until firm. Remove any bubbles which may form on surface, then cover with a thin layer of hot paraffin. Turn the glass so the paraffin will spread evenly and touch the sides. Cover with BALL Jelly Lids and store in a cool, dry place.

JELLIES FROM CANNED JUICE

FRESHLY made jelly is superior in flavor to that which has stood several months. It is, therefore, practical to can *unsweetened* fruit juice and make jelly as needed. Such juice is called jelly stock. Apple jelly stock is particularly useful because it can be used in combination with juices of other fruits which are rich in flavor but poor in jellying qualities.

APPLE JELLY STOCK

SELECT fresh, sound, hard-ripe fruit. Wash, discard stems and blossom ends. Slice without removing peel or core. Add from 1 to 2 cups water to each quart sliced apples. Cover and cook gently until soft. Drain through jelly bag or 2 layers of cheesecloth. Pour into hot BALL Jars. Process 20 minutes in hot-water bath; then complete seal.

TO MAKE JELLY FROM STOCK

STRAIN stock through cheesecloth. Heat to boiling. Add sugar (same amount as for fresh juice, see page 34). Stir until sugar dissolves, then boil rapidly without stirring until the jellying point is reached. Skim and pour into hot BALL Jelly Glasses. When set, seal with hot paraffin. Cover with tin lids.



APPLE JELLY AND VARIATIONS

USE tart, hard-ripe fruit. Wash, discard stems and blossom ends. Slice without removing peel or core. Add water to barely cover. Cook until soft, then drain slowly through jelly bag or several layers of cheesecloth. Measure juice. Heat to boiling. Add $\frac{3}{4}$ cup sugar for each cup juice (very sour crab apples require 1 cup sugar to 1 of juice). Stir until sugar dissolves, then boil rapidly until jellying point is reached. Skim and pour into hot BALL Jelly Glasses to within $\frac{1}{4}$ inch of the top. When set, seal with a thin layer of hot paraffin and cover with tin lids.

MINT JELLY

Cook a few sprigs of fresh mint with the apples when preparing to extract the juice. (1 or 2 drops of mint extract may be used if fresh mint is not available.) Add a few drops of green vegetable coloring and the extract *after* the jelly has been cooked to the finish point. A common error is that of adding too much flavoring and too much coloring.

SPICED JELLY

TIE a few whole spices in a piece of muslin. Drop into the juice at the beginning of the cooking and let stay until jelly is poured into the glasses.

BERRY JELLY

BLACKBERRIES, blueberries, and loganberries are but a few of the many which may be used for jelly. The jelly will be of better flavor if the berries are fully ripe, but easier to make if from $\frac{1}{3}$ to $\frac{1}{2}$ of them are slightly under-ripe.

Wash and stem the berries. Drain, then mash to release some of the juice. If the berries seem very juicy, add no water; otherwise add $\frac{1}{4}$ cup water for each quart of berries. Boil gently from 10 to 15 minutes, then let juice drain through jelly bag or through several layers of cheesecloth.

Measure juice. Heat to boiling. Add $\frac{3}{4}$ cup sugar to each cup juice. Stir until sugar dissolves, then boil rapidly without stirring or skimming until the juice flakes from the side of the spoon. (See Jelly Test.) Skim and pour into hot BALL Jelly Glasses. When set, seal with thin layer of hot paraffin and cover with tin lids.

CHERRY JELLY

COOK 1 quart pitted sour cherries with 1 cup water 20 minutes. Strain and measure. Add an equal amount of apple jelly stock. Then add $\frac{3}{4}$ as much sugar as combined juices. Boil rapidly to jellying point. Skim and pour into hot BALL Jelly Glasses. When set, seal with hot paraffin and cover with tin lids.

GRAPE JELLY

THE use of unsweetened, canned, rather than freshly extracted juice, prevents the formation of cream of tartar crystals in grape jelly. After the juice is canned (see Jelly Stock) the crystals will gradually form and settle at the bottom. The canned juice should be strained through cheesecloth or flannel bag to remove crystals and other sediment.

When making jelly, the juice from cultivated grapes usually requires $\frac{3}{4}$ cup sugar to each cup juice, however, 1 cup sugar may be used if the juice is quite sour. Use equal measure of sugar and juice in making wild grape jelly.

✕ **To make grape jelly:** Measure the juice. Heat to boiling. Add sugar. Stir until dissolved, then boil rapidly without stirring or skimming until the jellying point is reached. Skim, and pour into hot BALL Jelly Glasses. When set, seal with thin layer of hot paraffin and cover with tin lids.

BRIEF DIRECTIONS FOR MAKING JELLY

EXTRACT juice. Heat to boiling. Add sugar. Stir until sugar dissolves. Boil rapidly until the jelly stage is reached. (See Jelly Test, Page 33.)

FRUIT	PREPARATION OF FRUIT	APPROXIMATE AMOUNT OF WATER TO QUART OF FRUIT	COOK	STRAIN	QUANTITY OF **SUGAR TO ADD TO EACH QUART FRUIT JUICE
Apple, Any Tart	Wash. Remove blossom end. Slice thin. Do not pare	2 cups	Bring to boil. Simmer until soft		3 cups
Barberry *	Wash. Stem	1 cup	Boil gently until soft		3 cups
Blackberry	Wash. Stem	None to 1 cup	Bring to boil. Simmer 10 minutes		3 to 4 cups
Blueberry *	Wash. Stem	None to 1 cup	Bring to boil. Simmer 10 minutes		3 cups
Cherry *	Wash. Stem	None to 1 cup	Boil gently 15 minutes		3 cups
Crab-Apple	Wash. Remove blossom end. Slice thin. Do not pare	2 cups	Bring to boil. Simmer until soft		3 to 4 cups
Cranberry	Wash. Stem	2½ cups	Bring to boil. Boil 5 to 10 minutes		3 cups
Currant, Red	Wash. Stem	None to ¼ cup	Boil gently until soft		3 to 4 cups
Elderberry *	Wash. Stem	½ cup	Bring to boil. Simmer until soft		3 cups
Gooseberry, Green	Wash. Stem	To cover	Bring to boil. Simmer until soft		4 cups
+ Grape	Wash. Stem	¼ to 1 cup	Bring to boil. Simmer 15 minutes		3 to 4 cups +
Guava, Sour	Wash. Remove blossom end. Slice	4 cups	Boil gently 30 minutes		4 cups
Loganberry	Wash. Stem	None to ¼ cup	Bring to boil. Simmer until tender		3 cups
Mayhaw	Wash. Stem	2 cups	Bring to boil. Simmer until tender		3 to 4 cups
Mulberry *	Wash. Stem	½ cup	Bring to boil. Simmer 15 minutes		3 cups
Muscadine *	Wash. Stem	1 cup	Bring to boil. Simmer 15 minutes		3 cups
Peach *	Wash. Slice	1 cup	Bring to boil. Simmer until soft		3 cups
Plum	Wash. Stem	1 cup	Bring to boil. Simmer 20 minutes		3 to 4 cups
Prickly Pear *	Rub with heavy cloth. Wash. Slice	2 cups	Cook until soft		3 to 4 cups
Quince	Wash. Discard core. Slice	Sufficient to float	Boil gently 30 to 60 minutes.		3 cups
+ Raspberry	Wash. Stem	None to ¼ cup	Bring to boil. Simmer 10 minutes		3 to 4 cups
Sour Orange	Wash. Peel. Seed. Cut	1 quart	Boil until pulp falls apart		4 cups
Strawberry *	Wash. Cap	¼ cup	Bring to boil. Simmer 10 minutes		3 cups

*This juice is low in jellifying properties. Use equal measure of apple juice, or combine with commercial pectin.

**Use high-grade granulated cane or beet sugar.





Butters, Conserves, Jams, Marmalades, and Preserves

HOME-MADE fruit butters, conserves, jams, marmalades, and preserves offer a pleasing, inexpensive, and wholesome means of satisfying the almost universal hunger for something sweet at each meal.

No breakfast menu is complete without jam, or marmalade, whereas conserves or preserves, hot bread and butter are an easy, excellent, and acceptable substitute for more elaborate desserts.

Corn sirup may be substituted for $\frac{1}{3}$ of the sugar, or honey may be substituted for as much as $\frac{1}{2}$ the sugar called for in a recipe. Weigh sugar and sirup if possible. If no scales are available, remember 1 and $\frac{1}{3}$ cup of corn sirup or honey weighs about one pound.



BUTTERS

Up to $\frac{1}{2}$ of the sugar called for in these recipes may be replaced with honey or $\frac{1}{3}$ of it with corn sirup.

All fruits, some melons, and a few vegetables may be used for butters. Butters are made by cooking the pulp of the product with sugar until the mixture is of the consistency of creamed dairy butter. The addition of spices and the variety used is optional. Butters must be stirred frequently before and constantly after the addition of sugar. While not absolutely necessary, it is advisable to process butters 10 minutes in a water bath.

OLD FASHIONED APPLE BUTTER

1 peck apples 6 cups sugar
1 gallon sweet cider 1 tablespoon cinnamon
 $\frac{1}{2}$ tablespoon cloves

WASH and slice apples. Add cider and cook until soft, then press through a sieve. Boil the strained pulp until it is thick enough to heap on a spoon, then add sugar mixed with spices and continue boiling until so thick that no liquid runs from the butter when tested on a cold plate. Pour while hot into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

Note: A less rich sauce may be made by using only one or two quarts cider.

BLUEBERRY-APPLE BUTTER

2 quarts blueberries 2 quarts sugar
2 quarts apple pulp 1 tablespoon ground spices

WASH and slice tart apples. Add water to cover. Cook until soft, then press through a sieve. Measure. Boil apple pulp, blueberries, fresh or canned, sugar, and spices until thick. Pour while hot into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

CRAB-APPLE BUTTER

WASH and slice apples. Add water to cover. Cook until soft, then press through a sieve. Measure. Add $\frac{1}{2}$ as much sugar as pulp and cook, stirring constantly until butter is thick. Spices to taste may be added before the butter is removed from the heat. Pour while hot into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

CANTALOUPE BUTTER

REMOVE rind and seed from ripe melons. Cut melon into small pieces. Add just enough water to prevent sticking. Boil until soft, then press through a sieve. Measure. Add from 1 to $1\frac{1}{2}$ cups sugar, 1 tablespoon lemon juice, and 1 teaspoon cinnamon or other spices to each quart pulp. Boil until thick. Pour while hot into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

GRAPE BUTTER

4 quarts stemmed $\frac{1}{2}$ cup vinegar
grapes 1 tablespoon ground
8 cups sugar spices

WASH, stem, and squeeze grapes to separate pulp from skins. Put skins through food chopper. Boil the skins 20 minutes with just enough water to prevent sticking. Cook the pulp, without water, until soft. Rub through colander to remove seed. Combine pulp and skins. Add sugar, vinegar, cinnamon, cloves, or other spices to suit taste. Boil until thick. Pour into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

PEACH BUTTER

WASH peaches. Pare or rub with cloth to remove fuzz. Discard seed. Cook peaches (until soft) in their own juice or in just enough water to prevent sticking. Press through sieve. Add from $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar for each cup pulp. Boil rapidly until thick. Pour into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

PEAR BUTTER

WASH, pare, and core ripe pears. Add just enough water to prevent sticking. Cook until soft, then press through a sieve. Add 2 tablespoons lemon juice and $\frac{1}{4}$ teaspoon nutmeg (or other spices) and from 1 to $1\frac{1}{2}$ cups sugar to each quart pulp. Boil rapidly until thick. Pour into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

PLUM BUTTER

WASH plums. Cook until soft with water to cover. Rub through colander to remove seed. Add from $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar for each cup pulp. Boil rapidly until thick. Pour into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

TOMATO BUTTER

WASH and chop sound, firm-ripe tomatoes. Cook until soft, then press through sieve to remove skins and seed. Drain off excess juice. Measure pulp and add 1 tablespoon lemon juice and from 1 to $1\frac{1}{2}$ cups sugar to each pint of pulp. Boil rapidly until thick. Pour into hot BALL Jars. Process 10 minutes in hot-water bath; then complete seal.

CONSERVES

Conserves are jam-like products made by boiling two or more fruits with sugar until the mixture will either round up on a spoon, like jam, or else flake from it as in jelly test. A true conserve contains nuts, raisins, or both, but they may be omitted from or added to any given recipe.

APPLE-BLUEBERRY CONSERVE

4 cups diced apples 6 cups sugar
4 cups blueberries $\frac{1}{2}$ cup raisins
 4 tablespoons lemon juice

SIMMER apples with blueberries 20 minutes. Add sugar, raisins, and lemon juice. Boil rapidly until thick. Pour into hot BALL Jars; seal at once.

APPLE-CARROT-PEACH CONSERVE

2 cups diced apples 2 cups diced peaches
2 cups diced carrots 4 cups sugar
 1 lemon

Cook apples, carrots, peaches, juice and grated rind of lemon 20 minutes. (Add $\frac{1}{4}$ cup water if necessary to prevent sticking.) Add sugar and boil rapidly until thick. Pour into hot BALL Jars; seal at once.

APPLE-CHERRY-PINEAPPLE CONSERVE

3 cups diced apple 11 cups sugar
8 cups pitted cherries $\frac{1}{2}$ teaspoon salt
2 cups chopped pineapple $\frac{1}{2}$ pound nut meats

Mix the fruit and sugar and let stand overnight. Boil until thick. Add salt and nut meats. Pour, boiling hot, into hot BALL Jars; seal at once.



CANTALOUPE-PEACH CONSERVE

4 cups diced cantaloupe 4 tablespoons lemon juice
4 cups diced peaches $\frac{1}{2}$ teaspoon nutmeg
6 cups sugar $\frac{1}{4}$ teaspoon salt
 $\frac{1}{2}$ cup blanched almonds

Cook the cantaloupe and peaches together 20 minutes. Add sugar and lemon juice. Boil rapidly until thick. Add nutmeg, nuts, and salt. Pour, boiling hot, into hot BALL Jars; seal at once.

CHERRY-PINEAPPLE CONSERVE

1 quart pitted cherries 4 cups sugar
1 cup chopped pineapple $\frac{1}{2}$ cup blanched almonds

RUN cherries and pineapple through food chopper. Add sugar. Boil rapidly until thick. Add nuts and pour, boiling hot, into hot BALL Jars; seal at once.

CHERRY-RASPBERRY CONSERVE

3 cups pitted cherries 4 to 6 cups sugar
3 cups raspberry pulp

Cook cherries slowly in own juice until tender. Add raspberry pulp (prepared by crushing berries and pressing through sieve to remove seed) and sugar (6 cups sugar are required for very sour cherries). Heat slowly until sugar dissolves, then boil rapidly until thick. Pour into hot BALL Jars; seal at once.

CRANBERRY CONSERVE

1 quart cranberries 3 cups sugar
1 orange $\frac{1}{2}$ cup raisins
2 cups water $\frac{1}{2}$ cup English walnut meats
 $\frac{1}{4}$ teaspoon salt

WASH and stem cranberries. Run orange, peel and pulp, through food chopper. Cook the orange in the water 20 minutes. Add other ingredients, except nuts, and boil rapidly to jelly stage. Add nuts and pour, boiling hot, into hot BALL Jars; seal at once.

GOOSEBERRY CONSERVE

6 cups gooseberries 4 cups sugar
1 orange 1 cup raisins

WASH and stem gooseberries. Grate orange peel. Chop pulp. Mix ingredients. Heat slowly until sugar dissolves. Boil rapidly to jelly stage. Pour into hot BALL Jars; seal at once.

GRAPE CONSERVE

2 quarts stemmed grapes 1 cup nut meats
6 cups sugar $\frac{1}{4}$ teaspoon salt

PRESS grapes to remove pulps from skins. Run skins through food chopper, then boil 20 minutes in small amount of water. Cook the pulps in their own juice until soft. Rub through colander to remove seed. Combine skins and pulps with sugar and boil rapidly until thick. Add nuts and salt. Pour, boiling hot, into hot BALL Jars; seal at once.

PEACH CONSERVE

6 cups sliced peaches $\frac{1}{2}$ cup almonds
1 orange $\frac{1}{2}$ teaspoon ginger
5 cups sugar $\frac{1}{4}$ teaspoon salt

COMBINE peaches, pulp, and grated rind of orange. Boil 20 minutes. Add sugar. Cook until thick. Add nuts, ginger, and salt. Pour, boiling hot, into hot BALL Jars; seal at once.

PINEAPPLE-COCONUT CONSERVE

1 quart canned pineapple 3 cups water
1 quart chopped apple $1\frac{1}{2}$ cups grated coconut
2 oranges 6 cups sugar

CHOP pineapple. Cook pineapple, pineapple juice, apple, pulp of 2 oranges, and thinly sliced peel of 1 orange with the water until apple and orange peel are tender. Add sugar and fresh grated coconut. Boil rapidly until thick. Pour, boiling hot, into hot BALL Jars; seal at once.

PLUM CONSERVE

2 quarts seeded plums 1 large stick cinnamon
1 lemon 6 cups sugar
 $\frac{1}{3}$ teaspoon salt 1 cup raisins
1 cup nut meats

USE firm-fleshed plums. Cook until soft with pulp and grated rind of lemon, salt, and cinnamon. Add sugar and raisins. Cook until thick. Remove cinnamon. Add nuts. Pour, boiling hot, into hot BALL Jars; seal at once.

RHUBARB-PINEAPPLE CONSERVE

6 cups rhubarb 7 cups sugar
2 cups pineapple

CUT unpeeled rhubarb into $\frac{1}{4}$ inch slices, and pineapple in small pieces before measuring. If fresh pineapple is used, cook until tender in just enough water to prevent sticking. Combine rhubarb and pineapple with sugar and boil rapidly until thick. Pour, boiling hot, into hot BALL Jars; seal at once.

STRAWBERRY-RHUBARB CONSERVE

1 quart strawberries 7 cups sugar
1 quart rhubarb

CAP berries and cut unpeeled rhubarb into $\frac{1}{2}$ inch slices before measuring. Add sugar. Cook slowly until sugar dissolves, then boil rapidly until thick. Pour, boiling hot, into hot BALL Jars; seal at once.

TOMATO CONSERVE

2 quarts chopped 8 cups sugar
tomatoes 2 cups seedless raisins
1 orange 1 cup English walnut meats
2 lemons $\frac{1}{4}$ teaspoon salt

SCALD, skin, core, and chop sound, ripe tomatoes. (Firm canned tomatoes may be used.) Cut orange peel in paper thin slices. Cook tomatoes, lemon juice, orange pulp and peel until tomatoes are reduced to a pulp. If convenient, let stand overnight. Add sugar and raisins, preferably Sultanas, and boil rapidly until thick. Add nuts and salt. Pour, boiling hot, into hot BALL Jars; seal at once.

JAMS

$\frac{1}{2}$ of the sugar called for in these recipes may be replaced with honey or $\frac{1}{3}$ of the sugar may be replaced with corn sirup.

Jams are made by cooking crushed fruits with sugar until the mixture shows little or no free liquid. Jams require from $\frac{3}{4}$ to 1 pound sugar to each pound fruit. The amount used is determined by the acidity of the fruit and personal preference. Best results are obtained by weighing both sugar and fruit. The fruit should be weighed after preparing for cooking. Measurements are given in these recipes for the benefit of those who do not have kitchen scales. Cook jams in small batches.





APRICOT JAM

WASH, scald, skin, pit, crush, and measure or weigh ripe apricots. Boil 10 minutes, adding a little water if necessary to prevent sticking. Add $\frac{3}{4}$ as much sugar as fruit and cook until thick. Pour into hot BALL Jars; seal at once.

BERRY JAMS

Blackberry, Dewberry, Loganberry, Raspberry, and Youngberry Jams are made in the same way.

WASH and crush berries. Add $\frac{1}{4}$ cup water to each quart berries. Cook until soft. Press the cooked berries through a strainer to remove seed. (If preferred, the seed may be left in.) Add from $\frac{3}{4}$ to 1 cup sugar to each cup berries or from $\frac{3}{4}$ to 1 pound sugar to each pound berries. Boil until thick. Pour while hot into hot BALL Jars; seal at once.

BLUEBERRY OR HUCKLEBERRY JAM

THIS jam may be made entirely with berries, but it is better when equal portions of berries and crab apples are used.

Wash, pick over, crush, and measure berries. Pare, core, chop, and measure apples. Add 1 cup water to each quart chopped apples and boil 10 minutes. Add berries. Measure. Then add $\frac{3}{4}$ cup sugar for each cup fruit. Boil until thick. Pour into hot BALL Jars; seal at once.

DAMSON PLUM JAM

WASH and seed plums. Put through food chopper. Add $3\frac{1}{2}$ cups sugar to each quart chopped plums. Let stand 1 hour. Boil until thick. Pour into hot BALL Jars; seal at once.

ELDERBERRY JAM

WASH, stem, measure, and slightly crush berries. Add 2 tablespoons vinegar and 3 cups sugar to each

quart of berries. Boil until thick. Pour into hot BALL Jars; seal at once.

FIG JAM

STEM and scald ripe figs 5 minutes in boiling water. Drain. Crush or chop figs. Measure. Boil 10 minutes with just enough water to prevent sticking. Add $\frac{3}{4}$ cup sugar and 1 tablespoon lemon juice to each cup figs. Boil until thick. Pour into hot BALL Jars; seal at once.

Note: Dried figs may be soaked several hours in water to cover and then used in the above recipe.

GOOSEBERRY JAM

WASH, stem, and measure gooseberries. Add $\frac{1}{2}$ cup water for each quart berries. Boil until soft. Add 1 cup sugar for each cup green gooseberries or $\frac{3}{4}$ cup sugar for each cup ripe berries. Boil until thick. Pour into hot BALL Jars; seal at once.

MULBERRY JAM

STEM mulberries. Cover with cold salt water (1 cup salt to 1 gallon water). Let stand 5 minutes. Rinse in 3 changes cold water. Crush and measure berries. Simmer until soft. Add $\frac{3}{4}$ cup sugar and 1 tablespoon lemon juice, or 1 teaspoon vinegar, to each cup berries. $\frac{1}{2}$ teaspoon ground cinnamon or other spices may be added. Boil until thick. Pour into hot BALL Jars; seal at once.

PEACH JAM

WASH, peel, pit, crush, and measure or weigh ripe peaches. Add $\frac{1}{2}$ cup water to each quart peaches. Boil 10 minutes. Add $\frac{3}{4}$ as much sugar as fruit. Boil until thick. Pour into hot BALL Jars; seal at once.

For spiced peach jam: Tie any combination of spices in a bag and drop into the jam while cooking.



PINEAPPLE JAM

CHOP fresh pineapple. Weigh or measure. Add $\frac{1}{2}$ cup water to each quart pineapple and cook until tender. Add $\frac{3}{4}$ as much sugar as fruit. Boil until thick. Pour into hot BALL Jars; seal at once.

RHUBARB JAM

CUT unpeeled rhubarb into $\frac{1}{2}$ inch pieces. Measure. Add 3 cups sugar to each quart rhubarb. Boil until thick. Pour into hot BALL Jars; seal at once.

Variations: Use 1 part fresh pineapple, strawberries, raspberries, or currants, to 1 part rhubarb. Add 3 cups sugar to each quart fruit and cook and seal as directed above.

STRAWBERRY JAM

WASH, cap, crush, and weigh or measure berries. Heat *slowly* to boiling. Add $\frac{3}{4}$ as much sugar as fruit. Stir until sugar is dissolved, then boil rapidly until clear. Pour into hot BALL Jars; seal at once.

HONEYS CARROT HONEY

1 quart grated carrots 3 cups sugar
2 lemons

SCRUB, scrape, grate, and measure carrots. Add sugar, juice of 2 lemons, grated rind of 1 lemon, and water if needed to start cooking. Boil until thick and clear. Pour into hot BALL Jars; seal at once.

PEAR HONEY

PARE, core, chop, and measure hard-ripe pears. Add a little water if needed to start cooking. Boil 10 minutes. To each quart chopped pears add 3 cups sugar, juice of 1 lemon, grated rind of $\frac{1}{2}$ lemon, and $\frac{1}{2}$ teaspoon ground ginger. Boil until thick. Pour into hot BALL Jars; seal at once. (Orange and nutmeg may be used instead of lemon and ginger.)

QUINCE HONEY

WASH and rub fuzz from quinces. Pare and core. Discard cores. Cook parings until tender, in water to cover. Strain and save this water. Chop and measure quinces. Cover quince with water in which parings were cooked. Boil 15 minutes. Add 1 cup sugar and 2 teaspoons lemon juice to each cup quince. Boil to the jelling point. Pour into hot BALL Jars; seal at once.

MARMALADES

A true marmalade is a soft fruit jelly containing bits of fruit pulp or peel. Cook marmalades in small batches. Use level measures.

Up to $\frac{1}{2}$ of the sugar in these recipes may be replaced with honey or $\frac{1}{3}$ of the sugar may be replaced with corn sirup.

CARROT MARMALADE

3 oranges 3 tablespoons lemon juice
4 cups water 4 cups sugar
3 cups grated carrot $\frac{1}{2}$ teaspoon ground ginger
PEEL oranges. Cut peel in paper thin strips. Cut pulp into small pieces. Cook the peel in the 4 cups water until tender. Let stand several hours or over night. Add carrot and boil 10 minutes. Add other ingredients and boil to the jelling point. Pour into hot BALL Jars; seal at once.



CHERRY MARMALADE

2 oranges 4 tablespoons lemon juice
1 quart pitted cherries $3\frac{1}{2}$ cups sugar
RUN oranges through food chopper. Cover with water. Boil until soft. Cool. Add cherries, lemon juice, and sugar. Boil to the jelling point. Pour into hot BALL Jars; seal at once.

CITRUS MARMALADE

1 orange 1 grapefruit
1 lemon Sugar

WASH and cut fruit in fine pieces. Measure, and add 3 cups water to each cup fruit. Boil 5 minutes. Let stand overnight. Boil until peel is tender. Let stand until cold, measure, and add as much sugar as there is fruit and juice. Boil rapidly to jelling point. Pour into hot BALL Jars; seal at once.

GOOSEBERRY MARMALADE

ADD 1 cup water to each quart washed and stemmed berries. Boil until soft. Measure and add from $\frac{2}{3}$ to equal measure of sugar, depending upon whether green or partially ripe berries are used. Boil to the jelling point. Pour into hot BALL Jars; seal at once.

GRAPE MARMALADE

WASH grapes, stem, and press the pulp from skins. Boil skins 20 minutes in just enough water to prevent sticking. Cook pulp until soft, then press through a colander to remove seed. Add skins to pulp. Measure. Add $\frac{3}{4}$ cup sugar for each cup grape. Boil to the jelling point. Pour into hot BALL Jars; seal at once.

GREEN GRAPE MARMALADE

2 quarts green grapes 8 cups sugar
2 cups water

WASH, stem, and measure young grapes. (The seed should be formed, but not hardened.) Cook with the water until soft. Add the sugar and boil until thick. Pour into hot BALL Jars; seal at once.

GRAPEFRUIT MARMALADE

1 grapefruit Sugar
1 quart water

REMOVE seed from grapefruit by cutting out the center. Slice $\frac{1}{2}$ of the peel, discard the other half. Cut pulp into chunks. Cover the fruit and sliced peel with the water and let stand overnight. Boil until the peel is tender. Measure and add as much sugar as there is fruit and juice. Boil rapidly to the jelling point. Pour into hot BALL Jars; seal at once.

Note: If a less bitter product is wanted, the peel may be par-boiled one or more times and drained before proceeding according to above directions.

KUMQUAT MARMALADE

ALLOW 1 orange to each 12 kumquats. Run orange peel and pulp through food chopper. Slice kumquats paper thin. Add 3 cups water to each cup fruit. Let stand overnight. Boil until peel is tender. Measure. Add 1 cup sugar for each cup fruit and juice. Boil rapidly to the jelling point. Pour into hot BALL Jars; seal at once.

ORANGE MARMALADE

12 thin skinned oranges 3 quarts water
3 lemons Sugar

WASH and peel oranges. Cut peel in paper thin slices; pulp into chunks; slice lemons. (All may be run through food chopper.) Add water. Simmer 5 minutes. Let stand overnight. Cook until peel is tender. Measure. Add from $\frac{2}{3}$ to 1 cup sugar to each cup fruit and juice, depending upon sourness of fruit. Boil rapidly to jelling point. Pour into hot BALL Jars; seal at once.

ORANGE-LEMON MARMALADE

REMOVE peel from 2 large oranges and 2 lemons. Cut peel into paper thin slices or run through food chopper. Slice or chop pulp. Add 3 cups water to each cup of pulp and peel. Let stand overnight. Boil until peel is tender. Cool. Measure. Add 1 cup sugar for each cup fruit and juice. Boil rapidly to jelling point. Pour into hot BALL Jars; seal at once.

PEACH-ORANGE MARMALADE

24 large peaches Juice of 1 lemon
6 oranges Sugar

PEEL and chop fruit. Cover peel from 3 oranges with water. Cook until tender, then run through food chopper, and add to peaches, lemon juice, orange pulp and juice. Add $\frac{3}{4}$ as much sugar as fruit by weight or measure. Cook rapidly until clear and thick. Pour into hot BALL Jars; seal at once.

PRICKLY PEAR MARMALADE

$\frac{1}{2}$ cup sliced lemon 2 cups water
1 orange 2 cups prickly pear pulp
Sugar

Cut lemon into paper thin slices. Run orange peel and pulp through food chopper. Cover the lemon and orange with the water and let stand overnight. Cook until peel is tender. Let stand until cold, then add prickly pear. Measure. Add 1 cup sugar for each cup fruit and juice. Boil to the jelling point. Pour into hot BALL Jars; seal at once.

QUINCE-APPLE MARMALADE

PARE, core, and chop 6 quinces and 3 tart apples. Cover quince with water and cook until tender. Add apple and cook 10 minutes. Measure. Add $\frac{3}{4}$ cup sugar for each cup fruit and juice. Boil to jelling point. Pour into hot BALL Jars; seal at once.

RASPBERRY-CURRANT MARMALADE

2 quarts raspberries 9 cups sugar
1 quart currants

MEASURE berries and currants after washing and stemming. Crush the currants. Cook slowly until juice flows freely. Add raspberries. Heat slowly to boiling. Add sugar. Stir until dissolved, then boil rapidly to the jelling point. Pour into hot BALL Jars; seal at once. Use either black or red fruit.

PRESERVES

In preserves of *good* quality, the fruit retains its shape, is clear, more or less translucent, tender, and plump. The sirup is clear and varies from the thickness of honey to that of soft jelly.

The proportion of sugar to fruit is from $\frac{3}{4}$ to 1 pound sugar for each pound of prepared fruit. Fruits cannot be measured accurately, however, 1 quart of diced or sliced fruit or whole berries usually weighs approximately 1 pound. 1 pint granulated sugar weighs approximately 1 pound.

Preserves should be cooked in small batches in fairly wide pans. There is little or no need for skimming if the pan or kettle is covered just before it is removed from the heat and left covered 5 minutes. Preserves should be stirred once or twice after the cover is removed.

Preserves may be canned immediately after cooking, but most of them improve in





color and texture if cooled quickly and left standing from 12 to 24 hours before canning.

In warm climates, and elsewhere, if storage conditions are poor, preserves should be processed 20 minutes at simmering (180-190° F.) to prevent molding.

APPLE PRESERVES

2 pounds prepared apples 1 tablespoon crushed
4 cups sugar ginger root or
2½ cups water mixed whole spices

Use apples which hold shape while cooking. Pare, core, and cut large apples in halves or quarters. Pare and core small apples and leave whole. Pare, but do not core, crab apples. Boil sugar and water 3 minutes. Cool. Add apples and cook gently until clear. Pack apples into hot BALL Jars. Add ginger or spices (tied in bag) to the sirup and boil rapidly almost to the jelling point. Pour hot sirup over apples; seal at once.

CLOVE APPLES

Use the recipe for apple preserves, adding 12 whole cloves and the parings from 2 or 3 red apples to the sirup after the apples have been removed. Boil sirup to the jelling point. Remove cloves and parings and pour sirup over apples; seal at once.

Note: A few drops of red cake coloring may be added to the sirup if the parings do not give enough color.

APRICOT PRESERVES

2 pounds apricots 3¼ cups sugar

Wash, peel, and halve firm-ripe apricots. Combine fruit and sugar in alternate layers. Let stand several hours or overnight. Heat slowly until sugar dissolves, then boil rapidly until fruit is clear. Let stand several hours. Pack cold fruit into hot BALL Jars. Reheat sirup, boiling it down if not thick enough. Pour hot sirup over fruit; seal at once.



BAR-LE-DUC

4 cups currants

3 cups sugar

WASH and stem currants. Cook in flat pan, with water to prevent sticking. Simmer 5 minutes. Add ½ of the sugar. Stir gently; boil slowly 5 minutes. Add remaining sugar, then boil rapidly 5 minutes. Let stand until cold. Skim out currants and pack into hot BALL Jars. Boil sirup to the jelling point. Pour, while hot, over currants; seal at once.

BERRY PRESERVES—ALL VARIETIES

2 quarts berries

3 to 4 cups sugar

WASH and measure berries. Add sugar and let stand several hours or overnight. Heat slowly to boiling, then boil rapidly until berries are tender and the sirup almost to the jelling point. Pour into hot BALL Jars; seal at once.

Note: All berries except strawberries are better for jams than preserves.

CANTALOUPE PRESERVES

Use ¾ pound sugar and the juice of 1 lemon to each pound prepared cantaloupe. Cut firm-ripe melons into 1 inch slices, crosswise. Remove rind and seed. Cut the slices into uniform pieces. Mix melon with sugar. Cover and let stand 12 hours in cool place. Add lemon juice. Heat slowly to boiling, then boil rapidly until tender and clear. Pack into hot BALL Jars; seal at once.

CHERRY PRESERVES

Use from ¾ to 1 pound sugar to each pound pitted cherries, depending upon sourness of fruit. Mix cherries with sugar; let stand overnight. Heat slowly to boiling. Boil rapidly 15 or 20 minutes, or until cherries are tender. Let stand until cold. Pack cherries into hot BALL Jars. Boil sirup until thick. Pour hot sirup over cherries; seal at once.

CITRON MELON PRESERVES

FOR each pound prepared citron, use 6 cups water, from $\frac{3}{4}$ to 1 pound sugar, and $\frac{1}{2}$ lemon.

Cut melon into $\frac{1}{2}$ inch slices, crosswise. Trim off the green rind. Discard seed. Split the slices, keeping the inner and outer parts separate. These parts should be preserved separately because the outer portion requires longer cooking.

Boil the citron in the water 25 or 30 minutes. Add sugar and boil 1 hour. Add thinly sliced lemon (stick cinnamon or ginger root may also be used) and continue boiling until citron is clear and sirup thick. Pour into hot BALL Jars; seal at once.

Citron preserves may be drained free of sirup and used in cakes and puddings as a substitute for commercial citron.

FIG PRESERVES

FOR each pound figs, use from $\frac{3}{4}$ to 1 pound sugar, juice of $\frac{1}{2}$ lemon, and 3 cups water.

Peel the figs. Make sirup of sugar, water, and lemon juice. Add figs and boil rapidly until clear. If the sirup becomes too thick before the figs are clear, add boiling water, $\frac{1}{2}$ cup at a time. Let figs stand in sirup overnight. If the sirup is too thin, drain it off and boil until thick as honey. Pack figs into hot BALL Jars. Process 15 minutes at simmering (185–190° F.); then complete seal.

GINGER PRESERVES

WASH green ginger roots. Soak in cold water 1 hour. Boil 5 minutes. Change water. Repeat several times, depending upon whether a mild or a strong-flavored preserve is wanted. Boil ginger until tender, then put into cold water 1 hour. Drain and cook 5 minutes in sirup made of 2 parts sugar to 1 of water. Let stand several hours. Drain off and boil sirup 5 minutes. Pour over ginger. Let stand 2 days. Drain off sirup. Pack ginger into hot BALL Jars. Boil sirup until thick. Pour over ginger; seal at once.

GROUND CHERRY PRESERVES

2 quarts ground cherries 6 cups sugar
3 cups water 2 lemons

WASH, husk, and rinse cherries. Boil water, sugar, juice and pulp of lemons 5 minutes. Cool. Add cherries and boil until clear. Pour into hot BALL Jars; seal at once.

KUMQUAT PRESERVES

2 pounds kumquats 4 cups sugar
1 quart water

WASH kumquats with soap and water. Sprinkle with soda (1 teaspoon soda to 1 quart kumquats). Cover with boiling water and let stand 10 minutes. Rinse in cold water. Make 4 deep slits in each kumquat. Cover with water. Boil 15 minutes. Change water and boil 15 minutes. Change water and boil until fruit is tender. Boil sugar and 1 quart fresh water together 5 minutes. Cool. Add kumquats. Cook until fruit is clear. Let stand 24 hours. Reheat to simmering. Pack into hot BALL Jars; seal at once.

MARASCHINO CHERRIES

Home Style

WASH, remove stems and pits from Royal Anne or other light cherries. Save juice and pits. Place cherries in shallow pan and cover with sirup made with 3 parts sugar to 1 $\frac{1}{2}$ parts cherry juice or water.

Boil gently 10 minutes. Remove from heat and let stand from 6 to 12 hours. Drain juice from cherries. Pack cherries into hot BALL Jars. Crush cherry pits (using $\frac{1}{2}$ cup crushed pits to 1 quart sirup). Tie in cheesecloth and add to sirup. Boil 5 minutes or until the desired flavor is obtained. Remove pits. Add a few drops red vegetable coloring. Pour hot sirup over cherries; seal at once.

MIXED FRUIT PRESERVES

1 pound apples 1 pound quinces
1 pound peaches 7 cups sugar
1 pound pears 3 cups water

PAKE, core, halve, quarter, or slice fruit. Cover each fruit with water and cook separately until tender. Add 3 cups of water, in which fruit is cooked, to the sugar. Boil 10 minutes. Add fruit and juice of 2 lemons, if desired, and cook until clear. Let stand several hours. Pack cold fruit into hot BALL Jars. Boil sirup until thick as honey. Pour over fruit and seal at once.

PEACH PRESERVES

2 pounds peaches 2 cups water
3 to 4 cups sugar

CUT peeled peaches into halves. Boil sugar and water 2 minutes. Cool sirup. Add peaches and cook until clear. Let stand several hours. Pack the fruit into hot BALL Jars. Boil sirup until thick as honey. Pour hot sirup over peaches; seal at once.

Old-fashioned Peach Preserves are made by mixing equal amounts of sugar with fruit; letting stand overnight and then cooking (without water) until the fruit is tender.

2 cracked peach seeds, or 2 drops almond extract, the juice of $\frac{1}{2}$ lemon, or $\frac{1}{2}$ teaspoon ginger may be added to the above recipe for variety.

PEAR PRESERVES

2 pounds pears 3 cups water
3 cups sugar 1 lemon, sliced thin

PEARS should be hard, but ripe for preserving. The Keifer should be stored in a cool, dry place from 3 to 5 weeks before using.

PAKE, core, and cut fruit as desired. Add $\frac{1}{2}$ of the sugar to the water. Boil 2 minutes. Add pears and boil 15 minutes. Add remaining sugar and lemon. (Orange may be used instead of lemon.) A piece of ginger root may also be added. Cook until fruit is tender and clear. Let stand several hours. Pack cold fruit into hot BALL Jars. Boil sirup until thick as honey. Pour hot sirup over pears; seal at once.

PINEAPPLE PRESERVES

2 pounds pineapple 3 cups sugar

TWIST out the top, scrub, and cut pineapple into half lengthwise. Cut halves in 5 or 6 lengthwise wedge shape slices. Remove rind and core. Divide slices into $\frac{1}{4}$ inch pieces. Mix pineapple with sugar. Let stand overnight. Boil until tender and clear. Pour into hot BALL Jars; seal at once.

PLUM PRESERVES—ALL VARIETIES

2 pounds plums $\frac{1}{2}$ cup water
3 to 4 cups sugar

WASH, drain, and prick plums. (Pricking is unnecessary if seeds are removed.) Add sugar and water. Let stand several hours. Boil until plums are tender, and sirup near jellying point. Pour into hot BALL Jars; seal at once.



PUMPKIN PRESERVES

4 pounds pumpkin 3 lemons
8 cups sugar $\frac{1}{2}$ teaspoon salt
Cut pumpkin into squares $\frac{1}{4}$ inch thick and $1\frac{1}{2}$ inches wide. Add sugar and let stand overnight. Add thinly sliced lemons and salt. (1 tablespoon mixed spices tied in bag may also be added.) Boil until pumpkin is clear and sirup thick. Pour into hot BALL Jars; seal at once.

QUINCE PRESERVES

2 pounds quinces 2 quarts water
 $3\frac{1}{2}$ cups sugar

PARE and core quinces, removing all gritty material around core. The fruit may be halved, quartered, or sliced. Add $\frac{1}{2}$ of the sugar to the water. Boil 5 minutes. Add quince and boil slowly 1 hour. Let stand 24 hours. Add remaining sugar and cook slowly until the fruit is a clear, rich, red color. Let stand overnight. Pack fruit into hot BALL Jars. Boil sirup almost to the jellying point. Pour hot sirup over fruit; seal at once.

RANCH PRESERVES

SOAK dried apricots or dried peaches overnight in water to cover. Drain. Measure fruit. For each quart fruit, make a sirup of 3 cups sugar and 1 cup of the water in which fruit was soaked; boil 5 minutes. Cool. Add fruit and cook until clear. If the sirup becomes too thick before the fruit is done, add $\frac{1}{2}$ cup boiling water. Pour into hot BALL Jars; seal at once.

Note: Dried pears may be preserved in the same manner, but the product is insipid unless a small amount of lemon juice or ginger is added.

STRAWBERRY PRESERVES SCALDING METHOD

2 quarts capped berries 6 cups sugar

PLACE berries in a colander or square of cheesecloth and hold them in boiling water 2 minutes. Drain. Add 4 cups sugar to berries. Boil 3 minutes. Cool 5 minutes and add 2 cups sugar, then boil from 8 to 10 minutes. Cover and let stand several hours. Pack cold preserves into hot BALL Jars. Process 15 minutes at simmering; then complete seal.

STRAWBERRY PRESERVES OLD FASHIONED

2 quarts capped berries 7 cups sugar

Mix berries with sugar. Let stand overnight. Bring slowly to boiling. Boil rapidly until berries are clear and sirup thick. Skim and pour into hot BALL Jars; seal at once.

STRAWBERRY PRESERVES—DE LUXE

2 pounds capped berries 4 tablespoons lemon juice
5 cups sugar

Mix berries with sugar. Let stand 3 or 4 hours. Place over very low heat until simmering point is reached. Add lemon juice. Boil rapidly from 10 to 12 minutes (or until berries are clear and sirup thick). Cover and let stand overnight. Pack cold into hot BALL Jars. Process 15 minutes at simmering (175–185° F.); then complete seal.



SUN-COOKED PRESERVES

FIRM-RIPE cherries, currants, red raspberries, or strawberries may be used for sun-cooked preserves.

Cherries should be washed and seeded; currants washed and stemmed; strawberries washed and capped. Drain and weigh fruit. Work with small batches. Use equal amounts of sugar and fruit. Place fruit and sugar in alternate layers in a broad pan. Let stand overnight. Heat slowly to boiling. Boil 3 minutes. Spread in shallow trays. Cover with glass (window pane). Allow air space on all sides. Stand in sun three days or until the sirup begins to jell and the fruit is plump. Stir gently two or three times daily. Do not leave out of doors overnight. Pack into hot BALL Jars; seal at once.

TOMATO PRESERVES

2 pounds tomatoes 1 lemon
4 cups sugar 1 stick cinnamon
 $1\frac{1}{2}$ cups water 2 pieces ginger root

USE small, firm, red, yellow, or green tomatoes. Scald 1 minute. Dip into cold water. Skin but do not core. Combine sugar, water, lemon (sliced thin), cinnamon, and ginger and simmer 20 minutes. Remove cinnamon and ginger. Add tomatoes and boil gently until they are bright and clear. Cover and let stand overnight. Pack cold tomatoes into hot BALL Jars. Boil sirup until thick as honey and pour over tomatoes. Process 15 minutes at simmering; then complete seal.

WATERMELON RIND PRESERVES

2 pounds watermelon rind 4 cups sugar
1 tablespoon ground ginger 2 lemons
2 quarts water

THE texture of preserved watermelon rind is largely determined by the treatment of the rind before it is preserved. For a crisp, firm product, soak rind 2 or 3 hours in lime water to cover. Prepare lime water by adding 1 tablespoon slacked lime (calcium oxide) to each quart of cold water. For a product with texture more like that of preserved pears, soak rind overnight in salt water (2 tablespoons salt to each quart of water).

To make the preserves: Cut the white part of the rind into pieces of uniform size and shape. Soak in lime or salt water. Freshen in 2 or more changes of cold water. Sprinkle ginger over rind. Cover with water and boil $1\frac{1}{2}$ hours. Drain and drop into cool sirup made with the sugar, 2 quarts of water, and juice of 1 lemon. Boil gently 1 hour. Add the second lemon, sliced thin. Continue boiling until rind is tender and the sirup thick as honey. (If the sirup gets too thick before the rind is tender, add a cup or more of boiling water.) Let stand several hours. Pack into hot BALL Jars. Process 15 minutes at simmering (185–195° F.); then complete seal.

WESTERN SPECIAL PRESERVES

1 cup red currants 2 cups loganberries
2 cups sweet cherries 2 cups raspberries
Sugar

WASH and cook currants until soft. Strain juice through cheesecloth. Wash, and drain berries; pit cherries. Weigh berries and cherries. Add an equal amount of sugar and the currant juice. Let stand overnight. Heat slowly to boiling then boil rapidly almost to the jelly stage (about 12 minutes). Let stand from 12 to 24 hours. Stir occasionally as it cools. Heat to scalding (do not boil). Pour into hot BALL Jars; seal at once.



Pickles

THE term *pickle* may be applied to any food preserved in vinegar or brine, but here it refers only to those vegetable and fruit products commonly known as *plain*, *sliced*, and *mixed pickles*, *fruit pickles*, *relishes*, *ketchups*, and *saucers*; all of which are easy and inexpensive to make. Their spicy flavors and bright colors can make the simplest meal a thing of beauty.

CHARACTERISTICS OF GOOD PICKLE

Cucumber and Gherkin Pickle of first-class quality may be either sour or sweet, spiced or unspiced. It *must* be crisp, firm, solid, and evenly colored. *The correct color is olive, not bright green.* Cucumber pickle can be made by either a long or a short process. The long process yields a product of superior quality, however, a good pickle can be made by the shorter and often more convenient method.

Sliced Pickle is usually made of cucumbers, green tomatoes, and onions cut into slices of uniform thickness. It may be either sour or sweet; it must be firm, crisp, and well-seasoned with salt, pepper, and spices. There should be sufficient liquid to cover the pickle when packed into jars.

Mixed Pickle may contain a large assortment of vegetables, all of which should be firm and crisp. The seasonings are the same as for sliced pickle, or a mustard dressing is used.

Fruit Pickle should be whole or else cut into

pieces of uniform and attractive size and shape. It should be firm, tender, and plump; the sirup almost as thick as that for preserves; both fruit and sirup delicately spiced. Too much spice destroys the natural fruit flavor and also causes the pickle to have a dull, dark, unattractive color. First quality peach and pear pickles are the color of amber; whereas, pineapple and watermelon rind pickle are nearer that of medium light honey. Watermelon rind pickle should be firm and crisp.

Relishes are more commonly made of finely chopped vegetables, however, both chopped and small fruits preserved with sugar, spices, and vinegar rightly belong to this classification as does *chutney* which is made of fruit or tomatoes and highly seasoned with onion, garlic, ginger, etc. A vegetable relish may be either sour or sweet, spiced or unspiced, is moist but not juicy; its chief ingredients firm rather than mushy. A fruit relish is more nearly the consistency of jam.

Ketchups and Sauces may be made of either fruits or vegetables. They are highly seasoned with salt, pepper, and spices. The



only real difference in the two is that ketchup is strained through a fine sieve; whereas, sauce may be left unstrained. Both are boiled to a thick liquid stage.

GENERAL RULES FOR PICKLING

USE clean, fairly coarse salt to which no other substance has been added. Use soft water. If hard water must be used, boil it and let stand 24 hours, then remove scum and dip the water from the container without disturbing the sediment at the bottom. Add 1 tablespoon vinegar to each gallon of hard water when making brine.

Use fresh spices of best quality. These may be bought ready mixed, or blended as needed. They should be tied in a piece of thin material so they can be removed when the pickle is ready for canning.

Use high-grade cider or grain vinegar of 40 to 60 percent grain strength (4 to 6 percent acid). Cider vinegar is usually preferred for all but light pickles; white vinegar is more satisfactory for those.

Use clean, firm, freshly picked cucumbers, otherwise the pickles may be hollow.

Keep cucumbers, or any other vegetable, completely covered with brine while curing. The whole batch may spoil if even a few stand above the brine.

Use brine of correct strength (see recipe below). Weak brine causes soft pickles; that which is too strong causes them to shrivel.

Remove scum as it forms on top of the brine. Scum causes spoilage.

Do not start pickles to cook in a heavy sugar sirup. It is better to add the sugar on 2 or 3 successive days than to run the risk of having the pickles become tough and shriveled.

Pack pickles in BALL Jars and seal with either Glass or Vacu-Seal Lids.

Please remember that strength of vinegar and spices and personal preference as to seasonings vary to a great degree, and that the successful pickle maker tests by taste as she goes along. The flavor of pickles may be changed by varying the kind and amount of seasoning and also by adding a little more or a little less sugar or vinegar.

BRINING CUCUMBERS AND GHERKINS

WIPE but do not wash cucumbers and gherkins. Place in stone jar. Cover with cold brine made by dissolving 1 pint salt in 1 gallon water and then cover with a board or plate. Use a weight heavy enough to keep the cover below the surface of the brine. Next day, put 1 pint of salt on the cover where it will dissolve slowly. Let stand 1 week, then put $\frac{1}{2}$ cup salt on the cover. Put $\frac{1}{2}$ cup salt on the cover at the end of every week for 5 consecutive weeks. Remove the scum as it forms. The cucumbers are cured and ready for use when they are a dark olive green color throughout and contain no white spots. Curing requires from 6 to 8 weeks.

Cured cucumbers are called *salt pickles* and must be soaked to remove some of the salt before they are used for either sour or sweet pickles. The salt may be removed by soaking the pickles in several changes of cold water to which an equal amount of vinegar has been added, or by heating them in several changes of plain water. To do this: Cover with cold water and heat to 120° F. (a little hotter than lukewarm). Repeat until the desired amount of salt has been removed from the pickles.

CUCUMBER PICKLES—SOUR

Long Process

SOAK brined cucumbers in several changes of warm water to remove excess salt. Cover with



vinegar. Let stand 4 to 6 days. Drain. Pack into hot BALL Jars. Cover with fresh hot vinegar and seal at once. Spices and a small amount of sugar may be added to the fresh vinegar. Simmer 10 minutes before pouring over the pickles.

CUCUMBER PICKLES—SOUR

Short Process

WASH and dry fresh cucumbers. Cover with brine (1 cup salt to 1 gallon cold water). Let stand 24 hours. Drain cucumbers and cover with equal parts water and vinegar. Let stand 3 or 4 days. Drain cucumbers. Pack into hot BALL Jars. Cover with fresh, hot vinegar and seal at once. Spices and a small amount of sugar may be added to the vinegar.

CUCUMBER PICKLES—SWEET

Long Process

1 gallon brined cucumbers	4 to 6 cups sugar
2 quarts vinegar for soaking	2 tablespoons mixed spices
	1½ quarts vinegar for sirup

SOAK brined cucumbers in several changes of warm water to remove excess salt. Use a large needle to puncture each cucumber near the ends and at the center. Cover with 1 part water and 3 parts vinegar and let stand a week. Discard liquid and drain cucumbers. Add 2 cups sugar, the spices, and 2 cups water, to 1½ quarts vinegar. Boil 3 minutes and pour, boiling hot, over the cucumbers. Let stand 3 days. Remove spices and drain off liquid. Pack pickles into hot BALL Jars. Add the remaining sugar to the liquid. Bring to the boiling point. Pour, while hot, over the pickles and seal at once.

CUCUMBER PICKLES—SWEET

Short Process

1 gallon cucumbers	1 tablespoon mixed spices
6 cups sugar	1½ quarts vinegar
	1 cup water

WASH and dry fresh cucumbers. Cover with brine (1 cup salt dissolved in 1 gallon cold water). Let stand 24 hours. Drain. Puncture each cucumber in 2 or 3 places with needle. Simmer (do not boil) $\frac{1}{2}$ of the sugar, the spices, vinegar, and water 30 minutes. Add cucumbers. Simmer 15 minutes. Let stand 2 days. Drain off the liquid. Pack the pickles in hot BALL Jars. Add the remaining sugar to the liquid. Boil 5 minutes. Pour, while hot, over the pickles and seal at once.

CHUNK PICKLES

Old-Fashioned Kind

5 quarts cucumbers	1 tablespoon whole allspice
2 cups salt	1 tablespoon celery seed
Vinegar for soaking	1 pod red pepper
2½ quarts vinegar for sirup	1 piece horseradish
5 to 6 cups sugar	

WASH and cut cucumbers into 1 inch pieces. Soak 3 days in brine made by dissolving 2 cups salt in 1 gallon cool water. Drain and soak cucumbers 3 days in clear water. (Do not change water.) Drain. Cover cucumbers with equal parts water and vinegar and simmer 20 minutes. Discard liquid. Add sugar and spices to the 2½ quarts vinegar. Simmer 10 minutes. Pour while hot over cucumbers and let stand 24 hours. Reheat liquid and pour back over cucumbers. Do this 3 or 4 consecutive days. Pack pickles into hot BALL Jars. Cover with the liquid (boiling hot) and seal at once. If there is not enough liquid to cover, add more vinegar.

DILL PICKLE

- | | |
|----------------------------|-----------------|
| 35 to 40 fresh cucumbers | 2 cups salt |
| 2 tablespoons mixed spices | 2 gallons water |
| $\frac{3}{4}$ pound dill | 2 cups vinegar |

WASH and dry cucumbers. Put a layer of dill and $\frac{1}{2}$ of the spices in a stone jar. Add the cucumbers. Put the remaining spices and dill on the top of cucumbers. Boil salt, water, and vinegar 2 minutes. Cool to room temperature and pour over cucumbers. Cover with a plate weighted down to hold the cucumbers under the brine. Keep at an even temperature (80-85° F.). Remove scum each day. The pickles are ready for canning when they are crisp, uniform in color, and well-flavored with dill. This usually requires from 2 to 4 weeks. Pack the cured pickles into hot BALL Jars, cover with hot brine and seal at once.

Note: Strain the brine in which the pickles are cured and boil 5 minutes, or make fresh brine.

If to be stored a long time, dill pickles should be processed in water bath 15 minutes at simmering.

To make so-called *Kosher* pickles, add 1 small clove garlic, 1 bay leaf, $\frac{1}{2}$ teaspoon mustard seed, 2 tablespoons sugar, 1 piece red pepper, and $\frac{1}{2}$ cup vinegar to 1 to 1 $\frac{1}{2}$ cups strained brine. Boil 2 minutes and pour (while hot) over plain dill pickles after they are packed into the jars.

BREAD AND BUTTER PICKLES

- | | |
|---------------------------|--------------------------------------|
| 3 quarts sliced cucumbers | 1 teaspoon cinnamon |
| 3 onions | $\frac{1}{2}$ teaspoon ginger |
| $\frac{1}{2}$ cup salt | 2 tablespoons mustard seed |
| 3 cups vinegar | 1 teaspoon turmeric |
| 1 cup water | $\frac{1}{2}$ tablespoon celery seed |
| 3 cups brown sugar | 1 pod hot red pepper |
| | 1 piece horseradish |

Mix cucumbers, onions (sliced), and salt. Let stand 5 hours. Drain. Boil vinegar, water, sugar, and seasonings 3 minutes. Add cucumbers and onion and simmer 10 to 20 minutes. (Do not boil.) Pack into hot BALL Jars and seal at once.

CUCUMBER OIL PICKLES

- | | |
|----------------|--------------------------------------|
| 200 cucumbers | 8 cups sugar |
| 6 small onions | $\frac{1}{4}$ cup whole black pepper |
| 8 cups vinegar | $\frac{1}{2}$ cup mustard seed |
| 1 cup water | $\frac{1}{2}$ cup celery seed |
| | 2 cups olive oil |

WASH and slice cucumbers and onions. Soak overnight in a brine made of 2 pints salt to 2 gallons cold water. Drain but do not rinse the vegetables. Mix vinegar, water, sugar, and spices and boil 1 minute. Add cucumbers and onion. Simmer 5 minutes. Add oil and simmer until cucumbers change color. Pack hot into hot BALL Jars and seal at once.

FRESH CUCUMBER SLICES

- | | |
|---------------------------|-------------------------------|
| 2 quarts sliced cucumbers | 1 teaspoon whole black pepper |
| 1 cup sugar | 1 small red pepper |
| 1 teaspoon mustard seed | 1 small piece horseradish |
| 1 teaspoon celery seed | 1 small clove garlic |
| 3 cups vinegar | |
| 1 cup water | |

Cut cucumbers into $\frac{1}{4}$ inch slices and soak overnight in brine ($\frac{1}{2}$ cup salt to $\frac{1}{2}$ gallon water). Drain. Add the sugar and seasonings to the vinegar and water. Boil 2 minutes and pour over cucumbers. Let stand overnight, then drain and pack the cucumbers into hot BALL Jars. Strain sirup and pour over cucumbers. Process 20 minutes at simmering (180-190° F.); then complete seal.

RIPE CUCUMBER PICKLES

- | | |
|----------------------------|---------------------------------|
| 8 large ripe cucumbers | 1 tablespoon celery seed |
| $\frac{1}{2}$ cup salt | 1 tablespoon mixed whole spices |
| 1 $\frac{1}{2}$ cups sugar | $3\frac{1}{2}$ cups vinegar |
| 2 tablespoons mustard seed | |

PALE and slice cucumbers lengthwise. Remove seed. Sprinkle with $\frac{1}{2}$ cup salt. Let stand 24 hours. Place the salted cucumbers in a colander or on a thin cloth tied over the top of a pan. Drain 1 hour. Boil sugar, spices, and vinegar 5 minutes. Add the cucumbers. Simmer 20 to 30 minutes. Pack into hot BALL Jars and seal at once.

RIPE CUCUMBER SLICES

- | | |
|-----------------------------|---|
| 12 ripe cucumbers | 1 long stick cinnamon |
| $\frac{1}{2}$ cup salt | 1 tablespoon mustard seed |
| 1 $\frac{1}{2}$ cups sugar | $\frac{1}{2}$ teaspoon whole black pepper |
| 1 tablespoon whole cloves | 4 cups vinegar |
| 1 tablespoon whole allspice | |

CUT cucumbers into thick slices. Remove seed. Sprinkle with $\frac{1}{2}$ cup salt and let stand overnight. Rinse. Drop into sirup made by boiling sugar, spices, and vinegar 5 minutes. Simmer until tender. Pack hot into hot BALL Jars and seal at once.

GHERKINS

MAY be used in any recipe calling for cucumbers.

GREEN TOMATO PICKLES

- | | |
|-----------------------------|---------------------------------|
| 1 gallon green tomatoes | 1 tablespoon mustard seed |
| 6 onions | 1 tablespoon celery seed |
| $\frac{1}{2}$ cup salt | 1 tablespoon allspice |
| 1 $\frac{1}{2}$ cups sugar | 1 tablespoon horseradish |
| 2 pods hot red pepper | 1 tablespoon whole black pepper |
| 1 tablespoon ground mustard | 4 cups vinegar |

SLICE tomatoes and onions. Sprinkle with salt. Let stand overnight. Drain. Boil sugar and seasoning with vinegar 5 minutes (tie spices in bag). Cool slightly. Add tomatoes and onions and simmer 30 minutes. Pack into hot BALL Jars and seal at once.

GREEN TOMATO DILL PICKLES

SELECT tomatoes of about 1 $\frac{1}{2}$ inches in diameter. Cure in brine as for Dill Pickles. The dilled tomatoes may be canned just as the cucumbers are, or they may be canned with a solution made of equal portions of brine and vinegar seasoned with garlic, horseradish, red pepper, and spice. $\frac{1}{4}$ cup sugar may be added to each quart of the solution. The solution should be heated and then slightly cooled before pouring over the tomatoes. Process 15 minutes at simmering; then complete seal. Boiling will cause the skins to break.

EMERGENCY PICKLES

- | | |
|------------------------------|---------------------------------------|
| 1 pint sliced carrots | 1 cup tender green beans |
| 1 green pepper | $\frac{2}{3}$ cup sugar |
| 1 or 2 sweet red peppers | 1 cup vinegar |
| 3 medium size onions, sliced | 1 $\frac{1}{2}$ teaspoon salt |
| 1 teaspoon turmeric | $\frac{1}{2}$ teaspoon ground mustard |

CHOP peppers. Combine all ingredients and cook slowly until vegetables are tender but not soft. Pack into hot BALL Jars and seal at once.



MIXED PICKLE

- | | |
|-------------------------------|----------------------------|
| 1 quart small cucumbers | 4 tablespoons mustard seed |
| 1 pint pickling onions | 2 tablespoons celery seed |
| 1 pint small carrots | 1 1/2 cups sugar |
| 1 pod hot red pepper | 5 cups vinegar |
| 2 sweet red peppers | Spices if desired |
| 1 pint 1/2 inch pieces celery | |
| 1 pint cauliflower | |

SOAK cucumbers and onion (separately), 24 hours in brine made by dissolving 1 cup salt in 1 gallon cold water. Rinse and drain. Scrape carrots. Chop peppers. Combine all ingredients and simmer until tender. Pack into hot BALL Jars and seal at once.

MUSTARD PICKLE

- | | |
|-----------------------------|--|
| 1 pint small cucumbers | 3 tablespoons ground mustard |
| 1 pint sliced cucumbers | 1 tablespoon turmeric |
| 1 pint pickling onions | 1 tablespoon horseradish |
| 1 pint cauliflower | 5 cups vinegar |
| 1 cup small green beans | 1 cup water |
| 3 sweet green peppers | About 3 cups each vinegar and water for soaking vegetables |
| 3 sweet red peppers | |
| 4 tablespoons oil or butter | |
| 1/2 cup flour | |
| 1 to 2 cups brown sugar | |

A BETTER product is made from freshened brine-cured vegetables. If this is not convenient, soak the vegetables overnight in brine made by dissolving 2 cups salt in 1 gallon cold water. Drain and rinse vegetables. Cover with equal parts vinegar and water. Simmer 30 minutes. Drain. Mix dry ingredients and stir with the oil, or butter, until smooth. Add 5 cups vinegar and 1 cup water. Cook until smooth and thick as whipping cream. Add to vegetables. Pack into hot BALL Jars. Process 20 minutes at simmering; then complete seal.

BEET PICKLE

- | | |
|-----------------------|-----------------------|
| 1 gallon small beets | 1 tablespoon allspice |
| 2 cups sugar | 3 1/2 cups vinegar |
| 1 long stick cinnamon | 1 1/2 cups water |

Cook and skin beets. Add sugar and spices to vinegar and water. Simmer 15 minutes. Add beets. Boil 5 minutes. Pack beets into hot BALL Jars. Cover with boiling sirup. If not enough sirup to cover, add more vinegar. Process 5 minutes in hot-water bath; then complete seal.

CARROT PICKLE

SCRAPE carrots. Cook 10 minutes, then proceed as for Beet Pickle.

CELERY PICKLE

- | | |
|----------------------|--------------------------|
| Celery | 1 tablespoon mixed spice |
| 1 cup sugar | Bay leaves |
| 2 cups white vinegar | Small pods red pepper |
| 1 teaspoon salt | |
- Use deep green celery. Pull off outside stalks without disturbing roots. Turn root upside down and split into eighths. Cook green and white parts separately from 2 to 5 minutes in salt water (1 tablespoon salt to 1 quart water). Drop celery into cold water. Boil sugar, vinegar, salt, and spices (tied in bag) together 5 minutes. Pack celery into hot BALL Jars; a green stalk between each white "heart." Garnish with bay leaf and pepper pod. Cover with boiling sirup and seal at once.



JERUSALEM ARTICHOKE PICKLE

- | | |
|-----------------------|----------------------------------|
| 1 gallon artichokes | 3 tablespoons mixed whole spices |
| 1 1/2 cups sugar | 3 tablespoons salt |
| 1 clove garlic | 1 tablespoon turmeric |
| 1 tablespoon turmeric | 2 quarts vinegar |

SCRUB then pack artichokes into hot BALL Jars. Add sugar and spices to vinegar. Simmer 15 minutes, then boil 5 minutes. Pour over artichokes. Process 15 minutes at simmering; then complete seal.

ONION PICKLE

- | | |
|----------------------------------|----------------------------------|
| 1 gallon small white onions | 3 tablespoons whole pepper |
| 1 cup salt | 1 1/2 quarts white vinegar |
| 1 to 2 cups sugar | 3 tablespoons grated horseradish |
| 3 tablespoons white mustard seed | Small red peppers and bay leaves |

COVER onions with boiling water. Let stand 2 minutes. Dip in cold water; then remove outer skins. Sprinkle with the salt. Cover with water and let stand overnight. Rinse. Drain. Pack into hot BALL Jars. Garnish with pepper pod and bay leaf. Simmer sugar, spices, and vinegar 15 minutes. Boil 3 minutes. Pour over onions; then complete seal.

"MANGOES"

Use peppers, or green tomatoes, or cucumbers, or green melons

Cut tops from red, green, or yellow peppers, or green tomatoes. Cut one end from cucumbers. Save tops and ends of vegetables. Scoop out centers. Soak 24 hours in cold brine made by dissolving 1 cup salt in 1 gallon water. Drain. Fill with either chow-chow or Dixie relish. Sew tops on with coarse thread. Pack upright into hot BALL Jars. Fill jars with hot vinegar, spiced and sweetened to suit taste and seal at once.

CELERY RELISH

- | | |
|-------------------------|----------------------------|
| 4 quarts chopped celery | 7 cups vinegar |
| 1 quart chopped onion | 2 1/2 cups sugar |
| 8 sweet red peppers | 4 tablespoons mustard seed |
| 8 sweet green peppers | |

Cook celery and onions, separately, in salt water (2 teaspoons salt to 1 quart water). Drain when tender. Chop peppers. Mix all ingredients and simmer 20 minutes. Add more salt if necessary. Pack in hot BALL Jars; then complete seal.

CHOW-CHOW

- | | |
|---------------------------------|----------------------------------|
| 1 gallon chopped cabbage | 4 tablespoons ground mustard |
| 12 onions | 1 tablespoon turmeric |
| 12 green peppers | 1 tablespoon ground ginger |
| 12 red peppers | 4 tablespoons mustard seed |
| 2 quarts chopped green tomatoes | 3 tablespoons celery seed |
| 5 cups sugar | 2 tablespoons mixed whole spices |
| | 2 to 3 quarts vinegar |

Chop onions and peppers. Mix all vegetables with 1/2 cup salt. Let stand overnight. Drain. Tie mixed spices in bag. Add sugar and spices to vinegar. Simmer 20 minutes. Add all other ingredients and simmer until hot and well-seasoned. Remove spice bag. Pack hot chow-chow into hot BALL Jars and seal at once.

CORN RELISH

- | | |
|--------------------------|------------------------------|
| 2 quarts corn | 1 cup sugar |
| 1 quart cabbage | 2 tablespoons ground mustard |
| 1 cup green sweet pepper | 1 tablespoon mustard seed |
| 1 cup sweet red pepper | 1 tablespoon salt |
| 1 quart vinegar | 1 tablespoon celery seed |
| 2 large onions | 1 quart vinegar |
| | 1 cup water |

BOIL corn 5 minutes. Cold dip. Cut from cob. Measure. Chop and measure cabbage and peppers. Chop onions. Combine ingredients and simmer 20 minutes. (More salt and sugar may be added if needed.) Pack into hot BALL Jars and seal at once.

Note: The dressing given for mustard pickles may be used instead of the sugar, spices, and vinegar called for in this recipe.

DIXIE RELISH

- | | |
|-------------------------|----------------------------|
| 1 quart cabbage | 3 tablespoons salt |
| 1 pint onion | 3 tablespoons mustard seed |
| 1 pint green pepper | 2 tablespoons celery seed |
| 1 pint sweet red pepper | $\frac{3}{4}$ cup sugar |
| | 1 quart vinegar |

LET whole peppers stand 24 hours in brine ($\frac{1}{4}$ cup salt to 1 quart cold water.) Soak in cold water 2 hours. Remove seed. Chop and measure. Mix vegetables with sugar, seasonings, and vinegar. Let stand overnight. Pack into hot BALL Jars. Process 15 minutes at simmering; then complete seal.

PEPPER RELISH

- | | |
|------------------------|---------------------------|
| 12 red sweet peppers | 1 cup sugar |
| 12 green sweet peppers | 1 tablespoon salt |
| 1 pod hot pepper | 2 cups vinegar |
| 9 onions | 1 tablespoon mixed spices |

CHOP peppers and onions. Cover with boiling water. Let stand 5 minutes. Drain. Cover again with boiling water. Let stand 10 minutes. Drain. Add other ingredients. (Tie spices in bag.) Cook 15 minutes. Pack into hot BALL Jars and seal at once.

PICCALILLI

- | | |
|-------------------------|----------------------------|
| 1 gallon green tomatoes | 1 cup brown sugar |
| 1 head cabbage | 2 tablespoons mustard seed |
| 3 sweet peppers | 1 tablespoon celery seed |
| 2 large onions | 1 tablespoon horseradish |
| $\frac{1}{2}$ cup salt | 1 quart vinegar |

CHOP and mix vegetables with the salt. Let stand overnight. Drain. Mix sugar, seasonings, and vinegar. Boil 1 minute. Add vegetables. Heat to boiling. Pack into hot BALL Jars and seal at once.

RUMMAGE PICKLE

- | | |
|-------------------------|--------------------------------------|
| 1 quart ripe tomatoes | $\frac{1}{2}$ cup salt |
| 2 quarts green tomatoes | 4 cups brown sugar |
| 3 large onions | 1 tablespoon celery seed |
| 1 large cucumber | 1 tablespoon mustard seed |
| 1 quart cabbage | 1 teaspoon ground ginger |
| 2 cups celery | 1 tablespoon ground cinnamon |
| 3 green peppers | $\frac{1}{2}$ teaspoon ground cloves |
| 3 red peppers | 2 quarts vinegar |
| 1 pod hot red pepper | |
| 2 cloves garlic | |

CHOP vegetables before measuring. Mix with salt. Let stand overnight. Drain. Add other ingredients. Simmer until there is no excess liquid. Pack into hot BALL Jars and seal at once.

RED PEPPER RELISH OR JAM

- | | |
|---------------------------------------|----------------|
| 3 $\frac{1}{2}$ cups sweet red pepper | 3 cups sugar |
| 1 tablespoon salt | 2 cups vinegar |

REMOVE seed and midribs from thick-walled peppers. Run peppers through food chopper (use smallest knife). Measure. Sprinkle with salt. Let stand 3 or 4 hours. Add sugar and vinegar and cook until thick. Pour into hot BALL Jars and seal at once.

CHILI SAUCE

- | | |
|-------------------------|------------------------------|
| 1 gallon tomatoes | 1 cup sugar |
| 2 cups onions | 3 tablespoons salt |
| 2 cups sweet red pepper | 1 tablespoon mustard seed |
| 1 pod hot red pepper | 1 tablespoon celery seed |
| | 3 tablespoons mixed spices |
| | 2 $\frac{1}{2}$ cups vinegar |

SKIN tomatoes before chopping. Chop all vegetables before measuring. Tie mixed spices in bag. Mix all ingredients except spice bag and vinegar. Add spice bag after mixture has boiled 30 minutes. Cook until very thick, then add vinegar and boil until there seems to be no more "free" liquid. Taste and add more seasoning if necessary. Pour, while boiling hot, into hot BALL Jars and seal at once.

PERUVIAN SAUCE

- | | |
|-------------------|------------------------------|
| 24 ripe tomatoes | 1 clove garlic |
| 3 large onions | 3 cups brown sugar |
| 3 green peppers | 1 tablespoon salt |
| 1 pod hot pepper | 1 tablespoon ground allspice |
| 3 large cucumbers | 1 tablespoon mustard seed |
| 4 tart apples | 1 teaspoon cinnamon |
| | 3 cups vinegar |

SCALD and skin tomatoes, skin onions, remove seed from peppers, pare cucumbers (discard seed if large), pare and core apples. Run vegetables and apples through food chopper. Add sugar and cook until thick. Add spices and vinegar and continue cooking until thick as chili sauce. Pour, while boiling hot, into hot BALL Jars and seal at once.

APPLE CHUTNEY

- | | |
|-------------------------|----------------------------------|
| 2 quarts chopped apples | 1 pod hot pepper |
| 4 cups brown sugar | 2 pounds seeded raisins |
| 2 quarts vinegar | 2 tablespoons white mustard seed |
| 1 clove garlic | 2 tablespoons black mustard seed |
| 1 onion | 2 tablespoons ginger |
| 3 sweet red peppers | |
| 1 tablespoon salt | |

COOK apples, sugar, vinegar, garlic, onion, and peppers together until a sauce is formed. Add raisins and spices and simmer 30 minutes. Let stand overnight. Heat to boiling. Pour into hot BALL Jars and seal at once.

GOOSEBERRY CHUTNEY

- | | |
|----------------------------------|-----------------------|
| 1 quart partly ripe gooseberries | 2 tablespoons mustard |
| 1 $\frac{1}{2}$ cups raisins | 2 tablespoons ginger |
| 3 onions | 1 cup brown sugar |
| | 1 tablespoon salt |
| | 1 pint vinegar |

REMOVE stems from berries. Chop raisins and onions. Combine all ingredients and cook until thick. Pour into hot BALL Jars and seal at once.

PEACH CHUTNEY

- | | |
|----------------------|--------------------------------------|
| 1 gallon peaches | $\frac{1}{4}$ cup white mustard seed |
| 2 onions | 2 tablespoons ground ginger |
| 1 clove garlic | 1 pod hot red pepper |
| 1 cup seeded raisins | 1 cup brown sugar |
| 5 cups vinegar | |

CHOP peeled peaches, onions, garlic, and raisins. Add $\frac{1}{2}$ the vinegar. Cook until soft.



Add all other ingredients. Cook until thick. Pour into hot BALL Jars and seal at once. Apples, pears, or plums may be substituted for peaches in this recipe.

TOMATO CHUTNEY

- | | |
|---------------------|----------------------------|
| 12 ripe tomatoes | 1 cup seeded raisins |
| 3 onions | 3 cups brown sugar |
| 3 sweet red peppers | 1 tablespoon ginger |
| 6 tart apples | 1 teaspoon ground cinnamon |
| 1 pod hot pepper | 1 teaspoon salt |
| 1 clove garlic | 3 cups vinegar |

SKIN tomatoes and onions, seed peppers, pare and core apples, wash raisins, then run through food chopper. Combine all ingredients and cook until thick. Pour into hot BALL Jars and seal at once.

SPICED BLUEBERRIES OR ELDERBERRIES

- | | |
|--------------------|-----------------------------|
| 4 quarts berries | 1 tablespoon whole allspice |
| 6 cups brown sugar | 2 sticks cinnamon |
| 2 cups vinegar | 1 teaspoon whole cloves |

WASH and drain berries. Boil sugar, vinegar, and spices (tied in bag) 5 minutes. Cool. Add berries. Simmer until tender. Let stand overnight. Pack berries into hot BALL Jars. Boil sirup 1 minute. Pour over berries and seal at once.

SPICED CRANBERRIES

RUN a needle through each cranberry to prevent bursting and proceed as for Spiced Blueberries.

SPICED CURRANTS

FOLLOW the recipe for Spiced Blueberries. 1 cup seeded raisins may be added if desired.

SPICED GRAPES

- | | |
|-------------------------|-----------------------------|
| 5 quarts stemmed grapes | 1 teaspoon grated nutmeg |
| 8 cups sugar | 2 teaspoons ground cinnamon |
| 2 cups vinegar | 1 teaspoon ground cloves |
| | 1 teaspoon ground ginger |

PRY seed from grapes. Drain. Boil sugar, vinegar, and spices 5 minutes. Add grapes and cook until thick. Pour into hot BALL Jars and seal at once.

SPICED PLUMS

- | | |
|----------------|-----------------------------|
| 1 gallon plums | 1 teaspoon whole cloves |
| 7 cups sugar | 1 stick cinnamon |
| 2 cups vinegar | 1 tablespoon whole allspice |

USE firm-meated plums. Pierce plums with needle. Boil sugar, vinegar, and spices (tied in bag) 5 minutes. Cool. Add plums. Simmer until hot through. Let stand overnight, then simmer until plums are tender. Pack into hot BALL Jars and seal at once.

CANTALOUPE PICKLE

- | | |
|---------------------|-----------------------------|
| 3 pounds cantaloupe | 1 stick cinnamon |
| 2 quarts water | 1 tablespoon whole cloves |
| 6 cups sugar | 1 tablespoon whole allspice |
| 2 cups vinegar | 1 piece ginger root |

REMOVE rind and seed from under-ripe cantaloupe before weighing. (3 pounds prepared cantaloupe measures approximately 3 quarts.) Cut into pieces of uniform size. Soak 3 hours in brine (1 cup salt to 1 gallon water). Drain. Boil 2 quarts water and 4 cups sugar 5 minutes. Add cantaloupe, boil 30 minutes. Let stand overnight. Add the remaining 2 cups sugar, vinegar, and spices. Cook until melon is clear. Add boiling water if sirup becomes too thick. Pack into hot BALL Jars and seal at once.



CRAB-APPLE PICKLE

- | | |
|----------------------|-----------------------------|
| 1 gallon crab apples | 1 stick cinnamon |
| 6 to 8 cups sugar | 1 tablespoon crushed ginger |
| 3 cups water | 1 tablespoon whole allspice |
| 4 cups vinegar | 1/2 tablespoon whole cloves |

WASH and pierce each apple with a needle. Heat sugar, liquids, and spices (tied in bag) until sugar dissolves. Cool. Add apples and simmer until tender. Let stand several hours or overnight. Pack cold apples into hot BALL Jars. Boil the sirup to the desired thickness and pour over apples. Process 5 minutes in hot-water bath; then complete seal.

Note: The amount of sugar used depends upon whether a fairly sweet or a moderately sour product is desired.

FIG PICKLE

- | | |
|--------------------|-----------------------------|
| 5 quarts ripe figs | 1 tablespoon whole cloves |
| 8 cups sugar | 1 tablespoon whole allspice |
| 2 cups vinegar | 1 stick cinnamon |
| | 1 crushed nutmeg |

WASH and drain firm, ripe figs. Dissolve 4 cups sugar in 2 quarts water. Add figs and cook until tender. Add 4 cups sugar, vinegar, spices (tied in bag) and cook until figs are clear. (Add more water if sirup becomes too thick.) Let stand overnight. Pack into hot BALL Jars. Process 30 minutes at simmering (180-190° F.); then complete seal.

PEACH PICKLE

- | | |
|---------------------|-----------------------------|
| 1 gallon peaches | 1 tablespoon whole allspice |
| 6 to 8 cups sugar | 1 teaspoon whole cloves |
| 1 piece ginger root | 2 cups water |
| 2 sticks cinnamon | 3 cups vinegar |

CLINGSTONE peaches are best for pickling, but freestone may be used. Pare hard-ripe fruit. Leave whole. Boil 3 cups sugar, the spices (tied in bag), water, and vinegar, 3 minutes. Add 10 or 12 peaches at a time. Simmer until tender. Let stand in sirup 12 to 24 hours. Pack peaches into hot BALL Jars. Add remaining sugar to the sirup and cook to desired thickness. Pour over peaches. Process 5 minutes in hot-water bath; then complete seal.

PEAR PICKLE

- | | |
|----------------|------------------------------|
| 1 gallon pears | 2 pieces ginger root |
| 6 cups sugar | 2 sticks cinnamon |
| 2 cups water | 2 tablespoons whole allspice |
| 4 cups vinegar | 1 tablespoon cloves |

SELECT firm pears. Pare and leave small ones whole; halve or quarter and core large ones. Boil 20 minutes in clear water. Boil sugar, water, vinegar, and spices (tied in bag) 10 minutes. Add pears. Let stand overnight. Cook until tender. Pack pears into hot BALL Jars. Cook sirup until thick. Pour over pears. Process 5 minutes in hot-water bath; then complete seal.

PICKLED CHERRIES

Barrier Cherries

WASH, seed, and drain cherries. Cover with vinegar. Let stand 12 hours. Measure both cherries and juice and add an equal amount of sugar. Let stand 10 days, stirring each day. Pack cherries into hot BALL Jars. Heat the sirup to boiling. Pour hot sirup over cherries and seal at once.

SECKEL PEAR PICKLE

FOLLOW directions for Crab-Apple Pickle.

WALNUT PICKLE

2 quarts green walnuts $\frac{1}{2}$ cup sugar
1 cup water 1 tablespoon mixed spices
5 cups vinegar

THE walnuts must be tender enough to be pierced with a needle. Soak 5 days in brine made of 1 cup salt, 1 cup vinegar, and 2 quarts water. Freshen in several changes of clear water. Boil 1 cup water, 4 cups vinegar, sugar, and spices 10 minutes. Pour, while boiling, over the walnuts. Let stand 3 days. Pack walnuts into hot BALL Jars. Heat sirup to boiling. Pour over walnuts and seal at once.

WATERMELON RIND PICKLE

2 quarts prepared rind 1 quart vinegar
2 quarts lime or salt water 1 tablespoon whole all-spice
4 to 6 cups sugar 1 tablespoon whole cloves
1 quart water 1 stick cinnamon
1 tablespoon crushed ginger root

TRIM the green outer skin and the pink flesh from thick, firm, watermelon rind. Cut into pieces of desired shape and size. Soak rind in lime water (1 tablespoon slaked lime to 1 quart water) 4 hours or soak overnight in salt water (4 tablespoons salt to 1 quart water). Lime water gives a better product. Drain, rinse, cover with clear water and boil 1 hour. Boil 2 cups sugar, 1 quart fresh water, 1 cup vinegar, and the spices 5 minutes. Add rind. Simmer 30 minutes. Let stand overnight. Add remaining sugar and vinegar and boil gently until the sirup is almost as thick as honey and the rind clear. Add boiling water if sirup becomes too thick before the rind is tender and translucent. Pack into hot BALL Jars and seal at once.

Note: If gingered rind is wanted, add 1 tablespoon ground ginger to the clear water in which the rind is boiled.

CUCUMBER KETCHUP

2 quarts ripe cucumber 4 tablespoons mustard seed
2 cups onion 3 cups vinegar
4 green peppers Cayenne pepper to taste
2 cups sugar Salt to taste

PARE, seed, chop, and measure cucumbers. Chop and measure onions; chop peppers. Add $1\frac{1}{2}$ cups water to the vegetables and cook until tender. Add other ingredients and cook until thick. Pour into hot BALL Jars and seal at once.

GRAPE KETCHUP

2 quarts grapes $\frac{1}{2}$ teaspoon salt
3 cups sugar 1 tablespoon cinnamon
1 cup vinegar 1 teaspoon allspice
1 teaspoon cloves

CRUSH and simmer grapes in their own juice until tender. Press pulp through sieve (discard seed and skins). Add other ingredients. Cook until thick. Pour into hot BALL Jars and seal at once.

MUSHROOM KETCHUP

1 gallon mushrooms $\frac{1}{2}$ teaspoon ginger
 $1\frac{1}{2}$ cups vinegar 1 teaspoon cinnamon
 $1\frac{1}{2}$ cups water $\frac{1}{2}$ teaspoon cloves
 $\frac{1}{2}$ cup brown sugar $\frac{1}{2}$ teaspoon horseradish
 $1\frac{1}{2}$ tablespoons salt 1 tablespoon mustard
1 clove garlic $\frac{1}{4}$ teaspoon cayenne pepper

RUN mushrooms through food chopper using fine knife. Add water and simmer until mushrooms are tender. Press through a sieve. Add other ingredients and cook 30 minutes. Pour boiling hot into hot BALL Jars and seal at once.

TOMATO KETCHUP

1 peck tomatoes 1 tablespoon celery seed
3 sweet red peppers 2 teaspoons mustard seed
1 pod hot red pepper 1 tablespoon whole allspice
4 tablespoons salt 2 sticks cinnamon
2 cups sugar 3 cups vinegar

WASH and chop tomatoes and peppers. Simmer until soft. Press through a fine sieve. Cook rapidly until reduced to about one half. Add salt, sugar, and spices (tied in bag), and boil until thick. Add vinegar about 5 minutes before removing from heat. Pour into hot BALL Jars and seal at once.

BARBECUE SAUCE

8 cups tomato ketchup, or strained chili sauce
8 cups gravy or meat stock $\frac{1}{2}$ teaspoon black pepper
1 cup Worcestershire sauce Cayenne pepper to suit taste
Salt to suit taste
1 cup vinegar

Mix ingredients. Heat to boiling. Pour into hot BALL Jars. Process 2 hours in hot-water bath or 45 minutes at 10 pounds pressure; then complete seal.

PEPPER SAUCE

WASH small red or green (or both) peppers. Pierce with needle. Pack into hot BALL Jars. Cover with hot vinegar and seal at once.

SPANISH SAUCE

24 sweet red peppers 2 cloves garlic
1 pod hot red pepper 1 teaspoon marjoram
3 onions Salt to taste

REMOVE seed from peppers. Cook peppers, onions, and garlic until soft in just enough water to prevent sticking. Press vegetables through a sieve. Add other ingredients and water to make a smooth sauce. Pour into hot BALL Jars. Process 20 minutes in hot-water bath; then complete seal.

TABASCO SAUCE

3 dozen tabasco or other long, hot red peppers
1 clove garlic $\frac{1}{2}$ teaspoon salt
1 tablespoon sugar 1 teaspoon horseradish
1 cup hot vinegar

ADD 1 cup water to the peppers and garlic. Cook until tender, then press through fine sieve. Add other ingredients. Simmer until blended. Pour into hot BALL Jars and seal at once. The sauce may be thinned, as used, with either vinegar or salad oil.

WALNUT SAUCE

$2\frac{1}{2}$ quarts small green walnuts $\frac{1}{2}$ teaspoon ground nutmeg
3 cups water Salt to taste
 $1\frac{1}{2}$ cups vinegar Cayenne pepper to taste
 $\frac{1}{4}$ cup sugar $\frac{1}{2}$ teaspoon ground cloves
2 teaspoons ground mustard 1 teaspoon ground allspice

SOAK tender green walnuts 24 hours in brine made of 1 cup salt to 3 quarts water. Freshen in several changes cold water. Drain walnuts and grind through food chopper. Add water. Cook 1 hour. Add vinegar, sugar, and spices. Cook 30 minutes or until smoothly blended. Pour into hot BALL Jars and seal at once.



HORSERADISH

WASH, scrape, and grate fresh horseradish roots. Fill pint BALL Jars $\frac{2}{3}$ full with the grated horseradish. Fill the jars to the top with white vinegar. Seal jars and store away from the light.

MISCELLANEOUS RECIPES

PEANUT BUTTER

2 quarts Spanish peanuts
4 quarts Virginia peanuts

ROAST peanuts. Cool. Remove brown skins and "eyes." Run through food chopper, using finest knife. Add 2 tablespoons salt and regrind until as fine and smooth as desired. Pack tightly into hot BALL Jars. Work out air bubbles. Fill jars to the top. Process 1 hour at simmering (180-185° F.) in hot-water bath; then complete seal.

NUT MEATS

PLACE *fresh*, shelled nuts in shallow pans. Set pans in warm oven until nuts are dry (avoid browning). Sterilize BALL Jars and tops, then invert on clean cloth to drain dry. Pack hot nuts into jars. Process 10 minutes at 5 pounds pressure, then release the steam without letting the hand on the gauge fall to zero. The purpose of this is to draw air and moisture from the jars. The nuts may also be processed 20 minutes in hot-water bath; then complete seal. Let the water in the canner stand well below the tops of the jars. Store in cool place.

PRESERVED CHESTNUTS

(Marrons)

BOIL chestnuts 30 minutes. Remove shells. For each quart shelled nuts, make a sirup of 1 cup sugar, 2 cups honey, and 1 cup water. Boil 10 minutes. Add chestnuts. Boil 10 minutes. Let stand overnight, then cook until tender (add more water if necessary). Add 1 teaspoon vanilla extract and $\frac{1}{4}$ teaspoon salt. Pack into hot BALL Jars; seal at once.

PRESERVED COCONUT

1 cup milk from coconut 3 cups sugar
3 cups water 4 cups grated coconut
BOIL liquids and sugar together 5 minutes. Add coconut and cook until it is transparent. Pack into hot BALL Jars; seal at once.

SPICED PINEAPPLE

SIMMER slices, chunks, or sticks of canned pineapple 20 minutes in sirup made of 1 cup pineapple juice, $\frac{1}{2}$ cup vinegar, 2 cups brown sugar, and 1 tablespoon mixed whole spices (tied in bag). Pack into hot BALL Jars; seal at once.

GREEN TOMATO MINCEMEAT

1 gallon chopped tomatoes 1 cup grape juice or cider
1 tablespoon salt 2 cups chopped apple or pear
1 orange 2 teaspoons cinnamon
1 cup chopped suet 1 teaspoon cloves
3 cups brown sugar 1 teaspoon nutmeg
2 cups seeded raisins $\frac{1}{2}$ teaspoon ginger

SPRINKLE chopped tomatoes with salt. Let stand 1 hour. Drain. Cover tomatoes with

boiling water. Let stand 5 minutes. Drain. Add grated rind and pulp of orange. Mix all ingredients and cook until thick. Pack into hot BALL Jars. Process 1 hour in hot-water bath; then complete seal.

Note: The suet may be omitted from this recipe and butter added at the time the mincemeat is used for pies. Process "suetless" mincemeat 20 minutes.

OLD-FASHIONED SALT CORN

BOIL fresh, tender corn 5 minutes. Cut from cob. Do not scrape. Measure corn and mix with $\frac{1}{4}$ its measure of pure salt. Pack tightly to within $\frac{1}{4}$ inch of the top of BALL Jars. Smooth a quarter inch layer of salt over the top of the corn. Seal and store in cool, dry place.

The corn is freshened for use by parboiling 2 or 3 times. The freshened corn is usually stewed with sweet milk, butter, and pepper for serving.

SANDWICH SPREAD

1 cup green tomatoes 1 red sweet pepper
1 cup carrot 1 cup cucumber
1 green sweet pepper 1 onion

Dressing

3 tablespoons flour 2 egg yolks
2 tablespoons dry mustard $\frac{1}{2}$ cup sugar
1 teaspoon salt $\frac{1}{2}$ cup water
3 tablespoons butter $\frac{1}{2}$ cup vinegar

GRIND vegetables before measuring. Add 1 cup water and cook until tender. Drain and mix vegetables with dressing. To make dressing: blend flour, mustard, salt, and butter. Add beaten egg yolks, sugar, water, and vinegar. Cook over hot water until thick. Pack into hot BALL Jars. Process 30 minutes in hot-water bath; then complete seal.

BRINED BEANS

WASH and string green beans — (do not break), boil 3 minutes. Place in a stone jar. Cover with brine made of $\frac{3}{4}$ cup salt, 1 cup vinegar, and 2 quarts boiling water. Use plate to hold beans under brine. Let stand 2 or 3 weeks or until fermentation stops. Remove scum each day. When fermentation stops, pack into hot BALL Jars. Cover with fresh brine, boiling hot; seal at once. Freshen in cold water before using.

LEMON SIRUP

12 lemons 6 quarts water
6 pounds sugar

GRATE and save the yellow rind from 6 lemons. Extract and strain juice from 12 lemons. Boil sugar, water and grated lemon rind together 15 minutes. Strain. Add lemon juice. Heat to boiling. Pour into hot BALL Jars; seal at once.

RED RELISH

1 quart beets 1 cup grated horseradish
1 quart cabbage 1 to 2 cups sugar
1 cup onion 3 cups vinegar
2 red sweet peppers 1 tablespoon salt

CLEAN, chop and measure vegetables. Mix all ingredients. Boil 10 minutes. Pour into hot BALL Jars; seal at once.



Ball

is the best known, the most generally used, brand of home canning jar, because a half century of continuous attention to producing ware of superior quality has made it so. Ball Jars and Jelly Glasses are made of crystal clear flint glass, toughened by special heat treatment and individually inspected to insure top quality. Government regulations based on rubber and metal shortages prohibit the manufacture of the complete BALL line during the war, but There Will Always be a Ball Jar suitable for all methods of home canning.



1 THE NEW *Ball* NO. 10 GLASS TOP SEAL CLOSURE,

consisting of glass lid, metal band, and rubber ring, fits all standard Mason Jars. The glass lid permits maximum vacuum; there is no space for air pockets. The metal band centers the lid so neither lid nor rubber slip out of position. There is no Government restriction on the production of the No. 10 Closure because it is designed to save rubber, metal, and food. The bands are removed after contents of jars are cold and used to seal more No. 10 lids on other jars.



2 THE *Ball* VACU-SEAL TWO-PIECE METAL CAP

fits all standard Mason Jars. The thick coat of double-baked white enamel protects food from metal; the dome shaped lid makes seal testing easy — just feel the seal! The flowed-in sealing compound saves rubber— no separate rubber jar rings needed. The bands are removed after contents of jars are cold and used to seal Vacu-Seal lids on other jars.



3 *Ball* ZINC PORCELAIN-LINED CAPS,

long the most popular closure for Mason Jars are scarce in war-time because zinc is required for war materiel.



4 THE *Ball* IDEAL ALL-GLASS JAR

is equipped with glass lid, rubber, and heat-treated high-tension spring steel wires. The wires retain tension after repeated use. The Government places no restriction on production of Ideal Jars because they save metal as well as food.

Ball

JELLY GLASSES AND RUBBERS

1

Tall round bottom jelly glass — made in $\frac{1}{3}$ and $\frac{1}{2}$ pint sizes.



2

Squat jelly mould, made in $\frac{1}{3}$ and $\frac{1}{2}$ pint sizes.



3

Tumbler shape jelly glass (can be used for drinking glass) made in $\frac{1}{3}$ and $\frac{1}{2}$ pint sizes.



4

Reliable rubbers, packed with Ball Jars and sold in packages of one dozen, are made in accordance with Government specifications.



Ball JARS ARE
LIFETIME JARS



1



2



3



*Be sure to look for
the name "Ball" on
every jar you buy*

4



1



2



3



4



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