

CANNING

Fruits and Vegetables



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Canning Fruits and Vegetables

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Canning is the application of heat to food in air-tight containers to preserve it as nearly as possible in a condition similar to that of the freshly cooked product. Successful canning depends upon applying a sufficiently high temperature for a period of time long enough to destroy the enzymes, yeasts, molds and bacteria.

The temperature necessary for sterilization varies for different products.

The acidity of fruits, tomatoes and rhubarb greatly lowers the needed sterilizing temperature. Such products may be canned by heating for a definite period of time in boiling water. This method is known as the water bath.

Those products which are low in acid, high in protein content and contain spore-bearing bacteria require a higher temperature and longer processing. Among these are such products as asparagus, string beans, snap peas, shelled peas and beans, corn, greens of all kinds, okra, pumpkin, beets (not pickled), squash, carrots and sweet potatoes. In order to increase the temperature above boiling for these products the pressure cooker or steam pressure method is recommended.

Types of Cannors

The water bath method consists of boiling the filled cans or jars for a definite period of time in a water boiler. This boiler may be a commercial canner made for such purposes or it may be a wash boiler, tub, bucket or other large utensil with a well fitted lid and a wooden or wire rack in the bottom to permit the water to circulate under the jars. The rack is needed to prevent the jars from cracking as they would do if they rested on the bottom of the boiler.

The steam pressure canner or steam pressure cooker is a large vessel made of aluminum or iron, fitted with a steam gauge, a pet cock for the escape of steam, and a safety valve. This type of utensil reduces the time for processing because it insures a higher degree of temperature.

Containers

Whatever the canning method, either tin cans or glass jars may be used.

Cans heat through quickly and may be plunged into cold water immediately after processing. Rapid cooling checks the cooking and therefore lessens the possibility of overcooking.

Sanitary or R enamel lined cans preserve the color of such highly colored foods as berries, prunes and beets.

C enamel will help to prevent discoloration of products such as corn, peas, hominy, crab, shrimp, chicken and clams. This can should not be used for acid products.

Plain tin cans can be used for all foods not listed above under sanitary or R enamel and C enamel cans.

Each recipe given in this bulletin suggests the type and size of can and jar to use for the various products.

Glass jars are very satisfactory for home use, especially for canning fruits, tomatoes, preserves and pickles. They also have the advantage of being available for use year after year. The important factors in the use of glass jars are the condition and quality of the rubber rings or tops and a rim on the jar which is free from nicks and chips. The tops should fit and the bails be tight. New lids each year are desirable.

General Directions

Use clean, fresh, sound fruits and vegetables. "Two hours from the garden to the can" is a good slogan.

Use clean containers for gathering the materials. This will prevent unnecessary infection of plants and fruits.

Wash thoroughly until every trace of soil is gone. A wire basket is a help, but it should not be loaded too heavily.

Grade products for size and uniform degree of ripeness. (A can containing both large and small peas will have a cloudy appearance because the smaller peas will cook to pieces before the larger ones are done.)

All products should be gathered at the proper stage of maturity. Fruits should be firm but not as soft ripe as they could be if used fresh. Vegetables should be young, tender, crisp and freshly gathered.

Some foods are bulky and may be precooked to conserve space and insure a closer and more attractive pack. Just enough water should be used to cook the product and furnish

liquid to cover the contents of the jar or can. The precooking period should be long enough to shrink the food so it will be pliable and the bulk reduced. A long precooking period causes loss of vitamin content.

Pack the materials carefully in jars or cans. If they have been precooked, work quickly so that they do not cool.

Fill the container to within $\frac{1}{4}$ -inch of the top unless the product contains a starch such as corn which will expand. (See recipes). A sufficient proportion of liquid to solids should be used to prevent a dense pack. This is especially true of all greens, pumpkin, corn, and sweet potatoes. If precooked products do not contain enough liquid, add boiling water. When fruits are packed cold add boiling syrup.

Directions for Canning in the Water Bath

Glass Jars. When the jar is filled, remove all air bubbles by shaking the jars gently or paddling the contents with a spatula or flexible paddle. Wipe the top of the jar to remove any seeds, grease, or particles of food or syrup; place the sterilized rubbers and adjust the lids.

When a screw top jar is used, screw the lid on firmly and then give a half turn back.

When a glass top jar with a wire clamp is used, place the lid on evenly and raise both clamps. The upper one holds the lid in place and the lower one allows for exhaust.

When an automatic seal jar is used, fasten the lid with the clamp—it is self sealing as it cools.

For the glass jars with two piece caps which consist of screw band and lid with sealing composition attached, place lid on jar, turn screw band down firmly tight for any method of processing.

Tin Cans. Seal tin cans which have been packed with boiling hot material. If the material is not boiling hot, the cans should be exhausted before sealing to remove the air. This means that the filled cans are placed in hot water until the contents of the can are boiling and then sealed. If cap and hole cans are used, seal the caps but leave the holes open until contents are boiling, then solder.

Placing Containers in Water Bath Canner

Be sure that the jars or cans are far enough apart and that the rack on which they rest is high enough from the bottom of the utensil to allow the water to circulate freely under and around them. The water in the canner should be boiling when jars are placed in it. The glass jars should be hot enough to prevent breakage when placed in the boiling water. The water in the canner when all jars or cans are in should cover the tops. Count time when water boils vigorously around the jars. When time is up remove jars, finish sealing if not already sealed and put them in a place free from drafts where they can cool to room temperature. Plunge the tin cans immediately in cold water.

Recipes for Canning by Water Bath Method

The times given for processing in boiling water apply only to places with altitudes of 1,000 feet or less. For all altitudes above 1,000 feet the time should be increased 20 per cent for each additional 1,000 feet.

Apples: Use sound smooth cooking apples. Pare, cut in sizes desired. If pieces must stand, place immediately in a brine solution ($\frac{1}{4}$ cup salt to 1 gallon water) to prevent turning dark. Boil for 5 minutes in thin syrup (made of 1 cup sugar to 3 cups water). Pack hot in jars and cover with boiling syrup. Process quart and pint glass jars for 15 minutes in boiling water and No. 2 and No. 3 plain tin cans for 10 minutes.

Windfall apples may be made into sauce. Pack boiling hot and process immediately all containers for 5 minutes in boiling water.

Apricots: Same as peaches.

Berries: Dewberries, blackberries, huckleberries, and raspberries. Sort berries saving bruised and imperfect ones for use in making syrup. Wash carefully before removing caps. Pack in containers pressing gently into place. Cover with boiling medium syrup (2 cups water or berry juice to 1 cup sugar). Process quart and pint glass jars for 20 minutes in boiling water and No. 2 and No. 3 sanitary or R enamel tin cans for 15 minutes.

If berries shrink and rise to the top of the jar pre-cook before packing. To each pound of berries add $\frac{1}{4}$ to $\frac{1}{2}$ pound of sugar according to sweetness of fruit. Boil 5 minutes, stir ring slightly. Pack boiling hot and process immediately all containers for 5 minutes in boiling water.

Cherries: Unpitted—Prick to prevent shrinkage. Pack in hot containers. Cover sour cherries with thick boiling syrup (made of 1 cup sugar to 1 cup water) and sweet cherries with medium boiling syrup (1 cup sugar to 2 cups water). Left over juice from pitted cherries used instead of water for syrup gives a better flavor. Process quart and pint glass jars for 25 minutes in boiling water and No. 2 and No. 3 sanitary or R enamel tin cans for 20 minutes. Cherries canned without pitting develop a bitter almond flavor pleasing to some, disagreeable to others.

Pitted cherries may be precooked by boiling for 5 minutes with sugar to taste. Fill containers boiling hot and process immediately containers of all sizes for 5 minutes in boiling water.

Figs: Sprinkle one cup soda over 6 quarts of sound, firm figs, and add 1 gallon of boiling water. Let stand for 5 minutes. Drain and rinse thoroughly. Bring 2 quarts of medium syrup (1 cup sugar to 2 cups water) to boiling point and add well drained figs. Boil for one hour. Remove fruit carefully, pack in hot containers, fill with boiling syrup and process immediately all containers for 5 minutes in boiling water. (Plain tin cans).

Fruit Juice: Select sound ripe fruit such as blackberries, dewberries, plums, or cherries. Crush and heat to simmering, about 185 degrees. Strain through double thickness of cheese cloth. Add 1 to 2 cups of sugar to each gallon of juice. Heat juice to boiling point, fill jars or bottles and seal. Process 20 minutes at simmering point.

Spiced Fruit Juice: To one quart of berry juice or plum juice add 2 cups of sugar and 1 tablespoonful each of cloves, allspice, cinnamon and nutmeg. Pour while hot into jars or bottles and process at simmering point for 20 minutes.

Gooseberries. Use same method as for other berries packed raw, using thick syrup (1 cup sugar to 1 cup water or berry juice). Process quart and pint jars for 20 minutes in boiling water and No. 2 and No. 3 sanitary or R enamel tin cans for 15 minutes.

Grape Fruit. Remove outer peel as well as all white peel and inner membrane covering sections, and seed. Pack solidly in glass or plain tin cans. Cover with boiling medium syrup, or with own juice which may be sweetened or not, according to taste, using 1 teaspoonful sugar to 1 pint jar. Process pints or No. 2 plain tin cans at boiling for 7 minutes, No. 3 cans and quart glass jars for 12 minutes.

Peaches. Make a thin syrup (1 cup sugar to 3 cups water). Add one cracked peach pit for every quart of syrup. Boil for 5 minutes and strain.

Immerse the peaches in boiling water until skins will slip easily; plunge into cold water. Remove skins, cut peaches in halves, discarded pits. Pack at once, placing the halves in over-lapping layers, the concave surface of each half being downward. Fill with boiling syrup. Process quart and pint glass jars for 25 minutes in boiling water if fruit is firm and hard, or for 20 minutes if it is ripe and tender. Process No. 2 and No. 3 plain tin cans for 14 minutes. Precooking peaches from 4 to 8 minutes in the syrup will help to prevent peaches from floating.

Pears: Peel, cut in halves, core and cook in boiling medium syrup (1 cup sugar to 2 cups water) for 4 to 8 minutes, according to size of fruit. Pack into hot containers and fill with boiling syrup. Process containers of all sizes for 20 minutes in boiling water. (Plain tin cans).

Plums: Wash and prick each plum to prevent skin from bursting. Fill into jars and cover with boiling medium syrup (1 cup sugar to 2 cups water). Process quart and pint glass jars for 20 minutes in boiling water and No. 2 and No. 3 sanitary or R enamel tin cans for 15 minutes.

Rhubarb: Select young, tender stalks. Cut into 1/2-inch lengths, pack into the containers and cover with boiling hot thick syrup (1 cup sugar to 1 cup water). Process quart and pint glass jars for 20 minutes in boiling water and No. 2 and No. 3 sanitary or R enamel tin cans for 15 minutes. Another method is to add one-fourth as much sugar as rhubarb by measure, and bake until tender in a covered container. Pack boiling hot, process immediately containers of all sizes for 5 minutes in boiling water. (Sanitary enamel cans).

Tomatoes: Select firm, ripe tomatoes of uniform size. Put in cheesecloth bag or wire basket and dip in boiling water for about 1 minute. Remove and plunge immediately into cold

water. Drain, core and peel promptly. Pack into jars or cans as closely as possible. For home use fill with a thick tomato sauce or puree or with juice of other tomatoes. If the tomatoes are to be sold under Federal regulations, add only the juice which drains from them during peeling and trimming. Season with 1 teaspoonful of salt per quart. Process quart and pint glass jars for 45 minutes in boiling water. If tin cans are used pack as for glass jars and exhaust 10 minutes; seal and process No. 2 and No. 3 sanitary or R enamel or plain cans for 35 minutes. However, tomatoes of excellent quality free from cracks and bad places, which have ripened evenly on the vine will give a better canned product if processed only 25 minutes instead of the 35 and 45 minutes suggested above.

Tomato Juice: Select firm, freshly gathered, ripe tomatoes, wash well and drain. Trim away all decayed, bruised, green or bitter portions.

The juice may be extracted by preheating before pressing, or by extracting the juice from cold tomatoes. The last method gives an excellent product which has a good color, flavor and consistency. Juice extracted by a commercial piece of equipment made for the purpose contains finely divided particles of tomato pulp but no seeds. A fair product can be obtained by using a sieve or colander to extract the juice. Heat to 180 degrees Fahrenheit (or to simmering point) and fill immediately sanitary or R enamel or plain tin cans. Process No. 1 and No. 2 tin cans or pint glass jars in boiling water for 5 minutes. Cool tin cans quickly.

Tomato Soup: Cook until tender 14 quarts sliced tomatoes, 14 bay leaves, 21 whole cloves, 14 sprays parsley, 7 medium sized onions, which have been sliced, and 1 teaspoonful celery seed. Add 6 tablespoonfuls salt, $\frac{1}{2}$ tablespoonful red pepper, 6 teaspoonfuls paprika and 1 cupful sugar. Cook slowly for $\frac{1}{2}$ hour. Pack and seal while boiling hot. Process quart and pint glass jars for 45 minutes in boiling water and No. 2 and No. 3 sanitary or R enamel cans or quart jars for 35 minutes. Soup made by this recipe may be diluted one-half on opening.

Pickled Beets: The beets should be young, tender, practically free from cracks, peeled, and with defects trimmed, uniform size ($1\frac{1}{4}$ to $1\frac{1}{2}$ inches in diameter) and good color. Sort beets, putting those of uniform size together. Cut the tops, leaving about two inches of the stem and roots on, until after cooking. Steam under 15 pounds pressure 15 to 20 minutes (or cook until tender). Peel, trim, and drop while hot in

vinegar which has previously been prepared and is hot. For this spiced vinegar use 1 gallon 4% vinegar, 5 cups sugar and 5 teaspoonfuls of mixed spices. Tie spices in a bag. Mix sugar, vinegar and spices. Let simmer about half an hour for the spices to infuse. Drop beets in and let boil three minutes. Remove spice bag, pack jars with beets and cover with hot vinegar. Seal immediately and place where they will cool quickly. Use only glass.

Ripe Pimientos: These peppers have a thick flesh and a tough smooth skin. Remove the skin by dipping in hot cooking oil (290 degrees Fahrenheit) for two or three minutes or place in hot oven (450 degrees Fahrenheit) for six or eight minutes. Cool by dipping in cold water. Skin. Remove seed cores and stems. Pack without liquid as processing brings out a thick liquor which covers the peppers. Add $\frac{1}{2}$ teaspoonful of salt to each pint. Process pint glass jars for 40 minutes in boiling water and No. 1 and No. 0 sanitary or enamel tin cans for 30 minutes in boiling water.

Directions for Canning in the Steam Pressure Cooker or Steam Pressure Canner

Glass Jars: Partially seal the jars according to the following directions:

On the screw-top jars, screw the cap down evenly until it catches hold of the rubber ring.

On the screw-band type jars, screw the band on firmly.

With wire-clamp glass-top jar, screw the cap on evenly and raise the upper clamp in position to hold the lip in place, leaving the lower clamp loose until after processing.

On the automatic-seal jar, fasten the cap with the metal spring or clamp. For the two-piece caps which consist of screw band and lid with sealing composition attached, place lid on jar, turn screw band down firmly tight for any method of processing.

Tin Cans: Seal tin cans which have been packed hot before placing them in the canner. When not packed boiling hot, tin cans should be exhausted before sealing, to remove the air. If cap-and-hole cans are used, adjust and seal the caps, but do not seal the soles until after exhausting. Lids should not be adjusted on sanitary cans until after exhausting.

Processing in the Steam Pressure Canner

Pour boiling water into the canner until the level is just below the rack that holds the jars. Be sure that there is enough to prevent boiling dry during processing.

When the canner has been filled, adjust the cover and fasten securely. In case the cover is fastened by several clamps fasten moderately tight those opposite each other, one pair at a time.

Allow the pet cock to remain open until steam escapes from it in a steady stream for seven minutes, indicating that no air remains inside.

Then close the pet cock.

Allow the pressure to rise until the gauge registers the pressure that indicates the temperature given in the recipe.

Count time from the moment the desired temperature and pressure are reached.

Maintain a uniform pressure during the processing period by regulating carefully the source of heat. Fluctuations in pressure, as from 10 pounds to 15 pounds and down again, are to be avoided in any case, and when canning in glass may result in loss of liquid. A sudden drop in pressure through cooling or release of steam may also cause this. It is especially important to avoid having the pressure go so high that the safety valve releases the steam suddenly, nor should the steam be allowed to escape suddenly by opening the pet cock.

At the end of the processing period remove the canner from the fire and proceed according to the following directions adapted to jars or cans.

When using glass jars or No. 3 cans, allow the canner to cool until the steam gauge registers zero, open gradually. This is to prevent too sudden a drop in pressure which would cause the liquid to be drawn out of the jars.

If the cooker contains jars which were not sealed or No. 3 tin cans open the canner carefully and for glass jars complete the seal before removing or immediately upon removal from the canner. Allow jars to cool away from drafts. Then invert to test the seal. Plunge tin cans immediately into cold water to cool. (See directions for tin cans).

If the cooker contains jars which have been completely sealed allow gauge to register zero about 15 or 20 minutes before opening pet cock or cooker. Remove jars and allow to cool away from drafts.

If tin cans smaller than No. 3 are used, open the pet cock wide at once and allow the steam to escape rapidly. Remove the cans from the canner and plunge them into cold running water if possible, or if this is not available change the water as soon as it becomes warm. The more rapidly the cans are cooled the less danger there is of overcooking the product. Watch carefully for air bubbles that indicate imperfect sealing. Leakers should be opened, the contents heated and re-packed in other cans, and processed again as at first.

Recipes for Non-Acid Vegetables

Process all these vegetables in the pressure canner. If no pressure canner is available, it is recommended that methods of preservation other than canning be used.

To adjust these time tables to the various altitudes in Texas, add one extra pound pressure for each additional 2000 feet above the first 2000.

Asparagus: Sort according to size, wash and tie in uniform bundles, place in a sauce pan, with boiling water over the tough portion only, cover tightly and boil for 2 or 3 minutes. Pack boiling hot into containers, cover with the water in which boiled and add 1 teaspoonful of salt to each quart. Process immediately at 10 pounds pressure, or 240 degrees Fahrenheit, quart glass jars for 40 minutes, pint glass jars 35 minutes, and No. 2 and No. 3 plain tin cans for 30 minutes.

String Beans: See snap peas and beans.

Lima Beans: See peas and lima beans.

Baby Beets: Only dark red, young, tender beets should be canned, and the turnip-shaped varieties make a more attractive product. Wash thoroughly and scald in boiling water or steam for about 15 minutes until the skins slip easily. Leave on at least 1 inch of the stems and all of the roots during this cooking to prevent bleeding. Slip off the skins, fill the containers, add 1 teaspoonful of salt to each quart, and fill with hot water. Process immediately at 10 pounds pressure, or 240 degrees Fahrenheit, quart glass jars for 40 minutes, pint glass

jars for 35 minutes and No. 2 and No. 3 sanitary or R enamel tin cans for 30 minutes.

Carrots: Select young, sweet tender carrots about one inch in diameter. Sort, wash, and cook 5 to 10 minutes according to size. Scrape, dice or cut in lengths desired. Quickly fill containers with hot carrots. Add 1 teaspoonful of salt to each quart and fill with hot water. Process under 10 pounds pressure at 240 degrees Fahrenheit, pint jars and No. 2 plain tin cans, 35 minutes, and quart jars and No. 3 plain tin cans 40 minutes.

Corn: Use only freshly gathered corn. Shuck, silk and clean carefully.

Whole Grain Style Corn: Simmer in water 4 to 5 minutes. Cut from cob deeply enough to remove most of the kernels. Do not scrape the cob. Add 1 teaspoonful of salt and 2 teaspoonsful of sugar to each quart of corn and half as much boiling water as corn by weight. Heat to boiling and pack into containers at once. Process immediately at 10 pounds pressure at 240 degrees Fahrenheit, quart glass jars 70 minutes, pint glass jars for 60 minutes, C enamel or No. 3 plain tin cans, 65 minutes, No. 2 cans 50 minutes.

Cream Style Corn: Without precooking, remove the corn from the cob by shallow cutting through the grain and scraping. Add 1 teaspoonful of salt and 2 teaspoonsful of sugar to each quart, and half as much boiling water as corn by weight. Heat to boiling. Fill into containers at once. Process immediately at 15 pounds pressure 250 degrees Fahrenheit; pint glass jars for 75 minutes and No. 2 C enamel tin cans, 70 minutes.

Greens Including Spinach: Can as soon after picking as possible. Cut off stems and imperfect portion. Wash thoroughly to remove sand and grit. Steam or heat the greens until completely wilted; add water if needed to prevent burning. Water dissolves valuable food material. Pack hot into cans, taking care that the material is not packed too solidly. Loosen in center before adding liquid. Add 1 teaspoonful of salt to each quart of greens. Fill with boiling water. Process immediately at 15 pounds pressure or 250 degrees Fahrenheit, quart glass jars for 65 minutes, pint glass jars for 60 minutes and No. 2 plain tin cans, 55 minutes.

Kraut: (Note:—For making Cabbage Kraut see F. B. No. 1438 "Making Fermented Pickles." This bulletin and the recipe for making turnip kraut may be secured from the local

home demonstration agent or the Extension Service of A. & M. College.) Turnip or Cabbage—After kraut has been thoroughly cured fill cans or jars within one-half inch of the top and add enough of the original kraut juice to come within one-eighth inch of the top. Exhaust cans or jars by heating long enough for center of can to be thoroughly heated. Seal and process quart and pint jars or No. 2 or No. 3 sanitary or R enamel cans at 230 degrees F. for 10 minutes.

Okra: After the pods have been washed, cover with water and bring to a boil. Pack hot in the containers and add 1 teaspoonful of salt to each quart. Process immediately at 10 pounds pressure, or 240 degrees Fahrenheit, quart glass jars for 40 minutes, pint glass jars for 35 minutes and No. 2 and No. 3 plain tin cans for 30 minutes.

Okra And Tomato Gumbo: Use 4 tablespoonsful of butter or bacon drippings, 1 pint chopped onions, 2 quarts fresh tomatoes (cut in quarters), 1 quart okra (sliced), 4 teaspoonsful of salt or to taste, 2 pepper pods without seed, 3 tablespoonsful of chopped parsley, and 1 bay leaf (crushed). Heat the fat, brown lightly the onion and okra. Add the bay leaf, parsley, chopped tomatoes and pepper pods. Allow this mixture to steam in a covered pan for 5 minutes. While hot fill No. 2 plain tin or pint jars to within $\frac{1}{2}$ inch of the top. Seal and process at 10 pounds for 50 minutes.

Peas, Green: Use only freshly gathered young, tender peas. Shell, discarding any imperfect peas, and wash. Bring to boil in water to cover. Pack boiling hot in containers and add 1 teaspoonful of salt to each quart. Process immediately at 10 pounds pressure, or 240 degrees Fahrenheit, quart glass jars for 55 minutes, pint glass jars and No. 2 and No. 3 C enamel tin cans for 45 minutes. Quality depends on speed (one hour from garden to can), grading for uniformity, and not over filling cans.

Blackeyed Peas and Lima Beans: Use only freshly gathered young, tender shelled peas or beans. **Important**—"One hour from garden to can." Shell, sort and grade. Place in diluted brine to prevent discoloration or souring. Drain. Add hot water and heat 10 minutes. Fill container within $\frac{1}{2}$ inch of top. Add 1 teaspoonful of sugar and $\frac{1}{2}$ teaspoonful of salt to each pint. (Process No. 2 C enamel cans or pint jars at 10 pounds pressure, 240 degrees Fahrenheit, for 50 minutes; quart jars and No. 3 C enamel cans 55 minutes.) One fourth part of snap peas will add to flavor of finished product.

Pumpkin: Wash the pumpkin, peel and cut into 1 to 1½ inch cubes. Add a small quantity of water and simmer until heated through, stirring occasionally. Pack hot into containers, add 1 teaspoonful of salt to each quart and cover with water in which cooked. If desired, bake or steam until heated through. Remove from shell and fill into containers while hot. Add salt and boiling water to cover. Process immediately at 15 pounds pressure or 250 degrees F. quart glass jars for 75 minutes, No. 2 sanitary or R enamel tin cans for 60 minutes and No. 3 cans for 70 minutes. If canning in tin use the sanitary or R enamel cans.

Snap Peas and Beans: Beans should be about ½ inch in diameter, of a deep green color, crisp, tender and freshy, with seeds not larger than pin heads. Wash thoroughly in several waters; snip the ends and cut in even lengths. Cover with boiling water and boil until thoroughly heated. Drain and pack immediately. Fill No. 2 cans with 13 ounces of drained beans; No. 3 cans with one pound and 8 ounces. Add ¾ teaspoonful of salt to each No. 2 can, and 1 teaspoonful of salt to each No. 3 can. Cover the beans with boiling water in which they were blanched. Seal immediately and process No. 2 cans and pint glass jars 40 minutes at 240 degrees F., No. 3 C enamel or plain tin cans and quart glass jars 45 minutes at 240 degrees F. If snap peas are desired mixed with the shelled, use about ¼ weight snapped peas for each size can.

Squash: Same as pumpkin.

Sweet Potatoes: Wash the sweet potatoes thoroughly and boil or steam until the skins slip off readily. Peel quickly, cut into medium sized sections, and pack hot in containers. Add immediately 1 teaspoonful of salt to each quart and enough boiling water to cover. Process at once at 10 pounds pressure or 240 degrees F., quart glass jars for 120 minutes, pint glass jars and No. 2 plain tin cans for 95 minutes, and No. 3 plain tin cans for 115 minutes. In case they are canned at harvesting time it is important that the precooking be slow in order to develop the sugar in sweet potatoes.

Vegetable Soup: 1 quart tomato pulp, 1 pint corn, 1 pint lima beans, (or peas), 1 pint snap beans, 1 pint okra, 1 c. onion chopped fine, 1½ tsp. salt. Cook together tomatoes and onions, put through a sieve to remove seeds, and cook to the consistency of catsup. Add corn and other vegetables which have been prepared for canning. Bring to a boil and pack hot. Process No. 1 cans 40 minutes at 10 pounds, and No. 2 plain tin cans 50 minutes at 10 pounds.

Other Products

Peanut Butter:

2 quarts Spanish peanuts 4 quarts Virginia peanuts
2 ounces salt

Roast the peanuts uniformly brown. Cool, remove the red skins and tiny hearts or germs (if the germs are not removed they may impart a bitter flavor.) Grind, add the salt and grind twice again so as to have the salt well distributed throughout. A good type of meat grinder is satisfactory for grinding peanuts provided the burrs are not worn. The finest burrs should be used and the machine should be set to grind the nuts as fine as possible. If the butter is not fine enough, after grinding it through the machine once, it should be passed through again. Pack into small jars. It is important to fill the jars as full as possible, pressing the butter in on the bottom first and filling so as to remove air bubbles as the packing is done. Care should be taken not to leave any air space between the top of the peanut butter in the jar and the lid.

Sterilize 12-ounce containers for one hour at 180 degrees F. (simmering) in a water bath. If there is too much oil in the butter, it will separate and the nuts will rise, leaving the oil in the bottom of the jars. The Spanish peanuts contain a large amount of oil; therefore, it is necessary to mix the variety with the Virginia peanuts in the proportions given above.

Hominy: Select a sweet white corn with flat grain. Shell, wash thoroughly and soak in lukewarm water for an hour. Dissolve 2 tablespoons lye in 1 gallon of boiling water. (Use enamel kettle or bucket). Add the soaked corn and boil for thirty minutes, or long enough to loosen the hulls. Remove and rinse thoroughly. Rub to loosen the hulls and kernels near the germ, or use a barrel churn for five or 10 minutes for this purpose. Let stand in fresh water for two or three hours changing water six or seven times to be sure all lye is removed. Cover with fresh water and boil until tender. Pack hot into pint jars or No. 2 C enamel or plain tin cans, add $\frac{1}{2}$ teaspoonful of salt to each can. Process for 50 min. under 15 lbs. pressure (or 250 degrees F.)

BOSTON BROWN BREAD: $1\frac{1}{4}$ cups rye meal, $\frac{1}{4}$ cup cornmeal, $1\frac{1}{2}$ cups graham flour, 1 teaspoonful salt, $\frac{3}{4}$ cup molasses, $\frac{1}{4}$ cup cane sugar, $\frac{1}{4}$ cup brown sugar, 2 cups sour milk with $\frac{3}{4}$ tablespoon soda or $1\frac{1}{4}$ cups sweet milk with 5 teaspoons baking powder (sour milk preferred)

Mix and sift dry ingredients, add milk and molasses, stir until well mixed.

To can, fill No. 2 cans half full; tie heavy brown paper, which is greased, over top of can; put in cooker, leave pet cock slightly open, and steam one hour and 15 minutes. Remove, seal cans immediately and process under 10 pounds pressure for one hour. Cans should be lined with greased brown paper on the bottom and sides, and a piece placed over the top before sealing. Bread canned will keep indefinitely.

CANNED PECANS: Select good well developed pecans—shell and sort according to size. Free them from bits of shell and unmaturred nuts. Place pecans one layer thick in shallow pans. Put in a slow oven; heat but do not scorch. Put jars in a pan of cold water and bring to boiling point, remove and wipe quite dry and adjust rubber. Pack hot pecans into hot, dry jars to within one inch of the top. Place a crumpled piece of parchment paper in this space to absorb moisture. Dry top and adjust carefully. Place bail in place and semi-seal. Place in pressure cooker to which has been added two cups of water. Adjust cooker lid and clamp. Leave pet cock open seven minutes (or until steam begins to escape) then close and raise pressure to five pounds. Release pressure immediately to bring remaining moisture out of jars while at the same time creating a vacuum. Remove from cooker and complete the seal. If tin cans are desired, seal and process. No. 2 cans, 5 pounds pressure for 10 minutes.

PORK AND BEANS: Sort dried beans carefully by hand. Wash. Soak eight to 10 hours in slightly warm soft water depending upon age, quality and size of beans. Change water once. Bring to boil and boil five minutes. Place $\frac{1}{4}$ ounce (thin slice one inch square) of bacon in bottom of a can or jar. Fill cans with hot beans to within about one inch of the top. (The beans may swell during processing.) Add hot tomato sauce (see recipe below) and process at 10 pounds for 70 minutes both pint jars or No. 2 plain tin cans. (A pressure of 15 pounds may darken both beans and sauce and make the sauce bitter.)