

CANNING

Fruits and Vegetables



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Canning Fruits and Vegetables

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 in different products.

The acidity of fruits, tomatoes and rhubarb greatly lowers the 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. Such products as asparagus, string beans, snap peas, shelled fresh 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 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, lessens the possibility of overcooking, and produces a more desirable product. The large opening in the newer type of can makes it easier to pack some products in tin than in some glass jars.

When tin cans are used, those with special enamel linings are recommended for canning certain products. Do not use enamel lined cans for all canning purposes. Plain cans may be used for all foods except those with high acid content such as pickled beets, and pickled pigs feet, and mince meat and for highly colored products such as berries and cherries.

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

C enamel prevents discoloration of products containing sulphur such as corn, peas, hominy, crab, shrimp, chicken and clams. This can should never be used for acid products.

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

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

The jars and cans should be selected in sizes to serve the family: for families of two: half-pint jars or No. 1 cans; for four or five, pint jars or No. 2 cans; and for six to eight, quart jars or No. 3 cans. There are some exceptions to this rule. Corn and greens are recommended canned in No. 1 and No. 2 cans or in half-pint or pint jars only. Tomatoes for a family of five should be in No. 3 cans or quart jars. Many people prefer string beans and snap peas in No. 3 cans or quart jars.

Many families use glass for fruits, fruit juices, tomatoes, pickles and preserves and tin cans for vegetables and meats.

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 a soft ripe as they could be if used fresh. Vegetables should be young, tender and crisp. Snap beans with "strings" or a "shucky" pod are not desirable for canning. Corn should be just beyond the milk stage and not too starchy. Beets should be small and dark red. Tomatoes should be an even red.

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 place 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 enameled 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 sugar according to sweetness of fruit. Boil 5 minutes, stirring 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 3 sanitary or R enameled tin cans for 20 minutes.

Pitted cherries may be pre-cooked 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 sugar and 1 tablespoon 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 as well as all white peel and inner membrane covering section, and seeds. 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 teaspoon sugar to 1 pint jar. Process pints or No. 2 plain tin cans at boiling for 7 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, discarding 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.

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 enameled tin cans for 15 minutes. Another method is to add 1/4 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 teaspoon 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 tin cans for 35 minutes.

Tomato Juice: Select firm, 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 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 into standard 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 teaspoon celerly seed. Add 6 tablespoonfuls salt, $\frac{1}{2}$ tablespoon red pepper, 6 teaspoonfuls paprika and 1 cupful sugar. Cook slowly $\frac{1}{2}$ 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 $1\frac{1}{2}$ inch 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 hot. For this

spiced vinegar use 1 gallon 4% vinegar, 5 cups sugar and 5 teaspoons 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 the 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 $\frac{1}{2}$ teaspoon salt to each pint. Process pint glass jars for 40 minutes in boiling water and No. 1 and No. 0 sanitary or R enameled 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 jar, 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 holes 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 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 1 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 teaspoon 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 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 teaspoon 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 enameled tin cans for 30 minutes.

Carrots: Select young, tender carrots about one and one-half inches in diameter. Sort, wash, and cook until about three-fourths done. Scrape, dice, or cut in lengths the size of the can. Fill containers and cover with boiling brine (5 table-spoons salt to 1 gallon water) and process under 5 pounds pressure, 220 degrees Fahrenheit, pint jars and No. 2 cans for 30 minutes and quart jars and No. 3 plain cans for 35 minutes.

Corn: Shuck, silk, and clean carefully. Cut from the cob without precooking. Add half as much boiling water as corn by weight, heat to boiling, add 1 teaspoon of salt and 2 teaspoons of sugar to each quart, and fill boiling hot into containers. Process immediately at 15 pounds pressure, or 250 degrees Fahrenheit, quart glass jars for 80 minutes, pint glass jars for 75 minutes, and No. 2 C enameled tin cans for 70 minutes. Corn should not be canned in No. 3 tin cans because of the difficulty of heat penetration.

A good quality corn will result if the corn is cooked until thoroughly done (not just to boiling point) and filled boiling hot into containers. Process No. 2 cans 10 pounds pressure for 70 minutes.

Greens Including Spinach: Wash carefully in running water or through a number of waters, lifting the greens out each time. Steam or heat the greens in a covered vessel until completely wilted, adding in the latter case just enough water to prevent burning. Pack boiling hot into containers, taking care that the material is not packed too solidly and that there is sufficient liquid to cover, adding boiling water if necessary. Add 1 teaspoon salt to each quart. 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 tin cans for 55 minutes. Greens should not be canned in No. 3 plain tin cans because of the difficulty of heat penetration.

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 agents 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 at 230 degrees F. for 5 minutes.

Okra: After the pods have been washed cover with water and bring to a boil. Pack hot in the containers and add 1 teaspoon 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: 4 tablespoons butter or bacon drippings, 1 pint chopped onions, 2 quarts fresh tomatoes (cut in quarters), 1 quart okra (sliced), 4 teaspoons salt or to taste, 2 pepper pods without seed, 3 tablespoons 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 young, tender peas. Shell, discarding any imperfect peas, and wash. Bring to boil in water to cover. Pack boiling hot into containers and add 1 teaspoon 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 enameled tin cans for 45 minutes.

Blackeyed Peas And Lima Beans: Gather Peas at that stage of maturity so that they may be easily shelled, and only in such quantity as can be shelled and canned within three or four hours after picking. Spread them in a good cool place until shelled. As the peas are shelled they should be sorted, putting peas of the same size and maturity in a dilute brine, or water. This prevents them from souring or discoloring, but they should not be left in the water longer than two hours before washing and blanching.

Wash thoroughly. Place in an enamel or porcelain vessel (the porcelain or enamel should not be flaked off anywhere), cover with boiling water and let come to a boil. The length of blanching varies greatly with the maturity of the peas and may be as short as one minute for very small tender peas and as long as 10 to 15 minutes for large starchy peas. Drain. Fill the cans to within $\frac{1}{2}$ inch of the top of the can with the drained peas. Add $\frac{1}{2}$ teaspoon salt and 1 teaspoon sugar to each No. 2 can; 1 teaspoon salt and 2 teaspoons sugar to each No. 3 can. Cover with the water in which they were boiled, allowing it to just cover the surface. Seal and process at once while the can and contents are hot. Process No. 2 C enameled

cans 40 minutes at 240 degrees F. Cooling should be thorough and rapid following sterilization, to avoid excessive softening and the formation of a cloudy liquid through gelatinization of starch.

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 teaspoon 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 and No. 2 tin cans for 60 minutes and No. 3 cans for 70 minutes. If canning in tin use the sanitary or R enameled cans.

Snap Peas and Beans: Beans should be about ¼ inch in diameter, of a deep green color, crisp, tender and fleshy. 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 ozs. of drained beans; No. 3 cans with one pound and 8 ounces. Add ¾ teaspoon salt to each No. 2, and 1 teaspoon 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 teaspoon 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 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 seed, 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 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 2 or 3 hours changing water 6 or 7 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 $\frac{1}{2}$ teaspoon salt to each can. Process for 50 min. under 15 lbs. pressure (or 250 degrees F.)

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