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DIG FOR VICTORY



LEAFLET No. 11

BOTTLING AND CANNING FRUIT AND VEGETABLES

MOST fruits can be bottled or canned. Particularly suitable are apples, apricots, cherries, damsons, gooseberries, loganberries, plums and rhubarb. Strawberries are not satisfactory, as they lose colour and shrink during sterilization. Of pears, only dessert varieties should be chosen, and the fruit must be ripe.

With the exception of gooseberries, which are used green and hard, the fruit should be just fully ripe but not over-ripe.

BOTTLING FRUIT

Grading and Preparation

The fruit should be carefully graded for size and ripeness so that it will cook evenly.

Rinse in cold water and prepare as for other cooking pur-

poses. The fruit should be packed to the top of the bottle and as tightly as possible without damaging it.

Bottles

Clip-top or screw-band preserving bottles of the vacuum type should be used if possible. Clip-top bottles, in the 26 oz. size, are recommended as being cheap and suitable for most kinds of fruit.

Preserving bottles are fitted with lids and rubber rings to keep them air-tight. The lids of clip-top bottles are held in position by the clips during sterilization and cooling, but screw-band lids should have the bands loosened slightly during the sterilizing process and tightened immediately the bottles are removed for cooling.

If vacuum bottles are not available, ordinary jars may be

used provided they are covered with an air-tight seal. Three or four layers of greaseproof paper dipped in egg-white, gum or paste ; or a well-fitting cork ; or a piece of cloth painted with a circle of wax, specially prepared from rock resin (8 oz.), vaseline (1 oz.) and beeswax (1 oz.), can be used.

Jars with these home-made seals are not suitable for immersing in a sterilizer, but either of the other methods of sterilization described below may be used.

The synthetic skins now on the market are also recommended ; jars covered with these can be immersed in water to sterilize.

Syrup

The fruit may be bottled in water or syrup ; the latter keeps the flavour of the fruit better. The syrup is prepared by dis-

solving 4 lb. sugar in 1 gallon water, bringing it to the boil and straining through muslin before use.

Sterilization

Fruit may be sterilized for bottling in any of the following ways :—

In a Sterilizer. Any deep vessel, such as a fish-kettle, fitted with a false bottom, can be used if the temperature can be regulated. After filling the bottles with fruit and cold syrup or water, the lids and clips are put on, or if screw-bands are used, these are fitted but not screwed tight.

They are then placed in cold water and heated gradually for 1½ hours until the temperature indicated for the various fruits in the Table below is attained. This temperature should be held for the time shown in the Table.

FRUIT	RAISE TO (°F. in 1½ hrs.)	MAINTAIN FOR (Minutes)
Apples, Apricots, Blackberries, Damsons, Gooseberries, Loganberries, Plums (ripe, whole), Raspberries, Rhubarb, Strawberries ...	165	10
Plums (halved or unripe) ...	165	20
Currants ...	180	15
Cherries ...	190	10
Pears and Quinces ...	190	20
Tomatoes (covered with brine, made from ½ oz. salt to 1 qt. water. About ¼ oz. sugar may be added if desired)...	190	30

The bottles should be removed, placed on a wooden table, the screw-bands tightened, and left to cool.

In an Oven. The containers of fruit, without the liquid, are placed on asbestos mats in a moderate oven (at about 250° F.) and heated until the fruit appears cooked (about $\frac{3}{4}$ -1 hour). They are then filled with boiling water or syrup and sealed immediately.

In a Saucepan. The fruit is stewed until it is cooked with sufficient water or syrup to prevent burning, poured while still boiling into hot bottles, and sealed immediately. As an extra precaution, the bottles as soon as filled are put into a pan of hot water (standing them on a false bottom) and boiled for 5 minutes.

Testing the Seal

When the bottles are cold, the screw-bands or clips are removed, and each container lifted carefully by its lid to test the seal. If the lid remains firm there is a good vacuum, but if it comes off there is a fault in the seal.

CANNING FRUIT

Size 2 $\frac{1}{2}$ cans are recommended, and a special sealing-machine is necessary for closing the cans.

The cans are filled with fruit and boiling syrup or water to within $\frac{1}{4}$ in. of the top, sealed immediately, and placed in boiling water. The length of time for sterilization depends on the type of fruit and the time taken for the water to come to the boil again. These are indicated in the Table below.

FRUIT	TIME TAKEN FOR WATER TO REBOIL (Minutes)		ADDITIONAL TIME FOR CANS TO BE KEPT IN BOILING WATER (Minutes)	
Apples (in syrup), Apricots, Blackberries, Damsons, Gooseberries, Loganberries, Plums (firm-ripe), Raspberries, Red Currants, Rhubarb, Strawberries	0—5	15—18	
	6—10	13—15	
	11—15	10—12	
	16—20	8—10	
Apples (solid-pack),* Black Currants, Cherries, Pears (ripe dessert), Plums (under-ripe)	0—5	20—22	
	6—10	18—20	
	11—15	15—17	
	16—20	13—15	
Tomatoes (in brine)	0—5	32—35	
	6—10	30—32	
	11—15	27—30	
	16—20	25—27	
Tomatoes (solid-pack)*	0—5	42—45	
	6—10	40—42	
	11—15	37—40	
	16—20	35—37	

* Solid-pack Apples and Tomatoes should be canned while still hot from blanching.

BOTTLING AND CANNING VEGETABLES

Vegetables may be heavily contaminated with soil organisms, which often include the most heat-resistant forms of bacteria, and unless these are killed during sterilization they may cause spoilage of the vegetables in the bottle or can. Bottling or canning of vegetables is therefore recommended *only* if an autoclave or pressure cooker that can be kept at 10 lb. steam pressure is available.

Suitable Vegetables

Asparagus, beans and peas, carrots, celery and spinach.

Preparation

Wash and prepare as for other culinary purposes. Grade for

size and colour, and blanch by immersing in boiling water for a short time and then dipping in cold water.

The vegetables are packed into the bottles or cans and covered with boiling brine (2-3 oz. salt in 1 gallon water).

The cans are then sealed down or lids fixed on the bottles.

Sterilization

This should be done immediately after sealing, the instructions supplied by the makers of the pressure-cooker being strictly followed. Times for sterilizing vary from 25 to 75 mins. at 240° F. according to the kind of vegetable.

Note. A fuller account of methods of preservation is given in "Preserves from the Garden" ("Growmore" Bulletin No. 3). Price 4d., by post 5d. Obtainable through a bookseller or from H.M. Stationery Office, York House, Kingsway, London, W.C.2.

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