

# Low and No Sugar Canning and Freezing Kristine S. Saunders, FNP Director



# Role of Sugar in Canned Food

Sugar added in the form of syrup to canned fruits does several things. The most obvious function is to add sweetness or enhance the flavor of tart or sour fruit. Of equal importance is the ability of sugar to help fruit retain its color, shape, and texture. It does this by penetrating the cell walls of the fruit and adding strength to the structure.

In recent years many people have started using lighter (lower sugar) syrups in their canned fruits. What is immediately noticed when eating a fruit canned in lighter syrup is that the texture is much softer and the fruit has a tarter, more natural flavor. Many have blamed the soft texture on new varieties of fruit and longer, high altitude processing times when the real culprit is reduced or no sugar canned fruit.

The following chart provides directions for making enough syrup for 9 pints or 7 quarts. The recipe for very light syrup most closely matches the sugar level found in most fruits. The syrup strength chosen depends on the type of fruit, ripeness of fruit, and personal and family preference

Preparing and using syrups						
Measures of Water and Sugar						
For 9-Pt Load* For 7-Qt Load  Syrup Type   Approx. %   Cups Water   Cups Sugar   Cups Water   Cups Sugar   Fruits Commonly						
Syrup Type	Sugar	Cups water	Cups Sugai	Cups Water	Cups Sugai	packed in syrup**
Very Light	10	6 1/2	3/4	10 1/2	1 1/4	Approximates natural sugar level in most fruits and adds the fewest calories.
Light	20	5 3/4	1 ½	9	2 1/4	Very sweet fruit. Try a small amount the first time to see if your family likes it.
Medium	30	5 1/4	2 1/4	8 1/4	3 3/4	Sweet apples, sweet cherries, berries, grapes.
Heavy	40	5	3 1/4	7 3/4	5 1/4	Tart apples, apricots, sour cherries, gooseberries, nectarines, peaches, pears, plums.
Very Heavy	50	4 1/4	4 1/4	6 1/2	6 3/4	Very sour fruit. Try a small amount the first time to see if your family likes it.

<sup>\*</sup>This amount is also adequate for a 4-quart load.

<sup>\*\*</sup> Many fruits that are typically packed in heavy syrup are excellent and tasteful products when packed in lighter syrups. It is recommended that lighter syrups be tried, since they contain fewer calories from added sugar.

#### **Water or Juice Pack**

In some instances, canned fruit may be packed in water or regular unsweetened fruit juices. This may be desired when preserving fruit for a person with diabetes or someone who is trying to decrease their intake of sugar. When using a water or juice pack, choose fruit that is naturally sweet, at the peak of ripeness, and is firm. The color, texture, and flavor or these foods may be less than expected. However, using a hot pack method where the fruit is brought to a boil in the syrup, juice or water, packed immediately into hot jars, and processed will result in a higher quality product.

## **Using Sugar Substitutes**

Saccharin is a no caloric sweetener that was discovered in 1879 and has been available in the United States since then. It is readily available, 200 times sweeter than table sugar, and can leave a bitter aftertaste.

Aspartame, commonly sold as "NutraSweet", or "Equal" is 200 times sweeter than table sugar but looses its sweet taste when heated. It is used most commonly in soft drinks.

Sucralose, commonly known as "Splenda", is made from modified cane sugar. Sucralose tastes like sugar and has no unpleasant aftertaste. It is stable under high temperature, high acid, and extended storage conditions.

When choosing to use no calorie sweeteners in canned fruit consider: since sugar substitutes, such as sucralose, saccharin, and Aspartame, only add sweetness to food and do not have the same properties as sugar, it is best to sweeten water or juice packed fruit at the time of serving if extra sweetener is desired.

## **Other Sweeteners**

Honey and light corn syrup can be used to sweeten home canned fruits. Use by substituting up to half of the required sugar for honey or corn syrup. Remember that honey has a distinctive flavor and if too much is used the flavor of the fruit may be overpowered.

#### Low and No Sugar Jams and Jellies

Most jams, jellies, marmalades, and other classes of fruit spreads preserve fruit juice and crushed or ground fruit using sugar to make a thicken or jelled product. To make a successful jelled fruit product, the correct combination of fruit, pectin, acid, and sugar needs to be used. For this reason it is important when making jams and jellies with commercial pectin to follow the manufacturers directions exactly to get a successful product. If a lower or no sugar jam or jelly is desired, special pectin needs to be used and the product water bath processed to be shelf stable, frozen, or stored in the refrigerator for no longer than 3 weeks.



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