

Homemade Sugar Recipe

Sugar (or Sucrose):

Sugar cane and sugar beets both produce the same type of sugar which is called sucrose. Approximately 70% of the sugar (sucrose) consumed worldwide is produced from sugar cane and the remaining 30% is produced from sugar beets.

Historical Note:

In the late 1800's many American homesteads made their own sugar using sugar beets that they grew on their own land. However, this practice was gradually abandoned when commercially produced cane sugar became widely available and affordable. Today only large commercial processing plants still make sugar from beets and that sugar is used in a variety of products, such as breakfast cereals. The commercial processing of sugar beets is more sophisticated than the simple home processing techniques that were used in the late 1800's. However, that traditional home processing procedure is the method that is described below.

Growing:

Sugar beet seeds should be planted in the early spring. The beets grow below ground like carrots. The sugar beet roots are harvested in the fall after the first hard frost. They contain between 14% to 21% sucrose sugar by weight. When harvested the beets should be knocked together to shake off most of the dirt that is still clinging to the beet roots. (Note: Regular beets only contain about 5% to 6% sucrose by weight so be sure to use the special sugar beets.)

Preparation:

Cut off the top of the beet with its leaves. (Note: The leaves contain protein, carbohydrates, and Vitamin A and they may be used as a livestock feed when combined with other types of feed.)

Carefully wash and scrub the beet to remove any remaining dirt particles.

Then cut the beet into pieces using any one of the following three methods:

1. Slice the beet into extremely thin slices, or
2. Slice and dice the beet into very small tiny cubes, or
3. Shred the beet using a vegetable shredder.

Cooking:

1. Transfer the cut beets to a large pot and add just barely enough water to completely cover the beets.
2. Cook the beets over medium heat, stirring frequently, until they are soft and tender. This usually takes about one-hour.
3. Use a thin clean towel and strain the water off the beets and save the *beet sugar water*. You may eat the cooked beets immediately or you may preserve the cooked beets for later consumption by canning or freezing. (Note: Commercial beet processors press or squeeze the beets at this point to extract as much of the sugar as possible from the beets. You may add this step if you wish or you may simply eat the beets.)
4. Simmer the *beet sugar water* over low to medium heat, stirring frequently, until it becomes a sweet thick dark *beet sugar syrup* similar to honey or molasses. Then turn off the heat.

Crystallization:

1. Wait for the sweet dark *beet sugar syrup* to cool a little bit and then transfer the *beet sugar syrup* to a storage container. The *beet sugar syrup* will slowly and gradually crystallize the same way that honey crystallizes.

2. As the sugar gradually crystallizes you should periodically remove it from the container and then break, crush, or pound it into small *beet sugar* crystals.

Beet Sugar Crystals:

Homemade *beet sugar* is chemically the same type of sugar as regular cane sugar and therefore it may be stored and used in the same manner as cane sugar. However, since homemade *beet sugar* is produced using a different extraction process it will have slightly different baking characteristics. The most noticeable baking difference is that it does not have the caramelization characteristic of commercially processed cane sugar.

Sugar Crystallization Footnote 1: The normal crystallization process can take a long time and it is not unusual for a family to consume all their sweet dark *beet sugar syrup* before it has time to crystallize.

Sugar Crystallization Footnote 2: The normal crystallization process can be accelerated by cooking the *beet sugar syrup* down into sugar crystals.

Other Uses for the *Beet Sugar Water* and the *Beet Sugar Syrup*:

Alcoholic Beverage: The *beet sugar water* may be fermented to make a type of "rum" or a type of "vodka." These alcoholic drinks are very popular in Czechoslovakia and Germany.

Sweet Thick Beet Sugar Syrup: The sweet thick "honey like" *beet sugar syrup* may be spread on bread or pancakes and eaten. It may also be used as a substitute for honey in dessert recipes.

Sugar Beet Seed Companies:

Sugar beet (*beta vulgaris*) seed packets (pkt.) may be purchased online from either one of the following seed companies (October 14, 2008 prices):

Price	Shipping	Number Seeds	Delivery Time	Company Name	Online Store
\$2.00/Pkt.	\$1.95/Order	50 Seeds/Pkt.	3 Days	Sand Mountain Herbs	http://www.sandmountainherbs.com/beet_sugar.html