

How Sugar is Made

Sugar has been extracted from sugar beets cultivated in EU for over 200 years. It takes just 8 hours to produce shimmering white sugar crystals from a sugar beet...field to factory.

Harvest Time

Sugar beet harvesting begins in September. The entire process is referred to as “the campaign”. Samples are taken from each load of beets delivered to determine sugar content and other important elements. The amount of soil still on the beets is also analyzed. The prices paid for the beets and feedback given to the beet farmers are determined based on the results of these tests. Once the beets are offloaded they are thoroughly washed and are sent directly to the processing line or to the storage facility.

Juice Extraction

The beets are sliced into thin strips known as cossettes, pre-heated in a cossette scalding tank and are then sent to an extraction tower. Water at 70°C is poured through the device to extract the sugar and produce raw juice. The used cossettes are dried by means of screw presses and hot air.

Juice Purification

A lime kiln is used to produce the natural substances lime and carbon dioxide which are added sequentially to the raw juice to bind and precipitate out the non-sugar impurities. A clear, thin juice with a sugar content of approximately sixteen percent remains.

Evaporation

The thin juice is concentrated by heating to make a thick golden brown juice with a sugar content of about sixty-seven percent.

Crystallization

The thick juice is boiled until crystals are formed, which are a glowing golden colour because they are covered in syrup. The syrup is separated from the crystals in a centrifuge. Hot water is used to rinse off any residual syrup. The remaining sugar crystals are clear as glass, and the light refracted from them is white as snow. The sugar is dissolved and re-crystallized to produce refined sugar – sugar that is extremely pure.

Converting

The finished sugar is dried, cooled and stored in silos, and is subsequently withdrawn and further processed or packed. Over eighty percent is sold for industrial use with the balance sold to retail.

Recycling

All by-products of this process are returned to the natural cycle. The pressed slices of sugar beet are used as animal feed. Carbolic lime, a by-product of processing, is used as an agricultural fertiliser.

Sugar production

