



The Origins of Sugar from Beet

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Sugar cane provided sugar since ancient times, so why did sugar beet come into the picture? The answer involves a combination of scientific discoveries and historical events spanning three centuries.

The beet route

The first references to the family of plants known as Beta can be found in Greek literature around 420BC. They were described as 'versatile garden plants'; dark and light varieties are mentioned. Beet growing gradually spread throughout France and Spain, often in monasteries but also by peasant farmers. By the fifteenth century beet was grown all over Europe.

Originally the beet plant was grown for its leaves, which were probably the spinach or Swiss chard of their day. Later the root became a popular vegetable, especially the red type of beet known as beetroot. In 1600 the French agronomist Olivier de Sererres reported 'this choice food yields a juice like sugar syrup when cooked'. At that time nobody paid much attention to what gave the roots their sweetness.

Sweet discovery

The first milestone in the history of European sugar is a remarkable discovery by the German scientist Andreas Marggraf. In 1747 he demonstrated that the sweet-tasting crystals obtained from beet juice were the same as those from sugar cane. In 1801 the first sugar factory was built at Cunern in Lower Silesia.

Napoleon tastes beet sugar

Despite Marggraf's discovery, sugar cane was still the main source of sugar in the early nineteenth century. It took the blockage of French trade lines during the Napoleonic wars to give sugar beet the boost it needed.

By 1806, cane sugar had virtually disappeared from the shelves of European shops. In 1811, French scientists presented Napoleon with two loaves of sugar made from sugar beet. Napoleon was so impressed he decreed that 32,000 hectares of beet should be planted and provided assistance to get the factories established.

Within a few years there were more than 40 sugar beet factories, mostly in Northern France but also in Germany, Austria, Russia, and Denmark.

Once the blockade of continental ports was removed, cane sugar reappeared and many countries stopped beet processing. By contrast the French government supported developments in both the selection of beet varieties with higher sugar levels and improvements in sugar extraction techniques. This two-pronged approach ensured that sugar from beet became a viable option.



European sugar supply

The beet industry has waxed and waned over the years but today Europe produces 120 million tonnes of beet every year, used to make 16 million tonnes of white sugar. France and Germany are still the main producers but sugar is produced from beet in all EU countries except Luxembourg. Almost 90% of sugar consumed in Europe is locally grown, a feat that would have seemed incredible only two hundred years ago.

Reference

The Beet Sugar Crop (1993) Edited by Cooke DA & Scott RK. Chapman and Hall London ISBN 0 412 25130 2