The Story of Sugar
By Margaret Clor, IHM Associate

The five or 10 pound bags of sugar we purchase at the grocery store come from two sources: sugar beets and sugar cane. For this story the focus will be on sugar beets.

Growth
The main producers of sugar beets around the world are the European Union, the United States, the Russian Federation, Turkey, Ukraine, Iran, Japan and China. In the United States, sugar beets are grown in California, Colorado, Idaho, Michigan, Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington and Wyoming.


Process
The map from the website above indicates the areas in the United States where sugar beets are located. As you can see, a great majority of them are grown in our own state of Michigan and to be more exact, right in my neighborhood. The local farmers in the Thumb who grow sugar beets are part of a co-op known as “Michigan Sugar.” Each farmer is allocated a number of acres for planting and harvesting. Sugar beets are a rotational crop, harvested in the late fall and trucked to several sugar beet “dumps” to await transport to refineries in the area.

The refining process begins by slicing the beets and extracting the juice through diffusion with water, then the juice is cleaned and evaporation begins using steam. For the last stage, the syrup is placed into a very large pan, holding 60 tons or more of sugar syrup. The water is boiled off and sugar crystals grow. The crystals are dried with hot air and are then packaged.

Energy
The factories need both steam and electricity to run the refining process and they rely on fossil fuels such as coal, gas or oil to operate the boilers because there is no sufficient by-product from the beets themselves to run them. This is because the pulp will not burn properly and because the animal feed business has been built from the availability of the pulp.

When I first came to the Thumb area, very few sugar beets were raised here. Now, however, with the increase in consumer demand for more sugar, the industry has grown in land use and in the number of farmers who grow them. In the earlier years, migrant workers were employed to hoe the field free of weeds. Again, in part because of the high demand for more sugar, farmers are planting Round Up Ready seeds that no longer require manual hoeing.
The World Health Organization (WHO) recommends an intake of sugar for adults not to exceed seven sugar cubes (30g). Children should have less – no more than 19g (five sugar cubes) a day for children aged 4-6, and no more than 24g (six sugar cubes) for children aged 7-10.

Let this information settle in as we think about the processed foods and drinks we consume each day that contain sugar well over the limits the WHO recommends as part of our daily intake. Not to mention what we may consume if one has a “sweet tooth.” A can of pop, on average, contains the equivalent of seven teaspoons of sugar.

http://www.bbcgoodfood.com/howto/guide/truth-about-sugar

The above article contains more information about our sugar intake as well as information on reading labels, ways to cut down on sugar and spotting hidden sugar in foods. This is my favorite – “The natural sugar in some fruit, including apples, has increased as new varieties (including Pink Lady, Fuji, and Jazz) are bred to satisfy our desire for greater sweetness.”

The YouTube video, The Truth about Sugar, is well worth the time spent in watching. I learned an enormous amount about sugar. The video follows several individuals over a period of time, tracking their sugar intake and their efforts to reduce the amount of sugar they consume.

https://www.youtube.com/watch?v=ONXNKacNU

An interesting fact about sugar cane – just recently the last sugar cane plantation was closed in Hawaii and moved to South America. This of course raises questions of job loss for many workers as well as the issue of deforestation to make room for the planting of more cane in South America.

Other questions

How do we continue to educate ourselves about the dangers of too much sugar in our diet? And what responsibility do we bear for the education of our young people?

How does this affect those in poverty who often do not have access to good quality food?

What is the effect on health care costs because of our increasing demand for sugar?