It is not the beautiful places makes it an enjoyable adventure BUT how you enjoy the adventure with friends in those beautiful places.

**Muscovado Sugar**

Muscovado is pure whole, unrefined, non-centrifugal cane sugar. It is also called 'poor peoples sugar. Muscovado retains all of the natural ingredients of sugar cane, making it wholesome and healthy. Only pure bee's honey can compare to Muscovado for natural goodness. The nutritional qualities alone are quite exceptional and can be compared with honey. Muscovado is also a natural high energy food source that quickly replaces lost vigor.

White sugar is pure carbohydrate, 99.5% sucrose. It is stripped of all its natural components: water, minerals and vitamins. These empty calories provide absolutely no nutritional benefit.

Other highly refined sweeteners such as fructose and corn syrup are put through similar processes. However, natural sweeteners that have been concentrated by means of dehydration or boiling still contain minerals and other nutrients.

The more refined our food is, the more our bodies have to compensate by drawing the missing nutrients from other sources. These can be other foods eaten at the same time, or from the body's own stores in tissue and bone.

**More about Muscovado Sugar**

These can be other foods eaten at the same time, or from the body's own stores in tissue and bone. When we eat sugar, we lose B vitamins, minerals such as calcium, iron, phosphorus and other nutrients from our own healthy cells. As the alkaline minerals are depleted from our bodies, we become more and more acidic. Our bones become weakened as calcium is constantly withdrawn from them to accommodate our sweet tooth and the resulting decline in the body's pH.

One reason sugar gives us intense cravings is that our bodies are looking for these missing nutrients. Ironically, we often look for more sugar to fix it, which makes the cycle worse and leads to perpetual snacking and binges. It also leads to chronic over-stimulation of the endocrine system, which detects that the body has just loaded up with calories, but can't find the nutrients that should naturally accompany them.

**How is Refined Sugar Made?**

Sugar cane is a tropical grass that grows 10-20 feet high. It is grown in most tropical countries and in four states within the US. A stalk of the sugar cane plant contains 12-14% sucrose. The process of separating the sugar from the sugar cane plant is accomplished in two steps: at sugar mills and at sugar refineries.

The largest producer of sugarcane is Asia, which is then followed by South America and North America. In the U.S. a major crops are grown in Hawaii and in Louisiana.

The Sugar Mills are located near the sugar cane fields. It is here that the raw sugar is separated from the plant and shipped to a refinery. Raw sugar that leaves the sugar mills is similar to "turbinado" sugar, and "sugar in the raw." It is similar to white refined sugar, but the crystals have a light tan color. A 4 gram serving size contains 4 grams of carbohydrates, and is not considered a source for any vitamins, minerals or fiber.

**Extraction**

At the mill, the sugar cane is chopped with knives and then crushed by large rollers. The extracted juice is then clarified/cleaned to remove soil and impurities. The extracted juice is clarified by adding milk of time and
A-SLICE-OF-LIFE: Muscovado Sugar: The Healthy Sweetener (part 2)

At the refinery, the raw sugar crystals are washed and dissolved in hot water to form a syrup. Boiling carbon dioxide.

Affination step is called: processes, one cannot get all of the sugar out of the liquor and therefore there is a sweet by-product quality comparable to the washed raw sugar after the affination stage. As with the other sugar recovery house, which operates rather like a raw sugar factory, aiming to make a sugar with a required sizes prior to packaging and supply to customers.

The syrup is pressure filtered through cloth, passed through decolorizing columns containing activated carbon, boiled in a vacuum pan and seeded with fine sugar crystals. The syrup is pressure filtered through cloth, passed through decolorizing columns containing activated carbon, boiled in a vacuum pan and seeded with fine sugar crystals.

Carbonation

The first stage of processing the liquor is aimed at removing the solids which make the liquor turbid. Coincidentally some of the color is removed, too. One of the two common processing techniques is known as carbonatation, where small clumps of chalk are grown in the juice. The clumps, as they form, collect a lot of the non-sugars, so that by filtering out the chalk, one also takes out the non-sugars. Once this is done, the sugar liquor is now ready for decolorisation. The other technique, phosphatation, is similarly, but uses phosphate rather than carbonate formation.

The carbon dioxide bubbles through the mixture forming calcium carbonate, a chalk-like crystal, which attracts the non-sugar plant materials like wax, fats, and gums from the juice. In a clarifier, the calcium carbonate and the other materials fall out of the sucrose solution and settle to the bottom.

The juice is next, concentrated into a syrup by boiling off excess water, seeded with raw sugar crystals in a vacuum pan, and boiled until sugar crystals have formed and grown. This is the Concentration process. By removing water from the clarified juice in multiple stages under vacuum, the juice boils at lower temperatures to protect the sugar from becoming caramelized. The juice becomes a clear, rich brown syrup during this step. The next step the cane juice has to pass through is the second stage of concentration. More vacuum and water removal as we approach crystallization.

Boiling

In the pan even more water is boiled off until conditions are right for sugar crystals to grow. You may have done something like this at school, but probably not with sugar, because it is difficult to get the crystals to grow well. In the factory the workers throw in some sugar dust to initiate crystal formation. Once the crystals have grown, the resulting mixture of crystals and mother liquor is spun in centrifuges to separate the two. The crystals are then given a final dry with hot air before being packed and/or stored, ready for dispatch.

Crystalization takes place by evaporating the last portion of water under very tight controls. In a vacuum, pulverized sugar is fed into the pan to seed the process (much like seeding a cloud to make it rain), as the water evaporates, crystals begin to form. The mixture leaves the vacuum as a thick crystal mass and is sent to a centrifuge.

The boiled mixture is centrifuged to separate the molasses from the crystals, which are tumble dried and placed in large storage bins for transport to bulk sugar terminals or refineries. The centrifuge is actually a large perforated basket that spins very rapidly much like a washing machine in the spin cycle, where the sugar is spun and dried, leaving the mineral rich molasses behind. The tw products produced are molasses and raw sugar. The raw sugar will go on to the refinery for further processing. From the centrifuge, damp sugar is dumped onto a conveyor tray. Unlike conventional conveyors, the belt is fixed. The entire bed vibrates and is tilted toward large dryers. This spreads the sugar out in a more even fashion. If you were to touch the sugar at this process, you would find it damp and somewhat clumpy. The last step at the mill is to dry the raw sugar, then it is sent off to the refinery.

At the refinery, the raw sugar crystals are washed and dissolved in hot water to form a syrup. This first step is called:

Affination

Phosphoric acid and lime are added to the melted sugar to remove any impurities in the clarification process. The liquor, which results from dissolving the washed crystals, still contains some color, fine particles, gums and resins and other non-sugars.

The syrup is pressure filtered through cloth, passed through decolorizing columns containing activated carbon, boiled in a vacuum pan and seeded with fine sugar crystals.

Decolorisation

There are also two common methods of color removal in refineries, both relying on absorption techniques with the liquor being pumped through columns of medium. One option open to the refiner is to use granular activated carbon [GAC] which removes most of the color, but little else. The carbon is regenerated in a hot kiln where the color is burnt off from the carbon. The other option is to use an ion exchange resin which removes less color than GAC, but also removes some of the inorganics present. The resin is regenerated chemically, which gives rise to large quantities of unpleasant liquid effluents.

The clear, lightly colored liquor is now ready for crystallization, except that it is a little too diluted for optimum energy consumption in the refinery. It is therefore evaporated prior to going to the crystallization pan. When the crystals are large enough, they are discharged from the pan, centrifuged to remove excess liquid and then tumble-dried. The dried sugar is then graded into required sizes prior to packaging and supply to customers.

Recovery

The liquor left over from the preparation of white sugar and the washings from the affination stage both contain sugar which it is economically viable to recover. They are therefore sent to the recovery house, which operates rather like a raw sugar factory, aiming to make a sugar with a quality comparable to the washed raw sugar after the affination stage. As with the other sugar processes, one cannot get all of the sugar out of the liquor and therefore there is a sweet by-product

http://lifeisapisofkeyk.blogspot.com/2012/02/muscovado-sugar-healthy-s.html
made: refiners' molasses. This is usually turned into a cattle food, or is sent to a distillery where alcohol (Rum) is made.

So How is Muscovado different?

- **Muscovado** is pure whole, unrefined, non-centrifugal cane sugar. It is also called 'poor peoples sugar'.
- **Muscovado** retains all of the natural ingredients of sugar cane, making it wholesome and healthy. Only pure bee's honey can compare to **Muscovado** for natural goodness.
- The nutritional qualities alone are quite exceptional and can be compared with honey.
- **Muscovado** is a natural high energy food source that quickly replaces lost vigor.
- **Muscovado** (from the Spanish mascabado, meaning unrefined) in South Asia is also known as *gur*, *jaggery*, and *khandsari*. In Latin America it is known as *rapadura*, *pamela* or *piloncillo*. In Colombia it is called *chancaca*. Whatever name you may know if by, this product is unrefined, non-centrifugal cane sugar with a high molasses (mineral) content. Although commonly used in Latin America and south east Asia, these products are relatively difficult to find in the US.

This is how **Muscovado Sugar** is made

1. **Our Muscovado** is made the old fashioned way with Kalmansi (a tiny native lime similar to Key Limes in Florida) and fresh coconut milk. First the sugar cane is cut/harvested (by hand). It is washed and then chopped, soaked and pressed to extract the juice from the sugar cane. This juice is heated with a little lime juice added. They also cut coconuts off the trees, grate the coconut meat and press out fresh coconut milk, which is sprinkled into the heating cane juice. This keeps the juice from foaming as it heats. The result is **Muscovado** actually about 0.2% coconut milk.

2. Once this cane juice becomes thick, it is poured into cups where it finishes by sun drying. The dried cane juice is then pounded to yield a natural, unprocessed sugar, very high in minerals. It is not uniform in color or texture. It is more "raw" or unprocessed than any other sugar we have found.

3. This "unrefined" sugar is darker in color than "refined" sugar because it contains what sugar producers call "impurities." But these so-called impurities are essential minerals such as calcium, potassium, magnesium, copper, and iron, as well as small amounts of fluorine and selenium. So "refined" sugar has zero nutritional value, while "unrefined" sugar has significant nutritional value.

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1 comment:

stern June 29, 2013 at 6:10 AM

rapadura still less refined then muscavado ?

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