Honey, Please Pass The High Fructose Corn Syrup

By Josh Bloom — December 6, 2016

Just happened to stumble across a website that REALLY doesn't like high fructose corn syrup (HFCS). So much so that celestialhealing.net \[1\] (1) takes the trouble of listing more than 300 foods that contain the stuff. But they leave out, intentionally perhaps (?) one, because it is universally portrayed as nature's magical remedy, which is good for whatever ails you—honey.

Honey does not technically contain HFCS, but, as you will see, it makes little difference. First, let's take a look at the oft-demonized HFSC.

The HFCS that is used as a substitute for sugar in soda is HFCS-55. Let's take a look at it. Unlike sucrose (cane sugar), HFCS-55 does not contain equal amounts of fructose and glucose, although this ratio is quite close.

\[
\text{HFCS-55} = 55\% \text{ fructose} + 45\% \text{ glucose (Ratio fructose to glucose} = 1.22) \\
\text{Table sugar} = 50\% \text{ fructose and 50\% glucose (chemically bound)}
\]

Despite this similarity, what the table does not say is that table sugar is broken down rapidly in the stomach to give a 1:1 mixture of its monosaccharide components, fructose and glucose, each then doing its own thing metabolically. But, HFCS acts differently metabolically because the glucose and fructose are already separated in the bottle (2), so HFCS cannot be said to mimic sugar metabolically simply because of the composition numbers.

Now, let's take a look at the composition of honey [2] (3):

\[
38.2\% \text{ fructose} + 31.3\% \text{ glucose. (Ratio fructose to glucose} = 1.22)
\]

Well, ain't that something! They are identical (4).
Would someone please explain to me why the food Nazis and anti-soda zealots conveniently omit this? Or why honey isn’t being taxed like soda is in many cities?

Or perhaps why various Internet miscreants take advantage of this:

"Magical Honey" just happens to be sold on these websites. Astounding!

Let's take a trip over to another website—the one run by the chuckleheads at NRDC. Type "honey" into their search box and you will get 60 hits. Try "high fructose corn syrup," and all of a sudden, there are 5410, most of which have to do with climate change, including this:
House flooded by Apple Jacks. Original photo: NRDC

So, there ya go. Another tidbit of information brought to you by the mighty warriors at the American Council. Should we be worried about "Climate Killer Bees" now?

Notes:

(1) Celestial healing? I don’t think so. Sounds worse than a naturopath.

(2) The comparative metabolic properties of sugar and HFCS have been widely studied. Here is one review [3].

(3) The rest of honey consists primarily of water, with small amounts of other sugars. This is why the fructose and glucose do not add up to 100%.

(4) Obviously honey and HFCS are not identical in every way. Taste, smell, viscosity etc are different. But in terms of the fructose content, and whatever health liabilities that may carry, it is fair to call them functionally identical.