

Molasses – health or waste product

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Molasses is being marketed as a health food product, high in nutrients. But molasses is actually a waste product. It is a by-product of sugar cane being processed into refined white sugar. The rationale behind selling it as a health product is that all the nutrients stripped away during the processing of sugar, are in the by-product molasses. But how healthful is molasses?

Sweet molasses or light molasses is the liquid left after the first extraction of sugar crystals during the refining processes of white sugar. Blackstrap molasses is the liquid left after the last extraction of sugar crystals, and has a stronger, bittersweet flavour.

A couple of years ago Carte Blanche ran a program on TV in which they speculated that the molasses in animal feed could have contributed to cattle having weak immune systems, reproductive disorders, and a drop in birth and weaning weights. No one asked questions regarding the safety of molasses for human consumption, which prompted me to investigate.

A research study was conducted at Onderstepoort, the Faculty of Veterinary science at the University of Pretoria, to determine the effects of molasses in animal feed on cattle. They found that “even though endocrine disrupting effects were detected with the *in vitro* screening assays, these could not be reproduced in the calves in the experiment. The two batches of molasses utilized in the calf feeding trial did not induce major differences in any of the parameters measured, with the exception of a lower mass gain in one of the molasses-fed groups (Group 1), which tended towards significance.” They concluded that “the results of the study indicate that the two batches of molasses had no endocrine disruptive or immunosuppressive effects in calves.”¹

However, this study was conducted only over a period of 6 months, not taking in account the effects of chronic exposure to possible endocrine disruptors in molasses or their accumulative effect. The fact that the SA Sugar Association sponsored the research, leaves further room for speculation. About 4 percent of the annual sugar crop in South Africa is made into molasses. This represents about R150 million, or between 2 and 3 percent of the industry's annual revenue. A lot of money is at stake for the sugar industry if molasses get's a bad name...

A production manager at a huge sugar refinery confessed to me that “I will never touch that (molasses) stuff”. I enquired more about the processing methods of sugar refinery and realised that all the herbicides and insecticides used on the sugar cane crops, like paraquat, atrazine and cyfluthrin, will be concentrated in the by-product of sugar processing, thus the molasses. Furthermore, processing chemicals like lime, sulphites, phosphates, flocculants and bleaching agents like sulphur dioxide, used during the processing of white refined sugar, will also be concentrated in the by-product, thus molasses. The high calcium content of molasses could more likely be attributed to the calcium carbonate and phosphate precipitates formed during the refining process of sugar because of the lime and other processing chemicals added, than to high calcium content in sugar cane. The bioavailability of the calcium is therefore questionable.

When commercial samples of jaggery (crude cane or palm sugar) were tested, the sulphur dioxide content ranged from 370 to 581.6 ppm - the save limit for sulphur dioxide should not be more than 70 ppm.² It would have been even more concentrated in the molasses. The

by-product molasses contains high concentrations of herbicides, pesticides and other process chemicals, which are potentially carcinogenic, act as endocrine disruptors and could be damaging to your health.

No quality control screening lab tests are being performed on molasses. Since it is sold as a by-product, it does not undergo any routine quality and safety tests. It is sold offhand in huge barrels to either the animal feed industry or the health industry! The Department of Health is aware of this problem, but did not have the funds to look into the matter when I spoke to them 5 years ago. I don't think it has been seen as a priority to investigate since.

In the early days when organic sugar was first being processed without process chemicals, molasses could have been seen as a potential healthful product. But today, with all the chemicals used on crops and during processing, the healthfulness of a by-product like molasses is questionable. It does not make sense to refine a food, stripping it of all its nutritional value and then ingesting the by-product to replace those nutrients. A better choice will be to enjoy a balanced diet of unrefined wholefoods, which will provide all the essential nutrients.

References:

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