



Herbasweet and  
Herbarom apple  
sweeteners - the  
natural alternatives

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# Herbasweet and Herbarom:

## APPLE SWEETENERS - THE NATURAL ALTERNATIVES

With increasing consumer demand for innovative products, food producers need to respond with either new concepts, or reformulation of existing products to stimulate the buying patterns of consumers. Amongst the many possibilities available to product developers is the option to enrich foods with "healthy ingredients" or perhaps to exchange one or more ingredients of the recipe in order to optimise the nutritional profile.

Today's consumer is well aware of the positive effects that a balanced diet contributes to the well-being and health, and pays more and more attention to the nutritional and physiological aspects of food and the component ingredients. To the consumer it is also important that the nutritional and physiological effectiveness is both scientifically proven readily identifiable on the products. For instance foods, which do not include additives or sugar, are perceived by the consumer, as natural and healthy. Despite their immense popularity, sweeteners and particularly sucrose recently gained bad publicity because of health concerns. That's why fruit sweeteners are becoming more and more important as a natural alternatives to sucrose as they contain the fruit's own sugar spectrum. Herbasweet and Herbarom are natural sweeteners made from de-juiced and carefully dried apples that reflect the characteristic sugar spectrum, balancing the nutritional and physiological profiles with the consumers association of apple as symbol for health and vitality.

The apple sweetener Herbasweet does not contain sucrose but a very high content of fructose. Using a special refinement technique, minerals and acids are washed alongside the colours and flavours.

Due to these neutral properties the potential application for Herbasweet is diverse, so this high quality sweetener can be used to replace sucrose in virtually every single food. Furthermore, Herbasweet is process-friendly with virtually the same sweetening power as traditional sugar. But to be able to claim that you are using "apple sweetener" instead of sucrose provides a consumer friendly image and a positive sales argument.

The carbohydrates fructose and sorbitol found in Herbasweet are generally recognised as diabetic sweeteners, as compared to sucrose they are sugar substitutes and metabolised independent of insulin.

Of increasing nutritional and physiological importance to today's consumer is the glycaemic index (GI) that is much lower for fructose compared to that of glucose. Using glucose as the standard base, with a GI of 100, fructose has a GI of around only 20. The GI measures the glycaemic response (an indication of the rate at which the blood glucose level rises and how it is sustained over time) after ingestion of carbohydrate foods. The consumption of food with low GI, such as fruit and vegetables, results in a slow increase of the blood glucose level. Food with a high GI, such as sucrose and white bread, results in a quick response of blood glucose insulin levels and therefore should not only be avoided by diabetics, but also by the growing number of health conscious consumers as there is growing evidence that over long-time, a diet based on high-carbohydrate low-glycemic foods is beneficial towards health by preventing chronic diseases such as diabetes, coronary heart disease and possibly cancer.

### FEATURES OF HERBASWEET

- 'made of apples'
  - excellent image
- low acidity and brilliant color
  - multifunctional usage
- high level of fructose and glucose
  - sucrose substitute
- label friendly
  - marketing benefit
- freshness/shelf-life
  - natural sorbitol content

### HERBAROM

Herbarom is a flavouring, colouring and sweetening apple extract that, like Herbasweet, contains the fruits own natural sugars. But unlike Herbasweet, many of the other important components, which are removed in the progressive process technology for Herbasweet, are still included in Herbarom. In addition to the apple fructose, glucose and sorbitol sugar spectrum, Herbarom also contains the fruit acids, minerals and secondary plant substances of apples - the polyphenolics which are nowadays regarded as positive health promoters.

These polyphenolic substances are attributed with anti-oxidative and cancer-protective properties and are also regarded to have a positive effect on blood glucose and hypertension as well as lowering the cholesterol level. Further it is presumed that the positive nutritional and physiological effects of apple minerals and vitamins are associated with these secondary plant substances

Because of its specific properties the apple extract Herbarom contributes to the colouring and rounding of the flavour profile of the final product, where, labelling as - apple extract - for flavouring and colouring creates a positive "natural image".

### FEATURES OF HERBAROM

- 'made of apples'
  - excellent image

- fruit based aroma
  - flavor improvement
- fruit based color
  - enhanced color development
- balanced sugar profile
  - moisture regulation

Apple sweeteners are a natural alternative to one of our most popular but problematic food commodities, the sucrose. For both food producers and consumers they offer various advantages to traditional sugar.



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