

Sugar Reduction in Beverages



There are increasing consumer demands for sugar reduction in beverages, driving companies to replace conventional sugar with alternative sweeteners for low and no-sugar beverage products (Global Market Insight, 2020; Graybill, 2020).

Popular beverages such as sport drinks and juices usually carry high amounts of sugar content that result in large spikes in the blood glucose level. Excess sugar consumption can lead to obesity, diabetes and other diseases (Caracho et al., 2017).

Palatinose is a fully, yet slowly digestible and low-glycemic carbohydrate that makes it a great alternative for sugar reduction in beverages. Owing to its slow digestion, it provides energy in a balanced and prolonged way with a steady blood glucose response. Palatinose has a mild sugar-taste with approximately half the sweetness of sucrose (Beneo, 2020; Fitch

& Keim, 2012; Jacob et al., 2017). It is perfect for free-flowing powder for drinks and blends that can significantly minimize the risk of caking and lumping (Food Ingredients, 2014).

Fructooligosaccharide (FOS) is derived from the chicory root. It contains only half the calorie of sugar with a sweetness of about 30% of sucrose. FOS can be used as a partial sugar replacement in beverages and it can also combine with high intensity sweeteners to create a more balanced and sugar-like palate. Moreover, FOS ingestion does not increase blood glucose and insulin levels. Therefore, diabetic patients can use it as an alternative sweetener to sucrose (Dominguez et al., 2013; Oku & Nakamura, 2017).

Monk fruit extract is another new star ingredient to sweeten beverages naturally. Monk fruit or also known as Luo Han Guo is a natural, low-calorie sweetener that has been approved as safe (GRAS) (Tu et al., 2017). Monk fruit extract gives a higher sweetness level that is around 100 to 300 times more compared to sugar without imparting extra calories, thus preventing the rise of the blood glucose level (Pandey & Chauhan, 2019). These reasons make monk fruit extract an absolutely good alternative for great tasting healthier beverages.

In conclusion, these sweeteners can reduce sugar intake in beverages while offering health benefits and helping to decrease total calorie count. Consumers can finally enjoy good-tasting reduced calorie products with less burden to the body.

At DPO, we're glad to be in partnership with **Beneo Orafiti**, **Beneo Palatinit** and **Monk Fruit Corp** to bring you a range of ingredient choices that could elevate your quality of life.

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