

Prebiotic sugar compositions

The low glycaemic sugars referred to in the reduced bioavailability sugar compositions section above, are also prebiotic. It was thought that, while the polyphenols slowed the absorption of the sugar resulting in a lower glycaemic index, all of the sucrose and polyphenols were absorbed from the intestines of the mammal consuming the sugar (as occurs with other known sugars). Surprisingly, that is not the case and both sugar and polyphenols progress along the intestines and into the colon of the mammal.

In an alternate third aspect, the present invention provides a sugar composition comprising sucrose and at least 16 mg GAE polyphenol / 100 g carbohydrate and about 0 to 0.3% w/w ash, wherein the sugar is prebiotic. Optionally, there is about 16 mg GAE to about 36 mg GAE polyphenols / 100 g carbohydrates. Optionally, the sugar comprises about 0.05 to 0.3% w/w ash.

In an embodiment, the sugar composition is food grade and comprises sucrose crystals, reducing sugars and polyphenols, wherein the sugar particles comprise about 0 to 0.5g/100g reducing sugars and about 20mg CE/100g to about 45mg CE/100g polyphenols and wherein a first proportion of the polyphenols are entrained within the sucrose crystals and a second proportion of the polyphenols is distributed on the surfaces of the sucrose crystals.

In a further alternate third aspect, the present invention provides a sugar composition comprising sucrose and about 37 to 80 mg GAE polyphenols/100 g carbohydrate, wherein the sugar is prebiotic. Optionally, the sugar has about 0 to 1.5 % w/w reducing sugars, wherein the sugar is not more than 0.5% w/w fructose and not more than 1% w/w glucose. This composition optionally also comprises 0 to 0.3% w/w ash.

In some embodiments of the third, alternate third and further alternate third aspects of the invention or their embodiments, the sugar composition of the invention has a first proportion of the polyphenols entrained within the sucrose crystals and a second proportion of the polyphenols is distributed on the surfaces of the sucrose crystals. The first portion of the polyphenols is endogenous to sugar cane and has been retained within the sucrose crystals during preparation of the sugar, for example, by incomplete washing of the massecuite. The second portion of polyphenols may be but is not required to be endogenous to sugar cane. Part or all of the second portion may be added to the sugar product by spraying polyphenols onto the sucrose crystals. The total amount of polyphenols is efficacious for achieving a low glycaemic sugar in the