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MONKSWEET LS

THE IN-SYNC SWEETENER

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When opposing forces hurl toward each other, the result can be unpleasant. Savvy developers know this can happen with sweeteners in food and beverage formulations. Thrown into a mix, the ingredients just don't come together in an expected, appealing way. The reason is simple. Even though they may be categorically the same, sweeteners are not alike. There are pronounced differences not only in the flavors they impart, but also in the ways they develop on the tongue. An accompanying flavor may be pronounced even off-putting so the formulator is challenged to bring harmony to elements that are at odds with each other.

Take, for example, two popular natural sweeteners. Stevia and monk fruit are high intensity sweeteners that are both plant-derived, yet they are quite different. Each plant contains countless, unique compounds, some of which have elements of sweetness or bitterness. Flavor is determined by the actual components extracted from the plant and the ratios in which they are present in the final sweetener.

Stevia is extracted from the leaves of the South American plant Stevia rebaudiana. Sweetness is dependent on steviol glycosides: stevioside, Rebaudioside A (Reb A), B, C, D, E and steviobioside. Although all may play a role depending on their presence in the finished extract, stevioside and Reb A are the primary compounds of interest. Chemically, the main difference between these two is the presence of glucose. Reb A has three glucose moieties attached at C13. Stevioside has two. The balance and the purity of these compounds will have the greatest impact on flavor.

Monk fruit is the fruit of an Asian vine Siraitia grosvenorii. A group of glycosides called mogrosides deliver sweetness. Mogroside V, extracted from the pulp of the fruit, is the sweetest of these. But like stevia, other components can emerge in the mix. In each case the purity of the extract is essential for the cleanest delivery.

Both extracts have the capacity to provide high intensity, calorie-free sweetness. Stevia is about 250 times sweeter than sugar; monk fruit is roughly 200 times sweeter than sugar. Because they are so potent, small amounts are required. Unlike sugar, they do not add bulk or mouthfeel to foods or beverages. They are incapable of browning reactions so by themselves they are unsuitable for baked goods.

The similarities between stevia and monk fruit end there. Sweetness is characterized by time and intensity. Stevia's sweetness comes on quickly and lingers with a taste that's reminiscent of licorice. Monk fruit's sweetness evolves in the mouth, so its taste is perceived later by the tastebuds. At high levels, its flavor is similar to that of a melon rind.

Compared to sugar (sucrose) their effect is quite different. Sugar is the benchmark by which sweetness is judged. Structurally, it is simply disaccharides of glucose and fructose units. There aren't other compounds that get in the way of the pure flavor it delivers. In solution its flavor release is rounded and full. It takes time to build, to peak and then to subside. One might picture it as a standard bell curve. Stevia or monk fruit peak at either end, never quite finding a balance in the middle.

That is until they are combined in just the right ratio. Unlike opposing forces that halt abruptly, like two hills across a valley, when stevia and monk fruit come together, they merge into one large mound. A time and intensity graph of the two looks a lot like that of sugar, and exactly like sugar's if the ratios are precise.

MonkSweet LS is the optimum blend of stevia and monk fruit that not only melds these two different sweeteners into a unified, rounded tasting experience, it exhibits a phenomenon that can only be described as in-sync. Together, the off notes that either sweetener might lend are muted, an attribute that's especially important in delicate flavor systems. A strong coffee or cola might hide an anise or rind-like flavor, but those flavors might clash in a strawberry beverage.

The masking effect that each has on the other yields a well-balanced, neutral sweetener. There is also another practical benefit. Monk fruit is an expensive ingredient. Stevia costs 25 percent to 33 percent less than monk fruit.

Cost savings are further realized when food or beverage manufactures utilize a time-tested, meticulous blend. Icon Foods' MonkSweet LS is optimized to deliver the exact composition of steviol glycosides and mogrocides every time. Beginning with your product's development on the R&D bench to countless production runs, consistency is assured. Growing conditions, including soil, moisture and time of harvest, all impact the quantities of the sweetening compounds, ultimately affecting the flavor of both stevia and monk fruit. Icon Food's quality standards ensure the exact same product is delivered every time, thereby reducing the need for the manufacturer to reformulate or rework finished product that doesn't meet the final flavor test.

Because of all the variables in the environments in which stevia and monk fruit are grown, there are considerable differences in the taste of these ingredients produced by different suppliers. Yet another factor also comes into play. Some suppliers rely on chemical extraction, a process that is not consumer friendly; it also imparts a slight petrol aftertaste. Icon Foods' MonkSweet LS is made from water extracted stevia and monk fruit so the flavor is exceptionally clean.

While MonkSweet LS shines in beverages and RTD drink mixes, it can also be used in nutritional bars, protein powders or other supplement powders.