

Dietary fiber: A key nutritional tool to aid in the fight against obesity

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Lifestyle diseases are a major public health concern, with 1.46 billion adults having a body mass index (BMI) of at least 25 kg/m² in 2008. According to recommendations from WHO/FAO, 45 to 60% of the total daily energy intake (1) should come from carbohydrates, combined with a reduced intake of fat, and a daily dietary fibre intake of 25 g/day (2).

“Nomadic fibre” supplements could be useful to complete on-the-go meals of healthy working people and of overweight people on a diet, as consumers seek both convenience and satiety.

Non-viscous soluble fibres have been widely used to fortify foods in recent years, due to consumer demand for more fiber and the ease of formulation and incorporation in food products. Several physiological and health effects have been associated with the consumption of various fibres, but the research shows varying levels of evidence regarding weight management.

NUTRIOSE®, a resistant dextrin, has shown its benefits in such contexts (3, 4) and we developed solutions adapted to the above described circumstances. We first developed a process leading to a unique type of dextrin, offering outstanding technological qualities and structural specificities in terms of digestibility. Then we followed a methodology highlighting its nutritional benefits. Adding 17 g/day of NUTRIOSE® twice daily to a fruit drink for 12 weeks showed positive impacts on hunger feelings and weight management. Then, a dose-dependent positive impact on some satiety-related and anthropometric parameters was demonstrated, being effective in the modulation of satiety from 8-14g/d, and in weight management from 14g/d.

This type of scientific approach helps in formulating nutritional solutions meet both the regulations' requirements and the consumer's needs.

WHO: World Health Organization

FAO: Food and Agriculture Organization of the United Nations

Biography

Neelesh Varde received his Ph.D. in chemical engineering from the University of Illinois at Urbana-Champaign. He is currently a Senior Product Manager in charge of the fiber portfolio at Roquette America.

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