Inter-meal appetite, snacking and calorie control with guar fiber

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Inter-meal appetite and subsequent snacking habits are largely contributed for high calorie intake and obesity. Therefore suppression of inter-meal appetite may be a logical approach for proper weight management. Among various kinds of dietary fibers, the viscous dietary fibers are effective in appetite control due to their bulking effects, but in turn they raise the uncomfortable feeling of bloating and heavy stomach. Guar fiber, popularly known as partially hydrolyzed guar gum (PHGG), is a non-viscous soluble fiber offering a physiological approach for appetite control through induction of satiety hormones, slow colonic transit time and perception of satiety for more than 4 hours. The guar fiber mostly comprised with medium chain length guar galactomannans ferments slowly for a longer period of time to exert many of its physiological effects through production of high amounts of short chain fatty acids in particular butyrate. Clinical studies suggest that guar fiber offers both acute and sustained satiety effects with intake of 5 g and 2 g per serving, respectively. Regular intake of guar fiber at a dose of 2 g/serving provided significant sustained post-meal satiation effects and minimized the inter-meal calorie intake by about 20% in normal subjects. Guar fiber containing >85% soluble dietary fiber without viscosity and bloating effect could be an ideal natural dietary fiber for use in food and supplement applications at low dosage levels for comfortable appetite control.

Biography
Theertham Pradyumna Rao has completed his PhD and Postdoctoral studies at Nagoya University, Japan and a certificate course in International Food Laws and Regulations at Michigan State University, USA. He is an Assistant General Manager at Taiyo Kagaku, Japan. He has started his career at ICRISAT (International Crop Research Institute for Semi-Arid Tropics, India) and acquired extensive research, marketing and regulatory experience ranging from agriculture, nutrition to health. He has published one book and more than 65 papers in reputed journals. He has been serving as an Editorial Board Member of NutraCos magazine and Austin Journal of Nutrition and Metabolism.

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