335483 FOOD TECHNOLOGY PROJECT Expanding the performance of guargum and xanthangum on snack Fortified with Protein and Fiber (การพองตัวของกัวกัมและแซนแทนกัม ในขนมอบกรอบเสริมโปรตีนและไฟเบอร์)

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Abstract

The U.S.FDA recommends that people showed receive 50g of protein and 20g of fiber per day. By choosing vegetable protein and fiber, as these are cheap fiber plants. This study is aimed at studying the amount of guar gum and xanthan gum that has an inflatable effect on the product. The main ingredients of this frame of milk are 10% soy flour, 5% protein isolate, 22% powder, and 22% mushroom, using different amounts of guar gum and xanthan gum instead of the formula, to reduce fat burning and drying. Then all the ingredients and spices are mixed with a Kenwood mixer, formed with this machine, and imported into a 90°C Traydryer. Then the product has been tested for quality. The control formular is doesn't have guar gum and xanthan gum by measuring moisture, fiber, protein, color (CIE L*a*,b*) content, and expected acceptance of at least 7 (at the Hedonic 9 point level). The experiment found that the most accepted formula is formula 2 (Guar gum), with a protein content of 22.66±0.07, a fiber content of 5.65±0.20 texture 5.00±1.0600 and color 6.00±0.7432

Keywords : Fiber ; Protein ; Guargum ; Xanthan gum

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Reference

Alyousif, Z., Mendoza, D. R., Auger, J., De Carvalho, V., Amos, S., Sims, C., & Dahl, W. J. (2020). Gastrointestinal Tolerance and Microbiome Response to Snacks Fortified with Pea Hull Fiber: A Randomized Trial in Older Adults. Current Developments in Nutrition, 4(2). doi:10.1093/cdn/nzaa005

Hedwig Natabirwa., Dorothy Nakimbugwe., Mercy Lung'aho., Mercy Lung'aho., and Mercy Lung'aho. (2020). Bean-based nutrient-enriched puffed snacks: Formulation design, functional evaluation, and optimization. Food science&Nutrition. https://doi.org/10.1002/fsn3.1727

Pongpipat Sanom., Kamolwan Jangchud. (2020). Effect of Cricket (Acheta Domesticus) Powder, Soy Protein Isolate and Xanthan Gum on the Qualities of Rice Flour-based Cookies.https://doi.org/10.14456/jrmutp.2020.22