الملخص الانجليزيللبحث رقم (٢)

Functional Low- Fat Soft Cheese Supplemented With Bottle Gourd (Lagenariasiceraria) Seeds

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Abstract:

A bottle gourd (Lagenariasiceraria) seed is a good source of fat, dietary fiber, minerals and protein with many health benefits. This work aimed to improve the chemical, rheological and organoleptic properties of low fat ultrafiltrated (UF) white soft cheese using bottle gourd seeds powder (BGSP). Low- fat buffalo's milk retentate was divided into four portions: the first portion without additiveswas used as a control, while the other portions were supplemented with 3, 6 and 9% BGSP (w/w of milk retentate) before the pasteurization. Samples of all resultant cheese treatments were stored at 5±1 ℃ for 25 days and analyzed for physicochemical, rheological characteristics,as well as microbiological and sensory attributes when fresh and during storage period. The results showed that there was a slight decrease in moisture content in all cheese samples during storage. By increasing the proportion of BGSP; the contents of total solids, fat, total protein, fiber and ash of the soft cheese were increased. Cohesiveness and softness increased as well. Moreover, low fat soft cheese supplemented with 6% BGSP had the best sensory properties. Therefore, it is recommended to use BGSP for the manufacture of functional low-fat soft cheese as a new product with healthy properties.

Keywords:

Low fat; White soft cheese; Retentate; Bottle gourd seeds powder