

عنوان مقاله:

Research Article : Effect of nanoemulsion-fish protein hydrolysate supplementation on selected physicochemical parameters of yogurt

محل انتشار:

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خلاصه مقاله:

The aim of the present study was to evaluate the physico-chemical criteria of yogurt fortified with fish protein hydrolysate (FPH) obtained from Fresh Abu mullet (*Planiliza abu*) fish weighing 40 g during 21-day refrigeration. A hundred milliliters of final milk were inoculated with starter culture, and fermented for 4-5 hours until the pH reached to 4.6. The yogurts were divided in two groups in triplicate and each group was prepared in triplicate. Yogurts supplemented with nanoencapsulated hydrolysates exhibited a slight reduction in pH and augmented acidity particularly up to three weeks of refrigeration. The pH of nanoemulsion-FPH yogurt was initially 4.52 and reached 4.01 in third week with a significant difference ($p < 0.05$) compared with that of the control at the same time (3.80). The pH value of the fortified yogurt showed acceptable limit on day 7 (4.35) but it was remarkably decreased on day 14 (4.19, $p < 0.05$). The upmost and the least values of viscosity of nano-FPH yogurt samples were respectively 4187.3 and 4046.6 (cps) on days 1 and 21. The viscosity values of control were ranged from 3716.0 to 4042.0, respectively in 21 and 1 days of refrigeration. Moreover, the maximum and minimum water holding capacity (WHC) value of nano-FPH yogurt samples 92.5% and 86.2%, respectively on days 1 and 21. It is concluded that the incorporation of the FPH in the form of nanoencapsulation offered superior physico-chemical advantages than those of control yogurt samples.

کلمات کلیدی:

Yogurt, Nanoemulsion, Fish protein hydrolysate, Physico-Chemical parameters

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