

## عنوان مقاله:

Evaluation of Chocolate Milk Beverage Formulated with Modified Chitosan

## محل انتشار:

مجله علوم و فناوری کشاورزی، دوره 16، شماره 6 (سال: 1393)

تعداد صفحات اصل مقاله: 12

## نویسندگان:

M. F. Eduardo - *Biochemical-Pharmaceutical Technology Department, Pharmaceutical Sciences Faculty, São Paulo University, Av. Prof. Lineu Prestes, 510/Cidade Universitária, São Paulo-SP, CEP 05508-900, Brazil*

K. G. P. Correa De Mello - *Biochemical-Pharmaceutical Technology Department, Pharmaceutical Sciences Faculty, São Paulo University, Av. Prof. Lineu Prestes, 510/Cidade Universitária, São Paulo-SP, CEP 05508-900, Brazil*

B. Polakiewicz - *Biochemical-Pharmaceutical Technology Department, Pharmaceutical Sciences Faculty, São Paulo University, Av. Prof. Lineu Prestes, 510/Cidade Universitária, São Paulo-SP, CEP 05508-900, Brazil*

S. C. Da Silva Lannes - *Biochemical-Pharmaceutical Technology Department, Pharmaceutical Sciences Faculty, São Paulo University, Av. Prof. Lineu Prestes, 510/Cidade Universitária, São Paulo-SP, CEP 05508-900, Brazil*

## خلاصه مقاله:

Chitosan is a polysaccharide derived from chitin by N-deacetylation, which has the property of gel formation. The objective was to develop a chocolate milk beverage using modified (hydrogel) chitosan as a thickening agent, and to make a sensory and rheological evaluation of this beverage. In the sensory evaluation an acceptability and comparative test with 50 local consumers was carried out, with the developed beverage and samples from the Brazilian market, with the attributes overall acceptability and viscosity. The hybrid hedonic scale was used. The rheological evaluation was carried out with a rotational rheometer (Rheotest) with the H1 probe. A controlled rate test – ramp (0- 500, and 500-0 L s<sup>-1</sup>, 12 seconds, up and down), at 25°C was used. There was no difference ( $P > 0.05$ ) among the beverages in the overall acceptability. In spite of that, the developed beverage had a better score (7.12) in comparison with a market beverage (6.4). The beverages differed in viscosity ( $P < 0.05$ ); the score of the developed beverage was 7.06 and the score of the market beverage was 5.87. The market beverage fitted to the Ostwald-de-Waele, Bingham, and Casson models, and the developed beverage fitted better to the Ostwald-de-Waele model. The consistence index (K) of the market beverage was 0.150 Pa sn, while that of the developed beverage was 1.590 Pa sn, showing a high difference in the consistence characteristic of the samples. The flow index (n) of the market beverage was 0.625 and that of the developed beverage was 0.435. All market beverages showed thixotropic behavior. The hydrogel chitosan was effective as a thickening agent and furnished a good acceptability of the beverage

## کلمات کلیدی:

Chitosan, Chocolate products, Food development, Food structure, Hydrocolloid

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