

## 3<sup>rd</sup> International Conference and Exhibition on **Probiotics, Functional & Baby Foods** September 23-25, 2014 Hotel Royal Continental, Naples, Italy

## Probiotical yogurt honey flavor added bee pollen as a technological innovation

Gerla Castello Branco Chinelate<sup>1</sup>, Alef Barros Bernardino<sup>1</sup>, Heitor de Vasconcelos Barros<sup>1</sup>, Elyson Jose Neves dos Santos<sup>1</sup> and Dorasilvia Ferreira Pontes<sup>2</sup> <sup>1</sup>UFRPE, Brazil

<sup>2</sup>UFC, Brazil

In recent years, consumers have shown the emergence of new food products on supermarket shelves that claim to help in the L search for a healthier life. In this perspective the functional foods and nutraceuticals are tendencies in the foodmarket in the beginning of the century. Among these foods, you can find yogurts, margarines, fermented milks and cereals that promise to help prevent diseases such as cardiovascular disease, certain cancers, allergies, intestinal problems, lowering cholesterol and others. Among the key factors that explain the wide acceptance and/ or consumption of functional foods are cited: The growing concern about the health and well-being; changes in the regulation of food and the growing scientific evidence of the relationship between diet and health. The pollen is considered a nutraceutical ingredient due to its high concentration of phenolic compounds and antioxidant activity. This work aimed to evaluate the physico-chemical and microbiological characteristics of yoghurt produced with probiotic yeast (Bifido bacterium sp.) Flavored honey and bee pollen added. Five formulations were prepared with addition of pollen in the proportions of 0% (Iogf1), 2.5% (Iogf2), 5% (Iogf3), 7.5% (Iogf4) and 10% (Iogf5). For the diagnosis of physicochemical and microbiological official methods and statistical analysis data were used for the statistical parameters calculated from the average (x), standard deviation (s), analysis of variance (ANOVA) were employed and Tukey test (p<0.05) using the Microsoft Office Excel 2010 the program physico-chemical characteristics were determined with the following values related to the samples logf1; logf2; logf3; logf4; and logf5, respectively, with standard deviation and statistical treatment of Tukey (p <0.05). Ash: 0.68a %(±0.01); 0.68a%(±0.01); 0.69a%(±0.01); 0.69a%(±0.01) and 0.70a% (±0.01), thus showing nosignificant differences between the samples. The fat content was: 3.99a% (±0.01), 3.12a% (±0.01),  $3.20a\%(\pm 0.01)$ ,  $3.49a\%\pm(\pm 0.02)$  and  $3.85a\%(\pm 0.01)$ . As for the protein content values were found:  $4.37a\%\pm(\pm 0.01)$ , 4.78a% $\pm$  ( $\pm$ 0.02), 5.14a%( $\pm$ 0.01), 5.53a%( $\pm$ 0.01) and 5.98a%( $\pm$ 0.01). Although not presented significant differences, there was a small increase in both fat as well as protein content, probably caused by the proportional addition of the pollen samples. Acidity  $(0.98\pm0.06 \text{ g of latic acid}/100 \text{ g})$  and pH(4.31±0.07) were the same in all samples. The count of lactic acid bacteria was performed by seeding depth of 10-5 to 10-8 dilutions in MRS agar plates (ManRogosa&Sharpe) in microaerophilic conditions and the results obtained were logf1: 1.4x109 CFU/g; logf2: 7.9x10 8CFU/g; logf3: 6.2x108 CFU/g; logf4: 2.1x109 CFU/g, and Iogf5: 9.2x108 CFU/g; where all formulations showed counts above the minimum stipulated by Brazilian law 106 CFU/g. This innovative product has rheological characteristics above the minimum stipulated by law, making it potential for consumers looking for more quality choices for the daily feeding and technological conditions for the dairy industries can incorporate it into your production line.

alefbarros@hotmail.com