

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

Probiotic beverage from black carrot juice fermented with *Lactobacillus casei*

Nihat Akin¹, Talha Demirci¹, Hale Inci Ozturk¹, Kubra Aktas¹ and Enes Dertli²

¹Selcuk University, Turkey

²Bayburt University, Turkey

Several fruit and vegetable juices have just been trying for probiotic vehicle. For this purpose pineapple juice, cabbage juice, Scashew apple and carrot juices etc. were tried in the past. Study aimed to investigate the suitability of black carrot juice as Lb. Casei vehicle. Black carrots were provided by black carrot producers as a concentrate and it was diluted (1:10). Pasterization were applied to freshly prepared black carrot juices at 80°C for 20 min. For the purpose of decrease microbial population to be low the detection limit. 30°C and 48 hours were used for fermentation temperature and duration, respectively. Inoculum quantity were detected as 6,53 log CFU/ml. After two days of fermentation this number reached to 7,97 log CFU/ml. Optical density were determined before, after and at the end of the first day fermentation at 590 nm and by the way microbial growth was monitored during fermentation. After that storage was made at +4°C for 42 days. Analysis of viable cell count, color, Ph and titre table acidity were performed at each days. While pH was measured as 3,785 after inoculation, it was 3,695 at the end of the storage. Any loss was not observed for characteristic black carrot colour. Viable cell count of Lb. Casei were higher than 7.40 log CFU/ml during the storage period. This study shows that black carrot juice is convenient medium for L.casei and it could be used in functional food industry.

Biography

Nihat Akin has finished his PhD at Loughborough University of Technology, Chemical Engineering Department-United Kingdom. He has been working as Professor for about fifteen years and been working as Head of the Department of Food Engineering in SelcukUniversity. He has published more than 100 scientific papers about milk products and microbiology.

td_talhademirci@hotmail.com