

Effects of prebiotics on the quality of lactic acid fermented vegetable juices

Lavinia BURULEANU, Iuliana MANEA, Magda Gabriela BRATU, Daniela AVRAM
and Carmen Leane NICOLESCU

*Department of Food Engineering, Faculty of Environmental Engineering and Biotechnologies,
Valahia University of Targoviste, Unirii Street, 18-20, Romania*

Abstract The comparative evaluation of lactic acid fermentation of carrots and red beet juices inoculated with bifidobacteria and supplemented of commercial prebiotics containing inulin was performed. Some recommendations referring to the interval of time for interruption the fermentation with the aim to obtain the desirable characteristics of products were made. The inoculation of juices was accomplished after the epiphytic microbiota inactivation, in the optimum conditions of temperature. According the results obtained through phisico-chemical analysis (pH, titrable acidity, volatile acidity, reducing sugars content), the objective of this paper was to prepare suitable substrates regarding the consumer's perception and the practical possibilities of application the probiotic cultures. In each experiment was established the final point of the fermentation, with the aim to avoid first the undesirable action of the environment acidity on the strain viability.

Keywords: bifidobacteria, vegetable juices, prebiotics, lactic acid fermentation
