

## Evaluation potential commercial prebiotic products as media for growth of selected probiotic bacteria strains

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The commercial prebiotic in cereal- based products with bovine colostrum, namely Germa-Fit® and Extra-Fit® as culture media for growth selected probiotic lactic acid strains (growth separately): *L. gasseria* and *L. rhamnosus* were cultured in MRS (control) and commercial prebiotic products. The media were fermented for 48 h at 37 °C and analysed for viable cell count and changes in pH values. In Germa-Fit® medium, both probiotic lactic acid strains attained the highest population (9.6 cfu/ml) in the 16<sup>th</sup> of fermentation time ( $P \leq 0.05$ ). With addition lactose at 0.5, 1.0 and 1.5% the viability of *L. gasseria* was improved by approximately 2.1, 2.3 and 1.7 log<sub>10</sub> cycles respectively, compared to 3.0, 2.3 and 2.5 for *L. rhamnosus* after 12h of fermentation time. The effect of Extra-Fit® medium was more positive for growth of *L. gasseria* than that of *L. rhamnosus* at 8-24h of inoculation time. Generally, Germa-Fit® medium in presence of lactose exhibited the highest growth for both probiotic strains compared to Extra-Fit® and MRS media. The changes in pH of commercial media were in the optimal pH range (4.5-4.4) for growth of lactic acid bacteria. Therefore, this study suggested that the feasibility use of commercial prebiotic products based- cereal with bovine colostrum in the place of the widely used MRS for culture media of probiotic lactic acid bacteria to developing new synbiotic functional fermented dairy food products.

### Biography

I. H. I. Abd El-Ghany has completed his Ph.D. at the age of 29 years from Cairo University. He has published more than 30 papers in the field of dairy science and technology.

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