

Development of a Vegan Soybean-Based Yoghurt Alternative Using *Levilactobacillus brevis* QD-1 and *Saccharomyces cerevisiae* as the Starter Culture for Improved Texture and Aroma Profile

by

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Supplementary Materials

Table S1. Relative content of secondary structures of protein in the soybean yoghurt alternative after 9-h fermentation at 37°C using different cultures.

Figure S1. Deconvolutionized spectra of the soybean yoghurt alternative after 9 h of fermentation using various starter cultures. LB_3, LB_4, LB_5: fermentation with *Levilactobacillus brevis* QD-1 with densities of 10^3 , 10^4 , 10^5 CFU/mL, respectively (A–C). LB+S_3, LB+S_4, LB+S_5: fermentation with a mixed culture of *L. brevis* and *Saccharomyces cerevisiae* (1:1, based on CFU counts) with densities of 10^3 , 10^4 , 10^5 CFU/mL, respectively (D–E). Red and purple curves represent β -sheet (1,620–1,640 cm^{-1} and 1,670–1,695 cm^{-1}), green curve represents random coil (1,640–1,650 cm^{-1}), blue curve represents α -helix (1,650–1,658 cm^{-1}), and cyan curve represents β -turn (1,660–1,680 cm^{-1}); black and yellow curves represent the original and fitted ones obtained from FTIR data of Amide I region, respectively.

Table S1. Relative content of secondary structures of protein in the soybean yoghurt alternative after 9-h fermentation at 37°C using different cultures.

Sample	α -Helix (%)	β -Sheet (%)	β -Turn (%)	Random coil (%)
LB_3	25.3±2.4 ^{ab}	42.9±3.1 ^c	17.4±2.0 ^a	14.4±1.8 ^a
LB_4	22.6±1.9 ^b	52.1±2.7 ^b	17.3±1.7 ^a	8.1±1.5 ^b
LB_5	12.3±1.6 ^c	54.4±2.9 ^a	23.1±2.2 ^a	10.2±2.1 ^{ab}
LB+S_3	21.9±2.3 ^{ab}	46.0±2.8 ^c	20.2±1.9 ^a	11.9±1.7 ^{ab}
LB+S_4	28.3±2.1 ^a	43.3±3.0 ^c	18.6±1.8 ^a	9.8±1.4 ^b
LB+S_5	21.7±2.0 ^{ab}	47.8±2.6 ^{bc}	22.0±2.1 ^a	8.4±1.6 ^b

Data are mean \pm standard deviation. Means in the same column with different lowercase letters differ significantly ($p < 0.05$). LB_3, LB_4, LB_5: fermentation with *Levilactobacillus brevis* QD-1 with densities of 10^3 , 10^4 , 10^5 CFU/mL, respectively. LB+S_3, LB+S_4, LB+S_5: fermentation with a mixed culture of *L. brevis* and *Saccharomyces cerevisiae* (1:1, based on CFU counts) with densities of 10^3 , 10^4 , 10^5 CFU/mL, respectively.

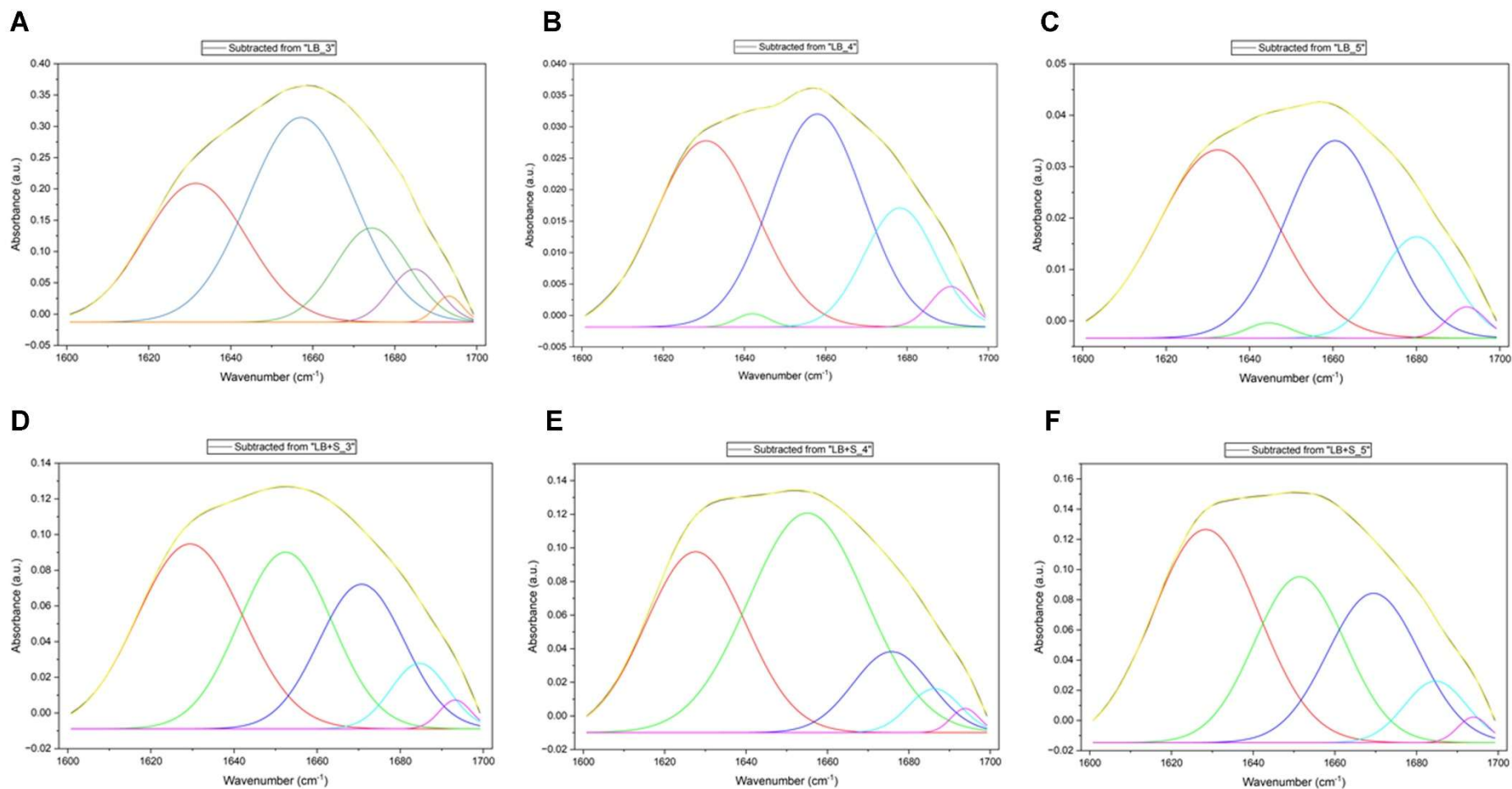


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