

Probiotic Greek yogurt: effect of the addition of prebiotic fat substitutes on the physicochemical characteristics, probiotic survival, and sensory acceptance

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Yogurt processing

Whole milk or skimmed milk (Líder®, Lobato, Brazil) was added with sucrose (120 g/L, União®, Sertãozinho, Brazil) and the prebiotic components (inulin [Orafti® HP, DP > 23, Mannheim, Germany] polydextrose [STA-III, Tate & Lyle®, DP = 9-10, London, United Kingdom], or modified cassava starch [Endemil®, Paranavaí, Brazil, 40 g/L). The mixture was pasteurized at 85 °C for 30 min in a water bath (Marconi®, Piracicaba, Brazil) and cooled to 42 °C. Then, 30 mL/L of the starter culture (*Streptococcus thermophilus* and *Lactobacillus delbrueckii* ssp. *bulgaricus*, YF-L812, Christian Hansen®, Valinhos, Brazil) and 0.2 g/L of the probiotic culture (approximately 8 log cfu/mL, *L. casei*-01, Christian Hansen®) were added, and the mixture was incubated at 42 °C for 8 h. After fermentation, the curd was cooled to a temperature of 5 °C and transferred to previously sterilized cotton bags, drained for 2 h, packaged in polypropylene plastic packages with 80 mL capacity, and stored at 7 °C for 28 days.

Table S1. Sensory acceptance of the probiotic Greek yogurts.

Attribute	Storage time (days)	WHOLE	SKIM	INUL	POLY	STAR
Appearance	1	7.18 ^{aA} ± 1.81	7.02 ^{aA} ± 1.75	6.89 ^{abA} ± 1.74	7.22 ^{aA} ± 1.73	6.18 ^{bA} ± 2.25
	28	7.45 ^{aA} ± 1.57	7.60 ^{aA} ± 1.51	7.08 ^{abA} ± 1.79	7.76 ^{aA} ± 1.36	6.50 ^{bA} ± 2.08
Aroma	1	7.08 ^{aA} ± 1.68	6.86 ^{aA} ± 1.63	6.77 ^{aA} ± 1.57	7.25 ^{aA} ± 1.40	6.49 ^{aA} ± 1.79
	28	7.15 ^{aA} ± 1.64	7.35 ^{aA} ± 1.49	6.65 ^{aA} ± 1.75	7.23 ^{aA} ± 1.53	6.54 ^{aA} ± 1.84
Flavor	1	7.37 ^{aA} ± 1.71	7.14 ^{aA} ± 1.76	6.72 ^{abA} ± 1.70	7.66 ^{aA} ± 1.82	6.26 ^{bA} ± 1.95
	28	7.62 ^{aA} ± 1.56	6.96 ^{abA} ± 1.80	6.11 ^{bcA} ± 2.02	7.16 ^{aA} ± 1.72	5.78 ^{ca} ± 2.29
Texture	1	7.16 ^{aA} ± 1.88	6.87 ^{aA} ± 1.81	6.52 ^{abA} ± 1.85	7.21 ^{aA} ± 1.69	5.78 ^{bA} ± 2.31
	28	7.62 ^{aA} ± 1.39	7.47 ^{abA} ± 1.36	6.65 ^{bcA} ± 1.89	7.63 ^{aA} ± 1.39	6.16 ^{ca} ± 2.08
Overall impression	1	7.29 ^{aA} ± 1.65	7.04 ^{abA} ± 1.55	6.77 ^{abA} ± 1.63	7.49 ^{aA} ± 1.27	6.29 ^{bA} ± 2.03
	28	7.66 ^{aA} ± 1.36	7.21 ^{abA} ± 1.58	6.46 ^{bcA} ± 1.86	7.33 ^{aA} ± 1.50	5.98 ^{ca} ± 2.11
Purchase intention	1	3.92 ^{aA} ± 1.03	3.67 ^{abA} ± 1.01	3.42 ^{abA} ± 1.21	3.86 ^{aA} ± 0.98	3.16 ^{bA} ± 1.23
	28	4.17 ^{aA} ± 0.98	3.80 ^{abA} ± 1.27	3.41 ^{bcA} ± 1.27	3.97 ^{aA} ± 1.20	3.05 ^{ca} ± 1.39

Means ± standard deviation in the same column followed by different capital letters indicate statistically significant differences at $p \leq 0.05$ for each formulation affected by the storage time ($n = 100$). Means ± standard deviation on the same line followed by different lowercase letters indicate statistically significant differences at $p \leq 0.05$ between formulations ($n = 100$). Hedonic values (appearance, aroma, flavor and overall impression) are 1=disliked very much; 9=liked very much. Purchase intention values are 1 = certainly would not buy; 5 = certainly would buy. Formulations: WHOLE (with whole milk), SKIM (with skimmed milk), INUL (with skimmed milk + inulin), POLY (with skimmed milk + polydextrose), and STAR (with skimmed milk + modified starch).