

Appendix - All the experiments were replicated three times in comparison with the standard *Lb. plantarum* strain P8 in the present study. The analysis of variance (ANOVA) was performed using IBM SPSS statistics 25 programme software.

Table 1. The ANOVA of chemical compounds in the *Khoormog* samples.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
pH	Between Groups	12.997	12	1.083	248.329	.000
	Within Groups	.113	26	.004		
	Total	13.111	38			
Titratable Acidity	Between Groups	54495.231	12	4541.269	22882.364	.000
	Within Groups	5.160	26	.198		
	Total	54500.391	38			
Lactose	Between Groups	49.419	12	4.118	365.027	.000
	Within Groups	.293	26	.011		
	Total	49.712	38			
Lactic Acid	Between Groups	6758235.992	12	563186.333	51109.405	.000
	Within Groups	286.500	26	11.019		
	Total	6758522.492	38			
Acetic Acid	Between Groups	119064.840	12	9922.070	58365.118	.000
	Within Groups	4.420	26	.170		
	Total	119069.260	38			

Table 2. The ANOVA of cholesterol lowering ability, BSH activity on sodium taurocholate, cholesterol precipitation with deconjugation of sodium taurocholate and Caco-2 Cell adhesiveness of the 8 isolates.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Lowering cholesterol	Between Groups	4937.470	8	617.184	43.733	.000
	Within Groups	254.024	18	14.112		
	Total	5191.493	26			
BSH activity on sodium taurocholate	Between Groups	2.397	8	.300	14.720	.000
	Within Groups	.366	18	.020		
	Total	2.763	26			
Precipitated cholesterol by deconjugation of sodium taurocholate	Between Groups	.350	8	.044	.896	.540
	Within Groups	.879	18	.049		
	Total	1.228	26			
Caco2-Cell adhesiveness	Between Groups	2.738	8	.342	48.901	.000
	Within Groups	.126	18	.007		
	Total	2.864	26			

Table 3 (1). The ANOVA of production starter culture activity of *Lb. plantarum* AM2-6, BM2-5 and P8, recorded by pH in 2h, 4h, 6h, 8h fermentation.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
pH 2h	Between Groups	.042	2	.021	3.800	.086
	Within Groups	.033	6	.006		
	Total	.076	8			
pH 4h	Between Groups	.167	2	.083	15.000	.005
	Within Groups	.033	6	.006		
	Total	.200	8			
pH 6h	Between Groups	.042	2	.021	9.500	.014
	Within Groups	.013	6	.002		
	Total	.056	8			
pH 8h	Between Groups	.009	2	.004	1.000	.422
	Within Groups	.027	6	.004		
	Total	.036	8			

Table 3 (2). The ANOVA of production starter culture activity of *Lb. plantarum* AM2-6, BM2-5 and P8, recorded by titratable acidity in 2h, 4h, 6h, 8h fermentation.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Titratable Acidity 2h	Between Groups	19.980	2	9.990	187.312	.000
	Within Groups	.320	6	.053		
	Total	20.300	8			
Titratable Acidity 4h	Between Groups	176.722	2	88.361	4970.312	.000
	Within Groups	.107	6	.018		
	Total	176.829	8			
Titratable Acidity 6h	Between Groups	62.176	2	31.088	104.399	.000
	Within Groups	1.787	6	.298		
	Total	63.962	8			
Titratable Acidity 8h	Between Groups	25.536	2	12.768	23.451	.001
	Within Groups	3.267	6	.544		
	Total	28.802	8			

Table 4. The ANOVA of tastes determination of sourness by Taste Sensing System in different fermentation temperature.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
BM2-5	Between Groups	222.000	4	55.500	29838.710	.000
	Within Groups	.019	10	.002		
	Total	222.019	14			
AM2-6	Between Groups	122.400	4	30.600	6954.545	.000
	Within Groups	.044	10	.004		
	Total	122.444	14			
<i>Lb. plantarum</i> P8	Between Groups	44.400	4	11.100	2557.604	.000
	Within Groups	.043	10	.004		
	Total	44.443	14			

Table 5(1). The ANOVA of water holding capacity of the fermented milk produced by *Lb. plantarum* starter cultures of AM2-6, BM2-5 and P8 in different fermentation temperature (pH 4.6).

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
BM2-5	Between Groups	60.684	4	15.171	1896.375	.000
	Within Groups	.080	10	.008		
	Total	60.764	14			
AM2-6	Between Groups	74.376	4	18.594	387.375	.000
	Within Groups	.480	10	.048		
	Total	74.856	14			
<i>Lb. plantarum</i> P8	Between Groups	28.716	4	7.179	326.318	.000
	Within Groups	.220	10	.022		
	Total	28.936	14			

Table 5(2). The ANOVA of water holding capacity of the fermented milk produced by *Lb. plantarum* starter cultures of AM2-6, BM2-5 and P8 at 43°C of fermentation (pH 4.6).

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
43°C	Between Groups	38.220	2	19.110	573.300	.000
	Within Groups	.200	6	.033		
	Total	38.420	8			

Table 6. The ANOVA of tastes determination of sourness by Taste Sensing System in different inoculum.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
BM2-5	Between Groups	102.000	4	25.500	8673.469	.000
	Within Groups	.029	10	.003		
	Total	102.029	14			
AM2-6	Between Groups	78.000	4	19.500	2945.619	.000
	Within Groups	.066	10	.007		
	Total	78.066	14			
<i>Lb. plantarum</i> P8	Between Groups	30.000	4	7.500	2083.333	.000
	Within Groups	.036	10	.004		
	Total	30.036	14			

Table 7(1). The ANOVA of water holding capacity of the fermented milk produced by *Lb. plantarum* starter cultures of AM2-6, BM2-5 and P8 in different inoculum (pH 4.6).

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
BM2-5	Between Groups	58.644	4	14.661	407.250	.000
	Within Groups	.360	10	.036		
	Total	59.004	14			
AM2-6	Between Groups	93.936	4	23.484	469.680	.000
	Within Groups	.500	10	.050		
	Total	94.436	14			
<i>Lb. plantarum</i> P8	Between Groups	127.776	4	31.944	1774.667	.000
	Within Groups	.180	10	.018		
	Total	127.956	14			

Table 7(2). The ANOVA of water holding capacity of the fermented milk produced by *Lb. plantarum* starter cultures of AM2-6, BM2-5 and P8 at inoculum of 3 g/100 g and 5 g/100 g (pH 4.6).

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
3 g/100 g	Between Groups	73.580	2	36.790	849.000	.000
	Within Groups	.260	6	.043		
	Total	73.840	8			
5 g/100 g	Between Groups	1.860	2	.930	69.750	.000
	Within Groups	.080	6	.013		
	Total	1.940	8			