

SUPPLEMENTARY MATERIALS

**Exploring the Presence of Cannabinoids in Hemp-Infused Fermented Milk Drinks: An Analysis of Pre- and Post-Fermentation Levels**

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**Table S1.** Correlation coefficient , analytical ranges, limit of detection (LOD), and limit of quantification (LOQ)

Analyte	Correlation coefficient (R <sup>2</sup> )	Analytical ranges ( $\mu\text{g/mL}$ )	LOD ( $\mu\text{g/mL}$ )	LOQ ( $\mu\text{g/mL}$ )
CBD	0.9993	0.2-25.6	0.001	0.003
CBDA	0.9999	0.4-51.2	0.0003	0.0009
$\Delta^9$ -THC	0.9999	0.08-10.24	0.0011	0.0036
$\Delta^9$ -THCA-A	0.9999	0.08-10.24	0.0004	0.0013
CBC	0.9997	0.02-2.56	0.005	0.02
CBCA	0.9992	0.08-10.24	0.0008	0.003
CBG	0.9994	0.008-1.024	0.0003	0.0009
CBGA	0.9992	0.02-2.56	0.00003	0.0001
CBDV	0.9998	0.008-1.024	0.001	0.002
CBDVA	0.9999	0.02-2.56	0.00003	0.0001
$\Delta^9$ -THCV	0.9999	0.008-1.024	0.0006	0.002
$\Delta^9$ -THCVA	0.9996	0.02-2.56	0.0001	0.0002
$\Delta^8$ -THC	0.9998	0.008-1.024	0.002	0.006
CBN	0.9998	0.008-1.024	0.002	0.007
CBNA	0.9996	0.002-0.256	0.0001	0.0002
CBL	0.9999	0.02-2.56	0.002	0.007
CBLA	0.9997	0.02-2.56	0.0004	0.0012

**Table S2.** Recovery rate (R%) and method repeatability (expressed as relative standard deviation, RSD%) for individual analytes at three different fortification levels (n=5).

Nominal concentration ( $\mu\text{g/mL}$ )	Measured concentration ( $\mu\text{g/mL}$ )	R (%)	RSD (%)
CBD			
0.2	0.205	103	2
1.6	1.56	98	3
8.0	7.75	97	1
CBDA			
1.0	1.02	102	2
2.0	2.11	105	2
4.0	3.98	100	2
$\Delta^9\text{-THC}$			
0.2	0.194	97	2
0.6	0.58	97	1
1.2	1.153	96	1
$\Delta^9\text{-THCA-A}$			
0.1	0.097	97	2
0.6	0.59	98	2
1.2	1.18	98	3
CBC			
0.1	0.088	88	6
0.3	0.269	90	3
0.9	0.871	97	3
CBCA			
0.1	0.102	102	2
1.0	0.948	95	2
2.0	1.982	99	1
CBG			
0.005	0.0048	96	6
0.01	0.098	98	3
0.02	0.019	97	8
CBGA			
0.1	0.1	100	3
0.3	0.3	100	1
0.6	0.57	95	5
CBDV			
0.1	0.097	97	1
0.3	0.296	99	2
0.6	0.592	99	1
CBDVA			
0.1	0.099	99	2
0.3	0.301	100	1
0.6	0.595	99	1
$\Delta^9\text{-THCV}$			
0.05	0.049	99	3
0.1	0.100	100	3
0.2	0.197	98	3
$\Delta^9\text{-THCVA}$			

0.05	0.049	98	2
0.1	0.098	98	3
0.2	0.195	97	2
$\Delta^8\text{-THC}$			
0.05	0.048	96	6
0.1	0.10	100	6
0.2	0.200	100	2
CBN			
0.1	0.098	98	1
0.3	0.299	100	2
0.6	0.608	101	2
CBNA			
0.005	0.005	100	2
0.01	0.0099	99	2
0.02	0.019	98	3
CBL			
0.05	0.049	99	9
0.1	0.098	98	1
0.2	0.19	97	2
CBLA			
0.05	0.05	100	2
0.1	0.099	99	2
0.2	0.198	99	1

**Table S3.** Cannabinoids determined in fermented milk drink with hemp extract input (0.5%, 1% and 2% (w/v)).

CBNA	0.01 <sup>Ab</sup> ± 0.01	0.02 <sup>ABb</sup> ± 0.01	0.03 <sup>Bb</sup> ± 0.01	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>									
CBL	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	
CBLA	0.01 <sup>Ab</sup> ± 0.01	0.02 <sup>ABb</sup> ± 0.01	0.04 <sup>Cb</sup> ± 0.01	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>									
Sum of 17 cannabinoids	4.07 <sup>Ad</sup> ± 0.16	8.14 <sup>Bd</sup> ± 0.33	16.26 <sup>Cd</sup> ± 0.65	0.18 <sup>Ac</sup> ± 0.01	0.30 <sup>Bc</sup> ± 0.01	0.58 <sup>Cc</sup> ± 0.02	0.14 <sup>Ab</sup> ± 0.01	0.26 <sup>Bb</sup> ± 0.01	0.54 <sup>Cb</sup> ± 0.02	0.13 <sup>Ab</sup> ± 0.01	0.27 <sup>Bb</sup> ± 0.01	0.56 <sup>Cbc</sup> ± 0.02	0.11 <sup>Aab</sup> ± 0.01	0.26 <sup>Bb</sup> ± 0.01	0.49 <sup>Cb</sup> ± 0.02	0.10 <sup>Aa</sup> ± 0.01	0.17 <sup>Ba</sup> ± 0.01	0.28 <sup>Ca</sup> ± 0.01

a-f – the different small letters within the same row (in one amount of the input used, for example, 0.5%) indicate significant differences ( $\alpha < 0.05$ ) influenced by storage time; A-C – the different capital letters within the same row indicate significant differences ( $\alpha < 0.05$ ) influenced by the differences between the content of the analyzed substance in each week of storage

**Table S4.** Cannabinoids determined in fermented milk drink with dried hemp input (0.5%, 1% and 2% (w/v)).

CBNA	0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup>	0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup> ± 0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup> ± 0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup> ± 0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup> ± 0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup>	0.02 <sup>Aa</sup> ± 0.03 <sup>ABa</sup> ± 0.06 <sup>Ca</sup>															
	0.01	0.01	± 0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	± 0.01	± 0.01	± 0.01	± 0.01		
CBL	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	0.01 <sup>Bb</sup> ± 0.01 <sup>Bb</sup> ± 0.02 <sup>BCb</sup> ± 0.01	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>		
				0.01	0.01	0.01												
CBLA	0.013 <sup>Aa</sup> ± 0.03 <sup>Bb</sup> ± 0.05 <sup>Cc</sup>	0.01 <sup>Aa</sup> ± 0.02 <sup>ABab</sup>	0.04 <sup>Cc</sup> ± 0.01	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>		
	0.001	0.01	± 0.01	0.01	± 0.01	0.01												
Sum of 17 cannabinoids	5.53 <sup>Ad</sup> ± 11.05 <sup>Bd</sup>	22.08 <sup>Cb</sup>	4.73 <sup>Abc</sup> ± 9.21 <sup>Bbc</sup> ± 16.81 <sup>Cb</sup>	4.48 <sup>Aab</sup> ± 8.48 <sup>Bab</sup> ± 15.73 <sup>Cab</sup>	4.27 <sup>Aa</sup> ± 8.03 <sup>Ba</sup> ± 15.22 <sup>Ca</sup>	4.19 <sup>Aa</sup> ± 7.81 <sup>Ba</sup> ± 14.52 <sup>Ca</sup>	4.03 <sup>Aa</sup>	7.55 <sup>Ba</sup> ± 14.11 <sup>Ca</sup>										
	0.44	± 0.88	± 1.76	0.46	0.90	± 1.67	0.44	0.84	± 1.58	0.42	0.80	± 1.54	0.41	0.78	± 1.48	± 0.40	0.76	± 1.45

a-f – the different small letters within the same row (in one amount of the input used, for example, 0.5%) indicate a significant differences ( $\alpha < 0.05$ ) influenced by storage time; A-C – the different capital letters within the same row indicate significant differences ( $\alpha < 0.05$ ) influenced by the differences between the content of the analyzed substance in each week of storage

**Table S5.** Cannabinoids determined in fermented milk drink with hemp oil input (0.5%, 1% and 2% (*w/v*)).

Analyte	Amount in fermented milk drink (mg/100g of product)																			
	Assumed amount of compound				After fermentation				1 week				2 weeks				3 weeks			
	0.5%	1%	2%	0.5%	1%	2%	0.5%	1%	2%	0.5%	1%	2%	0.5%	1%	2%	0.5%	1%	2%	0.5%	
CBD	21.29 <sup>Aa</sup> ± 1.50	42.57 <sup>Ba</sup> ± 2.98	85.14 <sup>Ca</sup> ± 5.96	42.22 <sup>Ac</sup> ± 0.39	46.22 <sup>ABab</sup> ± 0.50	111.78 <sup>Cb</sup> ± 2.55	27.32 <sup>Ab</sup> ± 1.70	57.35 <sup>Bc</sup> ± 2.30	118.18 <sup>Cc</sup> ± 3.22	42.74 <sup>Ac</sup> ± 3.12	61.95 <sup>Bcd</sup> ± 3.99	120.14 <sup>Ccd</sup> ± 3.21	45.69 <sup>Ac</sup> ± 4.13	74.12 <sup>Be</sup> ± 8.12	121.88 <sup>Cd</sup> ± 4.47	49.29 <sup>Ac</sup> ± 1.78	85.69 <sup>Bf</sup> ± 2.85	122.48 <sup>Cd</sup> ± 3.56		
CBDA	3.93 <sup>Ac</sup> ± 0.28	7.86 <sup>Bc</sup> ± 0.55	15.72 <sup>Cb</sup> ± 1.10	0.86 <sup>Aa</sup> ± 0.02	1.26 <sup>Ba</sup> ± 0.03	13.44 <sup>Ca</sup> ± 2.17	2.33 <sup>Ab</sup> ± 0.72	4.16 <sup>Bb</sup> ± 0.51	16.16 <sup>Cb</sup> ± 1.99	5.13 <sup>Ad</sup> ± 0.87	11.74 <sup>Bd</sup> ± 1.15	27.41 <sup>Cd</sup> ± 2.19	8.60 <sup>Ae</sup> ± 1.54	17.11 <sup>Be</sup> ± 1.54	28.96 <sup>Cd</sup> ± 0.99	9.03 <sup>Af</sup> ± 4.74	18.11 <sup>Bef</sup> ± 0.02	30.38 <sup>Cd</sup> ± 0.12		
Δ <sup>9</sup> -THC	0.09 <sup>Ab</sup> ± 0.01	0.17 <sup>Bb</sup> ± 0.01	0.35 <sup>Cb</sup> ± 0.02	0.03 <sup>Aa</sup> ± 0.01	0.04 <sup>Ab</sup> ± 0.01	0.05 <sup>Ba</sup> ± 0.03	0.04 <sup>Ab</sup> ± 0.01	0.05 <sup>Ba</sup> ± 0.01	0.03 <sup>Ac</sup> ± 0.01	0.04 <sup>Ab</sup> ± 0.01	0.05 <sup>Ba</sup> ± 0.01	0.03 <sup>Ac</sup> ± 0.01	0.04 <sup>Ab</sup> ± 0.01	0.05 <sup>Ba</sup> ± 0.01	0.03 <sup>Ac</sup> ± 0.01	0.04 <sup>Ab</sup> ± 0.01	0.05 <sup>Ba</sup> ± 0.01			
Δ <sup>9</sup> -THCA-A	0.14 <sup>Ab</sup> ± 0.01	0.28 <sup>Bb</sup> ± 0.02	0.55 <sup>Cb</sup> ± 0.03	0.01 <sup>Aa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.02 <sup>ABa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.02 <sup>ABa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.02 <sup>ABa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.02 <sup>ABa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.01 <sup>Aa</sup> ± 0.01	0.02 <sup>ABa</sup> ± 0.01		
CBC	0.08 <sup>Aa</sup> ± 0.01	0.16 <sup>Ba</sup> ± 0.01	0.33 <sup>Cb</sup> ± 0.01	0.18 <sup>Ab</sup> ± 0.01	0.20 <sup>Bb</sup> ± 0.01	0.89 <sup>Cd</sup> ± 0.10	0.19 <sup>Ab</sup> ± 0.02	0.20 <sup>ABb</sup> ± 0.01	0.25 <sup>Ca</sup> ± 0.02	0.06 <sup>Aa</sup> ± 0.01	0.31 <sup>Bc</sup> ± 0.01	0.31 <sup>Bb</sup> ± 0.01	0.18 <sup>Ab</sup> ± 0.01	0.39 <sup>Bd</sup> ± 0.01	0.49 <sup>Cc</sup> ± 0.01	0.34 <sup>Ac</sup> ± 0.02	0.61 <sup>Be</sup> ± 0.03	1.00 <sup>Cd</sup> ± 0.05		
CBCA	0.15 <sup>Aa</sup> ± 0.01	0.30 <sup>Ba</sup> ± 0.02	0.60 <sup>Ca</sup> ± 0.04	0.28 <sup>Ab</sup> ± 0.01	0.37 <sup>Bc</sup> ± 0.02	1.26 <sup>Cb</sup> ± 0.03	0.37 <sup>Bd</sup> ± 0.03	0.33 <sup>Ab</sup> ± 0.01	1.18 <sup>Cb</sup> ± 0.02	0.31 <sup>Ac</sup> ± 0.01	0.43 <sup>Bd</sup> ± 0.02	1.21 <sup>Cb</sup> ± 0.01	0.28 <sup>Ab</sup> ± 0.01	0.49 <sup>Bde</sup> ± 0.01	1.22 <sup>Cb</sup> ± 0.02	0.25 <sup>Ab</sup> ± 0.01	0.59 <sup>Bf</sup> ± 0.02	1.27 <sup>Cb</sup> ± 0.02		
CBG	25.56 <sup>Af</sup> ± 1.78	51.11 <sup>Be</sup> ± 3.57	102.22 <sup>Cf</sup> ± 7.16	5.20 <sup>Aa</sup> ± 0.42	5.71 <sup>Ba</sup> ± 0.07	14.04 <sup>Ca</sup> ± 0.17	9.04 <sup>Ab</sup> ± 0.22	19.01 <sup>Bb</sup> ± 0.22	24.31 <sup>Cb</sup> ± 0.31	12.20 <sup>Ac</sup> ± 0.27	27.34 <sup>Bc</sup> ± 0.74	39.56 <sup>Cc</sup> ± 0.21	18.78 <sup>Ad</sup> ± 0.07	33.79 <sup>Bd</sup> ± 0.11	44.44 <sup>Cd</sup> ± 0.02	20.08 <sup>Ae</sup> ± 0.02	34.53 <sup>Bd</sup> ± 0.05	50.48 <sup>Ce</sup> ± 0.50		
CBGA	0.06 <sup>Aa</sup> ± 0.01	0.12 <sup>Ba</sup> ± 0.01	0.30 <sup>Ca</sup> ± 0.01	0.14 <sup>Ad</sup> ± 0.01	0.20 <sup>Bb</sup> ± 0.01	0.67 <sup>Cd</sup> ± 0.02	0.13 <sup>Ad</sup> ± 0.01	0.20 <sup>Bb</sup> ± 0.01	0.64 <sup>Cc</sup> ± 0.02	0.11 <sup>Ac</sup> ± 0.01	0.21 <sup>Bbb</sup> ± 0.02	0.60 <sup>Cc</sup> ± 0.01	0.11 <sup>Ac</sup> ± 0.01	0.20 <sup>Bb</sup> ± 0.01	0.53 <sup>Cb</sup> ± 0.01	0.09 <sup>Ab</sup> ± 0.01	0.23 <sup>Bc</sup> ± 0.01	0.52 <sup>Cb</sup> ± 0.02		
CBDV	0.07 <sup>Aa</sup> ± 0.01	0.14 <sup>Ba</sup> ± 0.01	0.28 <sup>Ca</sup> ± 0.02	0.15 <sup>Ab</sup> ± 0.01	0.19 <sup>Bb</sup> ± 0.01	0.70 <sup>Cb</sup> ± 0.02	0.16 <sup>Ab</sup> ± 0.01	0.25 <sup>Bc</sup> ± 0.02	0.70 <sup>Cb</sup> ± 0.01	0.16 <sup>Ab</sup> ± 0.01	0.29 <sup>Bcd</sup> ± 0.03	0.70 <sup>Cb</sup> ± 0.02	0.16 <sup>Ab</sup> ± 0.01	0.30 <sup>Bd</sup> ± 0.03	0.70 <sup>Cb</sup> ± 0.01	0.16 <sup>Ab</sup> ± 0.01	0.35 <sup>Be</sup> ± 0.03	0.70 <sup>Cb</sup> ± 0.03		
CBDVA	0.07 <sup>Aa</sup> ± 0.01	0.14 <sup>Bb</sup> ± 0.02	0.27 <sup>Ca</sup> ± 0.01	0.17 <sup>Ab</sup> ± 0.01	0.30 <sup>Bb</sup> ± 0.01	0.75 <sup>Cb</sup> ± 0.02	0.17 <sup>Ab</sup> ± 0.01	0.30 <sup>Bb</sup> ± 0.02	0.75 <sup>Cb</sup> ± 0.03	0.17 <sup>Ab</sup> ± 0.01	0.32 <sup>Bbc</sup> ± 0.03	0.75 <sup>Cb</sup> ± 0.04	0.17 <sup>Ab</sup> ± 0.01	0.36 <sup>Bbc</sup> ± 0.04	0.78 <sup>Cbc</sup> ± 0.03	0.15 <sup>Ab</sup> ± 0.02	0.36 <sup>Bbc</sup> ± 0.03	0.78 <sup>Cbc</sup> ± 0.03		
Δ <sup>9</sup> -THCV	0.003 <sup>Ab</sup> ± 0.001	0.006 <sup>Ba</sup> ± 0.002	0.012 <sup>Ca</sup> ± 0.002	0.005 <sup>Ac</sup> ± 0.001	0.006 <sup>Aa</sup> ± 0.001	0.022 <sup>Bc</sup> ± 0.001	0.005 <sup>Ac</sup> ± 0.001	0.01 <sup>Bb</sup> ± 0.001	0.02 <sup>Cb</sup> ± 0.001	0.005 <sup>Ac</sup> ± 0.001	0.01 <sup>Bb</sup> ± 0.001	0.02 <sup>BCb</sup> ± 0.001	ND <sup>Aa</sup>	0.01 <sup>Bb</sup> ± 0.01	0.02 <sup>BCb</sup> ± 0.01	ND <sup>Aa</sup>	0.01 <sup>Bb</sup> ± 0.01	0.02 <sup>BCb</sup> ± 0.01		
Δ <sup>9</sup> -THCVA	0.007 <sup>Aa</sup> ± 0.001	0.01 <sup>Ba</sup> ± 0.01	0.03 <sup>Ca</sup> ± 0.01	0.015 <sup>Ac</sup> ± 0.001	0.022 <sup>Bb</sup> ± 0.01	0.06 <sup>Cb</sup> ± 0.02	0.02 <sup>Ad</sup> ± 0.01	0.03 <sup>Bc</sup> ± 0.03	0.07 <sup>Cc</sup> ± 0.02	0.02 <sup>Ad</sup> ± 0.01	0.03 <sup>Bc</sup> ± 0.03	0.07 <sup>Cc</sup> ± 0.01	0.01 <sup>Ab</sup> ± 0.01	0.03 <sup>Bc</sup> ± 0.01	0.07 <sup>Cc</sup> ± 0.01	0.01 <sup>Ab</sup> ± 0.01	0.03 <sup>Bc</sup> ± 0.01	0.07 <sup>Cc</sup> ± 0.01		
Δ <sup>8</sup> -THC	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>	ND <sup>Aa</sup>			
CBN	0.5 <sup>Ac</sup> ± 0.01	1.0 <sup>Bc</sup> ± 0.01	2.0 <sup>Cc</sup> ± 0.01	0.03 <sup>Ab</sup> ± 0.01	0.04 <sup>ABA</sup> ± 0.01	0.11 <sup>Ca</sup> ± 0.01	0.02 <sup>AA</sup> ± 0.01	0.06 <sup>Bb</sup> ± 0.01	0.11 <sup>Ca</sup> ± 0.01	0.02 <sup>AA</sup> ± 0.01	0.06 <sup>Bb</sup> ± 0.01	0.11 <sup>Ca</sup> ± 0.01	0.02 <sup>AA</sup> ± 0.01	0.06 <sup>Bb</sup> ± 0.01	0.11 <sup>Ca</sup> ± 0.01	0.02 <sup>AA</sup> ± 0.01	0.06 <sup>Bb</sup> ± 0.01	0.12 <sup>Cb</sup> ± 0.01		

CBNA	0.004 <sup>Aa</sup>	0.007 <sup>Ba</sup>	0.014 <sup>Ca</sup>	0.01 <sup>Ae</sup>	0.01 <sup>Ab</sup> ± 0.03 <sup>Bb</sup> ± 0.007 <sup>Ab</sup>	0.015 <sup>Bc</sup>	0.03 <sup>Cb</sup> ± 0.008 <sup>Ac</sup>	0.019 <sup>Bd</sup>	0.03 <sup>Cb</sup> ± 0.009 <sup>Acd</sup>	0.02 <sup>Bd</sup> ± 0.03 <sup>Cb</sup> ± 0.01 <sup>Ae</sup> ± 0.02 <sup>ABd</sup>	0.03 <sup>BB</sup> ± 0.001	± 0.001 ± 0.001 ± 0.001 ± 0.01	0.01	0.01 ± 0.001 ± 0.001	0.01 ± 0.001 ± 0.002	0.01 ± 0.002	0.001	0.01	0.01 ± 0.0.1	0.01																
CBL	0.02 <sup>Aa</sup> ± 0.03 <sup>Ba</sup> ± 0.06 <sup>Ca</sup> ± 0.03 <sup>Ab</sup>	0.03 <sup>Aa</sup> ± 0.11 <sup>Bb</sup> ± 0.06 <sup>Ac</sup>	0.09 <sup>Bb</sup> ± 0.14 <sup>Cc</sup> ± 0.07 <sup>Ad</sup>	0.10 <sup>Bc</sup> ± 0.14 <sup>Cc</sup> ± 0.07 <sup>Ad</sup> ± 0.10 <sup>Bc</sup> ± 0.14 <sup>Cc</sup> ± 0.07 <sup>Ad</sup> ± 0.10 <sup>Bc</sup> ± 0.20 <sup>Cd</sup> ± 0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.01	0.02	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01																
CBLA	0.03 <sup>Aa</sup>	0.05 <sup>Ba</sup> ± 0.10 <sup>Ca</sup> ± 0.05 <sup>Ab</sup>	0.06 <sup>Bb</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.10 <sup>Bc</sup> ± 0.25 <sup>Cb</sup> ± 0.05 <sup>Ab</sup>	0.11 <sup>Bd</sup> ± 0.26 <sup>Cb</sup> ± 0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02																
Sum of 17	52.00 <sup>Abc</sup>	103.95 <sup>Bc</sup>	208.10 <sup>Cc</sup>	49.38 <sup>Ab</sup>	54.67 <sup>ABa</sup> ± 144.27 <sup>Ca</sup>	39.91 <sup>Aa</sup>	82.16 <sup>Bb</sup>	162.86 <sup>Cab</sup>	61.10 <sup>Ad</sup>	102.96 <sup>Bc</sup>	191.37 <sup>Cbc</sup>	74.17 <sup>Ae</sup>	127.13 <sup>Bd</sup>	199.69 <sup>Cc</sup>	79.59 <sup>Aef</sup>	140.85 <sup>Be</sup>	208.38 <sup>Ccd</sup>	cannabinoids	± 4.68	± 9.36	± 18.72	± 4.48	4.97	± 13.19	± 3.63	± 7.46	± 14.86	± 5.54	± 9.35	± 17.44	± 6.72	± 11.54	± 18.20	± 7.21	± 12.78	± 18.99

a-f – the different small letters within the same row (in one amount of the input used, for example, 0.5%) indicate a significant differences ( $\alpha < 0.05$ ) influenced by storage time; A-C – the different capital letters within the same row indicate significant differences ( $\alpha < 0.05$ ) influenced by the differences between the content of the analyzed substance in each week of storage

**Table S6.** Sensory quality determinants used in the profile evaluation of samples with hemp input

No.	Determinants	Definition of sensory quality determinants	Scale markings
1.	Green colour	Green colour intensity	Light green - dark green
2.	Colour typical for yoghurt	Typical of a fermented milk beverage	typical - non-typical
3.	Yoghurt aroma	Characteristic of natural yoghurt	Undetectable - very intense
4.	Sour aroma	Characteristic of natural yoghurt	Undetectable - very intense
5.	Sweet aroma	Characteristic of natural yoghurt	Undetectable - very intense
6.	Aroma foreign characteristic 'grassy'	Foreign aroma, unusual for yoghurt	Undetectable - very intense
7.	Sweet flavour	Basic taste, no need for explanation	Undetectable - very intense
8.	Flavour foreign characteristic "grassy"	Foreign flavour, unusual for yoghurt	Undetectable - very intense
9.	Sour flavour	Acidic aftertaste, persists in the mouth	Undetectable - very intense
10.	Acidic flavour	Characteristic of natural yoghurt	Undetectable - very intense
11.	Bitter flavour	Basic taste, no need for explanation	Undetectable - very intense
12.	Consistency	Sensory sensation perceived upon ingestion of the sample	Smooth - perceptible elements
13.	Density	Sensory impression received when taking and consuming a sample	Very thin-very thick
14.	Overall quality	General sensory impression, including distinguishing marks of smell, colour, texture, taste	Bad - very good

**Table S7.** Results of the profile analysis of hemp-infused fermented milk drinks (0-10 scale).

No.	Determinants of aroma, colour, texture, taste and overall assessment	Control	Sample with hemp extract 0.5%	Sample with hemp extract 1%	Sample with hemp extract 2%	Sample with dried hemp 0.5%	Sample with dried hemp 1%	Sample with dried hemp 2%	Sample with hemp oil 0.5%	Sample with hemp oil 1%	Sample with hemp oil 2%
1.	Green colour	0.01 <sup>a</sup> ± 0.01	0.50 <sup>b</sup> ± 0.09	1.33 <sup>c</sup> ± 0.15	1.59 <sup>cd</sup> ± 0.11	4.48 <sup>e</sup> ± 0.54	6.74 <sup>f</sup> ± 0.22	8.51 <sup>g</sup> ± 0.45	0.01 <sup>a</sup> ± 0.01	0.01 <sup>a</sup> ± 0.01	0.01 <sup>a</sup> ± 0.01
2.	Colour typical for yoghurt	0.01 <sup>a</sup> ± 0.01	1.11 <sup>b</sup> ± 0.12	2.25 <sup>c</sup> ± 0.16	3.13 <sup>d</sup> ± 0.40	8.24 <sup>gh</sup> ± 0.42	8.85 <sup>h</sup> ± 0.87	9.35 <sup>i</sup> ± 0.55	5.54 <sup>e</sup> ± 0.19	6.66 <sup>f</sup> ± 0.45	7.42 <sup>g</sup> ± 0.78
3.	Yoghurt aroma	9.59 <sup>de</sup> ± 0.54	7.14 <sup>b</sup> ± 0.41	7.22 <sup>b</sup> ± 0.19	7.87 <sup>bc</sup> ± 0.53	6.52 <sup>a</sup> ± 0.47	6.89 <sup>ab</sup> ± 0.69	7.12 <sup>b</sup> ± 0.45	8.11 <sup>c</sup> ± 0.24	8.58 <sup>cd</sup> ± 0.45	8.98 <sup>d</sup> ± 0.74
4.	Sour aroma	1.10 <sup>a</sup> ± 0.14	2.16 <sup>b</sup> ± 0.13	3.03 <sup>c</sup> ± 0.20	3.89 <sup>d</sup> ± 0.11	4.02 <sup>e</sup> ± 0.14	5.37 <sup>f</sup> ± 0.45	6.05 <sup>h</sup> ± 0.24	5.23 <sup>f</sup> ± 0.35	5.54 <sup>fg</sup> ± 0.13	5.77 <sup>gh</sup> ± 0.23
5.	Sweet aroma	5.74 <sup>d</sup> ± 0.22	6.56 <sup>e</sup> ± 0.20	4.44 <sup>c</sup> ± 0.11	3.01 <sup>b</sup> ± 0.01	2.06 <sup>a</sup> ± 0.10	2.08 <sup>a</sup> ± 0.12	2.19 <sup>a</sup> ± 0.12	4.34 <sup>c</sup> ± 0.21	4.38 <sup>c</sup> ± 0.12	4.39 <sup>c</sup> ± 0.14
6.	Aroma foreign characteristic "grassy"	0.01 <sup>a</sup> ± 0.01	0.03 <sup>b</sup> ± 0.01	0.06 <sup>c</sup> ± 0.01	0.09 <sup>d</sup> ± 0.01	3.58 <sup>f</sup> ± 0.14	5.74 <sup>h</sup> ± 0.34	9.64 <sup>j</sup> ± 0.45	3.04 <sup>e</sup> ± 0.11	5.12 <sup>g</sup> ± 0.14	7.85 <sup>i</sup> ± 0.16
7.	Sweet flavour	5.58 <sup>c</sup> ± 0.45	5.63 <sup>c</sup> ± 0.12	5.54 <sup>c</sup> ± 0.18	4.07 <sup>b</sup> ± 0.13	2.03 <sup>a</sup> ± 0.12	2.10 <sup>a</sup> ± 0.18	1.99 <sup>a</sup> ± 0.12	2.05 <sup>a</sup> ± 0.14	2.09 <sup>a</sup> ± 0.20	2.17 <sup>a</sup> ± 0.16
8.	Flavour foreign characteristic "grassy"	0.01 <sup>a</sup> ± 0.01	0.02 <sup>a</sup> ± 0.01	0.07 <sup>b</sup> ± 0.01	0.12 <sup>c</sup> ± 0.02	3.31 <sup>de</sup> ± 0.14	6.41 <sup>g</sup> ± 0.15	9.48 <sup>i</sup> ± 0.32	3.13 <sup>d</sup> ± 0.09	5.35 <sup>f</sup> ± 0.14	7.21 <sup>h</sup> ± 0.17
9.	Sour flavour	0.01 <sup>a</sup> ± 0.01	0.04 <sup>b</sup> ± 0.01	1.41 <sup>c</sup> ± 0.11	2.86 <sup>de</sup> ± 0.45	4.14 <sup>g</sup> ± 0.15	5.18 <sup>h</sup> ± 0.21	6.36 <sup>i</sup> ± 0.24	2.41 <sup>d</sup> ± 0.12	2.58 <sup>d</sup> ± 0.41	3.65 <sup>f</sup> ± 0.11
10.	Acidic flavour	3.15 <sup>a</sup> ± 0.67	4.51 <sup>c</sup> ± 0.21	5.36 <sup>d</sup> ± 0.14	6.06 <sup>f</sup> ± 0.12	4.68 <sup>c</sup> ± 0.22	5.45 <sup>de</sup> ± 0.17	6.16 <sup>f</sup> ± 0.41	4.12 <sup>b</sup> ± 0.13	4.15 <sup>b</sup> ± 0.11	5.14 <sup>d</sup> ± 0.17
11.	Bitter flavour	0.01 <sup>a</sup> ± 0.01	0.01 <sup>a</sup> ± 0.01	0.05 <sup>b</sup> ± 0.01	0.09 <sup>b</sup> ± 0.01	2.58 <sup>cd</sup> ± 0.19	5.35 <sup>e</sup> ± 0.25	8.78 <sup>f</sup> ± 0.11	1.99 <sup>c</sup> ± 0.12	2.12 <sup>c</sup> ± 0.17	2.22 <sup>c</sup> ± 0.24
12.	Consistency	0.01 <sup>a</sup> ± 0.01	1.00 <sup>b</sup> ± 0.19	1.05 <sup>b</sup> ± 0.01	1.40 <sup>d</sup> ± 0.12	3.22 <sup>e</sup> ± 0.07	7.13 <sup>f</sup> ± 0.19	9.41 <sup>g</sup> ± 0.52	1.01 <sup>c</sup> ± 0.01	1.12 <sup>c</sup> ± 0.14	1.18 <sup>c</sup> ± 0.14
13.	Density	9.87 <sup>f</sup> ± 0.21	5.47 <sup>a</sup> ± 0.33	7.45 <sup>bc</sup> ± 0.30	7.11 <sup>b</sup> ± 0.11	8.01 <sup>d</sup> ± 0.11	8.25 <sup>de</sup> ± 0.41	9.65 <sup>f</sup> ± 0.13	7.02 <sup>b</sup> ± 0.14	8.14 <sup>de</sup> ± 0.45	8.22 <sup>de</sup> ± 0.16
14.	<b>Overall quality</b>	<b>9.50<sup>i</sup> ± 0.11</b>	<b>8.88<sup>gh</sup> ± 0.17</b>	<b>7.57<sup>e</sup> ± 0.14</b>	<b>7.04<sup>d</sup> ± 0.20</b>	<b>5.12±0.22</b>	<b>4.78<sup>b</sup>±0.18</b>	<b>3.36<sup>a</sup>±0.40</b>	<b>8.12<sup>f</sup>±0.14</b>	<b>8.14<sup>f</sup>±0.26</b>	<b>8.35<sup>fg</sup>±0.40</b>

a-i - the different small letters within the same row indicate a significant differences ( $\alpha < 0.05$ ) influenced by amount and type of hemp input.