Supplementary Materials: Influence of Sample Storage on the Composition of Carbonated Beverages by MIR Spectroscopy

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Table S1. Significant changes in titratable acidity (TA) and/or total phenolics of beer and cider following short-term (1 week) refrigeration or freezing or long-term (6 week) freezing.

		Fresh	Refrigerated (1 Week)	Frozen (1 Week)	Frozen (6 Weeks)
Beer A	TA (g/L)	1.9 ± 0.1	2.3 ± 0.2	2.1 ± 0.2	2.6 ± 0.4 [a]
	Total phenolics (au)	11.7 ± 0.5	11.0 ± 0.3 [b]	11.3 ± 0.2	10.6 ± 1.2 [b]
Beer B	TA (g/L)	2.1 ± 0.1	2.3 ± 0.1	2.3 ± 0.2	2.6 ± 0.3 [a]
	Total phenolics (au)	15.0 ± 0.1	14.1 ± 0.3	13.5 ± 1.1 [b]	13.8 ± 1.1 [b]
Beer C	TA (g/L)	2.0 ± 0.1	2.2 ± 0.2	1.9 ± 0.2 [c]	1.7 ± 0.3 [a]
	Total phenolics (au)	12.1 ± 0.2	10.1 ± 1.7 [a]	10.8 ± 1.1	10.9 ± 0.8
Beer D	TA (g/L)	1.4 ± 0.1	1.4 ± 0.1	1.3 ± 0.1	1.2 ± 0.2 [b]
	Total phenolics (au)	10.5 ± 0.2	10.6 ± 0.3	6.1 ± 2.0 [a]	8.8 ± 0.8 [b]
Cider A	TA (g/L)	6.7 ± 0.1	6.8 ± 0.1	6.6 ± 0.1	6.9 ± 0.1 [c]
	Total phenolics (au)	17.9 ± 0.2	16.4 ± 0.4	16.6 ± 0.1	16.2 ± 0.2 [a]
Cider B	Total phenolics (au)	30.8 ± 0.6	29.7 ± 1.3	28.9 ± 1.8 [a]	29.5 ± 1.1 [b]
Cider C	TA (g/L)	7.2 ± 0.1	7.2 ± 0.1	6.9 ± 0.1 [b]	7.1 ± 0.4 [c]
	Total phenolics (au)	18.8 ± 0.3	18.7 ± 0.4	17.7 ± 0.1 [b]	17.4 ± 1.3 [a]
Cider D	TA (g/L)	7.0 ± 0.2	7.1 ± 0.2	6.8 ± 0.2	6.1 ± 0.3 [c]
	Total phenolics (au)	15.1 ± 0.3	14.9 ± 0.2 [c]	14.7 ± 0.3 [a]	14.3 ± 1.1 [a]

Values are the means from ten experimental replicates ($n = 10$). All samples were degassed prior to analysis. TA was measured as malic acid equivalents for beer and cider, to endpoints of 8.2. Total phenolics were measured at A_{280}. Color was measured at A_{430}. Letters indicate significant differences relative to the fresh sample (a: $P < 0.001$; b: $P < 0.01$; c: $P < 0.05$).