

Table S1. Ranges of concentration in each harvest (Minimum-Maximum) of volatile compounds in ciders made by the Exhaustion and Cryo-extraction methods, obtained by fermentation with the *Saccharomyces bayanus* yeast strain (C6).

Major volatiles (mg/L)	Sy	J	H	Exhaustion		Cryo-extraction	
				H1	H2	H1	H2
Ethyl acetate	ns	ns	**	42.0 – 52.3	46.9 – 60.1	45.0 – 51.1	42.9 – 55.6
Methanol	ns	**	**	41.4 – 54.6	29.9 – 43.8	31.8 – 55.1	28.8 – 61.4
1-Propanol	ns	*	***	21.8 – 25.5	16.2 – 21.0	18.7 – 21.4	9.7 – 22.0
<i>Iso</i> -butanol	ns	ns	***	42.4 – 48.9	25.7 – 33.5	29.8 – 43.8	28.5 – 41.3
1-butanol	ns	***	*	2.7 – 5.6	3.1 – 6.2	2.4 – 7.5	3.5 – 7.9
Amyl alcohols	ns	ns	***	300.4 – 317.4	215.6 – 236.2	276.7 – 370.3	252.6 – 301.3
2-Phenylethanol	***	**	ns	55.3 – 154.9	56.8 – 69.3	82.3 – 146.9	80.9 – 176.6
Minor volatiles (µg/L IS)							
Minor alcohols + Volatile phenols							
Hexanol	***	ns	ns	0.5 – 0.7	0.4 – 0.5	0.7 – 1.1	0.8 – 1.2
1-Octanol	***	*	**	0.1 – 0.2	0.2 – 0.3	0.2 – 0.4	0.3 – 0.4
4-vinylguaiaicol	**	***	ns	0.5 – 1.9	0.4 – 2.0	0.7 – 6.8	0.8 – 4.4
4-vinylphenol	**	***	ns	0.3 – 1.0	0.1 – 0.6	0.4 – 2.6	0.3 – 1.9
<u>Esters</u>							
Ethyl butyrate	***	ns	ns	0.4 – 0.8	1.1 – 1.8	1.6 – 3.3	1.4 – 2.7
Ethyl-2-methylbutyrate	**	ns	ns	0.6 – 1.4	1.2 – 2.9	1.5 – 2.3	1.3 – 2.7
Ethyl-3-methylbutyrate	***	ns	ns	0.1 – 0.4	0.2 – 0.2	0.3 – 0.6	0.2 – 0.4
Ethyl valerate	*	***	ns	0.1 – 0.2	0.1 – 0.4	0.1 – 0.4	0.2 – 0.5
Ethyl hexanoate	***	*	ns	6.8 – 18.4	11.2 – 32.2	25.5 – 46.9	12.4 – 36.8
Ethyl octanoate	***	ns	ns	62.4 – 155.5	156.6 – 226.7	278.4 – 472.9	262.8 – 445.5
Ethyl nonanoate	***	ns	**	0.1 – 0.3	0.3 – 0.4	0.5 – 0.7	0.8 – 1.5
Ethyl decanoate	***	ns	*	61.9 – 161.4	157.6 – 218.6	211.01 – 430.4	322.2 – 364.9
Ethyl benzoate	**	**	ns	1.7 – 4.1	2.8 – 5.6	1.6 – 3.1	1.8 – 2.8
Diethyl succinate	ns	ns	***	2.5 – 3.7	4.4 – 7.0	1.6 – 3.5	2.8 – 6.3
Ethyl dodecanoate	***	ns	ns	7.0 – 29.7	13.9 – 35.3	45.1 – 212.6	43.5 – 93.5
Ethyl tetradecanoate	***	ns	ns	1.6 – 8.7	3.2 – 7.6	32.1 – 151.5	14.6 – 67.5
Ethyl cinnamate	ns	***	ns	0.5 – 0.9	0.5 – 1.7	0.5 – 0.7	0.4 – 1.0
Ethyl hexadecanoate	***	ns	ns	5.1 – 8.2	5.1 – 10.3	16.9 – 47.4	12.0 – 29.8
Ethyl oleate	ns	ns	***	0.9 – 3.2	0.2 – 1.0	0.9 – 1.7	0.5 – 1.3
Isoamyl decanoate	***	ns	ns	0.7 – 1.3	1.5 – 2.0	3.0 – 12.9	3.4 – 8.3
Isoamyl octanoate	***	ns	ns	0.9 – 2.2	2.7 – 4.1	4.4 – 12.1	5.7 – 8.9
Methyl octanoate	***	ns	**	0.1 – 0.2	0.3 – 0.5	0.4 – 0.5	0.3 – 1.1
Methyl decanoate	***	ns	ns	0.1 – 0.2	0.2 – 0.3	0.2 – 0.5	0.3 – 0.8
Isoamylethyl succinate	*	ns	**	1.3 – 1.5	1.2 – 1.7	1.1 – 1.5	1.6 – 2.5
Ethylphenyl acetate	ns	***	**	1.3 – 2.3	1.7 – 3.3	1.4 – 3.2	1.3 – 4.5
Isoamyl acetate	***	ns	ns	4.8 – 12.7	6.4 – 13.1	15.6 – 145.2	9.3 – 21.5
2-Phenylethyl acetate	ns	ns	***	6.3 – 34.8	1.8 – 4.2	4.8 – 115.5	4.9 – 9.6
<u>Fatty acids</u>							
Hexanoic	**	ns	***	0.6 – 0.8	1.8 – 2.5	1.2 – 2.1	2.2 – 2.7
Octanoic	***	ns	***	9.7 – 13.7	37.6 – 55.2	34.0 – 55.5	55.8 – 67.2
Decanoic	**	ns	***	16.1 – 26.0	51.1 – 63.8	37.4 – 53.0	64.8 – 69.5
Dodecanoic	***	ns	ns	0.7 – 2.3	1.3 – 2.2	3.1 – 10.1	3.5 – 6.9

Sy: system; J: juice; H: harvest; IS: internal standard (2-ethyl-1-hexanol); ns: not significant; (*): significant at $p < 0.10$; (**): significant at $p < 0.05$; (***): significant at $p < 0.01$.