

Supplementary Table S2. Relative composition of volatile compounds (% of total peak area) of cut spearmint stored under low O₂ conditions

Type	Name	Chemical formula	AIR D0	AIR D5	AIR D10	AIR D15	1% D0	1% D5	1% D10	1% D15	5% D0	5% D5	5% D10	5% D15	10% D0	10% D5	10% D10	10% D15
Alcohols	3-Octanol	C ₈ H ₁₈ O	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.0927 ± 0.161	0 ± 0	0 ± 0	0 ± 0	0.048 ± 0.0831	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	Phenylethyl alcohol	C ₈ H ₁₀ O	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.187 ± 0.167	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
Aldehydes & Ketones	(E)-2-Hexenal	C ₆ H ₁₀ O	0 ± 0	0 ± 0	0.988 ± 1.71	0.678 ± 1.17	0 ± 0	0 ± 0	0 ± 0	0.333 ± 0.361	0 ± 0	0 ± 0	0 ± 0	0.204 ± 0.177	0 ± 0	0 ± 0	0 ± 0	0.238 ± 0.216
	3-Octanone	C ₈ H ₁₆ O	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.071 ± 0.123	0 ± 0	0 ± 0	0 ± 0	0.0559 ± 0.0969	0 ± 0	0 ± 0	0 ± 0	0 ± 0
Esters	2-Methyl-methyl ester butanoic acid	C ₆ H ₁₂ O ₂	0.254 ± 0.0584	0.599 ± 0.837	0.262 ± 0.454	0.15 ± 0.259	0.254 ± 0.0584	0.348 ± 0.0728	0.172 ± 0.155	0.0385 ± 0.0667	0.254 ± 0.0584	0.186 ± 0.162	0.0729 ± 0.126	0.0431 ± 0.0746	0.254 ± 0.0584	0.225 ± 0.208	0 ± 0	0 ± 0
Monoterpenes	(-)- α -Pinene	C ₁₀ H ₁₆	1.84 ± 0.5	0.668 ± 0.583	0.474 ± 0.52	0.274 ± 0.238	1.84 ± 0.5	1.24 ± 1.01	0.514 ± 0.467	0.208 ± 0.18	1.84 ± 0.5	1.27 ± 0.234	0.821 ± 0.152	0.231 ± 0.215	1.84 ± 0.5	1.66 ± 0.932	0.774 ± 0.0831	0.354 ± 0.185
	Camphene	C ₁₀ H ₁₆	0.199 ± 0.172	0 ± 0	0.337 ± 0.584	0.199 ± 0.345	0.199 ± 0.172	0.0632 ± 0.109	0.0888 ± 0.154	0 ± 0	0.199 ± 0.172	0 ± 0	0 ± 0	0 ± 0	0.199 ± 0.172	0.131 ± 0.226	0 ± 0	0 ± 0
	β -Pinene	C ₁₀ H ₁₆	2.29 ± 0.65	1.59 ± 0.336	0.687 ± 0.234	0.468 ± 0.104	2.29 ± 0.65	1.55 ± 1.07	1.13 ± 0.336	0.359 ± 0.152	2.29 ± 0.65	1.79 ± 0.279	1.15 ± 0.199	0.354 ± 0.197	2.29 ± 0.65	2.19 ± 0.96	1.1 ± 0.0978	0.489 ± 0.246
	Sabinene	C ₁₀ H ₁₆	1.29 ± 0.344	0.915 ± 0.137	0.269 ± 0.261	0.204 ± 0.177	1.29 ± 0.344	0.902 ± 0.597	0.675 ± 0.165	0.198 ± 0.059	1.29 ± 0.344	1.09 ± 0.198	0.702 ± 0.113	0.155 ± 0.144	1.29 ± 0.344	1.23 ± 0.496	0.684 ± 0.0936	0.265 ± 0.141
	β -Myrcene	C ₁₀ H ₁₆	10.1 ± 1.04	9.52 ± 0.503	8.81 ± 5.55	6.41 ± 1.67	10.1 ± 1.04	7.94 ± 2.02	8.04 ± 1.03	3.09 ± 0.475	10.1 ± 1.04	9.83 ± 0.201	8.44 ± 0.534	3.33 ± 1.48	10.1 ± 1.04	10.4 ± 1.55	9.01 ± 0.537	3.98 ± 1.74
	D-Limonene	C ₁₀ H ₁₆	20.7 ± 3.35	13.9 ± 12	7.28 ± 6.34	5.55 ± 4.1	20.7 ± 3.35	20 ± 7.72	17.8 ± 2.45	5.96 ± 1.07	20.7 ± 3.35	23 ± 2.85	17 ± 1.32	5.31 ± 2.41	20.7 ± 3.35	22.4 ± 2.81	15.6 ± 2	6.75 ± 2.81
	Trans- β -Ocimene	C ₁₀ H ₁₆	3.51 ± 0.523	3.35 ± 0.237	1.94 ± 0.883	0.857 ± 0.857	3.51 ± 0.523	2.77 ± 0.689	2.83 ± 0.596	1.25 ± 0.326	3.51 ± 0.523	3.5 ± 0.224	2.8 ± 0.404	1.24 ± 0.536	3.51 ± 0.523	3.45 ± 0.173	3.03 ± 0.205	1.33 ± 0.437
	β -Ocimene	C ₁₀ H ₁₆	1.49 ± 0.167	1.49 ± 0.233	0.689 ± 0.685	0.503 ± 0.289	1.49 ± 0.167	0.937 ± 0.829	1.31 ± 0.518	0.556 ± 0.222	1.49 ± 0.167	1.64 ± 0.148	1.23 ± 0.24	0.502 ± 0.236	1.49 ± 0.167	1.59 ± 0.229	1.2 ± 0.0754	0.572 ± 0.2
Other Hydrocarbons	2,2,4,6,6-Pentamethylhept-3-ene	C ₁₂ H ₂₄	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.269 ± 0.466	0.0957 ± 0.166	0 ± 0	0 ± 0	0.405 ± 0.518	0.359 ± 0.51	0.0547 ± 0.0947	0 ± 0	0.0661 ± 0.115	0.079 ± 0.137	0.137 ± 0.238
	1,6-Cyclodecadiene	C ₁₀ H ₁₆	2.2 ± 0.136	1.86 ± 0.908	2.95 ± 0.937	3.3 ± 0.83	2.2 ± 0.136	1.15 ± 0.334	1.78 ± 0.246	0.636 ± 0.282	2.2 ± 0.136	2.03 ± 0.259	1.8 ± 1.58	1.4 ± 1.09	2.2 ± 0.136	2.23 ± 0.271	3.02 ± 0.188	0.773 ± 0.298
	Cyclohexene	C ₆ H ₁₀	1.5 ± 0.286	1.69 ± 0.266	17.5 ± 25.8	24.3 ± 34.3	1.5 ± 0.286	1.55 ± 0.474	1.99 ± 0.317	3.58 ± 0.94	1.5 ± 0.286	1.48 ± 0.243	1.88 ± 0.059	3.91 ± 0.91	1.5 ± 0.286	1.02 ± 0.901	2.23 ± 0.324	3.75 ± 0.531
	Naphthalene	C ₁₀ H ₈	0 ± 0	0 ± 0	1.27 ± 2.2	0.949 ± 1.64	0 ± 0	0 ± 0	0 ± 0	0.0811 ± 0.14	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
Oxygenated Monoterpenes (Monoterpenoids)	Eucalyptol	C ₁₀ H ₁₈ O	2.49 ± 0.527	2.15 ± 0.227	0.628 ± 0.562	0.673 ± 0.585	2.49 ± 0.527	2.04 ± 0.461	1.93 ± 0.439	0.756 ± 0.0511	2.49 ± 0.527	2.29 ± 0.401	1.91 ± 0.122	0.747 ± 0.269	2.49 ± 0.527	2.82 ± 0.677	1.76 ± 0.158	1.06 ± 0.354
	Linalool	C ₁₀ H ₁₈ O	0 ± 0	0 ± 0	0.152 ± 0.159	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0.064 ± 0.111
	Dihydrocarvove	C ₁₀ H ₁₆ O	0.108 ± 0.187	0 ± 0	0.22 ± 0.198	0.845 ± 0.741	0.108 ± 0.187	0.105 ± 0.181	0.379 ± 0.352	1.57 ± 0.916	0.108 ± 0.187	0 ± 0	0 ± 0	1.13 ± 0.683	0.108 ± 0.187	0 ± 0	0 ± 0	0.795 ± 0.711
	(1S,4S)-Dihydrocarvone	C ₁₀ H ₁₆ O	0 ± 0	0 ± 0	0.0752 ± 0.13	0.065 ± 0.113	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	D-Carvone	C ₁₀ H ₁₆ O	33.9 ± 6.04	42.3 ± 3.99	36.5 ± 31.8	41.6 ± 36	33.9 ± 6.04	46.4 ± 15.4	48.4 ± 7.02	73.9 ± 3.99	33.9 ± 6.04	37.9 ± 4.11	47.9 ± 2.51	72.8 ± 6.5	33.9 ± 6.04	34.7 ± 6.76	47.7 ± 1.85	72.2 ± 6.13
	(Z)-Carveol	C ₁₀ H ₁₆ O	2.73 ± 1.04	2.55 ± 0.446	2.81 ± 2.84	2.3 ± 2.01	2.73 ± 1.04	2.9 ± 0.903	2.37 ± 1.16	2.81 ± 0.64	2.73 ± 1.04	2.2 ± 0.478	2.14 ± 0.164	3.32 ± 0.841	2.73 ± 1.04	1.74 ± 0.642	2.42 ± 0.346	2.34 ± 0.693
Sesquiterpenes	β -Cubebene	C ₁₅ H ₂₄	0 ± 0	0 ± 0	1.15 ± 1.85	0.525 ± 0.909	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
	α -Copaene	C ₁₅ H ₂₄	0.101 ± 0.175	0 ± 0	0.213 ± 0.184	0 ± 0	0.101 ± 0.175	0 ± 0	0 ± 0	0 ± 0	0.101 ± 0.175	0 ± 0	0.101 ± 0.174	0.0533 ± 0.0923	0.101 ± 0.175	0.0949 ± 0.164	0 ± 0	0 ± 0
	(-)- β -Bourbonene	C ₁₅ H ₂₄	0.306 ± 0.266	0.119 ± 0.206	2.05 ± 3.29	1.23 ± 2.13	0.306 ± 0.266	0 ± 0	0.149 ± 0.258	0.0847 ± 0.147	0.306 ± 0.266	0 ± 0	0.131 ± 0.226	0.0585 ± 0.101	0.306 ± 0.266	0.131 ± 0.227	0.0928 ± 0.161	0 ± 0
	β -Bourbonene	C ₁₅ H ₂₄	8.48 ± 1.06	6.45 ± 0.299	4.06 ± 3.26	2.54 ± 2.21	8.48 ± 1.06	6.03 ± 1.72	5.88 ± 1.63	2.46 ± 1.09	8.48 ± 1.06	6.59 ± 0.559	5.97 ± 0.875	2.57 ± 1.15	8.48 ± 1.06	7.76 ± 0.984	5.63 ± 0.976	2.8 ± 0.749
	(-)- α -Gurjunene	C ₁₅ H ₂₄	0.113 ± 0.196	0 ± 0	0.119 ± 0.207	1.28 ± 2	0.113 ± 0.196	0 ± 0	0 ± 0	0 ± 0	0.113 ± 0.196	0 ± 0	0.124 ± 0.215	0.0703 ± 0.122	0.113 ± 0.196	0.111 ± 0.193	3.38 ± 2.64	0 ± 0
	β -Ylangene	C ₁₅ H ₂₄	0.273 ± 0.236	0.12 ± 0.207	0.245 ± 0.215	0.0729 ± 0.126	0.273 ± 0.236	0 ± 0	0.126 ± 0.218	0 ± 0	0.273 ± 0.236	0 ± 0	0.114 ± 0.198	0.058 ± 0.101	0.273 ± 0.236	0.113 ± 0.196	0.0877 ± 0.152	0 ± 0
	β -Copaene	C ₁₅ H ₂₄	0.362 ± 0.314	0.15 ± 0.26	1.95 ± 2.68	1.08 ± 1.63	0.362 ± 0.314	0.115 ± 0.198	0.145 ± 0.251	0 ± 0	0.362 ± 0.314	0.131 ± 0.226	0.141 ± 0.244	0.0701 ± 0.121	0.362 ± 0.314	0.291 ± 0.252	0.117 ± 0.203	0 ± 0
	Caryophyllene	C ₁₅ H ₂₄	5.18 ± 0.37	4.47 ± 0.6	3.29 ± 2.85	1.99 ± 2.02	5.18 ± 0.37	3.67 ± 0.771	3.97 ± 0.726	1.68 ± 0.749	5.18 ± 0.37	4.34 ± 0.277	4.34 ± 0.6	2.18 ± 1.09	5.18 ± 0.37	5.16 ± 0.62	1.59 ± 2.75	2.04 ± 0.582
	Humulene	C ₁₅ H ₂₄	0.461 ± 0.444	0.175 ± 0.303	0.411 ± 0.364	0.295 ± 0.257	0.461 ± 0.444	0.0951 ± 0.165	0.281 ± 0.249	0 ± 0	0.461 ± 0.444	0.318 ± 0.276	0.378 ± 0.335	0.136 ± 0.236	0.461 ± 0.444	0.513 ± 0.0453	0.557 ± 0.0645	0 ± 0
Siloxanes	Decamethyl-cyclopentasiloxane	C ₁₀ H ₃₀ O ₅ Si ₅	0.135 ± 0.117	0 ± 0	2.56 ± 4.43	1.67 ± 2.89	0.135 ± 0.117	0 ± 0	0 ± 0	0 ± 0	0.135 ± 0.117	0 ± 0	0.442 ± 0.459	0 ± 0	0.135 ± 0.117	0 ± 0	0 ± 0	0 ± 0

Values are mean ± standard deviation ($n = 3$).