Supplementary Table 1. Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]		Location x Treatment	Cheese	Peak Area	Conf. Int. [a]		
Acetate	Prenyl acetate	p<0.001	D	47083	A		p<0.001	R2.P	49852	A		
			R2	42707	A			D.P	49257	A		
			L	11050		B		D.R	45635	A		
			R1	7734		B		R2.R	35562	A	B	
			C2	7326		B		L.R	15700		B	C
			C1	6402		B		R1.R	8967			C
								C2.R	8823			C
								C1.R	6416			C
								L.P	6401			C
								C1.P	6388			C
								C2.P	5830			C
								R1.P	3421			C
Alcohols	2,3-Butanediol	p<0.05	D	7346107	A		p<0.05	D.P	8444186	A		
			L	5450459	A	B		R2.P	7245272	A	B	
			R2	3628146	A	B		D.R	6614054	A	B	
			C1	2837777	A	B		L.P	6573928	A	B	
			R1	1924994		B		L.R	4326990	A	B	
			C2	1906640		B		C1.P	2928565	A	B	
								C1.R	2746990	A	B	
								R1.R	2458944	A	B	
								C2.R	2364221	A	B	
								C2.P	1449059	A	B	
								R1.P	56169	A	B	
								R2.R	11021		B	

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	n-Butanol	p=0.565	D	85803	A	p=0.387	D.P	140110	A
			R1	65153	A		C1.P	77372	A
			C1	50153	A		R1.R	73703	A
			L	47935	A		L.R	66747	A
			C2	34740	A		R2.P	53237	A
			R2	31897	A		D.R	49598	A
							C2.P	40400	A
							R1.P	35231	A
							L.P	29122	A
							C2.R	29080	A
							C1.R	22933	A
							R2.R	10558	A
	2-Butanol	p<0.01	C2	346626	A	p<0.001	C2.R	577338	A
			R1	133688	A B		R1.R	171780	B
			C1	129135	A B		C1.P	148262	B
			L	28935	B		C2.P	115914	B
			D	28406	B		C1.R	110009	B
			B	1765	B		L.R	40560	B
							D.P	35717	B
							D.R	23533	B
							L.P	17309	B
							R2.P	2583	B
							R2.R	947	B
							R1.P	363	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Ethanol	p<0.05	R1	7956647	A	p<0.01	R2.P	9195833	A
			R2	7581661	A B		D.P	9182291	A
			D	7505968	A B		R1.P	8986843	A
			L	6526800	A B		R1.R	7662305	A B
			C1	6010770	A B		C1.P	7525982	A B C
			C2	4820453	B		L.P	6992046	A B C
							D.R	6388419	A B C
							L.R	6061554	A B C
							R2.R	5967489	A B C
							C2.P	5579825	A B C
							C1.R	4495557	B C
							C2.R	4061081	C
	3-Methyl-1-butanol	p<0.01	R1	709263	A	p<0.01	R1.R	881910	A
			C1	167985	A B		C2.R	238601	A B
			C2	144155	A B		C1.P	211497	A B
			L	140945	B		L.R	194257	A B
			D	125094	B		D.P	167723	A B
			R2	81459	B		C1.R	124473	A B
							R2.R	108448	A B
							R1.P	104999	A B
							D.R	96675	B
							L.P	87634	B
							R2.P	54470	B
							C2.P	49708	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	3-Methyl-2-buten-1-ol	p<0.05	R1	55929	A	p<0.001	D.R	62266	A
			D	52226	A B		R1.R	62113	A
			L	47646	A B		C2.R	57423	A B
			C2	45960	A B		L.R	53364	A B C
			R2	41552	A B		L.P	41928	A B C
			C1	30459	B		R2.P	41728	A B C
							R2.R	41377	A B C
							D.P	37167	B C
							C2.P	34497	B C
							R1.P	34283	B C
							C1.R	33624	B C
							C1.P	27294	C
	3-Methyl-3-buten-1-ol	p<0.05	C2	78477	A	p=0.338	C2.P	79412	A
			L	73423	A B		C2.R	77541	A
			C1	72356	A B		C1.P	76330	A
			D	67428	A B		L.R	75780	A
			R1	67112	A B		R1.P	72660	A
			R2	51194	B		L.P	71066	A
							D.R	68865	A
							C1.R	68381	A
							R1.R	65527	A
							D.P	65273	A
							R2.P	51758	A
							R2.R	50630	A

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Benzyl alcohol	p<0.001	C2	207879	A	p<0.001	C2.P	225080	A
			C1	119811	B		C2.R	190678	A B
			R1	5827	C		C1.P	123559	B
			D	2954	C		C1.R	116064	B
			R2	2353	C		R1.R	6018	C
			L	1382	C		R1.P	5160	C
							DP	3925	C
							R2.R	2746	C
							D.R	2306	C
							R2.P	1960	C
							L.P	1497	C
							L.R	1267	C
	4-hydroxy-4-2-methyl-Pentanone	p<0.01	C1	63627	A	p<0.001	C1.P	80531	A
			D	42058	A B		D.R	48960	A B
			L	26955	B		C1.R	46723	A B C
			R2	20911	B		R2.P	36465	A B C
			R1	20841	B		L.P	33680	B C
			C2	20717	B		R1.P	32277	B C
							D.P	31704	B C
							C2.R	22670	B C
							L.R	20229	B C
							C2.P	18765	B C
							R1.R	17574	C
							R2.R	5357	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Ethanol, 2-butoxy-	p=0.197	D	140674	A	p<0.01	D.P	267187	A
			C1	128528	A		C1.R	216338	A B
			C2	97102	A		C2.P	147162	A B C
			R1	56854	A		R1P	112768	A B C
			R2	45125	A		D.R	56332	B C
			L	27309	A		C2.R	47043	B C
							R2.R	45385	B C
							R2.P	44866	B C
							R1.R	40878	C
							C1.P	40718	C
							L.P	30032	C
							L.R	24586	C
Aldehydes	3-Methyl-butanal	p=0.138	C1	241523	A	p<0.001	C1.P	343966	A
			C2	200689	A		D.P	303171	A B
			D	159948	A		C2.P	295833	A B
			L	147908	A		L.P	195906	B C
			R2	109400	A		R1.P	193209	B C
			R1	93122	A		C1.R	139079	C D
							R2.P	136941	C D
							C2.R	105544	C D
							L.R	99910	C D
							R2.R	81859	C D
							R1.R	64526	D
							D.R	64467	D

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Alkanes	22-Dimethyl-undecane	p<0.05	R2	26417	A	p=0.099	R1.P	36448	A
			R1	26168	A		L.P	26898	A
			L	21530	A		R2.P	26766	A
			D	20626	A		R2.R	26068	A
			C2	14299	A		R1.R	23231	A
			C1	9109	A		D.R	21176	A
							D.P	19800	A
							C2.P	18719	A
							L.R	16162	A
							C2.R	9879	A
							C1.P	9514	A
							C1.R	8705	A
	Heptane	p=0.868	D	38445	A	p<0.001	D.P	74412	A
			L	37513	A		R1.P	62614	A
			C2	29703	A		C2.P	44446	A B
			R2	26984	A		L.P	38122	A B
			C1	26686	A		L.R	36903	A B
			R2	25187	A		C1.P	34689	A B
							R2.P	34061	A B
							R2.R	19907	B
							C1.R	18684	B
							C2.R	14959	B
							R1.R	14494	B
							D.R	14466	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Hexadecane	p=0.081	D	22172	A	p=0.190	R1.P	28158	A
			R1	21352	A		R2.P	22482	A
			R2	18105	A		D.R	22204	A
			L	16953	A		D.P	22124	A
			C2	13808	A		L.R	21745	A
			C1	9533	A		R1.R	19408	A
							C2.R	14281	A
							R2.R	13728	A
							C2.P	13335	A
							L.P	12161	A
							C1.R	10268	A
							C1.P	8798	A
	n-Hexane	p<0.001	R2	733864	A	p<0.001	R2.P	804254	A
			D	115686	B		R2.R	663475	B
			R1	49799	B		D.P	145993	C
			L	40008	B		D.R	95482	C D
			C2	29493	B		R1.P	75051	C D
			C1	26459	B		R1.R	42585	D
							L.P	40157	D
							L.R	39859	D
							C2.P	39280	D
							C1.P	28651	D
							C1.R	24268	D
							C2.R	19706	D

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	3-Methyl-pentane	p<0.001	R2	95174	A	p<0.001	R2.P	113141	A
			D	15325	B		R2.R	77207	B
			R1	3349	B		D.P	16951	C
			L	67	B		D.R	14241	C D
			C1	0	B		R1.P	4193	C D
			C2	0	B		R1.R	3108	D
							L.R	135	D
							L.P	0	D
							C1.P	0	D
							C1.R	0	D
							C2.R	0	D
							C2.P	0	D
	Pentane	p=0.052	C1	146859	A	p<0.001	D.P	210477	A
			L	145325	A		C2.P	187482	A B
			C2	142249	A		R1.P	170733	A B C
			D	120965	A		L.P	162179	A B C
			R1	67471	A		C1.P	152829	A B C D
			R2	56896	A		C1.R	140889	A B C D E
							L.R	128470	A B C D E
							C2.R	97016	B C D E F
							R2.P	73151	C D E F
							D.R	61291	D E F
							R2.R	40642	E F
							R1.R	37968	F

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Alkenes	(E)-3-Octene	p<0.001	D	27113	A	p<0.001	D.R	28815	A
			C2	15972	B		D.P	24559	A B
			R2	11480	B C		C2.P	16278	B C
			C1	6122	C		C2.R	15666	B C D
			L	5937	C		R2.P	13553	C D E
			R1	794	D		R2.R	9407	C D E
							C1.P	7609	C D E F
							L.P	6479	D E F
							L.R	5395	E F
							C1.R	4635	E F
							R1.R	807	F
							R1.P	749	F
Esters	Ethyl Acetate	p=0.071	L	513518	A	p<0.01	L.R	841309	A
			D	266849	A		D.R	268726	B
			R2	205745	A		D.P	264032	B
			R1	181300	A		R2.P	245091	B
			C2	145678	A		L.P	185727	B
			C1	141368	A		R1.R	182605	B
							R1.P	176732	B
							R2.R	166398	B
							C2.R	164699	B
							C1.R	143751	B
							C1.P	138985	B
							C2.P	126656	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Ethyl butyrate	p<0.01	R1	280001	A	p<0.001	R1.R	309111	A
			R2	264006	A B		R2.P	292715	A B
			D	247676	A B C		L.R	266442	A B C
			L	222302	A B C		D.P	257828	A B C D
			C1	176777	B C		D.R	240908	A B C D
			C2	147237	C		R2.R	235297	A B C D
							C1.P	190041	B C D
							L.P	178163	B C D
							R1.P	178115	B C D
							C1.R	163513	C D
							C2.R	158752	C D
							C2.P	135722	D
	Ethyl hexanoate	p=0.063	R1	77064	A	p<0.001	R1.R	95317	A
			D	47606	A		L.R	77375	A B
			L	46238	A		D.R	67742	A B C
			R2	39411	A		R2.R	61736	A B C D
			C1	29452	A		C1.R	53890	B C D E
			C2	18353	A		C2.R	29699	C D E F
							D.P	17403	D E F
							R2.P	17086	D E F
							L.P	15101	E F
							R1.P	13181	E F
							C2.P	7008	F
							C1.P	5014	F

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Ethyl octanoate	p=0.055	D	48054	A	p<0.001	D.R	59050	A
			R1	42707	A		R1.R	51883	A B
			L	34643	A		L.R	47836	A B C
			R2	31030	A		D.P	31561	A B C
			C1	22268	A		C1.R	31537	A B C
			C2	15587	A		R2.P	31207	A B C
							R2.R	30853	A B C
							C2.R	21952	B C
							L.P	21450	B C
							C1.P	12999	C
							R1.P	10593	C
							C2.P	9222	C
	Methyl acetate	p=0.934	C2	38265	A	p<0.001	C2.P	67654	A
			C1	29603	A		R1.P	59172	A
			D	27976	A		D.P	57749	A
			R2	27352	A		C1.P	52069	A
			L	22765	A		R2.P	44186	A
			R1	22218	A		L.P	38490	A B
							R1.R	11660	B
							R2.R	10519	B
							C2.R	8876	B
							D.R	8127	B
							C1.R	7136	B
							L.R	7040	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]		Location x Treatment	Cheese	Peak Area	Conf. Int. [a]	
	Propanoic acid, 2-hydroxy-, ethyl ester, (S)-	p<0.05	R1	117198	A		p<0.001	R1.R	150683	A	
			D	81898	A	B		D.R	134911	A	
			L	61377	A	B		L.R	114152	A	
			C2	26830	A	B		C2.R	50518		B
			R2	6832		B		R2.R	11915		B
			C1	2675		B		L.P	8602		B
								C1.R	4173		B
								C2.P	3141		B
								D.P	2378		B
								R2.P	1749		B
								C1.P	1177		B
								R1.P	0		B
(Fatty) Acids	Acetic acid	p<0.01	R1	6535835	A		p<0.001	L.R	9147114	A	
			L	5787390	A	B		R1.R	7579090	A	
			C2	2928110	A	B		C2.R	3228871		B
			D	2530920		B		D.R	3044043		B
			R2	2509843		B		R1.P	2884442		B
			C1	1597167		B		R2.R	2872555		B
								C2.P	2627350		B
								L.P	2427666		B
								R2.P	2147131		B
								D.P	1761236		B
								C1.R	1678656		B
								C1.P	1515677		B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Butyric acid	p<0.001	R1	12044370	A	p<0.001	R1.R	13253597	A
			R2	9093746	A B		R2.R	9591999	A B
			L	7821336	B		R2.P	8595492	A B
			C2	6543263	B		L.R	8000336	A B
			D	5489868	B		R1.P	7812078	A B
			C1	4722331	B		L.P	7642337	A B
							C2.R	6981404	B
							D.R	6251519	B
							C2.P	6105122	B
							C1.P	4907922	B
							C1.R	4536741	B
							D.P	4347392	B
	Hexanoic acid	p<0.01	R1	4832300	A	p<0.001	R1.R	5490230	A
			L	3290155	A B		L.R	3811152	A B
			R2	3227634	A B		R2.R	3587340	A B
			C2	2319441	B		R2.P	2867928	B
			D	2247277	B		L.P	2769158	B
			C1	2166023	B		D.R	2615640	B
							C2.R	2584017	B
							R1.P	2529544	B
							C1.R	2389105	B
							C2.P	2054866	B
							C1.P	1942942	B
							D.P	1694733	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]			Location x Treatment	Cheese	Peak Area	Conf. Int. [a]		
	Octanoic Acid	p<0.001	R1	581450	A			p<0.001	R1.R	620529	A		
			R2	419115	A	B			R2.R	468679	A	B	
			L	418353	A	B			L.R	465369	A	B	
			C2	264138		B	C		R1.P	444677	A	B	C
			D	204590			C		L.P	371337	A	B	C
			C1	135706			C		R2.P	369551	A	B	C
									C2.R	266118		B	C
									C2.P	262157		B	C
									D.R	253016		B	C
									C1.R	157119		B	C
									D.P	131952			C
									C1.P	114293			C
Ketones	2,3-Butanedione	p=0.168	D	1845761	A			p<0.01	D.R	2732946	A		
			R1	1197359	A				C2.R	1784344	A	B	
			C2	1149295	A				C1.R	1520733	A	B	
			C1	985475	A				R1.R	1386755	A	B	
			R2	610164	A				R2.R	697739		B	
			L	491349	A				L.R	630237		B	
									R1.P	534472		B	
									R2.P	522588		B	
									D.P	514985		B	
									C2.P	514247		B	
									C1.P	450218		B	
									L.P	352460		B	

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	2-Butanone	p<0.001	C1	7544496	A	p<0.001	R1.R	7734835	A
			R1	6108722	A		C1.P	7713562	A B
			C2	4753988	A B		C1.R	7375429	A B C
			D	4728167	A B		D.R	6257500	A B C
			R2	877912	B		C2.P	5158132	B C D
			L	656793	B		C2.R	4349844	C D
							D.P	2434167	D E
							R2.P	955650	E
							R2.R	800173	E
							L.P	730035	E
							L.R	583551	E
							R1.P	417326	E
	2-Heptanone	p<0.05	R1	960617	A	p<0.05	R1.R	1069391	A
			C2	771996	A B		C2.P	797317	A B
			C1	724478	A B		D.P	775932	A B
			D	689318	A B		C2.R	746675	A B
			L	676072	A B		C1.P	742838	A B
			R2	459273	B		L.R	728473	A B
							C1.R	706117	A B
							D.R	631574	A B
							L.P	623671	A B
							R1.P	579907	A B
							R2.P	550703	A B
							R2.R	367843	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	3-Hydroxy-2-butanone	p<0.05	R2	2741899	A	p<0.01	R2.R	3641518	A
			R1	2392414	A		R1.P	3173786	A B
			D	2165535	A		D.P	2634602	A B C
			C1	1928442	A		R1.R	2169164	A B C
			L	1487650	A		C1.R	2138265	A B C
			C2	1301222	A		D.R	1852823	B C
							R2.P	1842280	B C
							C1.P	1718618	B C
							L.P	1568612	B C
							L.R	1406688	B C
							C2.P	1377778	B C
							C2.R	1224667	C
	2-Nonanone	p<0.01	R1	169353	A	p<0.01	R1.R	188882	A
			C2	112614	A B		D.R	122212	A B
			D	107218	A B		C2.P	121488	A B
			C1	90890	B		R2.P	105418	A B
			R2	83155	B		C2.R	103740	A B
			L	71573	B		R1.P	101000	A B
							C1.P	92175	B
							C1.R	89605	B
							L.P	86588	B
							D.P	84727	B
							R2.R	60892	B
							L.R	56558	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	2-Octanone	p<0.05	R1	1022810	A	p<0.01	R1.R	1143001	A
			D	751827	A B		D.P	841656	A B
			C2	730815	A B		C2.P	774287	A B
			C1	728446	A B		C1.P	749749	A B
			L	688482	A B		L.R	746452	A B
			R2	478122	B		C1.R	707144	A B
							D.R	691941	A B
							C2.R	687342	A B
							L.P	630511	A B
							R1.P	602141	A B
							R2.P	581203	A B
							R2.R	375042	B
	2,3-Pentanedione	p<0.01	L	85554	A	p<0.001	L.R	115341	A
			R1	74668	A B		R1.R	83505	A B
			C2	66118	A B C		C2.R	67489	B C
			R2	43188	B C		C2.P	64747	B C
			D	39440	C		L.P	55767	B C
			C1	32875	C		R2.P	49610	B C
							D.P	46154	C
							R1.P	43741	C
							C1.P	37936	C
							R2.R	36767	C
							D.R	34965	C
							C1.R	27815	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]		Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	2-Pentanone	p=0.170	R1	1295060	A		p<0.01	C2.R	1501920	A
			D	1231392	A			R1.R	1480396	A
			C2	1200708	A			D.R	1457933	A
			C1	1183559	A			C1.R	1348025	A
			L	1088619	A			L.R	1288397	A
			R2	667828	A			C1.P	1019093	A
								C2.P	899497	A
								D.P	891581	A
								L.P	888841	A
								B.P	734171	A
								R1.P	646386	A
								R2.R	601484	A
	Propanone	p<0.01	C2	2158517	A		p=0.130	C2.P	2184917	A
			D	1871091	A	B		C2.R	2132118	A
			C1	1739126	A	B		D.P	1945838	A
			R1	1481682		B		D.R	1821260	A
			L	1462809		B		C1.P	1753365	A
			R2	1421536		B		C1.R	1724887	A
								L.P	1670656	A
								R2.P	1526930	A
								R1.R	1523374	A
								R1.P	1335760	A
								R2.R	1316143	A
								L.R	1254963	A

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Lactones	δ-Decalactone	p<0.01	R1	140809	A	p<0.05	R1.R	146271	A
			L	130693	A B		L.P	135262	A B
			R2	123997	A B C		R2.P	131112	A B
			D	121443	A B C		L.R	126125	A B
			C2	102069	B C		D.R	124963	A B
			C1	91991	C		R1.P	121690	A B
							R2.R	116882	A B
							D.P	116164	A B
							C2.P	105618	A B
							C2.R	98519	A B
							C1.P	92622	B
							C1.R	91359	B
Nitrogens	2,6-Dimethyl-pyrazine	p<0.001	C1	265971	A	p<0.001	C1.R	308764	A
			D	180671	A B		D.P	264615	A B
			R2	148525	A B C		C1.P	223177	A B C
			C2	105807	B C		R2.P	206268	B C D
			L	88922	B C		L.P	169880	C D E
			R1	41407	C		D.R	124708	D E
							C2.R	122914	D E
							R1.P	102164	E
							R2.R	90782	E F
							C2.P	88700	E F
							R1.R	24048	F
							L.R	7964	F

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]		Location x Treatment	Cheese	Peak Area	Conf. Int. [a]		
	Nitrous Oxide	p=0.090	D	1109594	A		p=0.180	D.P	1174508	A		
			L	959738	A	B		D.R	1066319	A		
			R1	925715	A	B		L.R	1051406	A		
			C1	920160	A	B		R2.P	1019442	A		
			R2	862119	A	B		R1.P	1012228	A		
			C2	727862		B		C1.R	937758	A		
								C1.P	902563	A		
								R1.R	900996	A		
								L.P	868069	A		
								C2.R	823085	A		
								R2.R	704796	A		
								C2.P	632639	A		
Sulfurs	Carbon disulfide	p=0.193	C1	700888	A		p<0.001	C1.R	1076055	A		
			R1	557702	A			R1.R	686429	A	B	
			D	410762	A			L.R	487574		B	C
			R2	401793	A			R2.P	466683		B	C
			L	345391	A			D.P	437589		B	C
			C2	270036	A			D.R	392877		B	C
								R2.R	336903		B	C
								C1.P	325720		B	C
								C2.R	318607		B	C
								C2.P	221466			C
								L.P	203209			C
								R1.P	107158			C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Dimethyl sulfide	p<0.001	D	903931	A	p<0.001	D.R	1003244	A
			R2	433935	B		D.P	754961	B
			C2	184821	C		R2.R	535812	C
			C1	172555	C		R2.P	332059	D
			L	99223	C		C2.R	256841	D E
			R1	54185	C		C1.R	197654	E F
							C1.P	147456	E F G
							L.R	115333	F G
							C2.P	112801	F G
							L.P	83112	F G
							R1.R	56013	G
							R1.P	47786	G
	Methanethiol	p=0.280	L	46379	A	p<0.001	L.R	58378	A
			D	38029	A		R1.R	45316	A
			R1	36448	A		D.R	39327	A
			R2	35205	A		C2.R	38686	A
			C1	23115	A		C1.R	38474	A
			C2	22889	A		R2.P	36214	A B
							D.P	36083	A B
							L.P	34381	A B C
							R2.R	34196	A B C
							C1.P	7756	B C
							C2.P	7092	B C
							R1.P	5411	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 1 (Continued). Tukey multiple comparisons of average peak areas for volatile compounds detected in Cheddar cheese at 5 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Terpenes	α-Pinene	p<0.05	R1	77199	A	p<0.001	R2.P	112780	A
			D	64506	A B		D.R	70513	A B
			L	55108	A B		L.P	66562	A B
			C2	50239	A B		C2.P	58906	B
			C1	37238	A B		D.P	55496	B
			R1	35170	B		L.R	43655	B
							R2.R	41619	B
							C2.R	41573	B
							C1.P	40930	B
							R1.R	37477	B
							C1.R	33545	B
							R1.P	27095	B
	β-Pinene	p<0.001	R2	72555	A	p<0.001	R2.P	82171	A
			L	6231	B		R2.R	62940	B
			D	6076	B		L.P	7236	C
			C2	5215	B		D.P	6275	C
			R1	4476	B		C2.P	6207	C
			C1	3626	B		D.R	5943	C
							L.R	5226	C
							R1.P	4752	C
							R1.R	4397	C
							C2.R	4222	C
							C1.P	3953	C
							C1.R	3300	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2. Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int.[a]	Location x Treatment	Cheese	Peak Area	Conf. Int.[a]
Alcohols	1,3-Butanediol	p<0.05	R1	191621	A	p<0.01	R1.P	218237	A
			C1	145390	A B		C1.P	183265	A B
			R2	118525	A B		R1.R	165005	A B
			L	113235	A B		L.P	152019	A B
			C2	106113	A B		R2.R	147738	A B
			D	102722	B		C2.P	123108	A B
							D.P	119804	A B
							C1.R	107516	A B
							R2.P	106839	B
							C2.R	89118	B
							D.R	85640	B
							L.R	74451	B
	2,3-Butanediol	p=0.276	C2	15717188	A	p=0.118	L.P	17358030	A
			D	15602170	A		R2.P	15911683	A
			R2	14299949	A		D.R	15820118	A
			L	13806014	A		C2.R	15721270	A
			C1	13123809	A		C2.P	15713106	A
			R1	9852157	A		C1.P	15515989	A
							D.P	15384222	A
							R1.P	11461088	A
							C1.R	10731630	A
							R2.R	10270615	A
							L.R	10253998	A
							R1.R	8243227	A

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	2-Butanol	p<0.05	R1	7087721	A	p<0.001	R1.R	14175442	A
			C2	1649034	A B		C2.P	1894043	B
			D	515594	A B		C2.R	1404024	B
			L	0	B		D.R	1031189	B
			C1	0	B		C1.P	0	B
			R2	0	B		L.P	0	B
							L.R	0	B
							D.P	0	B
							R1.P	0	B
							C1.R	0	B
							R2.P	0	B
							R2.R	0	B
	Ethanol	p=0.208	R2	21385301	A	p<0.001	R1.P	22636530	A
			D	19245593	A		R2.P	22095741	A
			L	17142407	A		D.P	20333357	A B
			R1	16837819	A		L.P	19854772	A B
			C1	16643870	A		C1.P	19619967	A B
			C2	15575465	A		R2.R	19609199	A B
							C2.P	19550960	A B
							D.R	18157829	A B C
							L.R	14430042	B C
							C1.R	13667774	B C
							C2.R	11599971	C
							R1.R	11039109	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	3-Methyl-1-butanol	p<0.01	R1	11784066	A	p<0.001	R1.R	17563978	A
			D	5251636	B		C1.P	6551771	B
			C1	4674817	B		D.P	6316236	B
			L	4280033	B		R1.P	6004154	B
			C2	4091508	B		L.P	6001919	B
			R2	2330258	B		C2.P	4991631	B C
							D.R	4187036	B C D
							C2.R	3191385	C D
							C1.R	2797864	C D
							L.R	2558147	C D
							R2.P	2338343	D
							R2R	2310046	D
	Phenylethyl Alcohol	p<0.01	R1	1767176	A	p<0.001	R1.R	2935509	A
			D	423500	B		D.P	673473	B
			L	333775	B		R1.P	598843	B C
			C2	303489	B		C2.P	526220	B C D
			C1	177632	B		L.P	515097	B C D E
			R2	156771	B		C1.P	231208	B C D E
							R2.R	176883	C D E
							D.R	173528	C D E
							L.R	152454	D E
							R2.P	148726	E
							C1.R	124056	E
							C2.R	80759	E

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Aldehydes	Octanal	p=0.084	R2	152206	A	p=0.273	R1.R	221499	A
			R1	142492	A		L.P	155526	A
			D	141584	A		D.R	153447	A
			L	123547	A		R1.R	151127	A
			C2	62358	A		R1.P	133856	A
			C1	51239	A		D.P	129722	A
							R2.P	124489	A
							L.R	91567	A
							C2.R	71642	A
							C1.P	53926	A
							C2.P	53073	A
							C1.R	48551	A
	Decane	p<0.05	R1	316336	A	p<0.05	R1.P	332332	A
			D	216523	A B		R1.R	300339	A B
			R2	193909	B		R2.R	275999	A B
			C2	190536	B		D.P	228709	A B
			L	187866	B		L.P	219088	A B
			C1	153236	B		D.R	204338	A B
							C2.R	199188	A B
							C1.P	186017	A B
							C2.P	181883	A B
							R2.P	161072	B
							L.R	156644	B
							C1.R	120455	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	22-Dimethyl-undecane	p<0.01	R1	2080180	A	p<0.01	R1.R	2137117	A
			D	1260240	B		R1.P	2023244	A
			R2	1179979	B		R2.R	1693111	A B
			L	1179442	B		L.P	1402502	A B
			C2	1112845	B		D.P	1362678	A B
			C1	1078326	B		C1.P	1351897	A B
							D.R	1157801	A B
							C2.P	1142731	A B
							C2.R	1082958	A B
							R2.P	974726	B
							L.R	956383	B
							C1.R	804755	B
	Heptane	p=0.128	R1	153204	A	p<0.05	R1.P	188484	A
			C2	94880	A		C2.P	124815	A B
			D	93629	A		R2.R	120414	A B
			R2	91260	A		R1.R	117924	A B
			L	86819	A		L.P	112129	A B
			C1	77150	A		D.P	109776	A B
							C1.P	99596	A B
							R2.P	79599	B
							D.R	77482	B
							C2.R	64946	B
							L.R	61508	B
							C1.R	54705	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	n-Hexane	p<0.01	R1	1767176	A	p<0.001	R1.R	2935509	A
			D	423500	B		D.P	673473	B
			L	333775	B		R1.P	598843	B C
			C2	303489	B		C2.P	526220	B C D
			C1	177632	B		L.P	515097	B C D E
			R2	156771	B		C1.P	231208	B C D E
							R2.R	176883	C D E
							D.R	173528	C D E
							L.R	152454	D E
							R2.P	148726	E
							C1.R	124056	E
							C2.R	80759	E
	3-Methyl-pentane	p=0.097	R1	21142711	A	p<0.001	R1.R	29379546	A
			L	14480867	A B		D.R	19963954	A B
			D	14202594	A B		L.R	19516165	A B
			R2	13482326	A B		R2.R	18984943	A B
			C2	11566539	A B		C2.R	14077645	B
			C1	7315833	B		R1.P	12905877	B
							R2.P	11281279	B
							L.P	9445568	B
							C2.P	9055433	B
							D.P	8441235	B
							C1.R	7505535	B
							C1.P	7126132	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Esters	Ethyl Acetate	p=0.277	L	330011	A	p<0.05	L.R	604610	A
			C2	232143	A		C2.P	368395	A B
			D	156152	A		D.R	247894	A B
			R2	80121	A		C1.R	101381	A B
			C1	76446	A		C2.R	95892	A B
			R1	67484	A		R2.R	95318	A B
							R2.P	74042	B
							R1.P	73069	B
							D.P	64410	B
							R1.R	61898	B
							L.P	55412	B
							C1.P	51511	B
	Ethyl butyrate	p<0.05	D	1029268	A	p<0.001	R2.R	1309246	A
			R2	1028492	A		L.R	1277396	A
			L	1008603	A		D.R	1106716	A B
			R1	800059	A		D.P	951821	A B
			C2	683970	A		R2.P	916191	B
			C1	646233	A		R1.R	815961	B C
							R1.P	784156	B C
							C2.R	774547	B C
							L.P	739810	B C
							C1.P	732733	B C
							C2.P	593392	C
							C1.R	559734	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
(Fatty) Acids	Acetic Acid	p=0.227	L	25366964	A	p<0.001	L.R	39585896	A
			C2	18659658	A		R2.R	25547061	B
			D	16633587	A		C2.R	24737077	B
			R2	16201604	A		D.R	22471300	B C
			R1	13873942	A		R1.R	15407501	C D
			C1	10248839	A		C2.P	12582239	D
							R2.P	12463422	D
							R1.P	12340383	D
							L.P	11148033	D
							D.P	10795874	D
							C1.P	10445687	D
							C1.R	10051991	D
	Butyric acid	p<0.001	R1	54180666	A	p<0.001	R1.R	62737871	A
			R2	45871938	A B		R2.R	54315690	A B
			C2	39502540	A B		R1.P	45623461	A B C
			L	36656070	A B C		C2.R	43979092	A B C
			D	32036748	B C		L.R	43260434	A B C
			C1	20536802	C		R2.P	42494436	B C
							D.R	35334836	B C D
							C2.P	35025989	B C D
							L.P	30051706	C D
							D.P	28738660	C D
							C1.P	24520948	C D
							C1.R	16552657	D

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Isobutyric acid	p<0.01	R1	2589151	A	p<0.001	R1.R	4755290	A
			L	297659	B		R1.P	423013	B
			C2	295807	B		C2.P	416574	B
			D	276297	B		D.P	333357	B
			C1	195183	B		C1.P	323967	B
			R2	122933	B		L.P	318377	B
							L.R	276941	B C
							D.R	219237	B C
							C2.R	175040	B C
							R2.R	173187	B C
							R2.P	102832	C
							C1R	66399	C
	Isovaleric acid	p<0.05	R1	8330319	A	p<0.001	R1.R	15918732	A
			L	1935856	A B		L.P	3359557	B
			C1	1431252	A B		C1.P	2061894	B C
			C2	1289774	A B		C2.R	1524956	B C
			D	795458	A B		C2.P	1054592	B C
			R2	121929	B		C1.R	800610	B C
							D.R	796913	B C
							D.P	794003	B C
							R1.P	741907	B C
							L.R	512154	B C
							R2.R	200986	B C
							R2.P	90306	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Hexanoic acid	p=0.097	R1	21142711	A	p<0.001	R1.R	29379546	A
			L	14480867	A B		D.R	19963954	A B
			D	14202594	A B		L.R	19516165	A B
			R2	13482326	A B		R2.R	18984943	A B
			C2	11566539	A B		C2.R	14077645	B
			C1	7315833	B		R1.P	12905877	B
							R2.P	11281279	B
							L.P	9445568	B
							C2.P	9055433	B
							D.P	8441235	B
							C1.R	7505535	B
							C1.P	7126132	B
	Octanoic acid	p=0.068	R1	3355840	A	p<0.001	R1.R	4350447	A
			L	2813590	A B		R2.R	3701036	A B
			R2	2675274	A B		L.R	3692339	A B
			D	2436459	A B		D.R	3308660	A B C
			C2	2063278	A B		C2.R	2453021	A B C D
			C1	1271359	B		R1.P	2361234	A B C D
							R2.P	2264969	B C D
							L.P	1934841	B C D
							C2.P	1673535	C D
							D.P	1564259	C D
							C1.P	1271729	D
							C1.R	1270989	D

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	Pentanoic acid	p<0.001	L	664012	A	p<0.001	L.R	771685	A
			R2	598240	A		R2.R	761497	A
			R1	491545	A B		R1.R	590153	A B
			C2	367882	B		L.P	556338	A B
			D	361681	B		R2.P	532937	A B
			C1	256039	B		D.R	423799	B C
							C2.R	409589	B C
							R1.P	392937	B C
							C2.P	326175	B C
							C1.P	307258	B C
							D.P	299563	B C
							C1.R	204820	C
Ketones	2,3-Butanedione	p=0.135	C1	5218341	A	p<0.01	C1.P	10436682	A
			L	3041482	A		L.P	6082964	A B
			R2	0	A		R2.P	0	B
			C2	0	A		R2.R	0	B
			D	0	A		C1.R	0	B
			R1	0	A		C2.P	0	B
							C2.R	0	B
							D.P	0	B
							D.R	0	B
							L.R	0	B
							R1.P	0	B
							R1.R	0	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	2-Butanone	p=0.061	R1	6074483	A	p<0.001	R1.R	12148704	A
			D	4625784	A		D.R	8310207	B
			C1	4192449	A		C1.R	5505244	C
			C2	1972608	A		C1.P	2879654	D
			R1	600010	A		C2.R	2287138	D E
			L	169915	A		C2.P	1658078	D E F
							R2.R	1336059	E F G
							D.P	941362	E F G
							L.P	339830	F G
							R2.P	305590	G
							R1.P	262	G
							L.R	0	G
	3-Hydroxy-2-butanone	p=0.111	C1	64034436	A	p<0.01	C1.P	118100969	A
			L	47813109	A		L.P	89611294	A B
			R2	13093504	A		D.P	15354792	B C
			D	10701392	A		R2.P	13842695	C
			C2	6369931	A		R2.R	11220526	C
			R1	5739604	A		C1.R	9967903	C
							R1.P	9039733	C
							C2.P	6616735	C
							C2.R	6123127	C
							D.R	6047991	C
							L.R	6014924	C
							R1.R	2439475	C

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
	2-Pentanone	p<0.001	C1	7644902	A	p<0.001	C1P	8903162	A
			C2	5798332	A B		C2R	6631826	A B
			L	5143250	A B C		C1R	6386643	A B C
			D	4044180	B C D		LP	5237848	A B C
			T	3155932	C D		LR	5048651	B C D
			B	2363168	D		C2P	4964837	B C D
							DR	4739833	B C D
							TR	3473107	B C D
							DP	3348527	B C D
							BR	3168767	B C D
							TP	2838758	C D
							BP	2040929	D
	Propanone	p<0.001	C1	5751351	A	p<0.001	C1P	6204975	A
			C2	4160270	B		C1R	5297727	A B
			D	3105302	B C		C2P	4254580	B C
			T	3072857	B C		C2R	4065959	B C
			L	2627752	C		TP	3758343	B C D
			B	2594554	C		LP	3616431	C D
							DR	3373932	C D
							BR	2994490	C D E
							DP	2836671	C D E
							BP	2434580	D E
							TR	2387372	D E
							LR	1639073	E

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]	Location x Treatment	Cheese	Peak Area	Conf. Int. [a]
Nitrogens	2,6-Dimethyl-pyrazine	p<0.01	C1	875297	A	p<0.001	C1R	1181311	A
			L	347804	A B		LP	695143	B
			D	285390	B		C1P	569282	B C
			B	225105	B		DP	499660	B C D
			T	185207	B		TP	370415	B C D E
			C2	158171	B		BP	315148	C D E
							C2R	190579	D E F
							C2P	125763	E F
							DR	71120	E F
							LR	465	F
							BR	0	F
							TR	0	F
Sulfurs	Carbon disulfide	p<0.01	B	8302763	A	p<0.01	BP	10240756	A
			C2	3182886	A B		C2R	4096490	A B
			D	2616445	B		BR	3457779	A B
			C1	2284487	B		DP	3266135	A B
			L	1735649	B		C1R	2533442	B
			T	1416349	B		C2P	2269281	B
							C1P	2035533	B
							LP	1970443	B
							DR	1966756	B
							TR	1528376	B
							LR	1500854	B
							TP	1304322	B

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 2 (Continued). Tukey multiple comparison of average peak areas for volatile compounds detected in Cheddar cheese at 9 months into aging.

Category	Compound	Location	Cheese	Peak Area	Conf. Int. [a]			Location x Treatment	Cheese	Peak Area	Conf. Int. [a]		
Terpenes	D-limonene	p<0.001	B	179598	A			p<0.001	BR	250106	A		
			C1	0		B			BP	151394	A		
			C2	0		B			C1P	0		B	
			D	0		B			C1R	0		B	
			L	0		B			C2P	0		B	
			T	0		B			C2R	0		B	
									DP	0		B	
									DR	0		B	
									LP	0		B	
									LR	0		B	
									TP	0		B	
									TR	0		B	
	α-Pinene	p<0.01	T	155211	A			p<0.01	BR	182936	A		
			B	142498	A	B			TP	168349	A	B	
			L	112130	A	B	C		TR	142073	A	B	
			C2	95093		B	C		BP	126323	A	B	
			D	89915			C		LP	122315	A	B	
			C1	85335			C		LR	101945	A	B	
									C2P	100715	A	B	
									DP	92059		B	
									C1P	91585		B	
									C2R	89472		B	
									DR	87772		B	
									C1R	79085		B	

[a] Compounds not sharing a letter are significantly different (α=0.05).

Supplementary Table 3. Inter-species diversity. $\chi 2$ -test using k proportions. $\alpha = 0.05$.

Effects	**Treatments**	**Samples**	**p-value**	***Lb. plantarum***	***Lb. paracasei***	**Total**
Pasteurization	Total		**< 0.001**			
	Pasteurized	BP, C1P, C2P, DP, LP, TP	< 0.001	**39**	7	46
	Raw	BR. C1R, C2R, DR, LR, TR	< 0.001	9	**45**	54
Intra-Region	Total		**0.024**			
	Lafayette	LP, LR	0.028	5	**15**	20
	Dayton	DP, DR	0.016	**13**	6	19
	Corvallis	C1P, C1R, C2P, C2R	0.866	11	14	25
Inter-Region	Total		**0.740**			
	Willamette Valley	C1P, C1R, C2P, C2R, DP, DR, LP, LR	0.473	29	35	64
	Columbia Plateau	BP, BR	0.484	11	9	20
	Coastal Plain	TP, TR	0.861	8	8	16
Source	Total		**0.473**			
	Commingled	BP, BR, TP, TR	0.473	19	17	36
	Single	C1P, C1R, C2P, C2R, DP, DR, LP, LR	0.473	29	35	64

Supplementary Table 4. Intra-species diversity. $\chi 2$ -test using k proportions. $\alpha = 0.05$. Shared indicates that isolates that had identical fermentation patterns. Total indicates comparisons across groups within each respective species.

Effects	Treatments	Samples	*Lb. Plantarum*				*Lb. Paracasei*			
			p-value	Unique	Shared[2]	Total	p-value	Unique	Shared	Total
Pasteurization	Total[1]		0.131				0.361			
	Pasteurized	BP, C1P, C2P, DP, LP, TP	0.079	25	14	39		2	5	7
	Raw	BR. C1R, C2R, DR, LR, TR	0.684	6	3	9		33	12	45
Intra-Region	Total		0.022				<0.001			
	Lafayette	LP, LR	0.573	2	3	5		4	11	15
	Dayton	DP, DR	0.252	8	5	13		2	4	6
	Corvallis	C1P, C1R, C2P, C2R	NA	11	0	11		14	0	14
Inter-Region	Total		<0.001				0.050			
	Willamette Valley	C1P, C1R, C2P, C2R, DP, DR, LP, LR	0.205	21	8	29		20	15	35
	Columbia Plateau	BP, BR	0.008	2	9	11		7	2	9
	Coastal Plain	TP, TR	NA	8	0	8		8	0	8
Milk Source	Total		0.161				0.025			
	Commingled	BP, BR, TP, TR	0.021	10	9	19		15	2	17
	Single	C1P, C1R, C2P, C2R, DP, DR, LP, LR	0.205	21	8	29		20	15	35

[1]Indicates comparisons within given species.
[2]Indicates has a common identical isolate.