

Supplementary Table S1. Relative concentration of metabolites detected in whole-plant corn silages (n = 3).

No.	Items	S1	S2	S3	S4
1	1,3-diaminopropane	0.027967	4.95E-06	5.23E-07	1.16E-06
2	1,4-Cyclohexanedione 2	0.014689	0.214323	0.020613	1.16E-06
3	1,5-Anhydroglucitol	0.031586	2.455797	0.278257	0.035192
4	1-Indanone 2	0.371192	1.85087	0.3293	0.751943
5	1-Methylhydantoin 1	0.382472	4.462688	0.447023	1.16E-06
6	1-Monopalmitin	0.062384	0.756592	0.089665	0.199325
7	2,3-Dimethylsuccinic acid	0.021252	0.151095	0.011561	0.005792
8	2,6-Diaminopimelic acid 1	4.61E-07	0.083868	5.23E-07	1.16E-06
9	21-hydroxypregnenolone 2	0.009471	0.1255	0.005757	0.023828
10	24,25-dihydrolanosterol	0.411635	3.402826	0.320795	1.187049
11	2-amino-2-methylpropane-1,3-diol 1	0.014681	0.376484	0.024605	0.045075
12	2-Amino-3-methoxybenzoic acid 1	0.01314	0.215357	0.012736	0.02928
13	2-aminoethanethiol	0.009059	4.95E-06	0.00194	1.16E-06
14	2-aminophenol 2	0.050778	0.328657	0.010139	0.009768
15	2-Butyne-1,4-diol	0.045386	0.475312	0.049318	0.034409
16	2-Deoxy-D-galactose 2	0.035171	0.489035	0.070318	0.101958
17	2-deoxy-D-glucose 1	0.249277	3.335831	0.400882	1.544032
18	2-Deoxyerythritol	0.230995	3.453264	1.211853	0.099309
19	2-Deoxyuridine	0.459514	4.667302	0.480847	1.16E-06
20	2-Furoic Acid	0.273053	1.896762	0.18181	0.494838
21	2-hydroxy-3-isopropylbutanedioic acid	0.213591	1.285793	0.140366	0.871868
22	2-hydroxybutanoic acid	0.026544	4.95E-06	0.033882	0.044972
23	2-hydroxypyridine	2.91273	34.29957	3.560669	8.0289
24	2-Hydroxyvaleric acid	0.281541	2.716512	0.257568	0.25337
25	2-ketoadipate 3	0.018069	0.514464	0.004536	1.16E-06
26	2-ketobutyric acid 1	0.004031	0.047207	0.005561	0.017897
27	2-keto-isovaleric acid 1	0.02002	0.327021	0.039723	0.104427
28	2-Keto-L-gulonic acid	0.014805	0.418231	0.00867	1.16E-06
29	2-Ketovaleric acid 2	0.003186	0.145251	5.23E-07	1.16E-06
30	2-methylfumarate	0.001984	0.311772	0.016819	0.01452
31	3-(4-hydroxyphenyl)propionic acid	0.462317	6.293611	0.514851	1.16E-06
32	3,4-dihydroxybenzoic acid	0.077564	1.333258	0.086753	0.280151
33	3,4-dihydroxycinnamic acid	0.211551	1.007169	0.300646	0.080643
34	3,6-Anhydro-D-galactose 3	0.051077	4.95E-06	0.013528	1.16E-06
35	3-Aminoisobutyric acid 1	0.052562	0.580673	0.050916	0.130889
36	3-Cyanoalanine	0.051327	0.539866	0.038552	0.032739
37	3-hydroxy-3-methylglutaric acid	0.094582	0.957947	0.08736	0.340352
38	3-hydroxybutyric acid	0.286325	0.900873	0.139843	0.699629
39	3-Hydroxypropionic acid 1	0.10846	0.257366	0.030975	0.162797
40	3-hydroxypyruvate	0.049438	0.248406	5.23E-07	0.039072

41	3-Methylamino-1,2-propanediol 2	0.079635	1.348409	0.13193	1.16E-06
42	3-Methylglutaric Acid	0.053185	0.563409	0.095421	0.1082
43	3-Methyloxindole 2	4.61E-07	4.040427	0.445038	2.087826
44	3-Phenyllactic acid	0.583001	6.086227	0.310837	2.518906
45	4',5-dihydroxy-7-methoxyisoflavone	4.61E-07	0.02099	0.004178	0.011421
46	4-Acetamidobutyric acid 2	0.014685	0.167287	0.014386	1.16E-06
47	4-Acetylbutyric acid 1	0.003242	4.95E-06	5.23E-07	0.002258
48	4-aminobutyric acid 1	41.047	222.0208	17.12807	39.8366
49	4-hydroxy-3-methoxybenzoic acid;	0.180251	1.473987	0.162985	0.656881
50	4-Hydroxy-6-methyl-2-pyrone	0.158002	1.634483	0.136708	0.450669
51	4-Hydroxybenzoic acid	0.239734	1.436326	0.104831	0.664387
52	4-hydroxybutyrate	0.064451	4.95E-06	0.294492	1.16E-06
53	4-hydroxycinnamic acid	1.03109	7.839479	0.912968	1.16E-06
54	4-Hydroxycyclohexanecarboxylic acid	0.068491	0.474637	0.058597	1.16E-06
55	4-Hydroxymethyl-3-methoxyphenoxyacetic acid	0.143883	1.117287	0.034409	1.16E-06
56	4-hydroxyphenylacetic acid	0.043421	4.95E-06	0.008863	0.154709
57	4-Hydroxyphenylethanol	0.045263	0.206326	0.050516	0.11764
58	4-HYDROXYPYRIDINE	0.112607	0.919385	0.098379	0.244142
59	4-Methyl-5-thiazolethanol	4.61E-07	0.155874	0.026825	0.064923
60	5,7-dihydroxy-3-(4-methoxyphenyl)chromen-4-one	0.001782	0.021111	5.23E-07	0.006634
61	5-Aminoimidazole-4-carboxamide 2	0.001027	0.045796	0.003996	1.16E-06
62	5-aminovaleric acid lactam	1.994746	7.325618	0.556471	1.16E-06
63	5-Dihydrocortisol 1	0.002581	0.193368	0.01373	0.006432
64	6-phosphogluconic acid	0.046828	0.275461	0.08018	1.16E-06
65	9-Fluorenone 1	4.61E-07	0.148864	0.001313	0.008886
66	Acetol 5	0.089322	0.915504	0.102845	0.375379
67	Aconitic Acid	0.502318	4.477263	0.00748	0.011832
68	adenine	0.083392	2.91929	0.50898	0.757937
69	alanine 1	9.54671	301.33	32.58378	1.16E-06
70	Aldosterone 1	0.00909	0.075675	0.009759	0.002984
71	alpha-D-glucosamine 1-phosphate	0.007581	0.51788	0.03072	0.018762
72	alpha-ketoisocaproic acid 1	4.61E-07	0.164041	0.008471	1.16E-06
73	alpha-Santonin 1	0.003213	0.06972	0.007369	0.007485
74	Aminomalonic acid	0.020107	1.085123	0.033142	0.235546
75	Aminoxyacetic acid	0.004218	0.036683	0.00032	0.001509
76	androsterone 1	0.018726	0.141201	0.023599	0.081648
77	Arachidic acid	0.064011	0.72936	0.099022	0.277595
78	arachidonic acid	0.012269	0.170764	0.007135	1.16E-06
79	asparagine 4	4.61E-07	1.33511	0.086506	0.118754
80	aspartic acid 1	2.303451	16.16703	0.953763	5.494171
81	aspartic acid 2	0.108476	0.726306	0.097621	0.149636
82	Atrazine-2-hydroxy 4	0.040277	0.876174	0.086312	0.309518

83	azelaic acid	0.0177	0.352852	0.029176	0.097552
84	Behenic acid	0.019643	0.267177	0.022805	0.069807
85	benzoic acid	0.044322	0.53364	0.047501	0.037532
86	beta-Alanine 2	0.115815	1.149125	0.129677	0.051954
87	beta-hydroxypyruvate	0.014217	0.122902	0.009355	0.008225
88	beta-Mannosylglycerate 1	0.230548	3.570403	0.297561	0.071168
89	canavanine degr prod	0.051808	0.733532	0.077454	0.0295
90	caprylic acid	0.033754	0.047861	0.038229	0.039453
91	Carbobenzyloxy-L-leucine degr2	0.018745	0.231009	0.026641	0.027008
92	cellobiose 2	4.61E-07	4.95E-06	5.23E-07	1.16E-06
93	Cellobiotol	0.036351	0.10136	0.005509	0.031861
94	Cerotinic acid	0.026123	0.285615	0.022947	0.045847
95	Cholestane-3,5,6-triol, (3?5?6?-	1.512507	10.5088	1.566374	2.804778
96	Cholesterol-2,2,3,4,4,6-d6	4.61E-07	0.706205	0.062903	0.022804
97	cis-gondoic acid	0.095304	0.824198	0.161738	1.16E-06
98	Citraconic acid 2	0.00229	0.027194	5.23E-07	1.16E-06
99	Citramalic acid	0.086792	0.272455	0.014308	0.105676
100	citrulline 2	0.186566	2.268539	0.208916	0.640746
101	conduritol b epoxide 2	0.014855	4.95E-06	5.23E-07	6.36E-05
102	Cortexolone 3	0.022043	0.390379	0.00689	0.052589
103	Corticosterone 4	0.005947	0.093023	0.00722	1.16E-06
104	cycloleucine 2	0.421146	4.123631	0.460369	0.221454
105	Cysteinylglycine 1	0.002923	0.009138	0.002627	1.16E-06
106	cytidine-monophosphate degr prod	0.00165	0.001674	0.000831	1.16E-06
107	Cytosin	0.002171	0.595746	0.071267	0.058239
108	D-(glycerol 1-phosphate)	4.61E-07	0.007852	0.000608	1.16E-06
109	D-alanyl-D-alanine 2	0.021865	4.95E-06	5.23E-07	1.16E-06
110	D-Arabitol	0.053312	0.677788	0.106201	0.126894
111	D-erythronolactone 2	0.021155	1.091703	0.097371	0.042272
112	D-erythro-sphingosine 1	0.006787	0.042397	0.004679	0.002763
113	D-galacturonic acid 2	0.023002	1.046271	0.07923	1.16E-06
114	d-Glucoheptose 1	0.015626	2.012425	0.184902	0.334474
115	D-Glyceric acid	2.114059	31.28666	2.523198	1.16E-06
116	Digitoxose 1	0.536532	2.485821	0.38543	0.918701
117	Diglycerol 1	0.097607	0.827328	0.159587	0.314401
118	Dihydroxyacetone	0.028625	4.95E-06	0.207082	1.16E-06
119	dl-p-Hydroxyphenyllactic acid	0.134286	1.162607	0.177361	0.657603
120	Elaidic acid	0.06226	0.342754	0.07847	0.16641
121	Epigallocatechin	0.01853	0.147708	0.015334	0.029991
122	Ergosterol	0.178408	1.366139	0.168316	0.536564
123	Ethanolamine	4.134206	37.87669	3.869613	4.382333
124	ferulic acid	1.308238	10.47189	1.125726	0.150986

125	Flavanone 1	0.011237	0.074157	0.012275	0.019122
126	flavin adenine degrad product	0.595948	33.94597	3.646087	0.323502
127	fructose 2	3.757961	3.34413	7.869695	0.557113
128	fructose-6-phosphate	0.01603	0.019105	0.00349	0.003515
129	fucose 1	0.445582	4.332457	0.334804	2.01203
130	Galactinol 1	4.61E-07	4.95E-06	5.23E-07	1.16E-06
131	Galactonic acid	4.61E-07	23.00615	0.20907	3.053524
132	galactose 2	0.065282	0.560345	0.005386	1.16E-06
133	Gallic acid	0.038917	0.405927	0.037067	1.16E-06
134	Gentiobiose 2	0.286436	0.914126	0.072033	1.769182
135	gentisic acid	0.018361	0.171846	0.026094	1.16E-06
136	Glucoheptonic acid 1	0.932079	16.85242	0.988861	1.071915
137	gluconic acid 1	0.249175	0.590044	0.121794	0.002835
138	Glucosaminic acid	0.001134	0.072911	0.002189	0.019035
139	glucose 1	9.221789	6.660697	2.568665	0.118005
140	glucose-6-phosphate 1	0.085744	4.95E-06	5.23E-07	1.16E-06
141	Glutaconic acid	0.011287	0.102405	0.00711	0.017072
142	glutamic acid	0.15931	1.110367	0.159546	0.131327
143	glutaraldehyde 2	1.24207	16.48865	2.465888	5.758595
144	Glutaric Acid	0.417564	4.776589	0.371718	0.571906
145	glutathione 1	0.166919	2.407114	0.361814	0.089197
146	glycerol	17.33881	179.8441	13.32352	23.97507
147	glycine 1	0.783924	1.059744	0.120356	1.16E-06
148	glycine 2	3.657742	51.7541	5.276793	9.829817
149	glycocyamine 3	4.61E-07	4.95E-06	5.23E-07	1.16E-06
150	glycolic acid	0.724714	5.111301	0.558188	1.308194
151	gly-pro	4.61E-07	4.95E-06	5.23E-07	1.16E-06
152	Guanidinosuccinic acid 3	0.067585	0.673529	0.052387	0.106214
153	guanine 1	0.218782	1.703861	0.218471	0.471778
154	heptadecanoic acid	0.044748	0.365007	0.035746	0.0797
155	Hesperitin 2	0.000128	0.075893	0.000715	1.16E-06
156	hexadecane	0.085055	0.674971	0.082065	0.3467
157	hydroquinone	0.016532	0.055543	0.007389	0.021266
158	hydroxylamine	4.61E-07	31.91204	2.637362	6.606393
159	hydroxyurea	0.035098	0.479658	0.146696	0.253015
160	hypoxanthine 1	0.172126	2.839716	0.205751	0.524179
161	indole-3-acetamide 4	0.001118	0.008681	0.001889	0.003715
162	indole-3-acetic acid	0.149376	0.633308	5.23E-07	0.035275
163	isocitric acid 2	0.951802	9.690838	1.282981	1.991604
164	Isoleucine 1	0.350766	4.419154	0.652842	1.363019
165	Isoleucine 2	2.300765	115.5476	9.971842	26.76609
166	Isomaltose 1	0.011779	4.95E-06	0.002425	1.16E-06

167	Isoxanthopterin	0.094361	0.891162	0.068237	0.252978
168	Itaconic acid	0.046388	4.725149	0.216507	0.04701
169	kyotorphin 2	0.03054	0.64091	0.125504	0.267392
170	Lactamide 1	4.61E-07	0.050269	0.006803	0.008573
171	lactic acid	0.091786	1.24455	0.117581	0.308659
172	Lactobionic Acid 1	0.385991	3.234625	0.49789	0.72589
173	lactose 1	0.04288	0.238179	0.010463	0.052301
174	L-Allothreonine 1	4.61E-07	34.934	2.716394	7.346707
175	Leucrose 2	0.03365	0.036498	0.011407	0.000898
176	Levogluconan	0.006223	0.085143	0.038778	0.055053
177	L-homoserine 1	0.022291	0.288567	0.026624	0.067222
178	linoleic acid	0.36855	1.524426	0.34494	0.596206
179	linolenic acid	0.792496	10.12624	0.825207	1.068522
180	lipoic acid	0.239491	2.276192	0.124735	0.252249
181	L-Threose 1	0.004739	0.364254	0.037758	1.16E-06
182	Lyxose 1	6.473776	118.991	9.818863	1.16E-06
183	Maleamate 2	0.036516	0.161561	0.015032	0.043166
184	maleic acid	4.61E-07	1.395783	0.013752	1.16E-06
185	Maleimide	0.050555	0.534178	0.034371	0.068341
186	malonic acid 1	0.135201	1.549316	0.140989	0.359741
187	maltitol	4.61E-07	4.95E-06	5.23E-07	1.16E-06
188	mannitol	4.61E-07	4.95E-06	0.322595	1.16E-06
189	melibiose 1	0.525399	1.467668	0.152095	0.017548
190	methionine 1	2.626159	20.18796	1.886207	1.16E-06
191	methionine sulfoxide 2	0.03622	0.453515	0.034921	0.16441
192	Methoxamedrine 2	4.61E-07	0.255704	0.003114	0.008161
193	Methyl Phosphate	0.006447	4.95E-06	5.23E-07	0.007295
194	Methyl yellow	4.61E-07	4.95E-06	5.23E-07	1.16E-06
195	Methylmalonic acid	0.029963	0.350715	0.01707	0.026436
196	Monostearin	0.03565	0.29267	0.031611	0.064517
197	mucic acid	0.030505	0.255227	0.036564	1.16E-06
198	myo-inositol	1.049071	66.00075	7.978255	13.37934
199	Myristic Acid	0.049799	0.629649	0.080956	0.140723
200	N-(2-hydroxyethyl)-iminodiacetic acid 2	0.073079	3.146003	0.327371	0.280037
201	N(alpha),N(alpha)-dimethyl-L-histidine	2.940182	68.21115	6.579613	13.64018
202	N-Acetyl-beta-D-mannosamine 1	0.053758	2.680742	0.365767	0.247539
203	N-Acetyl-D-galactosamine 1	0.002312	0.039316	0.005002	0.026719
204	N-Acetyl-L-glutamic acid 2	0.102341	1.893102	0.280878	0.249097
205	N-Acetyl-L-leucine 2	0.249465	4.95E-06	5.23E-07	0.59684
206	N-Acetyltryptophan 2	4.61E-07	0.298919	0.068149	1.16E-06
207	N-alpha-Acetyl-L-ornithine 1	0.089891	4.95E-06	0.114727	0.058707
208	naphthalene	4.61E-07	0.662771	0.095896	1.16E-06

209	naringenin 3	0.017145	0.602959	0.061947	0.197168
210	N-Carbamylglutamate 4	0.016508	0.176804	0.026508	1.16E-06
211	N-cyclohexylformamide 2	0.22108	2.1042	0.225471	0.242465
212	Neohesperidin	0.008726	0.068195	0.010753	0.066276
213	N-Methyl-DL-alanine	4.61E-07	4.95E-06	5.23E-07	0.044007
214	N-Methyl-L-glutamic acid 3	0.080545	0.809325	0.065787	0.142968
215	noradrenaline	0.013186	0.018881	0.003817	0.018852
216	O-acetylserine 1	0.00232	0.070067	0.009702	0.001114
217	Octadecanol	0.003947	0.032221	5.23E-07	1.16E-06
218	ornithine 1	1.065771	6.582132	1.470686	2.963732
219	oxalacetic acid	0.043286	0.815758	0.04285	0.029846
220	oxalic acid	0.096579	0.81749	0.091293	0.257269
221	oxamic acid	4.61E-07	0.143304	0.015797	1.16E-06
222	oxoproline	25.25126	201.267	19.80546	51.40852
223	palatinitol 1	0.456418	1.661565	0.107454	0.024516
224	palatinitol 2	0.003174	0.159732	0.003453	1.16E-06
225	palmitic acid	13.6459	159.907	9.727686	27.50604
226	palmitoleic acid	0.050241	0.703877	0.015122	0.209564
227	p-Anisic acid	0.056243	0.342397	0.030232	0.11718
228	pantothenic acid	0.755496	7.948595	0.599636	0.484747
229	Pelargonic acid	0.004373	0.072371	0.004938	1.16E-06
230	pentadecanoic acid	0.048084	4.95E-06	5.23E-07	1.16E-06
231	Phenyl beta-D-glucopyranoside	0.037104	4.95E-06	0.002991	1.16E-06
232	phenylalanine 1	26.4122	164.7419	15.28482	76.91741
233	phenylalanine 2	0.512736	6.990973	0.862326	1.77548
234	phenylethylamine	0.089086	0.8038	0.057186	0.198033
235	Phytol	0.246715	3.130116	0.384924	0.806849
236	phytosphingosine 2	0.033855	0.315799	0.036314	0.030039
237	Pipecolinic acid	0.145118	0.676486	0.065658	0.153967
238	proline	31.73083	158.8656	24.30037	63.30468
239	prostaglandin A2 2	0.006038	0.104182	0.010788	0.012406
240	Purine riboside	4.61E-07	4.95E-06	0.001821	1.16E-06
241	putrescine 2	3.077744	34.09061	2.061616	1.16E-06
242	pyridoxal phosphate 1	0.013984	0.243779	0.028513	0.003059
243	Pyrrole-2-Carboxylic Acid	0.05769	1.085184	0.024536	0.024066
244	Pyruvic acid	0.018709	0.092275	0.103032	0.001618
245	quinic acid	0.456839	5.504678	0.310605	0.310344
246	resorcinol	4.61E-07	0.038426	0.020998	1.16E-06
247	resveratrol 1	4.61E-07	4.95E-06	5.23E-07	1.16E-06
248	ribitol	11.30673	142.7521	15.17133	1.16E-06
249	Ribonic acid, gamma-lactone	0.147476	1.961942	0.126198	0.419493
250	ribose	0.483194	9.548173	0.86839	0.198633

251	Saccharic acid	4.61E-07	0.034685	5.23E-07	0.032475
252	salicin	0.392074	5.588548	0.763777	0.483593
253	salicylic acid	0.006948	0.071215	5.23E-07	0.007914
254	serine 1	3.026524	172.667	13.98758	30.74382
255	serine 2	1.305239	6.908027	1.243724	1.036904
256	shikimic acid	0.182643	3.928738	0.061656	0.075504
257	sorbitol	0.017947	0.048996	0.031401	0.043288
258	spermidine 1	0.065491	0.518237	0.089896	1.16E-06
259	squalene	0.126717	1.532126	0.099409	0.261722
260	stearic acid	1.361296	12.43215	1.971117	3.86976
261	succinate semialdehyde 1	4.61E-07	0.234355	0.031073	1.16E-06
262	succinic acid	15.19088	135.406	10.54819	22.28505
263	sucrose	0.007164	0.070342	0.021605	0.020011
264	sulfuric acid	0.288671	4.95E-06	0.276651	0.613723
265	Synephrine 1	0.043499	1.070327	0.177542	1.16E-06
266	Tagatose 1	0.052339	1.088559	0.030529	0.253594
267	tartaric acid	0.013043	0.10457	0.016117	0.054541
268	TES	0.022621	1.546155	0.118482	0.021097
269	Tetrahydrocorticosterone 2	4.61E-07	0.021764	0.002535	0.006999
270	Threitol	0.041103	1.05414	0.070389	0.417203
271	threo-beta-hydroxyaspartate 2	0.357688	2.042798	0.136439	0.318179
272	Threonic acid	0.059825	0.370292	0.029197	0.1045
273	threonine 2	0.592659	2.40509	0.630036	0.780451
274	thymidine 1	4.61E-07	4.95E-06	0.025516	1.16E-06
275	thymine	0.041842	4.476471	0.286448	0.257841
276	Thymol	0.000918	0.09378	0.013133	0.013857
277	toluenesulfonic acid	4.61E-07	4.95E-06	0.026502	1.16E-06
278	trans-sinapinic acid	0.046086	0.457084	0.076188	0.060537
279	trehalose	0.355315	4.95E-06	0.017457	1.047115
280	Tricetin	0.035633	0.353098	0.023872	0.108087
281	Turanose 2	4.61E-07	4.95E-06	5.23E-07	0.005298
282	tyramine	10.5185	106.6508	1.298487	1.16E-06
283	tyrosine 1	2.343945	20.71037	2.935933	0.30866
284	uracil	4.197495	36.98003	3.032498	3.517458
285	urea	0.005818	0.592055	0.043486	0.026438
286	uridine 2	0.140781	0.637667	0.119255	0.939657
287	valine 1	0.954424	11.69505	2.370012	5.293462
288	valine 2	4.61E-07	205.1862	20.2528	40.88945
289	xanthine	0.037056	0.45939	5.23E-07	0.061359
290	xylitol	0.29125	2.262283	0.191655	0.842346
291	xylose 2	0.003616	0.639118	0.026537	1.16E-06
292	Zymosterol 1	0.100102	0.845955	0.081824	0.300911

293	Analyte 10	0.371014	3.94908	0.359226	0.873395
294	Analyte 1003	0.018973	0.252759	5.23E-07	0.079951
295	Analyte 1005	0.000354	4.95E-06	0.001575	0.001101
296	Analyte 1007	0.002311	0.168134	0.03632	0.008281
297	Analyte 1009	0.003486	0.053463	0.002262	1.16E-06
298	Analyte 1013	0.00808	0.093094	0.026071	0.000329
299	Analyte 1021	0.006533	0.101932	0.029402	0.002013
300	Analyte 1022	4.61E-07	4.95E-06	0.005881	1.16E-06
301	Analyte 1034	0.31526	3.091421	1.249576	1.16E-06
302	Analyte 104	0.011788	0.134805	0.013044	0.019325
303	Analyte 1045	0.027134	4.95E-06	5.23E-07	1.16E-06
304	Analyte 105	0.023493	0.313539	0.035039	0.026006
305	Analyte 1051	0.011048	0.579324	0.027018	0.099011
306	Analyte 106	0.14192	1.045827	0.126468	0.349339
307	Analyte 1063	0.013268	0.388203	0.03111	0.057395
308	Analyte 1064	0.00258	0.057657	0.028652	0.168002
309	Analyte 107	0.004081	0.051725	0.004252	0.017368
310	Analyte 108	0.075045	0.539984	0.067457	0.189541
311	Analyte 1082	0.322248	1.92725	0.206339	1.069669
312	Analyte 1087	0.01284	0.428246	0.070615	0.030457
313	Analyte 1097	0.041556	0.480575	0.09936	0.197707
314	Analyte 110	0.302175	3.290375	0.22036	0.192127
315	Analyte 1112	0.008211	0.158642	0.027512	0.059803
316	Analyte 1114	0.044463	0.251749	0.090807	0.12097
317	Analyte 116	0.010672	0.087027	0.008244	0.027254
318	Analyte 117	0.021697	0.260961	0.027661	0.032725
319	Analyte 12	4.61E-07	0.011223	0.001458	0.012931
320	Analyte 120	0.098517	1.021481	0.114156	0.2081
321	Analyte 1207	0.002946	4.95E-06	0.007594	0.020751
322	Analyte 121	0.005433	0.049473	0.005908	0.007875
323	Analyte 1214	0.045616	0.23591	0.057186	0.171002
324	Analyte 1219	0.002436	0.045093	0.001348	0.006278
325	Analyte 1223	0.056065	0.479562	0.043588	0.177869
326	Analyte 1231	0.003474	0.041394	0.006701	0.010284
327	Analyte 1237	0.003439	0.016168	0.006905	0.012775
328	Analyte 1238	0.200581	8.059301	0.671496	0.652759
329	Analyte 1245	0.073099	3.416175	0.347602	0.393409
330	Analyte 1249	0.042216	0.190062	0.013949	0.116545
331	Analyte 1256	0.069275	1.551513	0.173218	0.044451
332	Analyte 1258	0.052418	1.442786	0.167077	0.050073
333	Analyte 126	0.026961	0.1404	0.076314	0.199855
334	Analyte 1260	0.07184	0.532295	0.077878	0.22809

335	Analyte 1270	0.011648	0.132438	0.00525	0.010418
336	Analyte 1271	0.74159	6.602248	0.551534	1.451547
337	Analyte 1272	0.030321	4.95E-06	0.024894	0.062265
338	Analyte 129	0.207499	1.711753	0.191688	0.525837
339	Analyte 137	0.005693	0.032543	0.005262	0.00925
340	Analyte 14	0.00446	0.044319	0.004442	0.004128
341	Analyte 141	0.026124	0.154256	0.010102	0.074926
342	Analyte 144	0.041673	0.373849	0.044472	0.032601
343	Analyte 17	0.003263	4.95E-06	0.007088	0.005305
344	Analyte 178	0.004043	0.008724	0.002009	0.009874
345	Analyte 180	0.282254	2.031304	0.194473	0.586872
346	Analyte 183	0.026661	0.205111	0.019141	0.026016
347	Analyte 184	1.74037	18.73872	3.228203	8.820345
348	Analyte 185	0.003312	4.95E-06	0.015252	0.014461
349	Analyte 19	0.013896	0.261312	0.012178	1.16E-06
350	Analyte 192	0.028699	0.190476	0.037035	0.060168
351	Analyte 20	4.61E-07	0.01511	0.002814	0.010505
352	Analyte 200	0.018324	0.043762	0.00475	0.015651
353	Analyte 201	0.012183	0.14854	0.023341	0.005408
354	Analyte 203	0.011196	0.117596	0.007392	0.005738
355	Analyte 205	0.106172	0.691637	0.090446	0.195411
356	Analyte 218	0.033859	0.414966	0.043616	1.16E-06
357	Analyte 22	0.37279	4.378349	0.406825	0.671335
358	Analyte 228	0.013314	0.135211	0.013297	0.014374
359	Analyte 23	0.007503	0.101962	0.011909	0.016587
360	Analyte 230	4.61E-07	4.95E-06	0.052209	1.16E-06
361	Analyte 24	0.118911	1.265105	0.156737	0.255403
362	Analyte 255	0.088173	1.050578	0.083297	0.072351
363	Analyte 26	0.005502	4.95E-06	0.018964	0.015558
364	Analyte 265	4.61E-07	0.038828	0.00136	1.16E-06
365	Analyte 29	0.352298	2.865165	0.317189	0.461664
366	Analyte 3	0.085061	1.018771	0.053986	0.506847
367	Analyte 31	0.030496	0.406999	5.23E-07	0.11145
368	Analyte 32	0.002165	0.064518	0.010401	0.014994
369	Analyte 33	4.546539	34.8146	3.624355	5.13036
370	Analyte 334	0.105044	0.919336	0.116467	0.108771
371	Analyte 337	4.61E-07	0.084542	0.004509	1.16E-06
372	Analyte 338	0.006242	0.203014	5.23E-07	1.16E-06
373	Analyte 348	0.409047	4.95E-06	5.23E-07	0.266532
374	Analyte 351	0.153355	1.782619	0.150674	1.16E-06
375	Analyte 354	4.61E-07	0.191068	0.030029	1.16E-06
376	Analyte 365	0.00643	0.093804	0.008147	1.16E-06

377	Analyte 371	0.012945	0.157069	0.013319	1.16E-06
378	Analyte 38	4.61E-07	15.0792	1.829635	1.16E-06
379	Analyte 393	0.17434	0.884258	0.085957	0.131287
380	Analyte 401	0.033838	0.307412	0.026303	0.060163
381	Analyte 402	0.02356	4.95E-06	5.23E-07	0.051346
382	Analyte 414	0.002439	0.215258	0.016095	0.005859
383	Analyte 423	0.012145	0.18343	0.018811	0.020522
384	Analyte 424	0.206172	2.378887	0.167468	0.430285
385	Analyte 43	0.301698	3.531212	0.405502	1.16E-06
386	Analyte 438	4.61E-07	0.019039	0.003466	1.16E-06
387	Analyte 440	0.00907	0.06727	0.008371	0.028954
388	Analyte 45	0.112725	0.94732	0.073293	0.22515
389	Analyte 455	7.303574	176.4227	5.744805	90.23765
390	Analyte 459	0.007058	0.116539	0.008771	0.0298
391	Analyte 465	4.61E-07	4.95E-06	5.23E-07	1.16E-06
392	Analyte 47	0.038353	0.530607	0.037051	0.137004
393	Analyte 48	0.002541	4.95E-06	0.001322	0.005277
394	Analyte 49	0.031145	0.345172	0.037207	0.111301
395	Analyte 490	0.00518	0.140719	0.003846	1.16E-06
396	Analyte 5	0.767772	7.811543	0.82069	1.16E-06
397	Analyte 51	0.049637	0.441952	0.039892	0.139098
398	Analyte 510	0.012092	0.172149	0.039764	1.16E-06
399	Analyte 514	0.026989	0.832331	0.153854	1.16E-06
400	Analyte 53	4.61E-07	4.95E-06	5.23E-07	1.16E-06
401	Analyte 55	4.61E-07	4.95E-06	5.23E-07	0.008496
402	Analyte 56	0.333083	3.370925	0.158282	0.252481
403	Analyte 571	4.61E-07	4.95E-06	5.23E-07	1.16E-06
404	Analyte 58	0.139771	1.420762	0.164981	0.366366
405	Analyte 585	0.013338	0.062302	0.019158	0.064193
406	Analyte 59	0.022968	0.217797	0.047972	0.061589
407	Analyte 61	0.202605	2.132777	0.211736	0.346391
408	Analyte 62	0.267638	2.674699	0.24368	0.781134
409	Analyte 64	1.556497	17.18042	1.663111	3.473816
410	Analyte 66	0.205854	1.755582	0.154599	0.140418
411	Analyte 67	0.010938	0.13752	5.23E-07	0.002292
412	Analyte 7	0.300377	2.82732	0.308231	0.755104
413	Analyte 71	0.501023	5.054175	0.482291	1.295213
414	Analyte 73	0.035309	0.470367	0.042693	0.086099
415	Analyte 758	0.002691	4.95E-06	0.00031	0.000825
416	Analyte 771	0.045157	0.429675	0.0234	0.052745
417	Analyte 78	0.024331	0.286527	0.0291	0.045481
418	Analyte 793	4.61E-07	2.783146	0.123063	0.395545

419	Analyte 796	0.008403	0.434193	0.000114	1.16E-06
420	Analyte 797	0.007439	0.030704	5.23E-07	0.025762
421	Analyte 8	0.569181	9.254889	0.191657	1.16E-06
422	Analyte 800	4.61E-07	4.95E-06	5.23E-07	1.16E-06
423	Analyte 812	0.008673	4.95E-06	5.23E-07	1.16E-06
424	Analyte 82	4.61E-07	0.116963	5.23E-07	1.16E-06
425	Analyte 871	0.244616	2.563614	0.265328	0.001944
426	Analyte 88	0.01177	0.159503	5.23E-07	1.16E-06
427	Analyte 889	0.022029	0.220831	0.031843	1.16E-06
428	Analyte 893	0.001064	0.003684	0.004415	7.98E-05
429	Analyte 898	0.008749	0.047405	0.009785	0.00099
430	Analyte 899	0.002608	4.95E-06	5.23E-07	1.16E-06
431	Analyte 9	1.18743	15.65403	2.525604	2.651812
432	Analyte 90	0.129347	9.80869	0.38951	0.645307
433	Analyte 902	0.026739	0.596227	0.030475	0.021987
434	Analyte 905	0.292715	4.508586	0.702641	1.16E-06
435	Analyte 907	4.61E-07	0.05837	5.23E-07	1.16E-06
436	Analyte 916	4.61E-07	0.037979	0.00195	1.16E-06
437	Analyte 924	4.61E-07	4.95E-06	5.23E-07	1.16E-06
438	Analyte 925	0.039091	0.036327	0.00453	0.109332
439	Analyte 957	0.041464	0.170526	0.011727	1.16E-06
440	Analyte 961	4.61E-07	4.95E-06	5.23E-07	1.16E-06
441	Analyte 962	0.073023	0.349696	0.068477	0.153193
442	Analyte 963	4.61E-07	0.096943	0.051024	0.035507
443	Analyte 97	0.112912	1.062492	0.118854	0.28233
444	Analyte 970	0.009695	0.132759	0.018318	0.007301
445	Analyte 971	0.006103	0.08297	0.012202	0.028978
446	Analyte 974	4.61E-07	0.361051	0.134343	1.16E-06
447	Analyte 975	0.007292	0.085501	0.016232	0.002094
448	Analyte 984	0.073148	4.95E-06	5.23E-07	1.16E-06
449	Analyte 986	0.005399	0.24222	0.008097	0.091246
450	Analyte 987	4.61E-07	4.95E-06	5.23E-07	0.009543
451	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
452	unknown	0.055242	0.293422	5.23E-07	0.000212
453	unknown	0.443357	1.757015	0.282981	0.551123
454	unknown	0.032938	0.379479	0.030135	1.16E-06
455	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
456	unknown	4.61E-07	0.421672	0.016628	0.057331
457	unknown	0.005463	0.052535	0.007365	0.004516
458	unknown	0.006494	0.02143	0.011331	1.16E-06
459	unknown	0.006918	0.063838	0.015359	0.027151
460	unknown	0.02179	0.98179	0.158867	0.247696

461	unknown	4.61E-07	4.95E-06	0.142581	0.31991
462	unknown	0.017794	0.150269	0.010054	0.050687
463	unknown	0.000811	0.030739	5.23E-07	1.16E-06
464	unknown	4.61E-07	0.760564	0.138344	1.16E-06
465	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
466	unknown	0.044885	0.309338	0.02801	0.11001
467	unknown	0.018381	0.165389	0.013339	0.023093
468	unknown	0.027871	0.256383	0.02369	0.027897
469	unknown	0.027774	0.261999	0.006441	0.011044
470	unknown	0.017464	0.098349	5.23E-07	1.16E-06
471	unknown	4.61E-07	4.95E-06	5.23E-07	0.017553
472	unknown	0.019772	0.160182	0.016697	0.013011
473	unknown	0.008482	0.560936	0.066174	1.16E-06
474	unknown	0.019436	0.161219	5.23E-07	1.16E-06
475	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
476	unknown	0.008822	0.047179	0.006659	0.028631
477	unknown	0.00446	0.111571	5.23E-07	0.001707
478	unknown	0.005211	0.037434	0.005464	0.002653
479	unknown	0.098782	0.547776	0.04282	0.233675
480	unknown	0.137045	1.453498	0.193927	0.488437
481	unknown	0.041792	0.401198	0.039828	0.138191
482	unknown	4.61E-07	0.019053	0.001024	0.001376
483	unknown	0.034895	0.535196	0.053744	0.0338
484	unknown	0.006245	0.081824	0.012439	0.020895
485	unknown	0.05228	0.568005	0.058858	1.16E-06
486	unknown	0.010062	0.130937	0.009861	0.022178
487	unknown	0.028869	4.95E-06	0.206095	1.16E-06
488	unknown	0.012512	0.224401	0.024723	1.16E-06
489	unknown	0.007609	0.400437	0.026402	0.076898
490	unknown	0.07573	0.846345	0.067224	0.051541
491	unknown	4.61E-07	0.025206	5.23E-07	1.16E-06
492	unknown	0.002095	0.04636	0.003548	1.16E-06
493	unknown	0.061802	0.462837	0.04389	0.199062
494	unknown	0.099979	1.030057	0.104414	0.132012
495	unknown	0.003045	0.036278	5.23E-07	1.16E-06
496	unknown	0.003314	0.050523	0.007184	0.002413
497	unknown	0.008738	0.246999	0.011607	0.022835
498	unknown	0.059255	0.225499	0.03515	0.158825
499	unknown	0.002086	0.098702	0.010387	1.16E-06
500	unknown	0.009209	0.61524	0.061568	0.100031
501	unknown	4.61E-07	0.032383	5.23E-07	1.16E-06
502	unknown	0.021281	0.075908	0.021787	1.16E-06

503	unknown	0.017774	0.121173	0.016253	0.044729
504	unknown	0.020149	0.099647	0.011613	0.017167
505	unknown	0.002209	0.025535	0.002549	0.003927
506	unknown	0.040678	0.312064	0.01901	0.007123
507	unknown	0.015167	0.025426	5.23E-07	0.013286
508	unknown	0.038782	0.181203	0.019351	0.004851
509	unknown	4.61E-07	0.171899	0.021906	1.16E-06
510	unknown	0.055368	0.693797	0.076571	1.16E-06
511	unknown	0.009361	0.330298	0.0238	0.00302
512	unknown	0.083285	0.94231	0.062174	0.081028
513	unknown	0.033612	0.197091	0.01819	0.085041
514	unknown	4.61E-07	4.95E-06	0.003298	1.16E-06
515	unknown	0.048148	0.395086	0.046884	0.059396
516	unknown	0.171235	1.759541	5.23E-07	1.16E-06
517	unknown	4.61E-07	0.054658	5.23E-07	0.00328
518	unknown	0.195248	1.381856	0.111321	0.408022
519	unknown	4.61E-07	0.138321	5.23E-07	1.16E-06
520	unknown	0.027049	0.194698	0.019337	0.042
521	unknown	0.023811	0.40639	0.025363	0.056514
522	unknown	0.006318	0.052829	5.23E-07	1.16E-06
523	unknown	0.239675	2.684175	0.075215	0.124064
524	unknown	0.005916	0.016839	0.00505	0.004004
525	unknown	0.000331	0.003812	0.001578	0.002001
526	unknown	4.61E-07	0.040731	5.23E-07	1.16E-06
527	unknown	0.006338	0.127868	0.010409	1.16E-06
528	unknown	0.015318	0.681998	0.001978	0.002136
529	unknown	0.009991	0.088857	0.01109	0.012227
530	unknown	2.243426	14.08096	0.88694	1.16E-06
531	unknown	0.006061	0.024791	0.000913	0.003096
532	unknown	0.066266	0.753966	0.076098	1.16E-06
533	unknown	0.005362	0.627849	0.028906	1.16E-06
534	unknown	0.012265	0.167207	0.006443	0.013858
535	unknown	0.405879	2.961217	0.164609	0.828943
536	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
537	unknown	0.145649	2.185148	0.173716	0.73582
538	unknown	0.001802	4.95E-06	0.008058	1.16E-06
539	unknown	0.00117	0.035759	0.003438	0.002281
540	unknown	0.057748	0.66847	0.126844	0.031826
541	unknown	4.61E-07	0.135651	0.00588	1.16E-06
542	unknown	0.008706	0.351586	0.025029	0.01538
543	unknown	0.002631	0.020267	5.23E-07	0.007153
544	unknown	0.116932	0.91213	0.032389	0.141945

545	unknown	0.002403	0.015613	0.007281	0.024737
546	unknown	0.004656	0.096198	0.004756	1.16E-06
547	unknown	4.61E-07	2.854123	0.266026	1.16E-06
548	unknown	4.61E-07	0.028682	5.23E-07	1.16E-06
549	unknown	0.015269	0.598298	0.122329	0.053921
550	unknown	4.61E-07	4.95E-06	0.052965	1.16E-06
551	unknown	0.006689	0.103484	0.008365	1.16E-06
552	unknown	0.007666	0.337992	0.022338	1.16E-06
553	unknown	0.00741	4.95E-06	5.23E-07	0.03129
554	unknown	0.017238	0.233887	0.031512	0.095741
555	unknown	0.023186	0.389686	0.008757	1.16E-06
556	unknown	4.61E-07	0.132755	0.002786	0.005533
557	unknown	0.000306	0.01369	0.008043	0.000782
558	unknown	0.069009	0.578113	0.032349	1.16E-06
559	unknown	0.021186	0.131454	0.014579	0.039226
560	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
561	unknown	0.006535	0.180505	0.021634	1.16E-06
562	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
563	unknown	0.355979	5.158807	0.633612	0.206866
564	unknown	0.001246	0.047423	0.003625	1.16E-06
565	unknown	4.61E-07	0.184339	0.040884	1.16E-06
566	unknown	0.016649	4.95E-06	5.23E-07	1.16E-06
567	unknown	0.034943	4.95E-06	0.005814	1.16E-06
568	unknown	0.106169	4.95E-06	5.23E-07	0.397662
569	unknown	4.61E-07	2.85561	0.130456	0.498128
570	unknown	0.006279	0.055775	0.00661	0.005679
571	unknown	0.032852	0.320711	0.009121	0.024291
572	unknown	0.034201	0.365209	0.055188	0.066896
573	unknown	0.02122	0.163548	0.019624	0.012795
574	unknown	0.003865	0.001019	0.000108	1.16E-06
575	unknown	0.370933	2.88907	0.265096	0.806935
576	unknown	0.009727	0.359078	0.037456	0.11132
577	unknown	0.008009	0.139453	0.010402	0.024002
578	unknown	0.037482	4.95E-06	5.23E-07	1.16E-06
579	unknown	0.113471	1.171106	0.126742	0.252838
580	unknown	4.61E-07	0.184462	5.23E-07	0.010946
581	unknown	4.61E-07	1.459677	0.14737	1.16E-06
582	unknown	4.61E-07	0.314457	0.005484	0.00238
583	unknown	0.083234	0.679346	0.070563	0.206769
584	unknown	0.073098	0.77457	0.078002	0.075616
585	unknown	4.61E-07	0.073061	0.007919	1.16E-06
586	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06

587	unknown	0.017105	0.204936	5.23E-07	0.044087
588	unknown	0.026288	0.073502	5.23E-07	1.16E-06
589	unknown	0.011575	0.369224	5.23E-07	0.09444
590	unknown	0.011846	0.144672	0.005862	0.009098
591	unknown	0.722954	5.327671	0.594175	0.953248
592	unknown	0.020072	0.244876	0.022115	0.041289
593	unknown	0.006917	0.189372	0.006307	0.045768
594	unknown	0.077647	0.655338	0.056901	0.077926
595	unknown	0.018128	0.207645	0.019235	0.012973
596	unknown	0.027407	1.596851	0.070893	0.567881
597	unknown	0.000213	0.007816	0.001015	1.16E-06
598	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
599	unknown	0.690196	7.163035	0.397739	1.16E-06
600	unknown	0.052001	1.631926	0.107539	0.012095
601	unknown	0.046671	0.36961	0.046395	0.115883
602	unknown	0.029445	0.417571	0.08967	0.01204
603	unknown	0.012855	0.163973	0.008573	0.023328
604	unknown	0.074554	2.269574	0.19969	1.16E-06
605	unknown	0.21141	4.95E-06	5.23E-07	1.16E-06
606	unknown	0.001705	0.043096	0.015868	0.003049
607	unknown	0.145913	2.759729	0.171337	0.318271
608	unknown	0.012269	0.150688	0.011057	1.16E-06
609	unknown	0.031519	0.165725	0.028656	0.191656
610	unknown	0.020574	0.043997	0.028213	0.074849
611	unknown	0.002221	0.272569	0.011435	0.017669
612	unknown	0.093353	0.798741	0.046981	0.190762
613	unknown	0.004001	0.306957	0.022954	0.00915
614	unknown	0.02604	1.125999	0.18984	0.026909
615	unknown	0.022368	0.420732	5.23E-07	0.09591
616	unknown	0.102464	6.094261	0.23704	0.044334
617	unknown	4.61E-07	0.122133	5.23E-07	1.16E-06
618	unknown	0.061953	0.451005	0.070382	0.112812
619	unknown	0.052896	1.091441	0.125488	0.343388
620	unknown	0.463515	19.91465	0.201388	1.16E-06
621	unknown	0.038925	0.695854	0.133689	0.287102
622	unknown	0.0054	0.413787	5.23E-07	1.16E-06
623	unknown	0.023969	0.835666	0.031496	0.064722
624	unknown	0.019517	0.723941	0.079626	1.16E-06
625	unknown	0.164501	4.319821	0.207841	0.087033
626	unknown	0.020002	0.291485	0.021426	0.117117
627	unknown	7.277356	65.70456	6.188874	18.3677
628	unknown	0.19582	0.196167	0.005421	0.024608

629	unknown	0.014738	0.051563	5.23E-07	0.086742
630	unknown	0.006709	0.125184	0.004453	1.16E-06
631	unknown	0.126424	3.83116	0.040951	0.007213
632	unknown	0.019705	3.931358	0.47477	0.02165
633	unknown	0.064979	1.045186	0.079051	0.010279
634	unknown	0.153532	4.95E-06	0.848745	1.649207
635	unknown	6.12E-06	4.95E-06	5.23E-07	0.000265
636	unknown	0.018762	0.163762	0.029312	0.05024
637	unknown	0.150456	1.560878	0.176237	0.283633
638	unknown	6.04775	229.1711	27.8764	31.87469
639	unknown	0.048135	1.2428	0.16216	0.125233
640	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
641	unknown	0.012159	0.406413	0.063367	1.16E-06
642	unknown	0.010177	0.320071	0.004883	0.00441
643	unknown	0.003749	1.136371	0.15185	1.16E-06
644	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
645	unknown	0.223936	3.468669	0.209636	1.16E-06
646	unknown	0.294263	3.125085	0.289115	0.120514
647	unknown	0.017287	4.95E-06	0.005617	1.16E-06
648	unknown	0.197955	3.590781	0.349833	0.268696
649	unknown	0.024526	0.216096	0.05474	0.119457
650	unknown	0.022481	0.197713	0.005497	0.017903
651	unknown	0.111861	2.428353	0.048292	0.40496
652	unknown	0.017323	0.772131	5.23E-07	0.095546
653	unknown	0.016354	0.201761	0.004739	0.017317
654	unknown	0.010249	2.647486	0.245352	0.470793
655	unknown	0.481355	5.888822	0.838485	1.167718
656	unknown	0.037481	0.267019	0.060422	0.049968
657	unknown	4.61E-07	4.95E-06	0.055653	1.16E-06
658	unknown	4.61E-07	0.083711	0.023412	1.16E-06
659	unknown	0.09569	8.034253	0.586984	1.16E-06
660	unknown	0.082386	2.142886	0.075776	0.060875
661	unknown	4.61E-07	4.95E-06	5.23E-07	1.16E-06
662	unknown	0.115315	4.95E-06	5.23E-07	1.16E-06
663	unknown	0.205608	6.059024	0.211109	0.056852
664	unknown	0.00453	0.006294	0.002553	1.16E-06
665	unknown	0.163488	1.275696	0.116948	0.249362
666	unknown	0.089259	0.441991	0.074019	0.011891
667	unknown	4.61E-07	4.410193	0.478043	1.16E-06
668	unknown	4.61E-07	4.95E-06	5.23E-07	0.00033
669	Total metabolites	353	4220	399	753

S1, silage collected from Erdos; S2, silage collected from Baotou; S3, silage collected from

Ulaqab; S4, silage collected from Hohhot.

Supplementary Table S2. Difference in metabolites identified between S1 and S2 (n = 3).

No.	Items	P-value	Log ₂ (S2/S1)	S1	S2
1	valine	0.039489	28.72841	4.61E-07	205.1862
2	L-Allothreonine 1	0.03432	26.17418	4.61E-07	34.934
3	hydroxylamine	0.036736	26.04365	4.61E-07	31.91204
4	Galactonic acid	0.032625	25.57156	4.61E-07	23.00615
5	3-Methyloxindole 2	0.002105	23.06212	4.61E-07	4.040427
6	maleic acid	0.039731	21.52869	4.61E-07	1.395783
7	asparagine 4	0.001266	21.46458	4.61E-07	1.33511
8	Cholesterol-2,2,3,4,4,6-d6	0.020961	20.54578	4.61E-07	0.706205
9	N-Acetyltryptophan 2	0.001465	19.30544	4.61E-07	0.298919
10	alpha-ketoisocaproic acid 1	0.019472	18.43975	4.61E-07	0.164041
11	9-Fluorenone 1	0.034018	18.29968	4.61E-07	0.148864
12	Lactamide 1	0.041127	16.73342	4.61E-07	0.050269
13	Cytosin	0.005046	8.100119	0.002171	0.595746
14	2-methylfumarate	0.023211	7.295847	0.001984	0.311772
15	thymine	0.028792	6.741279	0.041842	4.476471
16	Itaconic acid	0.029103	6.67046	0.046388	4.725149
17	urea	0.035336	6.669142	0.005818	0.592055
18	L-Threose 1	0.018979	6.264232	0.004739	0.364254
19	TES	0.009294	6.094906	0.022621	1.546155
20	Glucosaminic acid	0.029358	6.00603	0.001134	0.072911
21	myo-inositol	0.026461	5.975298	1.049071	66.00075
22	serine 1	0.033248	5.834187	3.026524	172.667
23	flavin adenine degrad product	0.005085	5.83191	0.595948	33.94597
24	Aminomalonic acid	0.005878	5.753982	0.020107	1.085123
25	Isoleucine	0.044369	5.65023	2.300765	115.5476
26	N-Acetyl-beta-D-mannosamine 1	0.008067	5.640019	0.053758	2.680742
27	naringenin 3	0.037288	5.136236	0.017145	0.602959
28	alanine 1	0.035175	4.980197	9.54671	301.33
29	O-acetylserine 1	0.033493	4.916596	0.00232	0.070067
30	Threitol	0.004857	4.680692	0.041103	1.05414
31	ribose	0.000243	4.304549	0.483194	9.548173
32	oxalacetic acid	0.010027	4.236165	0.043286	0.815758
33	Pyrrole-2-Carboxylic Acid	0.047157	4.233486	0.05769	1.085184
34	Lyxose 1	0.002264	4.200101	6.473776	118.991
35	Cortexolone 3	0.037206	4.146499	0.022043	0.390379
36	beta-Mannosylglycerate 1	0.004533	3.952946	0.230548	3.570403
37	2-Deoxyerythritol	0.043963	3.902026	0.230995	3.453264
38	D-Glyceric acid	0.036497	3.88746	2.114059	31.28666
39	glutathione 1	0.008643	3.850086	0.166919	2.407114
40	palmitoleic acid	0.013054	3.808396	0.050241	0.703877

41	2-deoxy-D-glucose 1	0.019459	3.742222	0.249277	3.335831
42	Ribonic acid, gamma-lactone	0.000265	3.733735	0.147476	1.961942
43	linolenic acid	0.010168	3.675551	0.792496	10.12624
44	D-Arabitol	0.001009	3.668299	0.053312	0.677788
45	Phytol	0.01936	3.665297	0.246715	3.130116
46	methionine sulfoxide 2	0.03649	3.646312	0.03622	0.453515
47	Carbobenzyloxy-L-leucine degr2	0.003876	3.623344	0.018745	0.231009
48	2-hydroxypyridine	0.044511	3.557747	2.91273	34.29957
49	palmitic acid	0.048839	3.550694	13.6459	159.907
50	Arachidic acid	0.045423	3.510235	0.064011	0.72936
51	3-Aminoisobutyric acid 1	0.018967	3.46563	0.052562	0.580673
52	3-Phenyllactic acid	0.002714	3.383977	0.583001	6.086227
53	Gallic acid	0.042372	3.382755	0.038917	0.405927
54	4-Hydroxy-6-methyl-2-pyrone	0.028153	3.370821	0.158002	1.634483
55	Acetol 5	0.011475	3.35748	0.089322	0.915504
56	3-hydroxy-3-methylglutaric acid	0.001981	3.340309	0.094582	0.957947
57	N-Methyl-L-glutamic acid 3	0.017018	3.328852	0.080545	0.809325
58	Guanidinosuccinic acid 3	0.041406	3.31696	0.067585	0.673529
59	beta-Alanine 2	0.017505	3.310645	0.115815	1.149125
60	fucose 1	0.000267	3.281423	0.445582	4.332457
61	Glutaconic acid	0.038938	3.181506	0.011287	0.102405
62	phenylethylamine	0.002263	3.173567	0.089086	0.8038
63	tyrosine 1	0.048158	3.143343	2.343945	20.71037
64	Aminoxyacetic acid	0.040108	3.12062	0.004218	0.036683
65	cis-gondoic acid	0.003385	3.112386	0.095304	0.824198
66	Diglycerol 1	0.00202	3.083401	0.097607	0.827328
67	Zymosterol 1	0.047573	3.079106	0.100102	0.845955
68	Aldosterone 1	0.021732	3.057488	0.00909	0.075675
69	4-hydroxy-3-methoxybenzoic acid;	0.019362	3.031647	0.180251	1.473987
70	heptadecanoic acid	0.009474	3.028018	0.044748	0.365007
71	ferulic acid	0.026834	3.000825	1.308238	10.47189
72	oxoproline	0.003778	2.994683	25.25126	201.267
73	spermidine 1	0.01268	2.984236	0.065491	0.518237
74	guanine 1	0.009181	2.961242	0.218782	1.703861
75	xylitol	0.000105	2.957449	0.29125	2.262283
76	4-Hydroxymethyl-3-methoxyphenoxyacetic acid	0.03672	2.95703	0.143883	1.117287
77	Ergosterol	0.026428	2.936855	0.178408	1.366139
78	aspartic acid 1	0.000563	2.811186	2.303451	16.16703
79	4-Hydroxycyclohexanecarboxylic acid	0.003931	2.792842	0.068491	0.474637
80	Flavanone 1	0.008335	2.722379	0.011237	0.074157
81	2-aminophenol 2	0.006682	2.694294	0.050778	0.328657
82	phenylalanine 1	0.004643	2.640931	26.4122	164.7419

83	Threonic acid	0.001437	2.629834	0.059825	0.370292
84	p-Anisic acid	0.014453	2.605916	0.056243	0.342397
85	2-hydroxy-3-isopropylbutanedioic acid	0.001342	2.589735	0.213591	1.285793
86	4-Hydroxybenzoic acid	0.000195	2.582878	0.239734	1.436326
87	6-phosphogluconic acid	0.004406	2.556394	0.046828	0.275461
88	Elaidic acid	0.000555	2.460794	0.06226	0.342754
89	4-aminobutyric acid 1	0.013062	2.435346	41.047	222.0208
90	3,4-dihydroxycinnamic acid	0.025546	2.251229	0.211551	1.007169
91	4-Hydroxyphenylethanol	0.004372	2.188532	0.045263	0.206326
92	uridine 2	0.019661	2.179346	0.140781	0.637667
93	Maleamate 2	0.007519	2.145483	0.036516	0.161561
94	Isomaltose 1	0.026163	-11.218	0.011779	4.95E-06
95	conduritol b epoxide 2	0.031562	-11.5527	0.014855	4.95E-06
96	2-hydroxybutanoic acid	0.009979	-12.3901	0.026544	4.95E-06
97	1,3-diaminopropane	0.014332	-12.4654	0.027967	4.95E-06
98	Phenyl beta-D-glucopyranoside	0.013721	-12.8733	0.037104	4.95E-06
99	4-hydroxyphenylacetic acid	3.92E-05	-13.1001	0.043421	4.95E-06
100	pentadecanoic acid	0.016551	-13.2473	0.048084	4.95E-06
101	3,6-Anhydro-D-galactose 3	0.003334	-13.3344	0.051077	4.95E-06
102	glucose-6-phosphate 1	0.003226	-14.0818	0.085744	4.95E-06
103	N-alpha-Acetyl-L-ornithine 1	0.036943	-14.1499	0.089891	4.95E-06
104	sulfuric acid	0.014966	-15.8331	0.288671	4.95E-06

S1, silage collected from Erdos; S2, silage collected from Baotou.

Supplementary Table S3. Difference in metabolites identified between S2 and S3 (n = 3).

No.	Items	P-value	Log ₂ (S3/S2)	S2	S3
1	indole-3-acetic acid	0.048006	-20.209	0.633308	5.23E-07
2	xanthine	0.011565	-19.7458	0.45939	5.23E-07
3	Aminooxyacetic acid	0.027635	-6.84146	0.036683	0.00032
4	9-Fluorenone 1	0.034984	-6.82466	0.148864	0.001313
5	Galactonic acid	0.033546	-6.78189	23.00615	0.20907
6	maleic acid	0.040963	-6.66525	1.395783	0.013752
7	palmitoleic acid	0.010717	-5.54063	0.703877	0.015122
8	Pyrrole-2-Carboxylic Acid	0.04294	-5.46688	1.085184	0.024536
9	Aminomalonic acid	0.006067	-5.03305	1.085123	0.033142
10	4-Hydroxymethyl-3-methoxyphenoxyacetic acid	0.02574	-5.02107	1.117287	0.034409
11	Itaconic acid	0.032604	-4.44787	4.725149	0.216507
12	3-Phenyllactic acid	0.002219	-4.29132	6.086227	0.310837
13	oxalacetic acid	0.010035	-4.25079	0.815758	0.04285
14	2-methylfumarate	0.027252	-4.21232	0.311772	0.016819
15	aspartic acid 1	0.000233	-4.08328	16.16703	0.953763
16	palmitic acid	0.044955	-4.03899	159.907	9.727686
17	Ribonic acid, gamma-lactone	0.000253	-3.95852	1.961942	0.126198
18	asparagine 4	0.001654	-3.94802	1.33511	0.086506
19	Threitol	0.004987	-3.90457	1.05414	0.070389
20	5-Dihydrocortisol 1	0.030324	-3.81595	0.193368	0.01373
21	phenylethylamine	0.001791	-3.8131	0.8038	0.057186
22	urea	0.04327	-3.7671	0.592055	0.043486
23	glycerol	0.046414	-3.7547	179.8441	13.32352
24	TES	0.011704	-3.70595	1.546155	0.118482
25	methionine sulfoxide 2	0.03608	-3.69897	0.453515	0.034921
26	4-aminobutyric acid 1	0.007786	-3.69626	222.0208	17.12807
27	fucose 1	0.000237	-3.6938	4.332457	0.334804
28	Guanidinosuccinic acid 3	0.037956	-3.68445	0.673529	0.052387
29	Gentiobiose 2	0.043003	-3.66567	0.914126	0.072033
30	Threonic acid	0.000711	-3.66476	0.370292	0.029197
31	Cerotinic acid	0.049658	-3.6377	0.285615	0.022947
32	D-Glyceric acid	0.038016	-3.63222	31.28666	2.523198
33	N-Methyl-L-glutamic acid 3	0.015522	-3.62084	0.809325	0.065787
34	linolenic acid	0.009799	-3.6172	10.12624	0.825207
35	uracil	0.047058	-3.60817	36.98003	3.032498
36	Lyxose 1	0.00253	-3.59915	118.991	9.818863
37	hydroxylamine	0.047377	-3.59693	31.91204	2.637362
38	beta-Mannosylglycerate 1	0.004774	-3.58483	3.570403	0.297561
39	4-Hydroxy-6-methyl-2-pyrone	0.026806	-3.57967	1.634483	0.136708
40	xylitol	8.55E-05	-3.56119	2.262283	0.191655

41	3-Aminoisobutyric acid 1	0.018691	-3.51153	0.580673	0.050916
42	p-Anisic acid	0.010244	-3.50153	0.342397	0.030232
43	benzoic acid	0.047748	-3.48985	0.53364	0.047501
44	Cholesterol-2,2,3,4,4,6-d6	0.02853	-3.48889	0.706205	0.062903
45	ribose	0.00029	-3.45881	9.548173	0.86839
46	3-hydroxy-3-methylglutaric acid	0.001901	-3.4549	0.957947	0.08736
47	Gallic acid	0.041522	-3.45302	0.405927	0.037067
48	d-Glucoheptose 1	0.008465	-3.4441	2.012425	0.184902
49	L-homoserine 1	0.014613	-3.4381	0.288567	0.026624
50	phenylalanine 1	0.003382	-3.43004	164.7419	15.28482
51	Maleamate 2	0.00277	-3.42594	0.161561	0.015032
52	methionine 1	0.002086	-3.41994	20.18796	1.886207
53	24,25-dihydrolanosterol	0.047995	-3.40701	3.402826	0.320795
54	2-Furoic Acid	0.047985	-3.38303	1.896762	0.18181
55	Zymosterol 1	0.044365	-3.36998	0.845955	0.081824
56	3-Methylamino-1,2-propanediol 2	0.044717	-3.35342	1.348409	0.13193
57	heptadecanoic acid	0.007694	-3.35208	0.365007	0.035746
58	oxoproline	0.003176	-3.34514	201.267	19.80546
59	naringenin 3	0.046719	-3.28295	0.602959	0.061947
60	L-Threose 1	0.026549	-3.27008	0.364254	0.037758
61	2-hydroxypyridine	0.047353	-3.26797	34.29957	3.560669
62	ribitol	0.046099	-3.23409	142.7521	15.17133
63	ferulic acid	0.024179	-3.21759	10.47189	1.125726
64	alanine 1	0.044425	-3.20912	301.33	32.58378
65	2-hydroxy-3-isopropylbutanedioic acid	0.000816	-3.1954	1.285793	0.140366
66	glycolic acid	0.049025	-3.19487	5.111301	0.558188
67	3-Methyloxindole 2	0.003256	-3.18251	4.040427	0.445038
68	4-hydroxy-3-methoxybenzoic acid;	0.018384	-3.17691	1.473987	0.162985
69	Acetol 5	0.012164	-3.1541	0.915504	0.102845
70	beta-Alanine 2	0.018415	-3.14754	1.149125	0.129677
71	glycine 1	0.048533	-3.13834	1.059744	0.120356
72	Carbobenzyloxy-L-leucine degr2	0.004758	-3.11621	0.231009	0.026641
73	Cytosin	0.007921	-3.06339	0.595746	0.071267
74	2-deoxy-D-glucose 1	0.022676	-3.0568	3.335831	0.400882
75	myo-inositol	0.037512	-3.04834	66.00075	7.978255
76	Phytol	0.022077	-3.02357	3.130116	0.384924
77	Ergosterol	0.025835	-3.02086	1.366139	0.168316
78	phenylalanine 2	0.010117	-3.01919	6.990973	0.862326
79	4-Hydroxycyclohexanecarboxylic acid	0.003427	-3.01793	0.474637	0.058597
80	guanine 1	0.008391	-2.9633	1.703861	0.218471
81	Aldosterone 1	0.022521	-2.95494	0.075675	0.009759
82	aspartic acid 2	0.004886	-2.89531	0.726306	0.097621

83	N-Acetyl-beta-D-mannosamine 1	0.012543	-2.87363	2.680742	0.365767
84	Isoleucine	0.039297	-2.75897	4.419154	0.652842
85	glutaraldehyde 2	0.04306	-2.74129	16.48865	2.465888
86	N-Carbamylglutamate 4	0.022267	-2.73764	0.176804	0.026508
87	glutathione 1	0.011517	-2.73398	2.407114	0.361814
88	gentisic acid	0.019485	-2.71932	0.171846	0.026094
89	D-Arabitol	0.001534	-2.67404	0.677788	0.106201
90	stearic acid	0.000326	-2.65699	12.43215	1.971117
91	Flavanone 1	0.007786	-2.59484	0.074157	0.012275
92	3-Methylglutaric Acid	0.032554	-2.5618	0.563409	0.095421
93	spermidine 1	0.016204	-2.52728	0.518237	0.089896
94	1-Indanone 2	0.018389	-2.49073	1.85087	0.3293
95	serine 2	0.044988	-2.47361	6.908027	1.243724
96	uridine 2	0.01924	-2.41875	0.637667	0.119255
97	Diglycerol 1	0.002841	-2.37412	0.827328	0.159587
98	cis-gondoic acid	0.005998	-2.34934	0.824198	0.161738
99	valine	0.032339	-2.30293	11.69505	2.370012
100	Elaidic acid	0.000248	-2.12697	0.342754	0.07847
101	4-Hydroxyphenylethanol	0.004993	-2.03011	0.206326	0.050516
102	6-phosphogluconic acid	0.011456	-1.78054	0.275461	0.08018
103	3,4-dihydroxycinnamic acid	0.032564	-1.74417	1.007169	0.300646
104	Isomaltose 1	0.007811	8.937706	4.95E-06	0.002425
105	3,6-Anhydro-D-galactose 3	6.55E-06	11.4177	4.95E-06	0.013528
106	thymidine 1	0.015765	12.33314	4.95E-06	0.025516
107	2-hydroxybutanoic acid	0.000758	12.74225	4.95E-06	0.033882
108	N-alpha-Acetyl-L-ornithine 1	0.0087	14.50185	4.95E-06	0.114727
109	Dihydroxyacetone	0.014271	15.35385	4.95E-06	0.207082
110	sulfuric acid	0.006652	15.77171	4.95E-06	0.276651
111	4-hydroxybutyrate	0.008987	15.86188	4.95E-06	0.294492

S2, silage collected from Baotou; S3, silage collected from Ulanqab.

Supplementary Table S4. Difference in metabolites identified between S2 and S4 (n = 3).

No.	Items	P-value	Log ₂ (S4/S2)	S2	S4
1	alanine 1	0.031381	-27.954	301.33	1.16E-06
2	ribitol	0.032994	-26.8762	142.7521	1.16E-06
3	Lyxose 1	0.001831	-26.6135	118.991	1.16E-06
4	D-Glyceric acid	0.029152	-24.6863	31.28666	1.16E-06
5	methionine 1	0.001414	-24.0542	20.18796	1.16E-06
6	4-hydroxycinnamic acid	0.040819	-22.6896	7.839479	1.16E-06
7	5-aminovaleric acid lactam	0.043008	-22.5918	7.325618	1.16E-06
8	maleic acid	0.039731	-20.1999	1.395783	1.16E-06
9	3-Methylamino-1,2-propanediol 2	0.032305	-20.1501	1.348409	1.16E-06
10	4-Hydroxymethyl-3-methoxyphenoxyacetic acid	0.023305	-19.8788	1.117287	1.16E-06
11	glycine 1	0.033892	-19.8025	1.059744	1.16E-06
12	cis-gondoic acid	0.002059	-19.4399	0.824198	1.16E-06
13	spermidine 1	0.006992	-18.7705	0.518237	1.16E-06
14	4-Hydroxycyclohexanecarboxylic acid	0.00178	-18.6437	0.474637	1.16E-06
15	Gallic acid	0.031055	-18.4181	0.405927	1.16E-06
16	L-Threose 1	0.018106	-18.2618	0.364254	1.16E-06
17	N-Acetyltryptophan 2	0.001465	-17.9766	0.298919	1.16E-06
18	6-phosphogluconic acid	0.001905	-17.8587	0.275461	1.16E-06
19	mucic acid	0.033774	-17.7487	0.255227	1.16E-06
20	N-Carbamylglutamate 4	0.012926	-17.219	0.176804	1.16E-06
21	gentisic acid	0.011179	-17.178	0.171846	1.16E-06
22	arachidonic acid	0.000754	-17.1689	0.170764	1.16E-06
23	alpha-ketoisocaproic acid 1	0.019473	-17.111	0.164041	1.16E-06
24	palatinitol 2	0.03806	-17.0725	0.159732	1.16E-06
25	Corticosterone 4	0.016419	-16.2926	0.093023	1.16E-06
26	Pelargonic acid	0.039914	-15.9304	0.072371	1.16E-06
27	flavin adenine degrad product	0.004961	-6.71332	33.94597	0.323502
28	ferulic acid	0.017481	-6.11596	10.47189	0.150986
29	tyrosine 1	0.035031	-6.06819	20.71037	0.30866
30	O-acetylserine 1	0.031292	-5.97485	0.070067	0.001114
31	ribose	0.000246	-5.58705	9.548173	0.198633
32	Pyrrole-2-Carboxylic Acid	0.042876	-5.4948	1.085184	0.024066
33	2-Deoxyerythritol	0.038783	-5.1199	3.453264	0.099309
34	2-aminophenol 2	0.00296	-5.07234	0.328657	0.009768
35	Cholesterol-2,2,3,4,4,6-d6	0.023826	-4.95271	0.706205	0.022804
36	glutathione 1	0.0073	-4.75417	2.407114	0.089197
37	Aldosterone 1	0.016642	-4.66455	0.075675	0.002984
38	Aminooxyacetic acid	0.030773	-4.60357	0.036683	0.001509
39	3-Cyanoalanine	0.046751	-4.04353	0.539866	0.032739
40	D-erythro-sphingosine 1	0.043933	-3.93946	0.042397	0.002763

41	benzoic acid	0.044898	-3.82966	0.53364	0.037532
42	3,4-dihydroxycinnamic acid	0.01246	-3.64261	1.007169	0.080643
43	N-Acetyl-beta-D-mannosamine 1	0.010433	-3.4369	2.680742	0.247539
44	uracil	0.048767	-3.39414	36.98003	3.517458
45	Cytosin	0.007216	-3.35464	0.595746	0.058239
46	linolenic acid	0.011168	-3.24441	10.12624	1.068522
47	trans-sinapinic acid	0.005994	-2.91658	0.457084	0.060537
48	Galactonic acid	0.049748	-2.91347	23.00615	3.053524
49	xanthine	0.019166	-2.90436	0.45939	0.061359
50	serine 2	0.038063	-2.73599	6.908027	1.036904
51	d-Glucoheptose 1	0.01113	-2.58897	2.012425	0.334474
52	N-Methyl-L-glutamic acid 3	0.022718	-2.50103	0.809325	0.142968
53	D-Arabitol	0.00653	-2.41721	0.677788	0.126894
54	myo-inositol	0.049556	-2.30248	66.00075	13.37934
55	aspartic acid 2	0.012034	-2.27912	0.726306	0.149636
56	Ribonic acid, gamma-lactone	0.000502	-2.22556	1.961942	0.419493
57	heptadecanoic acid	0.012786	-2.19526	0.365007	0.0797
58	3-Aminoisobutyric acid 1	0.032101	-2.14938	0.580673	0.130889
59	L-homoserine 1	0.025701	-2.10191	0.288567	0.067222
60	phenylethylamine	0.003944	-2.02109	0.8038	0.198033
61	oxoproline	0.006374	-1.96903	201.267	51.40852
62	Phytol	0.046542	-1.95584	3.130116	0.806849
63	Flavanone 1	0.011	-1.95537	0.074157	0.019122
64	Maleamate 2	0.006049	-1.90412	0.161561	0.043166
65	guanine 1	0.015381	-1.85263	1.703861	0.471778
66	Threonic acid	0.001857	-1.82516	0.370292	0.1045
67	stearic acid	0.000518	-1.68376	12.43215	3.86976
68	aspartic acid 1	0.00138	-1.55708	16.16703	5.494171
69	p-Anisic acid	0.030924	-1.54695	0.342397	0.11718
70	3-hydroxy-3-methylglutaric acid	0.006737	-1.49292	0.957947	0.340352
71	xylitol	0.000395	-1.42529	2.262283	0.842346
72	Diglycerol 1	0.00765	-1.39585	0.827328	0.314401
73	Threitol	0.021896	-1.33724	1.05414	0.417203
74	Acetol 5	0.044225	-1.28622	0.915504	0.375379
75	3-Phenyllactic acid	0.012512	-1.27275	6.086227	2.518906
76	4-Hydroxybenzoic acid	0.001059	-1.11229	1.436326	0.664387
77	fucose 1	0.001955	-1.10653	4.332457	2.01203
78	phenylalanine 1	0.021758	-1.09883	164.7419	76.91741
79	Elaidic acid	0.000333	-1.04243	0.342754	0.16641
80	3-Methyloxindole 2	0.027137	-0.95251	4.040427	2.087826
81	4-Hydroxyphenylethanol	0.030076	-0.81054	0.206326	0.11764
82	4-Acetylbutyric acid 1	0.003168	8.835112	4.95E-06	0.002258

83	N-Methyl-DL-alanine	0.011474	13.11946	4.95E-06	0.044007
84	2-hydroxybutanoic acid	0.000463	13.15075	4.95E-06	0.044972
85	4-hydroxyphenylacetic acid	4.8E-07	14.9332	4.95E-06	0.154709
86	N-Acetyl-L-leucine 2	0.042386	16.88099	4.95E-06	0.59684
87	sulfuric acid	0.000214	16.92123	4.95E-06	0.613723
88	trehalose	0.000382	17.69199	4.95E-06	1.047115

S2, silage collected from Baotou; S4, silage collected from Hohhot.

Supplementary Table S5. Relative abundance of *Bacillus*, *Pseudomonas*, *Escherichia*, *Klebsiella*, and *Salmonella* in whole-plant corn silages (n = 3).

Items	S1	S2	S3	S4
<i>Bacillus</i>	0.0000690	0.0109880	0.0005730	0.0000000
<i>Pseudomonas</i>	0.0057880	0.0081210	0.0023390	0.0001540
<i>Escherichia</i>	0.0010390	0.0004400	0.0001890	0
<i>Klebsiella</i>	0.0003350	0.0002500	0.0001660	0.0000410
<i>Salmonella</i>	0	0.0001180	0	0

S1, silage collected from Erdos; S2, silage collected from Baotou; S3, silage collected from Ulanqab; S4, silage collected from Hohhot.