

Table S1 ANOVA of quality parameters response models of biscuits with fresh and osmodehydrated wild garlic and oregano

Technological parameters	Quantity of wild garlic		Quantity of oregano		Cross product	Error		R^2
	Linear	Quadratic	Linear	Quadratic	Wild garlic × oregano	Residual variance	Total sum of squares	
Fresh wild garlic								
df [†]	1	1	1	1	1	3	8	
Texture instrumental analysis								
Hardness	3114015*	183043*	61420*	1012	3862	16102	3379455	0.99
Fracturability	2.220417*	0.140450*	0.112067*	0.0008	0.027225*	0.004242	2.5052	0.99
Color instrumental analysis								
<i>L</i> *	7.30407*	0.65742	11.39882*	0.00294	0.00902	0.36429	19.73656	0.98
<i>a</i> *	73.64007*	2.66036*	6.76282*	0.00294	1.48840*	0.43231	84.98689	0.99
<i>b</i> *	15.97402*	0.20694	1.44060*	0.05336	0.0064	0.07711	17.75842	0.99
Chemical content								
Proteins	0.068267*	0.000022	0.033750*	0.000006	0	0.000044	0.102089	0.99
Starch	0.281667*	0.000022	0.582817*	0.000006	0.000025	0.000019	0.864556	0.99
Total sugars	0.0006	0	0.00135	0.00005	0	0	0.002	1
Cellulose	0.117600*	0	2.522017*	0.00005	0.0001	0.000033	2.6398	0.99
Lipids	0.068267*	0.000022	0.138017*	0.000006	0.000025	0.000019	0.206356	0.99
Ash	0.008067*	0.000022	0.000417*	0.000006	0.000025	0.000019	0.008556	0.99
Mineral content								
Zn	11.56482*	0.02067	0.22427*	0.00056	0.00002	0.00307	11.56482	0.99
Cu	0.476017*	0.012272*	0.035267*	0.002222	0.008100*	0.002211	0.536089	0.99
Mg	11297.02*	1.36	63.05*	0.09	8.27*	1.9	11371.69	0.99
Ca	114744.7*	681.8	5592.5*	13.8	68.9	324.1	121425.8	0.99
Fe	418.0011*	0.1682	3.19749*	0.0008	0.0049	0.0952	421.4676	0.99
K	0.132017*	0.000006	0.046817*	0.000006	0.000025	0.000019	0.178889	0.99
Osmodehydrated wild garlic								
df [†]	1	1	1	1	1	3	8	
Texture instrumental analysis								
Hardness	4244779*	285740*	143654	541	12409	48452	4735577	0.99
Fracturability	3.920417*	0.238050*	0.101400*	0.0072	0.028900*	0.004633	4.3006	0.99
Color instrumental analysis								
<i>L</i> *	34.60802*	0.05894	8.66402*	0.17801	0.0256	0.57364	44.10822	0.98
<i>a</i> *	108.7153*	3.7721*	9.2504*	0.0103	0.5329	0.8874	123.1684	0.99
<i>b</i> *	19.65660*	0.3528	1.83707*	0.005	0.0529	0.14683	22.0512	0.99
Chemical content								
Proteins	0.024067*	0	0.032267*	0	0.000025	0.000042	0.0564	0.99
Starch	0.281667*	0.000022	0.582817*	0.000006	0.000025	0.000019	0.864556	0.99
Total sugars	0.008067*	0	0.001067*	0	0	0.000067	0.0092	0.99
Cellulose	0.050417*	0.000006	2.548017*	0.000006	0.000025	0.000019	2.598489	0.99
Lipids	0.068267*	0.000022	0.138017*	0.000006	0.000025	0.000019	0.206356	0.99
Ash	0.009600*	0.000022	0.000417*	0.000006	0	0.000044	0.010089	0.99
Mineral content								
Zn	17.40807*	0.02276	0.48735*	0.01227	0.07023	0.08782	18.08849	0.99
Cu	1.500000*	0.001089	0.043350*	0.002006	0.0081	0.002544	1.557089	0.99
Mg	7614.131*	22.356	116.424	1.061	5.832	49.47	7809.275	0.99
Ca	45558.53*	67.32	3043.8*	13.9	26.83	77.17	48787.57	0.99
Fe	1281.882*	9.017*	2.940*	0.009	0.031	0.181	1294.059	0.99
K	0.123267*	0.000000	0.056067*	0.000000	0.000225*	0.000042	0.179600	0.99

[†]Degrees of freedom, * Statistically significant at level of $p < 0.05$

Table S2 Second order polynomial regression coefficients for biscuits with fresh wild garlic and oregano quality parameters response models

	β_{k0}	β_{k1}	β_{k11}	β_{k2}	β_{k22}	β_{k12}
Texture instrumental analysis						
Hardness	5977.097*	-258.879*	12.101*	-230.208	90	-12.429
Fracturability	1.199167*	0.211167*	-0.010600*	0.188333	-0.08	0.033000*
Color instrumental analysis						
<i>L</i> *	67.26306*	-0.00083	-0.02293	-2.69833	-0.15333	0.019
<i>a</i> *	7.48111*	-1.28400*	0.04613*	-3.49667	0.15333	0.24400*
<i>b</i> *	24.97556*	0.18967*	0.01287	1.55333	-0.65333	0.016
Chemical content						
Proteins	11.23889*	0.02267*	-0.00013	-0.15667*	0.00667	0
Starch	47.32806*	-0.04250*	-0.00013	-0.63500*	0.00667	0.001
Total sugars	2.18	-0.002	0	-0.05	0.02	0
Cellulose	1.831667*	0.029000*	0	1.326667*	-0.02	-0.002
Lipids	23.04806*	-0.02050*	-0.00013	-0.31500*	0.00667	0.001
Ash	1.391389*	0.008167*	-0.000133	-0.028333*	0.006667	0.001
Mineral content						
Zn	15.10861*	0.31883*	-0.00407	0.45833	-0.06667	-0.001
Cu	2.542778*	0.016	0.003133*	-0.07	0.133333	0.018000*
Mg	837.6975*	8.7208*	-0.033	2.7483	0.86	0.5750*
Ca	261.1789*	34.2133*	-0.7385	42.2533	10.5067	1.66
Fe	61.96500*	1.77833*	-0.0116	1.47	-0.08	0.014
K	3.018611*	0.030833*	-0.000067	0.188333*	-0.006667	-0.001000

* Statistically significant at level of $p < 0.05$ **Table S3** Second order polynomial regression coefficients for biscuits with osmotically dehydrated wild garlic and oregano quality parameters response models

	β_{k0}	β_{k1}	β_{k11}	β_{k2}	β_{k22}	β_{k12}
Texture instrumental analysis						
Hardness	5993.045*	-308.275*	15.119*	-132.258	-65.813	-22.279
Fracturability	1.235000*	0.282667*	-0.013800*	-0.15	0.24	0.034000*
Color instrumental analysis						
<i>L</i> *	67.23111*	-0.42767	-0.00687	-3.75667	1.19333	0.032
<i>a</i> *	7.37944*	-1.47367*	0.05493*	-2.92667	-0.28667	0.146
<i>b</i> *	25.05833*	0.50700*	-0.0168	0.67667	0.2	0.046
Chemical content						
Proteins	11.23917*	0.01217*	0	-0.15167*	0	0.001
Starch	47.32806*	-0.04250*	-0.00013	-0.63500*	0.00667	0.001
Total sugars	2.176667*	0.007333*	0	-0.026667	0	0
Cellulose	1.831944*	0.019500*	-0.000067	1.315000*	-0.006667	-0.001
Lipids	23.04806*	-0.02050*	-0.00013	-0.31500*	0.00667	0.001
Ash	1.387778*	0.006667*	0.000133	-0.01	-0.006667	0
Mineral content						
Zn	15.18361*	0.35683*	-0.00427	-0.00833	0.31333	0.053
Cu	2.533889*	0.100333*	-0.000933	-0.046667	0.126667	0.018
Mg	835.9897*	8.2205*	-0.1337	9.3083	-2.9133	0.483
Ca	267.6289*	14.5890*	0.2321	29.32	10.5467	1.036
Fe	62.03194*	2.05650*	0.08493*	1.49167	-0.26667	0.035
K	3.020833*	0.027167*	0.000000	0.178333*	0.000000	0.003000*

* Statistically significant at level of $p < 0.05$