

Table 7: Amino acid composition of wheat samples originating from different production regions

Region	Amino Acid g/100g (as is)																	
	Tryptophan	Methionine	Cystine	Histidine	Serine	Arginine	Glycine	Aspartic acid	Glutamic acid	Threonine	Alanine	Proline	Lysine	Tyrosine	Valine	Isoleucine	Leucine	Phenylalanine
1	0.13	0.18	0.39	0.244	0.539	0.487	0.471	0.565	3.312	0.332	0.424	1.043	0.314	0.258	0.444	0.356	0.735	0.491
2	0.12	-	-	0.277	0.621	0.497	0.517	0.726	3.475	0.362	0.439	1.108	0.320	0.300	0.473	0.376	0.772	0.517
3	0.16	0.19	0.42	0.299	0.662	0.544	0.587	0.789	3.980	0.389	0.462	1.275	0.345	0.314	0.520	0.421	0.854	0.575
3	0.13	0.17	0.41	0.281	0.648	0.505	0.558	0.735	3.473	0.370	0.442	1.130	0.325	0.284	0.480	0.380	0.777	0.514
3	0.14	0.20	0.41	0.300	0.686	0.517	0.588	0.839	4.011	0.391	0.469	1.295	0.347	0.320	0.509	0.411	0.854	0.580
3	0.18	0.14	0.28	0.372	0.834	0.615	0.707	0.927	5.683	0.454	0.547	1.835	0.380	0.468	0.617	0.528	1.079	0.788
3	0.15	0.21	0.45	0.263	0.577	0.534	0.501	0.625	3.591	0.356	0.427	1.137	0.329	0.313	0.476	0.380	0.788	0.529
3	0.14	0.16	0.35	0.239	0.541	0.501	0.488	0.588	3.242	0.342	0.409	1.026	0.318	0.272	0.448	0.352	0.731	0.478
3	0.15	0.09	0.22	0.263	0.587	0.534	0.511	0.634	3.572	0.363	0.436	1.119	0.334	0.308	0.474	0.375	0.785	0.522
3	0.14	0.18	0.38	0.272	0.607	0.550	0.540	0.656	3.867	0.369	0.450	1.233	0.338	0.315	0.493	0.396	0.831	0.552
4	0.13	0.16	0.36	0.248	0.547	0.456	0.495	0.681	2.988	0.335	0.401	0.975	0.310	0.250	0.432	0.337	0.695	0.452
4	0.16	0.18	0.36	0.277	0.606	0.551	0.518	0.653	3.793	0.373	0.445	1.208	0.340	0.299	0.505	0.407	0.825	0.556
5	0.16	0.19	0.39	0.296	0.653	0.586	0.544	0.687	4.296	0.386	0.458	1.368	0.344	0.365	0.530	0.438	0.890	0.615
5	0.15	0.16	0.35	0.243	0.533	0.484	0.458	0.584	3.271	0.329	0.404	1.034	0.308	0.240	0.450	0.360	0.735	0.489
5	0.16	0.18	0.43	0.283	0.637	0.517	0.514	0.669	3.876	0.369	0.443	1.213	0.334	0.286	0.511	0.403	0.828	0.567
6	0.15	0.17	0.39	0.271	0.607	0.534	0.518	0.647	3.863	0.365	0.435	1.229	0.327	0.324	0.485	0.392	0.820	0.555
6	0.14	0.17	0.39	0.250	0.549	0.506	0.477	0.627	3.305	0.346	0.411	1.046	0.319	0.297	0.449	0.355	0.742	0.487
6	0.16	0.19	0.41	0.284	0.640	0.551	0.546	0.708	4.287	0.378	0.452	1.375	0.340	0.330	0.522	0.433	0.881	0.608
6	0.15	0.16	0.34	0.251	0.545	0.489	0.460	0.616	3.409	0.331	0.402	1.090	0.305	0.267	0.456	0.367	0.748	0.504
6	0.16	0.18	0.39	0.279	0.624	0.540	0.530	0.690	3.856	0.368	0.447	1.229	0.339	0.316	0.498	0.402	0.830	0.560
6	0.15	0.20	0.47	0.310	0.685	0.607	0.596	0.707	4.603	0.405	0.486	1.479	0.354	0.367	0.560	0.465	0.940	0.644
10	0.15	0.18	0.41	0.318	0.706	0.555	0.608	0.862	4.268	0.390	0.482	1.338	0.344	0.306	0.529	0.429	0.874	0.602
10	0.15	0.18	0.39	0.309	0.712	0.615	0.610	0.718	4.874	0.402	0.488	1.470	0.351	0.398	0.543	0.451	0.942	0.658
10	0.14	0.17	0.35	0.253	0.571	0.507	0.486	0.664	3.589	0.335	0.419	1.073	0.312	0.291	0.440	0.348	0.750	0.501
10	0.14	0.16	0.35	0.273	0.592	0.560	0.504	0.671	3.753	0.350	0.442	1.113	0.330	0.313	0.488	0.387	0.789	0.525
10	0.16	0.19	0.39	0.272	0.640	0.541	0.531	0.636	4.087	0.361	0.444	1.239	0.323	0.348	0.481	0.390	0.825	0.559
11	0.17	0.19	0.40	0.292	0.683	0.603	0.587	0.716	4.475	0.400	0.487	1.365	0.356	0.389	0.532	0.431	0.905	0.614

Table 7: Amino acid profile of wheat samples originating from different production regions (continue)

Region	Amino Acid																		
	Tryptophan	Methionine	Cystine	Histidine	Serine	Arginine	Glycine	Aspartic acid	Glutamic acid	Threonine	Alanine	Proline	Lysine	Tyrosine	Valine	Isoleucine	Leucine	Phenylalanine	
	g/100g (as is)																		
14	0.18	0.20	0.31	0.376	0.853	0.665	0.755	0.979	5.395	0.478	0.569	1.719	0.408	0.437	0.640	0.528	1.083	0.746	
20	0.16	0.20	0.41	0.328	0.779	0.328	0.482	0.712	4.430	0.414	0.509	1.405	0.356	0.346	0.566	0.459	0.931	0.639	
21	0.17	0.23	0.48	0.394	0.884	0.687	0.758	1.031	5.682	0.505	0.590	1.808	0.424	0.431	0.676	0.561	1.125	0.782	
23	0.16	0.21	0.46	0.357	0.769	0.685	0.642	0.760	5.329	0.445	0.527	1.641	0.383	0.434	0.610	0.515	1.026	0.757	
24	0.15	0.20	0.40	0.328	0.723	0.555	0.619	0.828	4.365	0.417	0.493	1.388	0.354	0.344	0.545	0.441	0.906	0.621	
24	0.13	0.17	0.38	0.280	0.631	0.483	0.531	0.715	3.688	0.364	0.438	1.175	0.323	0.326	0.481	0.389	0.787	0.543	
25	0.15	0.21	0.50	0.354	0.796	0.638	0.671	0.938	4.932	0.448	0.542	1.670	0.380	0.451	0.601	0.504	1.016	0.693	
28	0.15	0.23	0.51	0.341	0.797	0.610	0.659	0.908	4.908	0.434	0.520	1.533	0.366	0.422	0.572	0.472	0.973	0.682	
33	0.16	0.16	0.36	0.258	0.586	0.533	0.535	0.633	3.829	0.342	0.436	1.219	0.317	0.350	0.470	0.379	0.804	0.539	
33	0.17	0.17	0.41	0.277	0.629	0.563	0.532	0.650	3.991	0.370	0.448	1.243	0.326	0.362	0.490	0.394	0.835	0.561	
35	0.16	0.17	0.38	0.379	0.836	0.629	0.701	0.956	5.216	0.466	0.551	1.691	0.386	0.412	0.641	0.522	1.076	0.736	
35	0.17	0.17	0.40	0.273	0.637	0.566	0.531	0.661	3.964	0.367	0.444	1.206	0.332	0.361	0.481	0.385	0.821	0.552	
36	0.16	0.18	0.40	0.295	0.689	0.603	0.594	0.754	4.611	0.384	0.477	1.416	0.340	0.376	0.517	0.425	0.907	0.633	
2024/25 Minimum	0.12	0.09	0.22	0.24	0.53	0.33	0.46	0.57	2.99	0.33	0.40	0.98	0.31	0.24	0.43	0.34	0.70	0.45	
2024/25 Maximum	0.18	0.23	0.51	0.39	0.88	0.69	0.76	1.03	5.68	0.51	0.59	1.84	0.42	0.47	0.68	0.56	1.13	0.79	
2023/24 Minimum	0.12	0.13	0.18	0.22	0.50	0.45	0.44	0.55	2.88	0.31	0.37	0.95	0.29	0.26	0.41	0.32	0.69	0.44	
2023/24 Maximum	0.18	0.24	0.51	0.34	0.75	0.67	0.66	0.81	5.09	0.43	0.53	1.63	0.39	0.42	0.61	0.49	1.01	0.73	
2021/22 Minimum	0.14	0.08	0.17	0.23	0.49	0.45	0.43	0.55	3.06	0.30	0.36	0.99	0.29	0.27	0.42	0.33	0.67	0.45	
2021/22 Maximum	0.19	0.25	0.52	0.35	0.77	0.69	0.65	0.80	5.37	0.45	0.54	1.70	0.39	0.46	0.63	0.53	1.06	0.77	
2019/20 Minimum	0.13	0.14	0.31	0.24	0.51	0.48	0.46	0.58	3.08	0.32	0.38	1.03	0.31	0.25	0.47	0.34	0.71	0.47	
2019/20 Maximum	0.18	0.26	0.49	0.36	0.79	0.69	0.67	0.79	4.91	0.45	0.51	1.72	0.40	0.43	0.68	0.53	1.07	0.77	
2018/19 Minimum	0.12	0.17	0.35	0.23	0.55	0.50	0.48	0.59	3.35	0.33	0.40	1.11	0.31	0.29	0.43	0.32	0.72	0.50	
2018/19 Maximum	0.19	0.30	0.62	0.40	0.86	0.79	0.73	0.87	5.76	0.50	0.58	2.02	0.45	0.49	0.76	0.63	1.21	0.86	
2017/18 Minimum	0.14	0.22	0.29	0.26	0.57	0.50	0.39	0.60	3.64	0.35	0.42	1.17	0.33	0.22	0.51	0.39	0.43	0.53	
2017/18 Maximum	0.17	0.37	0.48	0.39	0.89	0.73	0.75	0.86	5.88	0.52	0.58	2.03	0.44	0.43	0.76	0.60	1.20	0.88	
2016/17 Minimum	0.13	0.18	0.31	0.23	0.51	0.45	0.45	0.54	3.02	0.32	0.37	0.99	0.31	0.23	0.46	0.34	0.70	0.46	
2016/17 Maximum	0.19	0.26	0.55	0.44	0.93	0.83	0.77	0.88	6.39	0.54	0.61	2.18	0.49	0.49	0.82	0.66	1.32	1.01	

Note: Amino acid composition was not determined for the 2020/21 and 2022/23 seasons