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SUPPLEMENTARY MATERIALS

Chemical composition of *Hordeum vulgare* var. *rimpau* grain under reduced tillage and *Methylobacterium symbioticum* application*

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Table S1

P – value for the one-way ANOVA for the chemical composition of grain and grain density of *H. v. rimpau*.

Parameters	Factors		
	Soil tillage (ST)	Biostimulation (B)	Year (Y)
P (g kg ⁻¹)	< 0.001	0.388	< 0.001
K (g kg ⁻¹)	< 0.001	0.076	< 0.001
Mg (g kg ⁻¹)	0.001	0.853	< 0.001
Ca (g kg ⁻¹)	0.999	0.615	< 0.001
Cu (mg kg ⁻¹)	< 0.001	0.069	< 0.001
Mn (mg kg ⁻¹)	< 0.001	0.695	< 0.001
Zn (mg kg ⁻¹)	0.265	0.262	< 0.001
Fe (mg kg ⁻¹)	0.066	0.273	< 0.001
Grain density (kg hl ⁻¹)	< 0.001	0.651	< 0.001
Protein content (%)	0.025	0.222	0.003
EAA (g kg ⁻¹)	0.172	0.067	< 0.001
NEAA (g kg ⁻¹)	0.057	0.331	< 0.001
AA _{total} (g kg ⁻¹)	0.089	0.171	< 0.001
EAAI (%)	0.034	0.114	< 0.001
Starch content (%)	0.758	< 0.001	0.052
Dietary Fibre (%)	< 0.001	0.009	0.748
β-glucan content (%)	0.011	0.260	< 0.001
Total phenols content (g GAE kg ⁻¹)	< 0.001	0.904	0.814

P – phosphorus content in grain; K – potassium content in grain; Mg – magnesium content in grain; Ca – calcium content in grain; Cu – copper content in grain; Mn – manganese content in grain; Zn – zinc content in grain; Fe – iron content in grain; EAA – content of essential amino acids; NEAA – content of non-essential amino acids; AA_{total} – content of amino acids; EAAI – essential amino acids index.

Table S2

P – value for the MANOVA for the chemical composition of grain and grain density of *H. v. rimpau*.

Year	Parameters	Factors		
		Soil tillage (ST)	Biostimulation (B)	Soil tillage (ST) x Biostimulation (B)
2023	P (g kg ⁻¹)	< 0.001	0.181	< 0.001
	K (g kg ⁻¹)	0.024	0.136	0.062
	Mg (g kg ⁻¹)	0.411	0.673	0.011
	Ca (g kg ⁻¹)	0.720	0.369	0.339
	Cu (mg kg ⁻¹)	< 0.001	0.100	0.557
	Mn (mg kg ⁻¹)	0.356	0.367	0.072
	Zn (mg kg ⁻¹)	0.023	0.138	0.355
	Fe (mg kg ⁻¹)	< 0.001	0.542	0.632
	Grain density (kg hl ⁻¹)	0.024	0.228	0.705
	Protein content (%)	0.545	0.090	0.003
	EAA (g kg ⁻¹)	0.812	0.086	0.002
	NEAA (g kg ⁻¹)	0.346	0.136	0.013
	AA _{total} (g kg ⁻¹)	0.682	0.106	0.005
	EAAI (%)	0.761	0.091	0.001
	Starch content (%)	0.874	< 0.001	0.004
	Dietary Fibre (%)	0.005	0.156	0.015
	β-glucan content (%)	0.049	0.128	< 0.001
	Total phenols content (g GAE kg ⁻¹)	0.038	0.999	0.637

2024	P (g kg ⁻¹)	0.073	0.521	0.115
	K (g kg ⁻¹)	0.005	0.010	0.900
	Mg (g kg ⁻¹)	< 0.001	0.014	0.023
	Ca (g kg ⁻¹)	0.041	0.019	0.248
	Cu (mg kg ⁻¹)	< 0.001	0.125	0.217
	Mn (mg kg ⁻¹)	< 0.001	0.288	0.555
	Zn (mg kg ⁻¹)	0.923	0.538	0.011
	Fe (mg kg ⁻¹)	< 0.001	0.173	0.841
	Grain density (kg hl ⁻¹)	< 0.001	0.879	0.565
	Protein content (%)	0.002	0.070	0.507
	EAA (g kg ⁻¹)	0.001	0.561	0.290
	NEAA (g kg ⁻¹)	< 0.001	0.036	0.673
	AA _{total} (g kg ⁻¹)	< 0.001	0.147	0.491
	EAAI (%)	< 0.001	0.148	0.423
	Starch content (%)	0.678	< 0.001	0.476
	Dietary Fibre (%)	0.002	0.040	0.004
	β-glucan content (%)	0.113	0.951	0.326
Total phenols content (g GAE kg ⁻¹)	0.008	0.824	0.369	

P – phosphorus content in grain; K – potassium content in grain; Mg – magnesium content in grain; Ca – calcium content in grain; Cu – copper content in grain; Mn – manganese content in grain; Zn – zinc content in grain; Fe – iron content in grain; EAA – content of essential amino acids; NEAA – content of non-essential amino acids; AA_{total} – content of amino acids; EAAI – essential amino acids index.