

Table S6. Analysis of variance (ANOVA) for grain yield, straw yield, harvest index, shoot biomass at the flowering stage, number of grains per spike, 1000-grain weight, generative tillers (No Plant⁻¹), fertile generative tillers (No m⁻²) and sterile generative tillers (No m⁻²) of barley genotypes (*H. vulgare* var. *nigricans*, *H. vulgare* var. *rimpaui*, and *H. vulgare*), growing in 2021 and 2022.

Trait	Statistical parameter	Year (Y)	Genotype (G)	Y x G
Grain yield (t ha ⁻¹)	df	1	2	2
	F	1237.66	98.52	32.86
	p-value	< 0.0001	< 0.0001	< 0.0001
Straw yield (t ha ⁻¹)	df	1	2	2
	F	311.40	49.02	1.04
	p-value	< 0.0001	< 0.0001	0.3573
Harvest Index (HI)	df	1	2	2
	F	18.94	156.90	6.39
	p-value	< 0.0001	< 0.0001	0.0027
Shoot biomass at the flowering stage (g m ⁻²)	df	1	2	2
	F	44.82	3.95	2.152
	p-value	< 0.0001	0.0231	0.1228
Number of grains per spike (No spike)	df	1	2	2
	F	270.69	13.91	11.57
	p-value	< 0.0001	< 0.0001	< 0.0001
1000-grain weight (g)	df	1	2	2
	F	300.06	177.61	16.09
	p-value	< 0.0001	< 0.0001	< 0.0001
Generative tillers (No Plant ⁻¹)	df	1	2	2
	F	90.09	7.69	4.41
	p-value	< 0.0001	0.0009	0.0152
Fertile Generative Tillers (No m ⁻²)	df	1	2	2
	F	0.01	2.29	4.14
	p-value	0.9116	0.1082	0.0194
Sterile Generative Tillers (No m ⁻²)	df	1	2	2
	F	251.09	6.50	3.22
	p-value	< 0.0001	0.0024	0.0450