

Table S5. Analysis of variance (ANOVA) for SPAD and LAI at seedling stage (BBCH 12), at subflag leaf stage (BBCH 35), and heading stage (BBCH 57) 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
SPAD measured on BBCH 12	df	1	2	2
	F	34.01	31.77	1.65
	p-value	< 0.0001	< 0.0001	0.1994
SPAD measured on BBCH 35	df	1	2	2
	F	420.77	36.08	14.25
	p-value	< 0.0001	< 0.0001	< 0.0001
SPAD measured on BBCH 57	df	1	2	2
	F	195.46	6.80	10.72
	p-value	< 0.0001	0.0019	< 0.0001
LAI measured on BBCH 35	df	1	2	2
	F	351.18	62.90	19.88
	p-value	< 0.0001	< 0.0001	< 0.0001
LAI measured on BBCH 57	df	1	2	2
	F	104.58	23.29	60.77
	p-value	< 0.0001	< 0.0001	< 0.0001