

Table S1: Location-specific variance analyses (Type 3 tests of fixed effects) for dry matter content, plant height and stem diameter and Friedman tests for biomass and inflorescence volume score, with biomass yield components as dependent variables and genotype as fixed effect, including and excluding Bärnkrafft. Locations are Heidfeldhof and Eckartsweier, respectively.

Including Bärnkrafft														
Traits	Heidfeldhof							Eckartsweier						
	Type 3 Tests for Genotype Effect				Descriptive Statistics			Type 3 Tests for Genotype Effect				Descriptive Statistics		
	Num DF	Den DF	F-Value	Pr>F	Mean	±	SE	Num DF	Den DF	F-Value	Pr>F	Mean	±	SE
Dry matter content (%)	10	20	4.51	0.002**	23.16	±	0.44	10	20	4.70	0.0016**	20.69	±	0.37
Plant height (cm)	10	20	10.27	<.0001***	186.92	±	10.14	10	20	19.06	<.0001***	212.89	±	14.10
Stem diameter (mm)	10	20	4.25	0.0029**	18.56	±	0.86	10	20	5.02	0.0011**	17.79	±	0.90
	Friedman Tests for Genotype Effect				Descriptive Statistics			Friedman Tests for Genotype Effect				Descriptive Statistics		
	DF	Chi-sq	P-Value		Median	IQR		DF	Chi-sq	P-Value		Median	IQR	
Biomass score	10	23.05466	0.0105466*		19	8.25		10	27.4309	0.002225102**		18.5	13.25	
Inflorescence volume score	10	20.19108	0.0274963*		20	13		10	18.9348	0.04109846*		17	11	
Excluding Bärnkrafft														
Traits	Heidfeldhof							Eckartsweier						
	Type 3 Tests for Genotype Effect				Descriptive Statistics			Type 3 Tests for Genotype Effect				Descriptive Statistics		
	Num DF	Den DF	F-Value	Pr>F	Mean	±	SE	Num DF	Den DF	F-Value	Pr>F	Mean	±	SE
Dry matter content (%)	9	18	1.78	0.1418 ^{ns}	22.82	±	0.30	9	18	3.78	0.0079**	20.52	±	0.37
Plant height (cm)	9	18	3.97	0.0062**	194.90	±	6.92	9	18	9.44	<.0001***	223.00	±	10.87
Stem diameter (mm)	9	18	3.78	0.0071**	18.89	±	0.88	9	18	3.82	0.0075**	18.23	±	0.86
	Friedman Tests for Genotype Effect				Descriptive Statistics			Friedman Tests for Genotype Effect				Descriptive Statistics		
	DF	Chi-sq	P-Value		Median	IQR		DF	Chi-sq	P-Value		Median	IQR	
Biomass score	9	18.49234	0.0298726*		16.5	6.375		9	23.84	0.004561565**		17	12.75	
Inflorescence volume score	9	18.07563	0.03430616*		18.75	11.25		9	15.1609	0.08660893 ^{ns}		16	8	

*, **, *** significant at $p < 0.05$, $p < 0.01$ and $p < 0.001$, respectively, whereas ^{ns} shows non-significance. IQR indicates inter-quartile range.