

Supplemental Table 1. Phenotypic traits data of parents and selected individuals of F₂ population evaluated under severe drought stress at vegetative stage

Genotype	PLHT	TILL	CL	LDW	SDW	TSDW	LFDG	TWU	LFA	TRDW	DRL	DRVOL	DRSA	DRAD
Super Bas	100.0	16	27.0	6.90	6.86	15.02	7	3710.5	312.4	0.963	249.1	0.229	24.6	0.245
IR55419-04	111.2	11	39.9	9.92	11.41	24.46	1	4955.5	703.9	2.137	7075.3	2.538	399.8	0.667
F ₂ Plant-1	103.5	23	31.9	8.62	5.95	16.27	5	3684.5	287.4	1.148	117.9	0.108	12.7	0.342
F ₂ Plant-2	104.0	18	29.0	7.71	6.21	15.98	7	3582.5	158.5	1.301	163.0	0.258	23.0	0.449
F ₂ Plant-3	103.8	19	29.9	8.54	8.01	18.68	7	3474.0	153.1	1.639	0.0	0	0.0	0
F ₂ Plant-4	93.9	14	27.1	7.42	5.63	14.98	5	3555.0	317.2	1.616	0.0	0	0.0	0
F ₂ Plant-5	105.0	14	33.0	5.51	4.91	11.75	9	3639.0	69.9	1.187	166.9	0.09	13.8	0.263
F ₂ Plant-6	105.0	15	34.0	6.15	6.24	14.29	5	3397.0	632.7	0.918	0.0	0	0.0	0
F ₂ Plant-7	87.0	15	27.0	4.63	3.34	9.35	5	3258.5	257.7	0.889	0.0	0	0.0	0
F ₂ Plant-8	90.0	28	24.9	7.03	6.14	14.83	5	3164.0	185.5	0.518	328.0	0.146	24.5	0.238
F ₂ Plant-9	108.0	13	33.5	5.41	6.96	14.19	3	3297.0	335.1	1.021	0.0	0	0.0	0
F ₂ Plant-10	114.5	16	35.5	6.63	7.37	16.17	5	3312.5	261.9	1.263	0.0	0	0.0	0
F ₂ Plant-11	98.3	23	26.4	7.41	7.38	16.42	7	2767.0	125.3	1.402	0.0	0	0.0	0
F ₂ Plant-12	110.9	17	35.0	6.95	8.23	17.25	5	3197.0	139.9	1.184	160.6	0.27	23.3	0.463
F ₂ Plant-13	102.5	23	27.2	6.77	6.17	14.75	7	2674.5	38.8	1.215	0.0	0	0.0	0
F ₂ Plant-14	90.4	19	28.2	4.79	6.43	12.96	5	2889.5	151.5	1.326	224.0	0.144	20.1	0.286
F ₂ Plant-15	103.7	17	25.6	6.72	6.47	15.32	5	3193.5	290	1.313	0.0	0	0.0	0
F ₂ Plant-16	95.7	20	37.0	6.31	7.47	14.99	5	3072.5	194.8	1.863	0.0	0	0.0	0
F ₂ Plant-17	105.5	17	31.2	7.93	7.91	16.98	7	3137.0	94.4	1.792	0.0	0	0.0	0
F ₂ Plant-18	112.6	16	32.0	7.36	8.45	17.88	5	3118.0	269.1	1.432	175.7	0.071	12.6	0.227

Genotype	PLHT	TILL	CL	LDW	SDW	TSDW	LFDG	TWU	LFA	TRDW	DRL	DRVOL	DRSA	DRAD
F ₂ Plant-19	101.8	39	29.5	12.31	11.87	25.5	5	3203.0	129.4	1.982	133.6	0.07	10.8	0.258
F ₂ Plant-20	106.5	27	32.0	9.73	11.53	22.89	5	3281.5	286.4	1.530	0.0	0	0.0	0
F ₂ Plant-21	105.9	23	33.0	7.64	9.88	19.11	3	3112.0	178.2	1.485	249.7	0.069	14.7	0.187
F ₂ Plant-22	105.8	38	32.2	11.64	11.81	24.52	7	3218.0	19.2	2.107	325.6	0.102	20.4	0.2
F ₂ Plant-23	110.8	21	36.5	7.57	8.45	17.54	5	3187.0	115.6	1.277	378.6	0.054	16.0	0.135
F ₂ Plant-24	106.3	14	35.5	9.8	13.14	25.43	3	5220.5	602.2	2.149	8999.2	1.844	451.8	0.773
F ₂ Plant-25	89.1	25	28.2	11.29	11.08	24.08	3	5388.0	404.5	2.033	10416.1	1.875	486.9	0.599
F ₂ Plant-26	111.5	18	32.5	10.35	9.17	21.92	1	5743.0	632.4	2.294	13263.2	2.828	673.0	0.954
F ₂ Plant-27	106.1	14	33.1	9.42	9.76	21.45	1	5294.0	749.4	2.005	10388.6	2.559	568.6	0.677
F ₂ Plant-28	115.8	22	26.9	10.38	10.01	22.46	1	5363.5	666.4	0.873	2075.9	0.446	107.8	0.165
F ₂ Plant-29	107.5	24	29.0	11.05	9.67	22.97	3	5300.0	397.9	2.135	12174.4	2.173	572.3	0.74
F ₂ Plant-30	104.0	22	30.2	8.71	9.21	20.01	5	5605.0	538.8	2.300	12882.9	2.786	662.7	0.812
F ₂ Plant-31	116.5	14	40.5	9.37	9.37	21.75	5	5668.5	580.2	2.761	14249.2	4.283	856.7	1.355
F ₂ Plant-32	97.0	12	32.5	9.28	10.91	22.58	1	5285.0	594.9	1.404	7257.9	1.262	332.5	0.439
F ₂ Plant-33	105.5	20	30.5	10.16	8.95	21.15	3	5312.5	748.1	1.641	9465.2	1.816	451.7	0.617
F ₂ Plant-34	108.5	17	29.4	11.41	11.04	24.85	1	5632.0	851.8	2.277	1813.0	0.382	93.3	0.164
F ₂ Plant-35	107.4	13	41.5	5.96	11.66	20.06	1	5563.0	392.8	2.753	5417.8	3.444	479.7	1.119
F ₂ Plant-36	112.6	17	29.5	7.72	9.95	19.41	1	5259.0	464.3	1.873	1710.7	0.452	98.5	0.183
F ₂ Plant-37	114.0	22	33.5	10.35	11.93	24.77	5	5345.5	305.4	2.356	9658.5	2.395	534.4	0.691
F ₂ Plant-38	108.0	18	32.0	7.62	10.44	20.3	3	5371.5	582.3	2.672	4236.2	1.024	229.6	0.338
F ₂ Plant-39	102.7	15	31.0	7.04	12.71	21.73	1	5465.0	623.5	3.068	7781.7	2.458	487.8	0.608
F ₂ Plant-40	120.2	13	47.0	7.98	14.37	25.35	1	5490.5	744.5	2.732	6813.9	2.164	428.5	0.601

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F ₂ Plant-41	106.4	21	39.0	8.81	14.21	25.66	5	5343.0	618.3	2.737	6251.4	1.818	368.9	0.724
F ₂ Plant-42	91.0	23	29.5	7.39	11.43	20.54	3	5345.5	353.5	3.329	1660.3	0.513	102.4	0.383
F ₂ Plant-43	93.9	19	30.8	7.45	8.68	18.61	5	5221.0	393.2	2.09	5793.4	2.094	373.6	0.837
F ₂ Plant-44	112.7	17	37.3	7.99	10.31	21.23	3	5740.0	466.2	3.501	20397.9	4.923	1099.7	1.385
F ₂ Plant-45	85.4	28	28.3	8.75	10.98	21.25	1	5541.0	555.5	3.155	12619.8	2.377	609.3	0.775
F ₂ Plant-46	96.5	23	31.0	9.47	10.86	22.63	1	5532.5	408.3	3.356	9762.7	2.226	514.5	0.834

Abbreviations: PLHT=Plant height; TILL=Tillers per plant; CL=Culm length; LDW=Leaf dry weight; SDW=Stem dry weight; TSDW=Total shoot dry weight; LFDG=Leaf drying; TWU=Total water uptake; LFA=Leaf area; TRDW=Total root dry weight; DRL=Deep root length (Below 60cm); DRVOL=Deep root volume (Below 60cm); DRSA=Deep root surface area (Below 60cm); DRAD=Deep root average diameter (Below 60cm).