Supplementary Table S1. Mean squares and significant tests among 50 wheat genotypes evaluated for 12 phenotypic traits under two water regime and three nitrogen levels.

A. Drought-stressed, Low N (50 kg ha^{-1})

		Agronomic Traits										
Source of variation	DF	SE	DTH	DTM	PH	TN	SL	SPS	KPS	TSW	GY	BM	HI
Genotype (G)	49	3.02**	14.73***	28.46**	40.64**	17.84**	1.16***	3.84**	52.95**	7.81***	49.10**	195.92***	0.011**
Site (S)	1	0.02**	307.52*	1362.42***	817.90**	4131.40^{ns}	0.296^{ns}	93.17**	4901.49*	21.34*	3655.38**	48391.60*	0.184*
G*S	49	0.02*	10.25**	28.79**	32.91**	15.24^{ns}	0.46*	2.23^{ns}	37.11**	7.14*	70.38**	333.33**	0.010^{ns}
Residual	100	0.83	11.02	33.70	39.21	20.34	0.84	2.92	52.58	9.35	64.09	349.35	0.013

B. Drought-stressed, intermediate N (100 kg ha^{-1})

		Agronomic Traits										
Source of variation	DF	SE	DTH	DTM	PH	TN	SL	SPS	KPS	TSW	GY	BM	HI
Genotype (G)	49	3.60**	18.27**	48.16**	82.81***	31.73**	4.86**	3.97***	71.61***	4.52***	74.30**	437.22***	0.022**
Site (S)	1	0.02*	90.32^{ns}	327.68**	871.53**	108.05^{ns}	0.04^{ns}	7.38**	217.40**	92.98**	15952.55**	38433.80*	0.355*
G*S	49	0.06^{ns}	15.70*	39.19**	36.03**	26.41^{ns}	4.59^{ns}	3.32*	46.85**	4.89**	69.09**	352.34^{ns}	0.011**
Residual	100	0.65	5.12	47.04	30.91	35.704	5.05	3.43	60.85	4.52	73.30	530.77	0.01

C. Drought-stressed, Recommended N (200 kg ha^{-1})

		Agronomic Traits										
Source of variation	DF	SE	DTH	DTM	PH	TN	SL	SPS	KPS	TSW	GY	BM	HI

Genotype (G)	49	2.73***	17.53***	39.83***	89.23**	39.02***	1.34***	5.64**	43.32***	7.47***	79.78***	418.90***	0.0***
Site (S)	1	0.03^{ns}	0.18**	5.78**	0.04**	288.00**	11.65**	6.20*	776.34**	26.31**	15014.54*	8817.99**	1.13**
G*S	49	0.05^{ns}	23.93**	24.19*	76.97*	23.53^{ns}	1.18**	4.36^{ns}	40.25*	7.59*	72.25*	511.44**	0.01^{ns}
Residual	100	1.11	1.82	20.38	71.32	33.13	0.94	2.81	65.43	8.14	78.72	450.83	0.01

D. Non-stressed, Low N (50 kg ha^{-1})

		Agronomic Traits										
Source of variation	DF	SE	DTH	DTM	PH	TN	SL	SPS	KPS	TSW	GY	BM	HI
Genotype (G)	49	3.33***	11.25***	16.86***	34.89**	17.73***	4.65***	3.88***	40.32**	0.42***	86.45***	289.80***	0.01***
Site (S)	1	0.08**	142.21**	288.0**	278.48*	733.45**	9.06*	122.63**	307.89^{ns}	106.98*	14484.02**	95493.22**	0.05**
G*S	49	0.026**	18.69**	18.69**	16.52^{ns}	22.97^{ns}	3.60**	3.25*	36.35^{ns}	0.32*	67.71**	240.07**	0.01**
Residual	100	0.57	12.16	12.16	26.44	33.59	4.96	2.98	28.76	0.43	76.77	388.92	0.01

E. Non-stressed, Intermediate N (100 kg ha^{-1})

		Agronomic Traits										
Source of variation	DF	SE	DTH	DTM	PH	TN	SL	SPS	KPS	TSW	GY	BM	HI
Genotype (G)	49	3.79***	22.78***	42.32***	73.92***	65.95**	24.07***	5.12**	49.92**	0.56**	96.82**	508.41***	0.01**
Site (S)	1	0.01**	1.62*	246.42**	546.35**	869.44**	34.61**	15.58*	21.160**	43.23*	16744.50**	37346.44**	0.41^{ns}
G*S	49	0.06**	11.90*	44.95^{ns}	35.85^{ns}	68.17**	25.59^{ns}	3.52*	26.071^{ns}	0.52*	68.36*	475.37**	0.00^{ns}
Residual	100	0.69	8.98	36.74	42.36	54.59	22.74	5.21	50.14	0.45	62.72	527.70	0.08

F. Non-stressed, Recommended N (200 kg ha^{-1})

Source of variation	DF	SE	DTH	DTM	PH	TN	SL	SPS	KPS	TSW	GY	BM	HI
		Agronomic Traits											
Genotype (G)	49	2.88***	26.49***	38.995***	73.83***	28.29**	4.53***	3.57***	27.87**	0.66**	101.53**	828.66**	0.02*
Site (S)	1	0.09ns	4.50**	264.50**	730.96*	561.12**	2.64**	90.72*	13.28**	97.58ns	40356.40**	78170.60*	1.42ns
G*S	49	0.01*	8.05**	35.93*	26.20ns	33.80*	3.65ns	3.87*	40.66ns	0.55ns	95.48*	902.25*	0.02ns
Residual	100	1.06	8.46	39.34	50.26	48.87	4.01	3.20	33.35	0.41	79.33	554.27	0.009

DF, degrees of freedom; SE, number of seedlings emerged; DTH, days to 50% heading; DTM, days to maturity; PH, plant height; TN, number of productive tillers; SL, spike length; SPS, number of spikelet per spike; KPS, number of kennels per spike; TSW, thousand seed weight; GY, grain yield; HI, harvest index; *, $P < 0.05$ (2-tailed); **, $P < 0.01$ level (2-tailed); ***, $P < 0.001$ level (2-tailed); ns, non-significant.