

Supplementary Table S1. List of genotypes used in the experiment.

S.No.	Name	Evolution	S.No.	Genotypes	Evolution	S.No.	Genotypes	Evolution	S.No.	Genotypes	Evolution
G-1	A -9-30-1	Germplasm	G-27	GW 1170	Variety	G-53	IWP 5004-1	Variety	G-79	NIDW 9	Variety
G-2	A 206	Landraces	G-28	GW 1209	Variety	G-54	IWP 5007	Variety	G-80	NIDW 15	Variety
G-3	AKDW 4151	Variety	G-29	GW 1225	Variety	G-55	IWP 5013	Variety	G-81	NIDW 70	Variety
G-4	AKDW 4240	Variety	G-30	GW 1240	Variety	G-56	IWP 5070	Variety	G-82	NIDW 295	Variety
G-5	Altar 84	Variety	G-31	GW 1244	Variety	G-57	Jairaj	Landraces	G-83	NP 4	Variety
G-6	Amrut	Germplasm	G-32	GW 1245	Variety	G-58	Jay	Landraces	G-84	NP 404	Variety
G-7	B 4446-WA	Variety	G-33	HD 4502	Variety	G-59	JU 12	Landraces	G-85	PDW 215	Variety
G-8	B 4447-BA	Variety	G-34	HD 4672	Variety	G-60	Karnataka Local	Landraces	G-86	PDW 233	Variety
G-9	Bansi Local	Variety	G-35	HD 4676	Variety	G-61	Kathia 25	Landraces	G-87	PDW 245	Variety
G-10	Baxi 228-18	Variety	G-36	HD 4709	Variety	G-62	Line 1172	Landraces	G-88	Raj 1555	Variety
G-11	Bijaga Red	Variety	G-37	HG 110	Variety	G-63	MACS 9	Variety	G-89	Raj 6069	Variety
G-12	Bijaga Yellow	Variety	G-38	HI 7747	Variety	G-64	MACS 1967	Variety	G-90	Raj 6516	Variety
G-13	CDW 04	Variety	G-39	HI 8381	Variety	G-65	MACS 2694	Variety	G-91	Raj 6562	Variety
G-14	CPAN 6236	Variety	G-40	HI 8498	Variety	G-66	MACS 2846	Variety	G-92	Raj 6566	Variety
G-15	DBP 01-09	Variety	G-41	HI 8550	Variety	G-67	MACS 3061	Variety	G-93	Sarangpur local	Landraces
G-16	DBP 01-11	Variety	G-42	HI 8591	Variety	G-68	MACS 3063	Variety	G-94	Sawer local	Landraces
G-17	DBP 02-08	Variety	G-43	HI 8592	Variety	G-69	MACS 3125	Variety	G-95	Trinakaria	Variety
G-18	Dohad Local	Variety	G-44	HI 8627	Variety	G-70	Malvi Local	Landraces	G-96	V 21/23	Variety
G-19	DWL 5023	Variety	G-45	HI 8638	Variety	G-71	Mandsaur Local	Landraces	G-97	VD 97-15	Variety
G-20	DWR 137	Variety	G-46	HI 8645	Variety	G-72	Meghdoot	Landraces	G-98	Vijay	Variety
G-21	GS 27	Variety	G-47	HI 8653	Variety	G-73	Motia	Landraces	G-99	WH 896	Variety
G-22	Guji 'S'	Variety	G-48	HI 8663	Variety	G-74	MPO 215	Variety	G-100	WH 912	Variety
G-23	GW 1	Variety	G-49	HI 8666	Variety	G-75	MPO 1106	Variety	G-101	MPO 1243	Variety
G-24	GW 2	Variety	G-50	HI 8671	Variety	G-76	MPO 1215	Variety	G-102	V 21	Variety
G-25	GW 1114	Variety	G-51	HI 8691	Variety	G-77	N 59	Variety			
G-26	GW 1139	Variety	G-52	HI 8722	Variety	G-78	NI 5759	Variety			

Supplementary Table S2. Mean value of selected traits based on BLUES of genotypes 2014–2017.

Genotype	DF	DM	SL	NG	BM	HI	TGW	HW	T. Car.	SDS	GY /PL	CT- Pre-ant.	CT- Post-ant.	Genotype	DF	DM	SL	NG	BM	HI	TGW	HW	T. Car.	SDS	GY/ PL	CT- Pre-ant.	CT- Post-ant.
1	72.8	109.4	7.2	53.6	56.7	30.4	44.0	75.1	3.6	36.8	17.1	20.7	25.3	52	73.9	113.2	7.6	55.5	54.5	35.7	47.0	78.7	4.3	28.2	19.0	19.8	24.0
2	70.7	111.9	7.6	44.9	51.4	34.2	42.3	73.6	3.9	37.4	17.1	20.4	25.4	53	78.6	114.2	7.3	57.9	55.6	35.2	48.3	80.4	3.2	31.4	19.4	20.4	24.0
3	78.7	115.3	7.5	53.5	53.5	32.9	43.9	77.1	7.2	34.2	17.0	20.1	25.2	54	78.8	115.6	6.1	48.6	42.5	44.4	41.7	79.1	3.1	32.9	18.6	20.2	24.0
4	73.8	114.7	8.1	60.9	51.4	34.8	45.1	79.7	4.8	34.8	16.9	21.2	24.8	55	74.1	113.1	7.2	51.9	68.8	34.4	49.3	76.0	2.7	30.8	23.2	20.2	24.1
5	75.1	112.1	7.3	59.6	47.5	37.2	39.2	78.9	6.4	32.1	17.1	20.7	24.6	56	67.3	103.9	6.8	51.8	56.6	31.5	58.6	79.7	2.7	38.8	17.6	20.2	24.6
6	70.4	113.1	8.2	34.6	58.9	33.5	52.4	77.8	5.4	32.9	18.9	21.1	24.8	57	70.3	107.3	6.7	52.2	55.3	34.8	50.7	79.6	3.7	27.0	18.5	20.6	24.7
7	76.0	115.2	6.2	50.0	56.7	31.3	48.3	79.2	5.2	33.9	17.5	21.1	24.5	58	61.7	101.9	9.3	45.7	55.0	35.1	52.1	77.3	3.3	30.7	18.9	20.4	25.0
8	76.9	115.2	6.3	51.4	48.5	40.5	43.0	80.4	5.4	39.2	19.7	20.9	24.5	59	71.0	108.3	6.4	51.0	54.4	36.7	48.2	79.4	3.0	31.0	19.5	20.4	24.8
9	74.9	114.8	6.1	44.8	56.7	33.5	42.6	76.3	3.8	28.0	18.2	21.0	24.6	60	68.3	104.1	8.0	46.8	55.1	36.8	47.6	76.6	3.2	25.0	19.8	20.3	24.7
10	77.6	115.9	7.8	52.9	67.3	29.8	49.5	71.4	3.9	29.1	19.3	21.3	24.4	61	76.3	114.2	7.7	44.9	46.4	42.4	50.5	71.3	3.0	29.7	19.6	20.7	23.9
11	73.4	113.7	7.6	39.1	55.9	35.0	40.1	77.2	3.8	27.7	19.4	20.9	24.4	62	72.4	111.8	6.7	43.6	57.2	35.8	55.6	77.6	4.0	30.8	19.9	20.1	23.8
12	72.3	113.3	8.0	49.2	56.6	30.9	48.9	75.7	3.7	31.2	17.5	20.9	24.1	63	69.0	110.7	7.8	50.8	58.6	35.0	59.5	78.4	3.6	30.0	20.2	20.2	23.9
13	71.0	113.4	6.2	53.5	47.4	35.8	54.1	80.0	4.2	35.6	16.6	20.5	23.9	64	67.2	110.6	7.6	48.5	55.6	34.0	50.3	78.8	4.2	27.6	18.5	19.9	24.1
14	78.2	115.1	7.1	60.5	51.4	33.0	43.9	80.8	5.3	40.1	16.7	20.4	23.9	65	76.0	112.6	7.4	52.7	53.1	31.7	47.5	80.3	3.3	36.0	16.4	19.8	24.1
15	77.7	114.8	6.3	45.2	49.3	36.2	43.6	78.6	4.8	34.2	16.0	20.7	23.5	66	75.7	113.9	7.0	49.0	51.9	31.0	53.8	79.1	4.1	28.7	15.0	19.8	24.1
16	79.4	115.4	7.7	62.1	50.5	32.8	47.0	77.7	7.6	40.2	16.1	21.1	24.3	67	77.6	113.8	7.2	49.9	49.7	29.2	49.0	79.4	4.0	26.3	13.9	20.0	24.3
17	77.2	115.9	5.8	53.6	59.4	29.1	43.8	78.3	5.7	34.8	17.0	20.9	24.2	68	78.4	113.3	7.6	56.6	51.0	29.9	49.7	80.3	4.4	27.1	15.1	19.8	24.3
18	76.7	113.6	7.7	56.0	47.3	38.8	45.7	79.0	4.2	38.4	17.8	20.8	24.2	69	72.8	111.7	8.4	49.8	67.9	41.3	51.5	81.4	4.1	35.8	26.8	19.7	23.8
19	78.8	113.0	7.1	52.5	50.8	37.6	46.5	80.3	4.9	32.9	18.5	20.7	24.3	70	78.4	116.2	6.4	39.5	56.4	28.7	46.6	76.3	4.6	29.4	16.2	20.3	24.5
20	73.3	110.0	7.9	47.0	53.0	36.9	49.2	75.3	3.3	30.8	18.8	20.4	24.8	71	77.2	116.2	6.7	34.8	54.7	31.4	47.9	77.4	3.9	28.1	16.5	20.0	24.5
21	78.7	113.6	6.9	65.1	54.2	36.3	39.7	80.6	5.1	40.0	19.4	20.9	24.7	72	74.3	112.2	7.5	45.1	53.8	32.6	48.4	76.2	3.7	29.3	17.1	20.2	23.9
22	74.8	114.7	7.0	49.3	54.3	36.6	50.4	80.0	4.7	32.2	19.5	20.7	24.2	73	80.1	116.2	6.4	33.6	45.5	38.0	43.6	74.9	4.5	27.9	16.7	20.3	23.7
23	71.7	109.4	8.0	45.6	49.5	34.7	50.8	74.4	3.7	36.1	17.2	21.0	24.8	74	81.1	115.6	7.0	57.5	56.2	34.9	43.5	76.6	4.8	31.7	18.6	20.0	24.3
24	71.4	110.7	7.4	56.2	58.6	31.2	46.5	80.4	4.4	33.2	17.6	21.5	25.3	75	73.1	111.4	6.8	47.0	43.9	43.6	55.1	79.2	4.0	35.1	19.0	20.0	24.2

25	70.6	113.9	8.5	48.5	52.6	34.7	43.8	70.6	6.2	29.8	17.1	20.9	25.3	76	73.6	113.2	7.5	46.7	55.6	37.2	51.4	79.9	3.7	33.0	20.5	19.9	24.3
26	71.0	113.6	7.1	48.0	64.1	29.2	55.5	78.9	4.2	29.9	17.2	21.0	25.2	77	69.3	112.0	7.1	46.1	56.7	38.6	49.0	78.2	4.4	34.2	21.2	19.9	24.7
27	75.3	113.7	6.9	55.3	58.8	30.2	48.6	79.6	4.9	29.6	17.2	20.2	25.1	78	71.1	111.8	6.3	37.2	53.9	38.4	55.7	76.8	4.5	35.7	19.3	20.4	24.4
28	74.3	114.2	7.0	61.4	56.5	30.8	49.0	79.3	4.4	26.8	16.8	20.7	24.8	79	74.9	115.6	6.8	54.0	54.6	39.9	47.3	80.1	3.5	25.9	20.5	19.4	24.6
29	76.9	114.9	7.4	51.2	57.5	28.9	45.4	78.8	3.4	29.7	16.4	20.9	24.7	80	74.1	112.0	7.3	60.7	60.0	33.5	53.0	79.6	4.9	22.3	19.6	20.1	24.5
30	74.4	114.9	6.7	55.0	54.0	32.1	48.5	78.2	3.3	27.0	16.8	20.9	24.5	81	76.4	114.0	6.7	63.4	56.6	34.9	48.5	78.3	3.6	33.7	18.8	20.3	24.5
31	77.9	115.1	7.2	48.9	55.9	29.5	40.6	72.4	4.5	27.4	16.1	20.9	24.5	82	71.8	112.7	6.9	53.9	62.7	38.6	46.8	79.3	4.2	37.3	23.1	19.9	23.9
32	71.3	112.0	8.7	45.4	53.0	32.4	59.7	71.6	4.0	33.2	17.0	21.0	24.8	83	70.3	109.9	9.5	44.7	54.0	36.2	43.1	81.6	2.9	32.2	19.3	20.5	24.4
33	72.1	113.1	7.3	54.9	60.6	30.5	41.5	78.7	4.4	26.6	18.2	20.7	24.3	84	75.2	114.0	7.6	39.4	59.0	30.0	52.7	75.7	3.6	31.3	17.3	20.1	24.4
34	75.3	113.0	7.8	57.1	54.4	35.8	51.3	78.4	4.7	32.3	19.2	20.6	24.2	85	76.9	114.8	6.7	51.2	55.6	32.6	49.2	79.3	4.5	32.0	16.9	19.9	24.4
35	73.4	113.0	7.6	49.3	54.0	37.8	52.2	76.3	5.6	35.4	19.9	20.8	24.4	86	75.6	113.6	7.5	58.6	60.8	30.6	47.7	80.4	6.4	34.9	17.8	20.1	24.7
36	77.3	114.8	6.5	45.5	42.6	45.1	53.5	77.8	4.7	32.4	18.8	20.8	24.4	87	77.9	113.3	7.3	57.4	58.6	34.4	47.1	81.2	4.1	33.8	19.2	20.2	24.4
37	76.7	113.2	7.7	58.6	70.8	32.0	53.7	79.6	4.8	27.6	22.5	21.1	24.4	88	74.6	112.8	7.6	57.6	66.7	31.7	51.7	80.2	3.6	29.6	20.0	20.3	24.2
38	78.3	115.8	6.5	54.2	50.9	38.7	45.1	77.4	5.3	27.9	19.1	20.6	24.0	89	73.7	112.4	6.9	43.9	50.5	40.2	48.6	78.1	3.2	30.7	19.3	20.3	24.8
39	76.8	114.2	7.5	54.4	69.2	34.9	48.6	80.7	4.7	26.6	23.4	20.9	24.1	90	78.2	114.2	6.6	59.6	53.9	36.5	42.8	77.6	4.0	31.8	18.8	20.4	24.3
40	73.6	113.6	7.5	53.1	71.3	34.2	53.2	81.0	5.0	34.1	23.8	20.4	23.9	91	78.7	113.1	6.7	54.3	61.5	30.0	42.2	79.2	5.2	39.0	18.2	20.2	24.5
41	77.7	114.4	6.6	63.6	62.0	31.4	39.7	79.6	3.5	38.0	19.2	20.5	24.2	92	69.6	108.3	7.3	48.9	63.0	38.9	45.7	78.7	5.1	37.6	23.2	20.2	24.2
42	76.8	115.3	7.4	55.6	52.9	32.6	47.9	79.0	4.6	26.6	17.0	19.9	23.6	93	72.3	111.2	7.5	49.0	58.0	34.5	50.3	78.1	4.3	36.3	20.0	20.1	24.6
43	72.8	113.7	7.0	52.1	54.7	27.1	53.6	82.1	3.9	32.9	14.6	20.2	23.5	94	81.8	115.6	8.6	39.5	60.2	32.6	41.9	77.1	4.7	24.8	19.3	20.1	24.3
44	77.0	114.2	7.5	62.6	70.0	35.2	47.5	80.0	5.3	31.2	24.0	19.7	23.2	95	81.6	116.2	7.1	43.9	59.6	33.9	49.8	78.1	6.4	33.8	19.9	20.0	24.4
45	72.0	111.7	7.1	55.3	70.5	34.6	47.7	81.7	5.1	36.7	24.0	19.5	23.7	96	78.4	115.4	7.6	60.8	52.0	37.4	47.7	77.1	6.4	34.4	18.9	19.5	23.6
46	76.4	114.4	6.8	51.2	50.6	39.7	54.8	79.8	3.6	36.1	19.5	19.8	23.7	97	74.3	112.3	6.2	46.5	44.4	41.6	49.7	79.3	3.4	28.9	18.0	20.0	24.6
47	79.7	115.3	7.4	55.3	52.3	37.3	45.0	78.8	4.5	43.2	19.3	20.4	23.6	98	67.4	108.8	6.6	46.9	58.0	36.9	46.1	77.6	5.4	24.0	21.4	20.0	24.4
48	76.0	114.0	7.5	53.9	50.4	35.3	47.1	80.3	6.0	39.4	17.2	19.9	23.5	99	76.7	114.0	7.5	57.8	66.7	38.1	45.5	80.7	7.2	34.0	24.6	20.3	23.6
49	76.9	113.2	6.9	51.1	52.1	38.9	46.1	79.9	5.3	36.8	19.1	20.0	24.0	100	78.7	114.4	7.5	68.8	53.7	38.1	41.5	80.4	5.5	33.6	20.1	20.0	23.8
50	75.1	115.0	7.0	50.5	55.8	34.6	56.5	80.3	3.4	32.1	17.8	19.4	23.8	101	71.6	112.3	7.5	50.8	56.6	30.9	54.4	79.3	7.7	37.7	17.4	20.2	23.7
51	73.1	113.8	7.6	55.6	70.5	34.3	52.4	81.0	3.6	36.8	23.8	19.3	24.2	102	76.2	115.6	9.4	64.7	54.4	33.8	53.5	77.0	6.2	39.1	17.6	20.4	23.8

Supplementary Table S3. Analysis of variance of principle components of biplot genotype and location of the traits across three cropping seasons under heat stress conditions.

Traits	Statistic	df	SS	PORCENT	PORCENAC	MS	F	PROBF
DF	Environments	2.0	1762.6	11.1	11.1	881.3	1399.7	0**
	Genotypes	101.0	11298.6	71.2	82.4	111.9	177.7	0**
	E × G	202.0	2798.3	17.6	100.0	13.9	22.0	0**
	PC1	102.0	1775.1	63.4	63.4	17.4	29.9	0**
	PC2	100.0	1023.2	36.6	100.0	10.2	17.6	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	385.3	0.0	0.0	0.6	NA	NA
DM	Environments	2.0	1218.9	11.7	11.7	609.5	1268.7	0**
	Genotypes	101.0	5925.8	56.7	68.4	58.7	122.1	0**
	E × G	202.0	3305.1	31.6	100.0	16.4	34.1	0**
	PC1	102.0	1937.3	58.6	58.6	19.0	43.3	0**
	PC2	100.0	1367.8	41.4	100.0	13.7	31.2	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	294.0	0.0	0.0	0.5	NA	NA
SL	Environments	2.0	58.6	8.3	8.3	29.3	601.9	0**
	Genotypes	101.0	427.8	60.4	68.6	4.2	87.1	0**
	E × G	202.0	222.2	31.4	100.0	1.1	22.6	0**
	PC1	102.0	121.0	54.4	54.4	1.2	24.3	0**
	PC2	100.0	101.2	45.6	100.0	1.0	20.8	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	29.8	0.0	0.0	0.0	NA	NA
NG	Environments	2.0	1557.7	2.4	2.4	778.9	261.7	0**
	Genotypes	101.0	43429.8	67.1	69.5	430.0	144.5	0**
	E × G	202.0	19761.4	30.5	100.0	97.8	32.9	0**
	PC1	102.0	10327.2	52.3	52.3	101.2	34.3	0**
	PC2	100.0	9434.2	47.7	100.0	94.3	31.9	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1

	Residuals	612.0	1821.6	0.0	0.0	3.0	NA	NA
BM	Environments	2.0	59535.6	46.4	46.4	29767.8	3890.5	0**
	Genotypes	101.0	35748.8	27.9	74.3	353.9	46.3	0**
	E × G	202.0	32981.2	25.7	100.0	163.3	21.3	0**
	PC1	102.0	24619.5	74.6	74.6	241.4	31.6	0**
	PC2	100.0	8361.7	25.4	100.0	83.6	10.9	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	4682.7	0.0	0.0	7.7	NA	NA
HI	Environments	2.0	18625.7	38.8	38.8	9312.9	2446.4	0**
	Genotypes	101.0	12321.2	25.7	64.5	122.0	32.0	0**
	E × G	202.0	17039.0	35.5	100.0	84.4	22.2	0**
	PC1	102.0	11389.8	66.8	66.8	111.7	29.3	0**
	PC2	100.0	5649.2	33.2	100.0	56.5	14.8	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	2329.7	0.0	0.0	3.8	NA	NA
TGW	Environments	2	315.4621	1.2	1.15529	157.7311	95.24309	0**
	Genotypes	101	18675.05	68.4	69.54755	184.9015	111.6495	0**
	E × G	202	8315.285	30.5	100	41.16478	24.85662	0**
	PC1	102	4398.287	52.9	52.894	43.12046	26.04331	0**
	PC2	100	3916.998	47.1	100	39.16998	23.65735	0**
	PC3	98	0	0	100	0	0	1
	Residuals	612	1013.527	0	0	1.65609	NA	NA
HW	Environments	2.0	386.3	5.8	5.8	193.1	162.1	0**
	Genotypes	101.0	4890.1	73.9	79.7	48.4	40.6	0**
	E × G	202.0	1344.0	20.3	100.0	6.7	5.6	0**
	PC1	102.0	938.8	69.9	69.9	9.2	8.0	0**
	PC2	100.0	405.2	30.1	100.0	4.1	3.5	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	729.3	0.0	0.0	1.2	NA	NA
T.Car	Environments	2.0	6.5	0.4	0.4	3.3	20.4	0**
	Genotypes	101.0	1037.5	62.6	63.0	10.3	64.1	0**
	E × G	202.0	612.0	37.0	100.0	3.0	18.9	0**

	PC1	102.0	409.2	66.9	66.9	4.0	27.4	0**
	PC2	100.0	202.8	33.1	100.0	2.0	13.8	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	98.1	0.0	0.0	0.2	NA	NA
SDS	Environments	2.0	6759.5	20.6	20.6	3379.7	2072.5	0**
	Genotypes	101.0	16410.9	49.9	70.5	162.5	99.6	0**
	E × G	202.0	9699.4	29.5	100.0	48.0	29.4	0**
	PC1	102.0	5832.6	60.1	60.1	57.2	35.1	0**
	PC2	100.0	3866.8	39.9	100.0	38.7	23.7	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	998.0	0.0	0.0	1.6	NA	NA
GY	Environments	2.0	1272.2	15.4	15.4	636.1	1697.1	0**
	Genotypes	101.0	4750.2	57.6	73.0	47.0	125.5	0**
	E × G	202.0	2224.8	27.0	100.0	11.0	29.4	0**
	PC1	102.0	1373.6	61.7	61.7	13.5	35.9	0**
	PC2	100.0	851.3	38.3	100.0	8.5	22.7	0**
	PC3	98.0	0.0	0.0	100.0	0.0	0.0	1
	Residuals	612.0	229.4	0.0	0.0	0.4	NA	NA

*, ** significant at 5% and 1% level of probability, respectively; ns: non-significant; df: degree of freedom; SS: Sum of square; MS: mean sum of square; F: F-value; PORCENT: percent of the genotype; PORCENAC: cumulative percent of the genotype; PROBF: probability level associated to each F-test for each AMMI; PC: Principal components; DF: day to heading; DM: days to maturity; SL: spike length; NG: number of grains/spike; BM: biomass; HI: harvest index; TKW: 1000 grain weight; HW: hectoliter weight; T. Car.: total carotene; SDS: sedimentation value; GY: grain yield/plant; E × G: Environment × Genotypes; PC1: Principal Components 1; PC2: Principal Components 2; PC3: Principal Components 3.

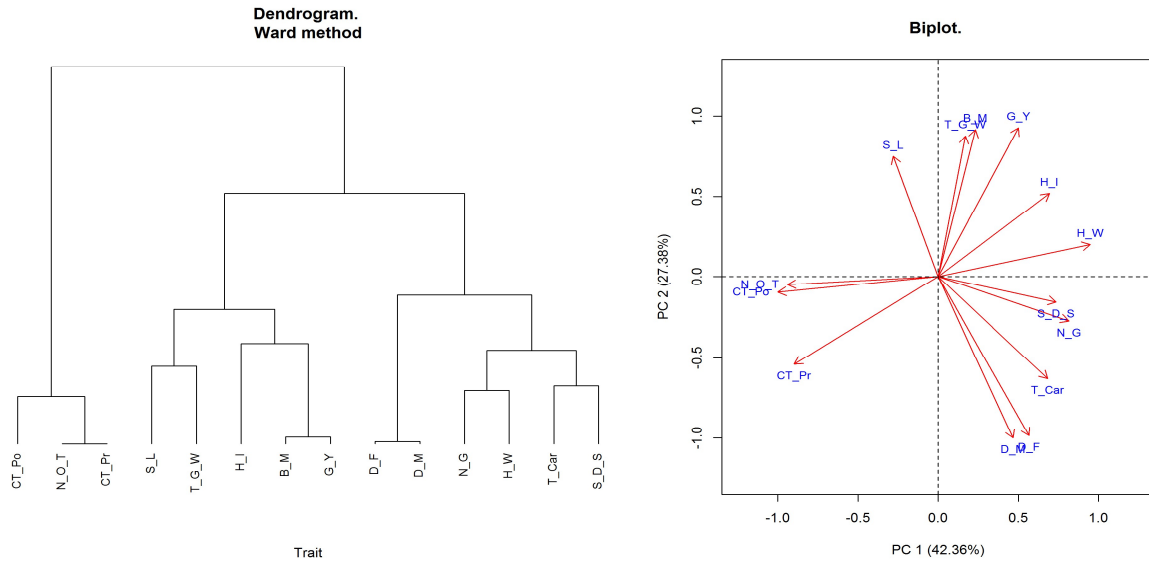
Supplementary Table S4. Performance of genotypes for adaptability, stability and both genotypic adaptability and stability for all the selected traits under terminal heat stress conditions.

Traits	Stability	Genotypes ranking															
		G-11	G-31	G-34	G-37	G-42	G-48	G-50	G-57	G-67	G-73	G-76	G-8	G-84			
DF	GenAdaptable	G-11	G-31	G-34	G-37	G-42	G-48	G-50	G-57	G-67	G-73	G-76	G-8	G-84			
	GenStable	G-11	G-47	G-8	G-81												
	GenAdap&Stable	G-11	G-8														
DM	GenAdaptable	G-102	G-45	G-59	G-62	G-63	G-67	G-69	G-72	G-75	G-78	G-80	G-97				
	GenStable	G-13	G-35	G-97													
	GenAdap&Stable	G-97															
SL	GenAdaptable	G-19	G-24	G-26	G-4	G-40	G-42	G-44	G-45	G-48	G-51	G-6					
	GenStable	G-27	G-4	G-90													
	GenAdap&Stable	G-4															
NG	GenAdaptable	G-1	G-100	G-3	G-38	G-39	G-5	G-52	G-53	G-56	G-74	G-86	G-99				
	GenStable	G-12	G-55														
	GenAdap&Stable	0															
BM	GenAdaptable	G-25	G-27	G-30	G-31	G-37	G-40	G-51	G-55	G-6	G-62	G-77	G-82	G-89	G-90		
	GenStable	G-98															
	GenAdap&Stable	0															
HI	GenAdaptable	G-10	G-15	G-25	G-27	G-5	G-50	G-6	G-71	G-74	G-77	G-89	G-9	G-97			
	GenStable	G-33	G-41	G-77	G-91												
	GenAdap&Stable	G-77															
TGW	GenAdaptable	G-10	G-11	G-14	G-29	G-31	G-44	G-45	G-46	G-47	G-48	G-66	G-68	G-71	G-91		
	GenStable	G-67	G-82														
	GenAdap&Stable	0															
HW	GenAdaptable	G-17	G-2	G-20	G-24	G-30	G-32	G-45	G-46	G-57	G-59	G-60	G-64	G-77	G-84	G-85	G-86
	GenStable	G-22	G-26	G-30	G-50	G-68	G-83	G-87									
	GenAdap&Stable	G-30															
T. Car.	GenAdaptable	G-18	G-19	G-24	G-25	G-30	G-67	G-71	G-74	G-77	G-78	G-96					

	GenStable	0															
	GenAdap&Stable	0															
SDS	GenAdaptable	G-19	G-24	G-27	G-31	G-32	G-34	G-5	G-63	G-72	G-89	G-90	G-95				
	GenStable	G-19	G-52														
	GenAdap&Stable	G-19															
GY	GenAdaptable	G-11	G-12	G-13	G-44	G-56	G-64	G-69	G-8	G-90	G-96	G-98	G-99				
	GenStable	G-2	G-27	G-35	G-38	G-83	G-98										
	GenAdap&Stable	G-98															

DF: days to flowering; DM: days to maturity; SL: spike length; NG: number of grains/spike; BM: biomass; HI: harvest index; TKW: 1000 grain weight; HW: hectoliter weight; T. Car.: total carotene; SDS: sedimentation value; GY: grain yield/plant.

Biplot for correlation matrix



Supplementary Figure S1. The biplot based on the correlation data for grain yield with other yield contributing traits. It explained 69.74% of the total G + GE where PC1 and PC2 accounted for 42.36% and 27.38% of variance respectively.

Biplot for all the selected traits showed that PC1 accounted 42.36% and PC2 accounted 27.38% variable across the environments (Supplementary Figure 1).