

SUPPLEMENTARY INFORMATION

Table S1. Effect of different temperature regimes on germination parameters of Indian wheat genotypes

Parameter→	Standard germination (%)					Speed of germination				
Temperature (T)→ Genotype (G)↓	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)
WH 730	97.3 ± 1.20 a	97.5 ± 0.76 a	93.7 ± 2.60 a	93.0 ± 1.53 a	95.4 ± 0.94 A	16.0 ± 0.45 cde	14.7 ± 0.39 d	14.1 ± 0.03 def	12.6 ± 0.36 de	14.3 ± 0.48 GH
WH 1123	98.5 ± 0.29 a	97.8 ± 0.93 a	94.3 ± 2.03 a	92.3 ± 2.03 ab	95.8 ± 1.00 A	16.6 ± 0.04 cd	15.7 ± 0.51 d	12.2 ± 0.17 g	10.7 ± 0.36 f	13.8 ± 0.92 H
WH 1021	98.5 ± 0.29 a	96.7 ± 0.33 a	88.0 ± 2.08 ab	81.3 ± 1.76 cde	91.1 ± 2.16 BC	16.0 ± 0.05 cde	17.6 ± 0.03 c	14.5 ± 0.19 cde	12.5 ± 0.33 e	15.1 ± 0.72 F
IC 443661	97.5 ± 0.76 a	96.7 ± 1.20 a	92.3 ± 1.20 ab	81.7 ± 2.33 cde	92.0 ± 2.00 B	14.0 ± 0.51 f	12.8 ± 0.04 e	10.0 ± 0.23 h	8.38 ± 0.22 g	11.3 ± 0.85 I
EC 277134	98.3 ± 0.17 a	97.3 ± 0.17 a	92.3 ± 0.88 ab	91.3 ± 3.33 ab	94.8 ± 1.18 AB	14.6 ± 0.05 ef	11.2 ± 0.12 f	9.77 ± 0.08 h	6.59 ± 0.29 h	10.5 ± 1.09 J
WH 1105	97.7 ± 1.33 a	97.8 ± 0.44 a	80.0 ± 2.08 cd	75.3 ± 1.33 ef	87.7 ± 3.13 C	16.9 ± 0.07 cd	18.8 ± 0.35 bc	12.7 ± 0.52 fg	7.71 ± 0.31 gh	14.0 ± 1.62 H
WH 711	98.8 ± 0.17 a	98.5 ± 0.29 a	93.0 ± 2.65 ab	86.3 ± 2.03 abcd	94.2 ± 1.69 AB	16.2 ± 0.65 cd	17.9 ± 0.07 c	15.4 ± 0.27 cd	14.0 ± 0.65 cd	15.9 ± 0.56 E
WH 542	98.3 ± 0.33 a	97.0 ± 0.58 a	89.0 ± 1.73 ab	84.7 ± 2.33 bcd	92.3 ± 1.82 B	15.5 ± 0.12 def	17.9 ± 0.06 c	13.1 ± 0.31 efg	11.6 ± 0.45 ef	14.5 ± 0.91 G
PBW 725	95.0 ± 2.31 a	93.7 ± 1.45 a	77.0 ± 1.15 d	72.0 ± 2.31 f	84.4 ± 3.14 D	16.7 ± 0.37 cd	19.5 ± 0.04 ab	15.9 ± 0.09 bc	15.3 ± 0.42 bc	16.9 ± 0.63 C
HD 3086	98.0 ± 0.58 a	97.5 ± 0.76 a	89.3 ± 1.45 ab	88.7 ± 2.40 abc	93.4 ± 1.47 AB	17.3 ± 0.43 bc	18.8 ± 0.18 bc	15.2 ± 0.03 cd	14.1 ± 0.07 cd	16.4 ± 0.70 D
HD 2967	93.3 ± 1.45 a	94.3 ± 2.33 a	91.0 ± 1.53 ab	90.3 ± 2.03 ab	92.3 ± 0.94 B	19.6 ± 0.61 a	20.8 ± 0.21 a	18.8 ± 0.34 a	17.8 ± 0.34 a	19.3 ± 0.44 A
DBW 88	95.8 ± 1.01 a	95.5 ± 1.26 a	85.3 ± 3.33 bc	79.3 ± 0.67 def	89.0 ± 2.26 C	18.6 ± 0.24 ab	19.6 ± 0.41 ab	17.4 ± 0.15 ab	16.1 ± 0.19 b	17.9 ± 0.51 B
Mean (T)	97.3 ± 0.35 A	96.7 ± 0.35 A	88.8 ± 1.01 B	84.7 ± 1.22 C		16.5 ± 0.32 B	17.1 ± 0.59 A	14.1 ± 0.54 C	12.3 ± 0.69 D	

*The significant differences among temperatures ($p \leq 0.05$) are indicated by different letters

**Uppercase letters showing significant differences among the main factor means (G and T), lowercase letters showing significant differences among interaction means (G×T)

Table S2. Effect of different temperature regimes on shoot length, root length and seedling length of Indian wheat genotypes

Parameter→	Shoot length (cm)					Root length (cm)					Seedling length (cm)				
Temperature (T)→ Genotype (G)↓	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)
WH 730	9.72 ± 0.17 a	14.4 ± 0.08 a	14.5 ± 0.09 a	14.7 ± 0.10 a	13.4 ± 0.63 A	16.4 ± 0.27 c	20.9 ± 0.30 ef	16.6 ± 0.11 a	17.2 ± 0.25 de	17.8 ± 0.55 C	26.1 ± 0.17 bc	35.3 ± 0.25 b	31.2 ± 0.12 a	32.0 ± 0.32 a	31.1 ± 1.00 A
WH 1123	7.56 ± 0.09 d	9.92 ± 0.16 g	9.52 ± 0.17 f	9.4 ± 0.10 f	9.10 ± 0.28 H	12.7 ± 0.16 e	19.2 ± 0.28 g	14.1 ± 0.08 cd	13.2 ± 0.18 f	14.8 ± 0.78 G	20.3 ± 0.22 e	29.1 ± 0.41 e	23.6 ± 0.13 e	22.6 ± 0.28 g	23.9 ± 0.98 I
WH 1021	8.88 ± 0.19 b	12.0 ± 0.09 bc	12.3 ± 0.09 b	12.2 ± 0.12 b	11.4 ± 0.44 B	18.3 ± 0.22 ab	22.7 ± 0.21 bcd	15.6 ± 0.12 ab	18.1 ± 0.36 bcd	18.7 ± 0.77 B	27.2 ± 0.32 ab	34.7 ± 0.13 b	27.9 ± 0.06 b	30.3 ± 0.44 b	30.0 ± 0.89 B
IC 443661	7.53 ± 0.11 d	10.7 ± 0.16 ef	11.4 ± 0.23 c	9.72 ± 0.17 ef	9.84 ± 0.45 E	16.4 ± 0.33 c	19.2 ± 0.42 g	15.0 ± 0.16 bc	14.3 ± 0.20 f	16.2 ± 0.58 E	23.9 ± 0.33 d	29.9 ± 0.48 e	26.4 ± 0.15 c	24.0 ± 0.27 f	26.1 ± 0.75 G
EC 277134	8.49 ± 0.20 bc	12.5 ± 0.19 b	9.95 ± 0.19 ef	11.2 ± 0.06 c	10.5 ± 0.45 C	17.8 ± 0.13 b	24.3 ± 0.10 a	15.5 ± 0.11 ab	18.8 ± 0.11 ab	19.1 ± 0.97 A	26.3 ± 0.26 bc	36.7 ± 0.18 a	25.5 ± 0.25 cd	30.0 ± 0.05 b	29.6 ± 1.35 B
WH 1105	8.04 ± 0.02 cd	11.3 ± 0.22 de	8.62 ± 0.18 g	10.3 ± 0.06 de	9.56 ± 0.40 F	14.9 ± 0.06 d	21.9 ± 0.21 cde	14.3 ± 0.18 cd	18.1 ± 0.42 bcd	17.3 ± 0.91 D	22.9 ± 0.06 d	33.2 ± 0.41 cd	23.0 ± 0.29 e	28.4 ± 0.41 cd	26.9 ± 1.29 F
WH 711	9.01 ± 0.05 b	11.0 ± 0.06 def	7.25 ± 0.15 h	9.98 ± 0.18 def	9.31 ± 0.42 G	19.1 ± 0.13 a	23.1 ± 0.30 b	12.5 ± 0.12 e	17.5 ± 0.30 cde	18.1 ± 1.16 C	28.2 ± 0.08 a	34.2 ± 0.32 bc	19.7 ± 0.17 f	27.4 ± 0.26 de	27.4 ± 1.55 E
WH 542	8.50 ± 0.13 bc	12.1 ± 0.05 bc	10.3 ± 0.15 de	11.7 ± 0.07 bc	10.7 ± 0.43 C	12.2 ± 0.27 e	20.7 ± 0.19 f	13.8 ± 0.19 d	16.6 ± 0.34 e	15.8 ± 0.98 F	20.7 ± 0.16 e	32.8 ± 0.14 d	24.2 ± 0.25 de	28.3 ± 0.28 cd	26.5 ± 1.37 F
PBW 725	7.53 ± 0.24 e	11.0 ± 0.07 def	7.49 ± 0.04 h	9.85 ± 0.19 def	8.97 ± 0.46 H	13.0 ± 0.18 e	21.7 ± 0.21 def	12.0 ± 0.26 e	16.4 ± 0.06 e	15.8 ± 1.15 F	20.5 ± 0.38 e	32.7 ± 0.26 d	19.4 ± 0.25 f	26.2 ± 0.20 e	24.7 ± 1.59 H
HD 3086	8.64 ± 0.19 d	10.6 ± 0.06 f	10.2 ± 0.13 de	10.3 ± 0.18 de	9.93 ± 0.24 E	14.5 ± 0.18 d	21.6 ± 0.40 def	15.5 ± 0.13 b	19.7 ± 0.11 a	17.8 ± 0.89 C	23.1 ± 0.14 d	32.2 ± 0.45 d	25.7 ± 0.07 c	30.0 ± 0.26 b	27.7 ± 1.08 DE
HD 2967	6.59 ± 0.02	11.5 ± 0.14 cd	11.1 ± 0.08 c	11.6 ± 0.14 bc	10.2 ± 0.63 D	19.1 ± 0.38 a	22.8 ± 0.28 bc	14.7 ± 0.38 bcd	16.8 ± 0.24 e	18.4 ± 0.92 BC	25.7 ± 0.36 c	34.3 ± 0.37 bc	25.8 ± 0.40 c	28.4 ± 0.37 cd	28.6 ± 1.07 C
DBW 88	7.53 ± 0.15	11.3 ± 0.20 de	10.8 ± 0.18 cd	10.5 ± 0.10 d	10.0 ± 0.45 DE	19.3 ± 0.05 a	21.7 ± 0.32 cdef	12.7 ± 0.15 e	18.6 ± 0.16 bc	18.1 ± 1.01 C	26.8 ± 0.20 abc	33.0 ± 0.51 cd	23.5 ± 0.28 e	29.0 ± 0.16 bc	28.1 ± 1.05 D
Mean (T)	8.17 ± 0.14 D	11.5 ± 0.19 A	10.3 ± 0.33 C	11.0 ± 0.24 B		16.1 ± 0.43 C	21.6 ± 0.25 A	14.4 ± 0.24 D	17.1 ± 0.31 B		24.3 ± 0.46 D	33.2 ± 0.36 A	24.6 ± 0.53 C	28.1 ± 0.44 B	

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**Uppercase letters showing significant differences among the main factor means (G and T), lowercase letters showing significant differences among interaction means (G×T)

Table S3. Effect of different temperature regimes on fresh and dry weight accumulation in seedlings of Indian wheat genotypes

Parameter→	Seedling fresh weight (mg)					Seedling dry weight (mg)					Percent dry weight in seedlings (%)				
Temperature (T)→ Genotype (G)↓	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)
WH 730	129 ± 1.57 c	246 ± 1.70 a	205 ± 2.53 a	204 ± 1.15 a	196 ± 12.7 A	14.1 ± 0.14 c	21.0 ± 0.29 a	20.8 ± 0.13 a	18.8 ± 0.32 a	18.7 ± 0.85 B	10.9 ± 0.03 a	8.55 ± 0.10 b	10.2 ± 0.15 bcd	9.19 ± 0.11 abc	9.71 ± 0.28 AB
WH 1123	123 ± 0.69 cd	192 ± 3.10 fg	163 ± 2.42 ef	170 ± 0.64 e	162 ± 7.54 E	12.8 ± 0.04 d	16.4 ± 0.16 bc	17.9 ± 0.27 b	16.6 ± 0.23 bc	15.9 ± 0.58 D	10.4 ± 0.02 abc	8.54 ± 0.21 b	11.0 ± 0.33 a	9.76 ± 0.13 ab	9.91 ± 0.28 A
WH 1021	115 ± 0.73 de	202 ± 2.16 de	173 ± 2.53 de	186 ± 0.12 d	169 ± 9.92 D	12.3 ± 0.28 de	15.1 ± 0.24 d	18.3 ± 0.46 b	16.9 ± 0.22 b	15.7 ± 0.69 D	10.7 ± 0.29 ab	7.44 ± 0.06 cd	10.6 ± 0.39 abc	9.12 ± 0.12 bc	9.47 ± 0.42 BC
IC 443661	110 ± 1.91 e	183 ± 1.97 g	151 ± 2.24 g	160 ± 0.70 f	151 ± 7.98 G	11.5 ± 0.16 ef	12.9 ± 0.27 ef	16.4 ± 0.22 c	14.9 ± 0.20 d	13.9 ± 0.58 G	10.4 ± 0.14 abc	7.03 ± 0.15 d	10.9 ± 0.15 ab	9.35 ± 0.14 abc	9.42 ± 0.45 BCD
EC 277134	172 ± 2.51 a	220 ± 2.25 b	188 ± 2.63 bc	195 ± 1.65 abc	194 ± 5.24 A	14.2 ± 0.13 c	15.4 ± 0.08 cd	15.9 ± 0.13 c	15.3 ± 0.29 d	15.2 ± 0.20 E	8.26 ± 0.07 f	7.02 ± 0.11 d	8.44 ± 0.13 f	7.84 ± 0.11 d	7.89 ± 0.17 F
WH 1105	153 ± 0.77 b	171 ± 1.91 h	159 ± 0.53 fg	161 ± 1.92 ef	161 ± 2.06 F	11.2 ± 0.17 f	12.4 ± 0.33 f	14.5 ± 0.25 d	12.4 ± 0.06 f	12.6 ± 0.37 H	7.32 ± 0.09 g	7.24 ± 0.23 cd	9.12 ± 0.13 ef	7.67 ± 0.09 d	7.84 ± 0.24 F
WH 711	165 ± 3.79 a	208 ± 1.07 cd	178 ± 1.24 d	190 ± 1.85 bcd	185 ± 4.94 B	14.6 ± 0.14 bc	17.3 ± 0.11 b	13.5 ± 0.22 de	13.9 ± 0.46 e	14.8 ± 0.46 F	8.88 ± 0.25 ef	8.28 ± 0.03 b	7.56 ± 0.10 g	7.29 ± 0.24 de	8.01 ± 0.20 F
WH 542	121 ± 1.14 cd	145 ± 2.80 i	133 ± 2.37 h	142 ± 1.06 g	135 ± 2.93 H	10.1 ± 0.17 g	13.6 ± 0.23 e	13.1 ± 0.04 e	12.4 ± 0.11 f	12.3 ± 0.41 I	8.32 ± 0.06 f	9.40 ± 0.30 a	9.82 ± 0.20 de	8.71 ± 0.06 c	9.06 ± 0.19 DE
PBW 725	123 ± 0.73 cd	198 ± 1.23 ef	179 ± 0.99 cd	187 ± 2.72 cd	172 ± 8.82 C	12.1 ± 0.05 def	16.6 ± 0.05 b	13.5 ± 0.16 de	12.4 ± 0.03 f	13.6 ± 0.54 G	9.81 ± 0.09 cd	8.37 ± 0.08 b	7.56 ± 0.11 g	6.62 ± 0.09 e	8.09 ± 0.36 F
HD 3086	118 ± 1.43 de	190 ± 1.10 fg	165 ± 0.59 ef	182 ± 2.24 d	164 ± 8.44 E	11.8 ± 0.16 ef	15.1 ± 0.15 d	16.5 ± 0.33 c	15.7 ± 0.11 cd	14.8 ± 0.55 F	10.0 ± 0.16 bcd	7.93 ± 0.05 bc	10.0 ± 0.17 cd	8.64 ± 0.12 c	9.14 ± 0.27 CDE
HD 2967	168 ± 2.79 a	216 ± 2.57 bc	193 ± 2.55 b	198 ± 2.67 ab	194 ± 5.28 A	15.8 ± 0.09 a	21.4 ± 0.22 a	20.8 ± 0.24 a	19.7 ± 0.16 a	19.4 ± 0.66 A	9.43 ± 0.11 de	9.94 ± 0.14 a	10.8 ± 0.15 ab	9.91 ± 0.05 a	10.0 ± 0.15 A
DBW 88	165 ± 1.23 a	223 ± 2.47 b	193 ± 2.69 b	200 ± 2.13 a	195 ± 6.32 A	15.5 ± 0.20 ab	21.3 ± 0.17 a	16.4 ± 0.26 c	15.3 ± 0.09 d	17.1 ± 0.74 C	9.42 ± 0.19 de	9.53 ± 0.14 a	8.49 ± 0.11 f	7.64 ± 0.12 d	8.77 ± 0.24 E
Mean (T)	138 ± 3.88 D	199 ± 4.30 A	177 ± 3.33 C	181 ± 3.11 B		13.0 ± 0.30 C	16.5 ± 0.52 A	16.5 ± 0.43 A	15.3 ± 0.39 B		9.49 ± 0.18 A	8.27 ± 0.16 C	9.53 ± 0.21 A	8.48 ± 0.17 B	

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Table S4. Effect of different temperature regimes on seedling vigour index-I and seedling vigour index-II of Indian wheat genotypes

Parameter→	Seedling vigour index-I					Seedling vigour index-II				
Temperature (T)→ Genotype (G)↓	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)
WH 730	2538 ± 32 bcd	3439 ± 40 ab	2920 ± 75 a	2971 ± 40 a	2967 ± 98.7 A	1372 ± 28 abc	2047 ± 12 a	1951 ± 51 a	1744 ± 43 a	1779 ± 80 A
WH 1123	1994 ± 18 g	2844 ± 66 e	2223 ± 43 bcd	2087 ± 36 ghi	2287 ± 102 G	1258 ± 7 bcd	1602 ± 2 bc	1687 ± 36 b	1529 ± 45 b	1519 ± 50 B
WH 1021	2677 ± 24 ab	3353 ± 24 abc	2454 ± 63 b	2468 ± 89 cde	2738 ± 113 C	1216 ± 24 cde	1455 ± 29 cd	1611 ± 57 bc	1376 ± 32bc	1415 ± 46 CD
IC 443661	2333 ± 14 de	2892 ± 50 e	2438 ± 43 b	1959 ± 78 hi	2405 ± 103 F	1118 ± 18 def	1245 ± 21 e	1517 ± 3 cd	1222 ± 51 cd	1275 ± 46 E
EC 277134	2584 ± 28 abc	3579 ± 11 a	2352 ± 42 bc	2743 ± 96 ab	2815 ± 141 B	1400 ± 12 ab	1502 ± 6 c	1466 ± 25 cd	1398 ± 74 b	1441 ± 22 C
WH 1105	2236 ± 29 ef	3243 ± 44 bcd	1835 ± 29 e	2139 ± 7 fgh	2363 ± 160 F	1091 ± 11 ef	1208 ± 27 e	1159 ± 42 fg	934 ± 17 f	1098 ± 33 G
WH 711	2783 ± 10 a	3364 ± 37 abc	1831 ± 37 e	2369 ± 69 def	2587 ± 170 D	1445 ± 12 a	1700 ± 13 b	1255 ± 54 ef	1196 ± 19 de	1399 ± 61 CD
WH 542	2032 ± 13 fg	3182 ± 6 cd	2150 ± 46 cd	2394 ± 61 de	2440 ± 136 EF	989 ± 16 f	1319 ± 28 de	1164 ± 20 fg	1048 ± 38 ef	1130 ± 40 FG
PBW 725	1953 ± 82 g	3062 ± 31 de	1495 ± 21 f	1887 ± 73 i	2099 ± 177 H	1144 ± 24 def	1556 ± 23 bc	1041 ± 14 g	892 ± 27 f	1158 ± 75 F
HD 3086	2266 ± 10 ef	3139 ± 68 cd	2294 ± 31 bc	2657 ± 69 bc	2589 ± 109 D	1153 ± 21 de	1469 ± 6 cd	1472 ± 40 cd	1393 ± 33 b	1372 ± 41 D
HD 2967	2402± 71 cde	3236 ± 68 bcd	2344 ± 74 bc	2567 ± 47 bcd	2638 ± 111 D	1478 ± 30 a	2021 ± 50 a	1893 ± 27 a	1776 ± 36 a	1792 ± 63 A
DBW 88	2570 ± 14 abcd	3150 ± 14 cd	2007 ± 90 de	2303 ± 31 efg	2507 ± 129 E	1488 ± 23 a	2030 ± 38 a	1400 ± 78 de	1208 ± 14 d	1532 ± 94 B
Mean (T)	2364± 46 B	3207 ± 36 A	2195 ± 61 C	2379 ± 55 B		1263 ± 28 D	1596 ± 49 A	1468 ± 48 B	1310 ± 47 C	

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**Uppercase letters showing significant differences among the main factor means (G and T), lowercase letters showing significant differences among interaction means (G×T)

Table S5. Effect of different temperature regimes on the activity of different antioxidant enzymes in seedlings of Indian wheat genotypes

Parameter→	Catalase activity (Units min ⁻¹ g ⁻¹ fresh weight)					Peroxidase activity (Units min ⁻¹ g ⁻¹ fresh weight)					Superoxide dismutase activity (Units min ⁻¹ g ⁻¹ fresh weight)				
Temperature (T)→ Genotype (G)↓	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)	20°C (Mean ± SE)	25°C (Mean ± SE)	30°C (Mean ± SE)	35°C (Mean ± SE)	Mean (G) (Mean ± SE)
WH 730	0.545 ± 0.006 c	0.625 ± 0.003 b	0.510 ± 0.011 bc	0.863 ± 0.014 ef	0.636 ± 0.042 B	48.44 ± 0.15 fg	54.07 ± 0.32 cde	59.79 ± 0.36 b	49.90 ± 0.22 a	53.05 ± 1.33 C	11.30 ± 0.26 f	27.17 ± 0.13 g	42.49 ± 0.15 fg	23.49 ± 0.25 e	26.11 ± 3.36 I
WH 1123	0.507 ± 0.008 d	0.607 ± 0.007 b	0.464 ± 0.009 de	0.857 ± 0.008 f	0.608 ± 0.046 D	47.69 ± 0.60 g	55.53 ± 0.68 bcd	58.75 ± 0.41 b	43.69 ± 0.28 cde	51.41 ± 1.82 E	11.28 ± 0.05 f	52.46 ± 0.55 b	60.42 ± 0.56 c	29.86 ± 0.70 d	38.51 ± 5.83 CD
WH 1021	0.213 ± 0.002 f	0.286 ± 0.001 f	0.432 ± 0.001 ef	0.912 ± 0.009 bcd	0.461 ± 0.082 G	54.01 ± 0.03 ab	56.93 ± 0.24 b	59.02 ± 0.15 b	46.22 ± 0.62 b	54.04 ± 1.47 B	30.53 ± 0.40 c	56.32 ± 0.93 a	49.48 ± 0.53 e	17.00 ± 0.08 g	38.33 ± 4.69 D
IC 443661	0.207 ± 0.001 f	0.304 ± 0.004 ef	0.541 ± 0.011 b	0.893 ± 0.005 cde	0.486 ± 0.080 F	54.54 ± 0.26 ab	60.47 ± 0.26 a	67.64 ± 0.20 a	50.28 ± 0.21 a	58.23 ± 1.97 A	33.07 ± 0.37 ab	39.11 ± 0.48 d	55.80 ± 0.77 d	36.05 ± 0.48 c	41.01 ± 2.66 B
EC 277134	0.636 ± 0.008 ab	0.723 ± 0.002 a	0.407 ± 0.004 f	0.974 ± 0.018 a	0.685 ± 0.061 A	44.14 ± 0.08 h	53.28 ± 0.53 e	55.60 ± 0.28 cd	45.78 ± 0.20 bc	49.70 ± 1.47 F	34.08 ± 0.45 a	42.11 ± 0.39 c	69.56 ± 0.90 a	15.93 ± 0.22 g	40.42 ± 5.83 B
WH 1105	0.494 ± 0.003 d	0.503 ± 0.004 c	0.429 ± 0.009 ef	0.798 ± 0.002 g	0.556 ± 0.043 E	52.75 ± 0.40 bc	56.88 ± 0.49 b	56.31 ± 0.43 c	42.08 ± 0.38 ef	52.00 ± 1.80 DE	19.60 ± 0.15 e	42.86 ± 0.54 c	35.25 ± 0.45 h	35.60 ± 0.24 c	33.33 ± 2.56 G
WH 711	0.297 ± 0.002 e	0.314 ± 0.005 ef	0.496 ± 0.002 cd	0.879 ± 0.012 def	0.496 ± 0.071 F	53.23 ± 0.42 b	55.99 ± 0.45 bc	53.96 ± 0.87 de	44.49 ± 0.17 bcd	51.92 ± 1.35 DE	11.59 ± 0.06 f	38.45 ± 0.46 d	40.97 ± 0.28 g	20.40 ± 0.18 f	27.85 ± 3.71 H
WH 542	0.483 ± 0.006 d	0.530 ± 0.009 c	0.529 ± 0.004 bc	0.942 ± 0.012 ab	0.621 ± 0.056 C	50.58 ± 0.14 de	53.69 ± 0.44 de	49.83 ± 0.41 f	40.45 ± 0.26 f	48.64 ± 1.50 G	17.47 ± 0.00 e	33.61 ± 0.40 e	69.32 ± 1.34 a	36.07 ± 0.46 c	39.11 ± 5.69 C
PBW 725	0.644 ± 0.008 a	0.421 ± 0.002 d	0.729 ± 0.010 a	0.937 ± 0.006 b	0.683 ± 0.056 A	51.13 ± 0.48 cd	53.93 ± 0.61 cde	44.89 ± 0.48 g	36.29 ± 0.27 gh	46.56 ± 2.05 I	18.95 ± 0.06 e	29.02 ± 0.34 fg	62.65 ± 0.52 c	31.36 ± 0.25 d	35.49 ± 4.93 F
HD 3086	0.547 ± 0.011 c	0.334 ± 0.001 e	0.711 ± 0.009 a	0.923 ± 0.013 bc	0.629 ± 0.065 C	48.62 ± 0.73 efg	50.79 ± 0.78 f	45.09 ± 0.27 g	35.06 ± 0.33 h	44.89 ± 1.83 J	31.22 ± 0.46 bc	38.23 ± 0.64 d	53.63 ± 1.16 d	13.35 ± 0.03 h	34.11 ± 4.37 F
HD 2967	0.607 ± 0.006 b	0.598 ± 0.011 b	0.462 ± 0.003 de	0.907 ± 0.006 bcd	0.643 ± 0.049 B	55.79 ± 0.68 a	57.41 ± 0.34 b	52.63 ± 0.74 e	43.39 ± 0.28 de	52.31 ± 1.65 D	34.55 ± 0.29 a	41.85 ± 0.94 c	65.81 ± 0.52 b	55.27 ± 0.59 a	49.37 ± 3.64 A
DBW 88	0.508 ± 0.005 d	0.536 ± 0.006 c	0.420 ± 0.002 f	0.741 ± 0.006 h	0.551 ± 0.035 E	50.40 ± 0.90 def	54.01 ± 0.30 cde	49.29 ± 0.30 f	37.65 ± 0.43 g	47.84 ± 1.86 H	26.02 ± 0.23 d	30.76 ± 0.26 f	44.35 ± 0.45 f	48.36 ± 0.71 b	37.37 ± 2.79 E
Mean (T)	0.474 ± 0.025 C	0.482 ± 0.024 C	0.511 ± 0.017 B	0.885 ± 0.011 A		50.94 ± 0.55 C	55.25 ± 0.42 A	54.40 ± 1.07 B	42.94 ± 0.80 D		23.30 ± 1.51 D	39.33 ± 1.43 B	54.14 ± 1.90 A	30.23 ± 2.11 C	

*The significant differences among temperatures ($p \leq 0.05$) are indicated by different letters

**Uppercase letters showing significant differences among the main factor means (G and T), lowercase letters showing significant differences among interaction means (G×T)

Table S6. PC loadings for seed germination, seedling growth and biochemical parameters of wheat genotypes

Parameters	PC1	PC2	PC3
Eigen value	5.02	2.62	1.91
% Variation	38.59	20.16	14.70
% Cumulative variation	38.59	58.75	73.45
Standard germination	-0.169	-0.445	-0.220
Speed of germination	-0.124	-0.277	-0.154
Shoot length	-0.328	0.224	0.140
Root length	-0.354	0.068	-0.364
Seedling length	-0.400	0.145	-0.208
Seedling fresh weight	-0.336	0.285	0.092
Seedling dry weight	-0.332	0.057	0.432
Percent dry weight in seedling	0.009	-0.323	0.433
Seedling vigour index-I	-0.406	-0.044	-0.257
Seedling vigour index-II	-0.368	-0.090	0.320
Catalase activity	0.067	0.519	0.104
Peroxidase activity	-0.177	-0.424	0.113
Superoxide dismutase activity	-0.063	-0.041	0.398

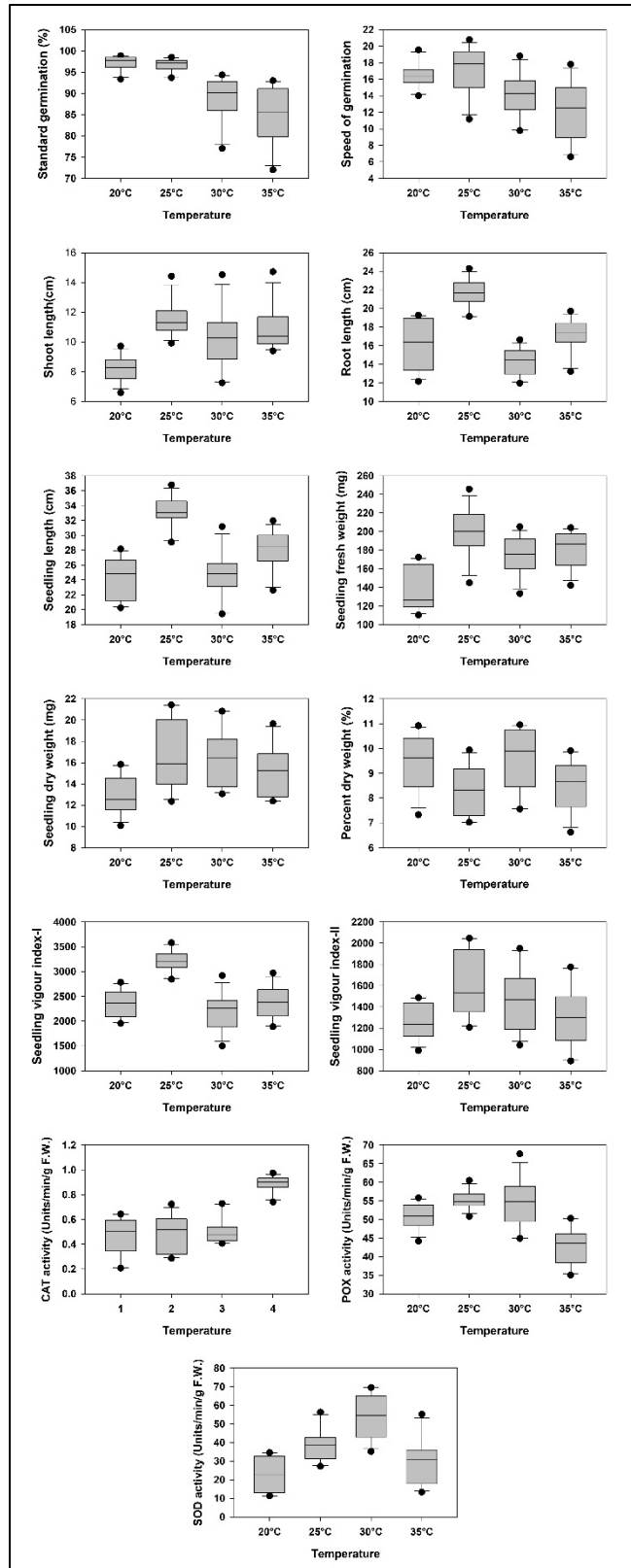


Figure S1. Boxplot distribution of germination characteristics and biochemical parameters at four temperature regimes