

Supplementary Table S3 | Combined adjusted mean values for 18 morpho-physiological and yield contributing traits recorded in 96 accessions of bread wheat over two years 2018-19 and 2019-20 under non-stressed environment.

Sl. No	Accession	CC	CTD (°C)	NDVI	MSI (%)	PW	LR	DA (days)	GFP (days)	PH (cm)	PL (cm)	FLA (cm ²)	SL (cm)	NSS	GL (mm)	GW (mm)	TGW (g)	HI (%)	GY (g/m ²)
1.	Raj3765	22.4	8.6	0.635	56.3	5.8	5.2	91.6	35.1	99.9	38.1	42.1	11.7	19.0	7.24	3.52	43.0	42.2	552.5
2.	HD2932	25.4	8.8	0.625	69.3	7.9	6.9	90.8	35.5	98.3	35.6	30.6	11.2	19.8	6.59	3.69	41.7	44.8	614.7
3.	WR544	25.4	7.7	0.580	64.6	5.3	4.8	83.4	38.2	105.2	44.5	42.6	11.8	18.7	6.88	3.67	44.6	44.4	655.1
4.	HD2967	31.9	9.2	0.658	64.0	7.8	6.7	95.6	33.7	99.9	33.7	33.0	10.9	19.7	6.48	3.65	44.9	45.8	665.2
5.	EC574731	32.8	2.7	0.617	69.3	6.5	5.0	94.0	30.0	100.2	36.9	41.3	10.5	20.7	7.44	3.42	45.2	41.4	549.2
6.	EC576707	24.0	5.0	0.557	76.2	4.0	5.0	90.5	32.0	134.0	50.8	33.7	11.5	20.7	6.58	3.27	33.8	37.0	579.2
7.	IC252725	27.4	4.0	0.620	66.5	7.0	7.0	90.5	36.5	104.9	39.7	38.1	12.9	19.5	6.71	3.58	46.4	40.5	598.5
8.	IC252816	20.0	4.7	0.582	72.3	4.0	4.5	91.5	35.5	138.5	48.5	37.3	10.5	19.4	7.23	3.25	39.2	33.5	554.5
9.	IC277741	23.8	5.6	0.673	77.5	5.0	4.0	98.5	34.5	133.9	41.7	54.0	13.3	22.4	7.03	3.25	38.0	30.3	802.5
10.	IC536081	22.8	5.7	0.614	67.6	7.5	4.5	92.0	32.0	117.5	46.8	48.2	11.9	21.5	6.90	3.40	41.3	39.4	499.2
11.	IC279617	30.0	5.8	0.650	72.1	7.5	6.5	92.0	33.5	100.7	35.1	50.1	12.5	21.2	6.66	3.41	36.2	38.2	482.5
12.	IC535176	26.9	6.3	0.624	77.1	4.5	5.0	92.5	33.5	122.2	54.1	50.9	12.7	22.5	7.23	3.67	47.1	36.4	593.9
13.	IC401976	30.2	5.8	0.652	65.2	8.0	6.0	92.0	36.0	100.9	38.4	77.0	15.1	24.0	7.42	3.77	49.7	36.8	510.5
14.	IC539221	30.9	6.2	0.637	67.1	1.5	4.5	91.5	33.5	124.9	46.3	65.5	14.1	21.9	7.12	3.60	51.8	36.2	593.2
15.	IC539287	20.2	6.3	0.648	63.9	2.0	2.5	88.5	32.5	126.2	39.9	38.2	8.7	20.4	8.76	2.84	39.3	29.2	353.2
16.	IC539531	34.2	5.7	0.635	77.1	7.0	6.0	89.0	37.0	90.5	35.8	61.9	12.3	23.0	7.10	3.64	48.5	42.7	517.2
17.	IC443661	31.0	7.3	0.697	71.8	6.0	6.5	98.5	34.0	100.5	39.0	52.8	13.9	21.9	6.77	3.52	41.1	37.1	523.2
18.	EC534487	25.5	6.6	0.632	67.3	7.0	6.0	94.0	33.0	106.4	32.7	39.3	11.5	22.2	6.80	3.64	47.7	44.2	609.9
19.	IC416018	26.5	6.7	0.602	60.6	6.0	9.0	88.0	36.0	89.5	33.4	34.2	11.1	19.0	7.37	3.47	47.1	50.6	605.9
20.	IC416075	24.0	5.8	0.584	57.7	6.5	6.0	87.5	36.5	89.4	35.8	35.2	10.4	18.9	7.30	3.61	46.6	39.4	483.2
21.	IC416078	28.9	7.0	0.603	63.2	5.5	7.5	90.0	34.5	89.2	30.6	39.3	11.6	21.9	6.65	3.29	36.9	38.9	530.5
22.	IC416019	27.4	7.0	0.614	70.7	6.5	9.5	88.5	35.5	88.7	29.5	33.5	10.7	18.2	7.38	3.53	49.1	43.2	542.5
23.	IC446713	22.4	6.7	0.610	63.2	4.5	4.0	91.5	35.5	128.5	52.9	36.1	10.2	18.2	6.79	3.47	46.6	37.8	545.2
24.	IC075240	29.4	6.6	0.627	58.6	4.5	4.0	92.0	35.0	126.0	53.5	38.6	11.1	18.9	6.93	3.59	44.7	33.2	501.9
25.	EC178071	28.7	5.1	0.652	72.7	6.0	4.5	96.0	31.0	100.2	42.7	41.9	13.2	20.7	7.01	3.49	49.0	42.6	462.7
26.	IC542509	25.7	4.5	0.722	75.8	7.0	4.5	119.0	24.0	109.4	34.9	59.8	15.6	21.2	6.98	2.84	30.0	21.6	300.0

27.	IC252348	28.3	5.7	0.643	69.0	6.5	4.5	95.0	32.5	123.5	44.9	45.0	12.8	20.2	7.22	3.46	46.9	35.3	488.0
28.	IC543293	30.8	5.9	0.682	66.7	8.0	5.0	98.5	30.5	103.5	34.3	33.2	11.1	20.9	6.46	3.50	37.0	45.3	522.7
29.	IC128454	30.7	5.6	0.647	69.8	7.0	5.0	99.0	28.5	111.9	40.5	39.8	12.6	22.0	6.74	3.42	34.9	37.9	546.0
30.	IC416055	23.0	4.7	0.632	77.1	7.5	9.0	92.0	35.0	99.2	33.2	21.9	11.1	20.7	6.43	3.25	32.9	42.8	490.7
31.	IC111800	36.2	5.5	0.635	72.5	7.5	6.5	91.5	35.0	101.2	35.0	35.9	12.3	20.2	7.11	3.37	35.0	32.5	466.0
32.	IC111931	18.9	4.4	0.574	72.0	6.5	6.0	92.0	34.0	104.5	43.6	34.4	12.6	19.7	7.01	3.50	40.7	38.7	402.0
33.	EC576317	22.0	4.5	0.570	68.2	4.5	4.5	86.5	37.5	123.4	52.6	26.7	9.6	16.0	6.34	3.59	40.7	30.1	422.7
34.	EC577013	21.9	5.3	0.652	70.8	4.5	5.0	98.5	29.5	150.9	60.1	37.7	11.8	19.2	5.97	3.40	35.8	27.7	441.4
35.	EC414149	36.5	2.6	0.662	68.4	7.5	6.0	90.0	34.5	90.7	31.0	40.3	9.0	19.7	6.83	4.02	50.0	35.2	422.0
36.	IC252653	33.1	4.1	0.597	66.9	7.5	6.0	91.5	33.5	115.4	43.7	34.0	10.7	19.7	6.32	3.54	37.5	41.5	613.4
37.	IC252739	30.7	3.8	0.667	66.3	6.0	5.0	93.0	33.5	99.7	38.1	38.8	12.1	21.2	6.87	3.63	36.3	41.2	608.7
38.	IC335792	22.4	5.4	0.627	72.1	8.5	8.0	92.0	32.5	84.9	29.4	25.9	9.4	20.0	6.35	3.35	34.0	46.3	593.4
39.	IC543425	28.1	5.6	0.634	69.7	8.5	9.0	92.5	34.5	103.7	38.9	28.9	12.0	22.7	6.40	3.51	39.7	38.4	508.0
40.	IC402055	25.2	6.0	0.655	71.3	2.0	3.5	90.0	36.0	127.4	46.3	35.8	11.0	19.5	7.19	3.46	42.9	31.4	412.7
41.	IC265318	32.9	5.0	0.595	70.0	6.5	7.0	87.5	37.0	98.9	35.6	33.4	11.9	18.0	6.95	3.44	38.5	42.0	508.0
42.	IC445449	28.6	5.4	0.705	63.0	5.5	7.0	99.5	33.5	101.7	43.0	44.6	12.3	21.2	6.67	3.45	35.6	37.3	517.4
43.	IC528965	31.1	5.6	0.629	76.2	10.0	7.0	97.0	30.5	123.2	39.5	37.9	12.2	21.7	6.93	3.35	41.4	36.2	541.4
44.	IC549437	26.3	4.3	0.710	76.0	1.0	7.5	99.0	30.0	98.9	30.2	27.3	11.9	17.7	7.06	3.40	42.0	36.3	501.4
45.	IC144911	28.1	4.4	0.592	52.8	8.5	6.5	92.0	33.0	108.5	38.8	35.9	11.5	21.4	6.44	3.39	35.0	39.0	648.9
46.	IC542578	21.2	4.4	0.614	53.6	6.5	6.5	93.0	32.0	106.5	36.3	29.8	10.4	20.2	6.81	3.55	43.2	42.7	566.9
47.	IC535704	22.7	3.9	0.617	53.5	6.0	5.5	87.5	36.0	103.9	37.6	34.6	11.1	18.2	6.55	3.57	41.3	39.2	576.9
48.	EC542533	24.3	4.4	0.645	55.5	4.5	5.0	93.5	32.0	104.5	32.7	35.2	11.8	21.0	6.40	3.18	31.8	41.0	524.2
49.	IC542652	23.2	3.1	0.609	58.5	7.0	5.5	93.0	34.5	106.0	38.9	42.0	11.0	18.7	6.75	3.31	32.9	30.5	448.9
50.	IC536468	24.2	4.6	0.590	53.2	5.0	6.0	90.0	34.0	107.3	38.4	30.3	10.7	20.2	6.71	3.59	45.3	40.5	586.2
51.	IC536483	28.4	4.9	0.672	61.1	6.5	5.5	97.0	31.5	94.0	33.7	37.8	11.2	22.2	6.31	3.48	37.3	41.5	564.2
52.	EC574735	24.8	3.6	0.650	64.4	2.5	7.0	94.0	33.0	98.9	39.1	28.2	11.1	19.4	6.38	3.42	38.5	38.9	565.5
53.	IC531191	27.5	3.0	0.644	57.8	5.5	6.0	93.0	35.0	89.5	32.5	30.8	11.6	21.2	6.56	3.29	34.6	40.1	557.5
54.	IC333095	24.7	4.2	0.607	61.5	7.5	6.0	91.0	34.5	102.2	39.2	32.3	12.2	20.7	6.53	3.84	38.6	42.7	566.9
55.	IC572925	21.3	3.6	0.592	58.0	5.5	5.0	88.0	33.5	99.5	34.6	33.1	11.0	17.4	7.15	3.65	42.1	45.4	634.2

56.	IC252867	29.8	4.1	0.542	57.2	8.5	5.0	84.0	37.5	107.9	40.8	37.9	11.5	18.9	6.98	3.61	44.6	42.8	597.5
57.	IC524299	29.8	4.3	0.615	66.7	6.5	4.5	88.0	37.0	106.2	34.7	33.3	11.1	21.2	7.08	3.62	50.5	43.4	709.5
58.	IC573461	38.5	4.3	0.594	50.0	6.0	5.0	87.5	36.5	99.4	38.4	40.7	11.3	18.7	7.31	3.81	52.2	42.7	654.9
59.	IC252444	35.0	4.8	0.700	58.9	1.0	5.0	95.5	33.5	105.5	32.4	36.0	12.6	19.4	7.19	3.13	42.6	34.4	430.2
60.	IC529207	32.2	4.7	0.680	56.5	10.0	7.0	102.0	28.0	117.5	34.5	40.8	13.5	22.4	6.44	3.44	39.3	36.1	604.9
61.	IC290191	25.2	3.4	0.632	55.7	4.0	4.5	93.5	32.5	111.4	45.4	35.1	12.3	20.5	6.87	3.47	39.7	38.2	522.2
62.	IC112258	26.4	5.5	0.637	55.5	6.0	6.5	95.0	31.5	113.4	38.6	42.1	12.4	21.4	7.24	2.97	39.3	38.9	620.9
63.	IC627711	25.3	6.4	0.608	56.8	4.5	3.5	91.5	35.5	131.5	49.3	38.9	11.8	18.9	7.27	3.43	44.2	32.5	524.9
64.	IC443653	24.2	6.1	0.635	52.0	7.0	4.0	91.0	35.5	86.0	36.6	33.7	10.2	16.9	7.04	3.55	39.3	36.5	599.5
65.	IC252431	25.5	7.1	0.682	73.2	1.5	6.5	95.5	32.5	108.0	33.9	34.7	10.7	20.2	6.50	3.50	37.7	41.0	739.5
66.	IC252619	24.5	6.8	0.650	72.6	7.5	6.5	93.0	35.0	102.9	39.1	37.0	13.0	21.9	6.85	3.63	40.2	45.9	659.5
67.	IC529242	30.3	7.4	0.672	69.8	3.0	4.5	94.5	33.5	105.9	40.4	36.8	11.2	22.0	6.88	3.40	40.5	39.9	600.9
68.	IC536162	22.4	5.6	0.598	64.7	8.0	6.5	85.5	37.5	97.5	35.7	31.6	10.3	19.4	6.79	3.61	40.3	41.7	570.9
69.	IC536050	21.8	6.5	0.579	71.1	6.5	5.5	84.5	36.5	100.9	33.4	27.9	9.8	20.0	6.97	3.44	41.4	44.6	538.9
70.	IC252999	24.9	6.3	0.592	67.7	7.0	5.5	85.0	37.5	101.2	41.0	36.4	11.7	19.5	7.00	3.58	39.6	41.4	627.5
71.	IC443640	20.9	6.7	0.592	66.3	6.0	5.5	90.0	33.0	106.7	35.8	39.0	11.2	18.7	7.21	3.60	41.8	41.6	625.5
72.	IC445365	26.9	8.8	0.645	71.6	6.5	6.0	93.0	33.5	101.4	39.8	44.5	12.9	21.5	6.91	3.53	38.3	39.7	601.5
73.	IC303071	24.9	8.6	0.629	65.2	9.0	6.0	91.0	34.0	100.9	34.2	40.0	11.5	20.0	7.15	3.48	39.0	34.3	441.5
74.	IC252414	32.7	8.3	0.594	70.1	7.5	5.0	86.5	36.5	107.4	39.2	38.9	13.7	22.0	6.94	3.50	46.6	43.3	605.5
75.	IC372643	26.7	8.5	0.583	76.4	7.5	6.0	89.0	37.5	87.5	36.1	33.3	11.5	19.5	7.10	3.52	39.8	47.3	518.9
76.	IC252620	24.9	8.4	0.625	74.8	7.0	8.0	91.5	34.0	88.4	31.5	25.6	11.1	20.7	6.54	3.33	35.9	45.7	542.2
77.	IC240818	24.2	7.2	0.612	71.7	7.5	5.5	91.0	34.5	102.7	39.8	41.6	12.9	20.7	6.69	3.61	40.8	40.2	575.5
78.	IC401940	28.5	8.1	0.558	73.9	1.5	5.5	86.0	38.0	98.2	39.7	34.9	12.8	20.4	7.61	3.57	47.8	45.5	528.9
79.	IC443694	20.5	8.2	0.613	63.1	7.0	7.5	91.5	36.0	108.0	40.8	26.9	11.8	18.9	6.49	3.68	37.7	37.4	630.9
80.	IC542547	17.4	8.5	0.632	74.4	5.5	5.0	94.5	32.5	105.9	40.7	29.8	10.9	21.2	6.40	3.24	31.7	39.5	591.5
81.	EC190962	26.6	9.7	0.583	74.4	5.5	6.0	88.0	34.5	102.7	38.9	33.0	12.5	20.2	7.02	3.62	42.2	43.6	594.9
82.	EC576066	32.6	8.8	0.597	69.7	8.5	5.5	94.5	31.0	110.7	36.8	36.1	13.0	21.5	6.95	3.43	40.4	43.5	646.2
83.	EC573527	32.1	7.4	0.640	77.5	6.0	6.5	92.5	34.5	90.0	36.4	32.2	11.5	19.7	6.63	3.50	36.4	43.4	462.9
84.	EC576585	23.1	8.2	0.607	69.7	6.5	5.0	85.0	36.5	131.9	53.2	37.2	11.8	18.7	7.08	3.68	48.5	42.3	637.5

85.	EC190899	30.3	6.8	0.572	56.9	6.5	6.0	86.5	36.5	101.0	43.1	34.2	11.9	18.0	7.21	3.62	41.1	44.3	732.4
86.	EC574849	22.5	7.9	0.624	69.7	6.5	5.5	88.0	37.0	105.9	40.4	41.8	12.1	20.4	7.14	3.73	46.6	38.2	507.0
87.	EC576175	24.5	8.9	0.603	66.6	4.0	7.0	92.0	34.5	131.4	47.6	29.6	10.1	19.0	7.17	3.52	44.4	36.6	661.7
88.	IC582706	30.7	8.3	0.599	66.4	7.5	5.5	92.0	34.0	103.9	36.3	38.3	12.4	20.5	6.80	3.50	41.5	37.3	581.7
89.	IC393878	24.0	9.0	0.560	70.5	7.0	6.0	89.5	39.5	106.0	43.8	30.7	11.9	18.7	7.53	3.76	49.3	46.2	633.7
90.	IC542544	29.3	8.3	0.637	71.9	5.5	6.0	94.0	35.5	92.5	35.9	29.1	9.4	20.0	6.11	3.30	34.0	40.3	435.7
91.	IC566223	26.0	8.7	0.720	68.0	8.0	6.0	96.5	35.0	120.5	37.9	41.3	13.4	22.4	7.17	3.39	40.4	40.1	604.3
92.	IC342668	24.9	8.6	0.595	68.0	7.0	7.0	88.0	36.5	107.5	33.8	23.5	11.9	20.4	7.01	3.51	51.1	41.5	582.4
93.	IC535717	32.0	6.9	0.574	64.6	8.0	5.5	86.0	36.0	108.5	40.5	37.2	11.8	20.0	6.95	3.52	43.4	42.1	649.0
94.	IC553599	25.2	8.6	0.582	68.0	6.0	4.0	88.0	35.5	98.9	35.1	41.9	11.4	18.5	6.76	3.58	42.4	41.9	685.7
95.	EC277134	26.5	8.8	0.597	66.4	9.0	8.0	90.5	35.0	103.0	35.5	25.9	11.1	18.4	7.24	3.65	48.0	49.4	680.4
96.	CUO/79/ Pru11A	29.0	9.5	0.600	63.7	9.0	7.5	93.0	33.0	112.2	42.3	38.3	12.9	20.2	7.32	3.68	52.1	42.3	741.0

CC-Chlorophyll content, **CTD**-Canopy temperature depression, **NDVI**-Normalized difference vegetative index, **MSI**-Membrane stability index, **PW**-Plant waxiness, **LR**-Leaf rolling, **DA**-Days to 50 % anthesis, **GFP**-Grain filling Period, **PH**-Plant height, **PL**-Peduncle length, **FLA**-Flag leaf area, **SL**-Spike length, **NSS**-Number of spikelets per spike, **GL**-Grain length, **GW**-Grain width, **TGW**-Thousand grain weight, **HI**-Harvest index, **GY**-Grain yield.