

Supplementary Data

Genotypic characterization of elite Indian wheat genotypes using molecular markers and their pedigree analysis

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Supplementary data 1: Details of SSR and STS markers utilized for diversity analysis.

Sl. No.	SSR Marker*	Primer Details
1.	GWM 2	CTG CAA GCC TGT GAT CAA CT CAT TCT CAA ATG ATC GAA CA
2.	GWM 5	GCC AGC TAC CTC GAT ACA ACT C AGA AAG GGC CAG GCT AGT AGT
3.	GWM 44	GTT GAG CTT TTC AGT TCG GC ACT GGC ATC CAC TGA GCT G
4.	GWM 46	GCA CGT GAA TGG ATT GGA C TGA CCC AAT AGT GGT GGT CA
5.	GWM 111	TCT GTA GGC TCT CTC CGA CTG ACC TGA TCA GAT CCC ACT CG
6.	GWM 149	CAT TGT TTT CTG CCT CTA GCC CTA GCA TCG AAC CTG AAC AAG
7.	GWM 160	TTC AAT TCA GTC TTG GCT TGG CTG CAG GAA AAA AAG TAC ACC C
8.	GWM 165	TGC AGT GGT CAG ATG TTT CC CTT TTC TTT CAG ATT GCG CC
9.	GWM 186	GCA GAG CCT GGT TCA AAA AG CGC CTC TAG CGA GAG CTA TG 5J
10.	GWM 190	GTG CTT GCT GAG CTA TGA GTC GTG CCA CGT GGT ACC TTT G
11.	GWM 194	GAT CTG CTC TAC TCT CCT CC CGA CGC AGA ACT TAA ACA AG
12.	GWM 219	GAT GAG CGA CAC CTA GCC TC GGG GTC CGA GTC CAC AAC
13.	GWM 265	TGT TGC GGA TGG TCA CTA TT GAG TAC ACA TTT GGC CTC TGC
14.	GWM 273	ATT GGA CGG ACA GAT GCT TT AGC AGT GAG GAA GGG GAT C
15.	GWM 312	ATC GCA TGA TGC ACG TAG AG ACA TGC ATG CCT ACC TAA TGG
16.	GWM 325	TTT CTT CTG TCG TTC TCT TCC C TTT TTA CGC GTC AAC GAC G
17.	GWM 337	CCT CTT CCT CCC TCA CTT AGC TGC TAA CTG GCC TTT GCC
18.	GWM 374	ATA GTG TGT TGC ATG CTG TGT G TCT AAT TAG CGT TGG CTG CC
19.	GWM 389	ATC ATG TCG ATC TCC TTG ACG TGC CAT GCA CAT TAG CAG AT

20.	GWM 408	TCG ATT TAT TTG GGC CAC TG GTA TAA TTC GTT CAC AGC ACG C
21.	GWM 428	CGA GGC AGC GAG GAT TT TTC TCC ACT AGC CCC GC
22.	GWM 437	GAT CAA GAC TTT TGT ATC TCT C GAT GTC CAA CAG TTA GCT TA
23.	GWM 458	AAT GGC AAT TGG AAG ACA TAG C TTC GCA ATG TTG ATT TGG C
24.	GWM 493	TTC CCA TAA CTA AAA CCG CG GGA ACA TCA TTT CTG GAC TTT G
25.	GWM484	ACA TCG CTC TTC ACA AAC CC AGT TCC GGT CAT GGC TAG G
26.	WMC 54	TATTGTGCAATCGCAGCATCTC TGCGACATTGGCAACCACTTCT
27.	WMC 153	ATGAGGACTCGAAGCTTGGC CTGAGCTTTTGGCGTGTGAC
28.	WMC 160	CATGGCTCCAAGATACAAAAG AGGCCTGGATTCATGATAGATA
29.	WMC 200	TACGTGAGAGAGTCCCTAAC CTCCTCACGAGGCTTCCATA
30.	WMC 225	CATCCTTCAACTTTTTGGTCCG TTATAGAAGCAGGCATCTGGTG
31.	WMC 227	ATTTCTGAAACACACCCCG CGTTTGGCAGGCGTCATCTA
32.	WMC 232	GAGATTTGTTTCATTTTCATCTTCGCA TATATTAAAGGTTAGAGGTAGTCAG
33.	WMC 233	GACGTCAAGAATCTTCGTCGGA ATCTGCTGAGCAGATCGTGGTT
34.	WMC 242	GGTATCCCTGCTAAGTTTTTCAATG CTAATATTTAGGAACAGAAGGAGTA
35.	WMC 245	GCTCAGATCATCCACCAACTC AGATGCTCTGGGAGAGTCCTTA
36.	WMC 255	TCGAGGCGCGTGGATAAC CACCTTGCATATATGACTGAGC
37.	WMC 261	GATGTGCATGTGAATCTCAAAAGTA AAAGAGGGTCACAGAATAACCTAAA
38.	WMC 265	GTGGATAACATCATGGTCAAC TACTTCGCACTAGATGAGCCT
39.	WMC 274	AAGCAAGCAGCAAACTATCAA GAATGAATGAATGAATCGAGGC
40.	WMC 340	GAGGAGTTCACTCACCTTCT GTTGGGATCGGATCGAGTA
41.	WMC 455	GCGTCATTTCTCAAACACATC AGAAGGAGAAGTGCCTACCAA
42.	WMC 617	CCACTAGGAAGAAGGGGAAACT ATCTGGATTACTGGCCAACCTGT
43.	GWM 371	GAC CAA GAT ATT CAA ACT GGC C AGC TCA GCT TGC TTG GTA CC
44.	GWM 484	ACA TCG CTC TTC ACA AAC CC AGT TCC GGT CAT GGC TAG G
45.	WMC 156	GCCTCTAGGGAGAAAATAACA TCAAGATCATATCCTCCCCAAC
46.	WMC 158	AACTGGCATCATGTTTTGTAGG AATGTAGTCAAAAAGAGGTGGTG
47.	WMC 196	CCGTACGGAGTCAGGTCGATGT GCTTCGCACTTGCACGATTTTC
48.	WMC 222	AAAGGTGCGTTCATAGAAAATTAGA AGAGGTGTTTGGACTAATTTGGTA
49.	WMC 235	ACTGTTCCTATCCGTGCACTGG

		GAGGCAAAGTTCTGGAGGTCTG
50.	WMC 236	TGGTCACTATGGTAACCGAGGA CCCTGGGTGATGAATAGACTTT
51.	WMC 240	TAAACGAGAGGATGCACCGACT CACGTTAGAAGGTGCAACAGGA
52.	WMC 249	AAAATTGTCAATCCCTCAACCC GAGCTTTTGAAGATGGAGCAGA
53.	WMC 266	ATGTATTTACGAGCATCGACCG ATGGTACTCAGCCCACATTCA

*Primer sequence for GWM 256, GWM 370, GWM 519 could not be obtained

Sl. No.	STS Marker	Primer Sequence
1.	<i>Vp1B3</i>	F- 5'TGCTCCTTTCCCAATTGG3' R- 5'ACCCTCCTGCAGCTCATTG3'
2.	<i>DuPw004</i>	F- 5'GGTCTGGTTCGGAGAAGAAGC3' R- 5'TGGGAGCGTACGTTGTATCC3'
3.	<i>Ppd</i>	F- 5'ACGCCTCCCCTACTACTG3' R1- 5'TGTTGGTTCAAACAGAGAGC3' R2- 5'CACTGGTGGTAGCTGAGATT3'
4.	<i>Vrn-Ala</i>	F- 5' GAAAGGAAAAATTCTGCTCG3' R- 5'TGCACCTTCCC(C/G)CGCCCCAT3'
5.	<i>Vrn-Alb</i>	F- 5'CAAGTGGAACGGTTAGGACA3' R1- 5'CTCATGCCAAAAATTGAAGATGA3' R2- 5'CAAATGAAAAGGAATGAGAGCA3'
6.	<i>DREB</i>	F- 5'ATATGGATTGCCTTGATGCA3' R-5' TTGTGCTCCTCATGGGTACTT3'
7.	<i>PPO18</i>	F- 5'AACGCTGGCTCTTCTTCCCA3' R- 5'AAGAAGTTGCCCATGTCCGC3'
8.	<i>Wx-B1</i>	F-5'CTGGCCTGCTACCTCAAGAGCAACT3' R-5'CTGACGTCCATGCCGTTGACGA3'
9.	<i>Lr10</i>	F- 5'GAAGCCCTTCGTCTCATCTG3' R-5'TTGATTCATTGCAGATGAGATCACG3'
10.	1B/1R	F- 5'CTCTGTGGATAGTTACTTGATCGA3' R- 5'CCTAGAACATGCATGGCTGTTACA3'
11.	<i>Lr34</i>	F- 5'GTTGGTTAAGACTGGTGATGG3' R- 5'TGCTTGCTATTGCTGAATAGT3'
12.	<i>RhtB1b</i>	F- 5'TCTCCTCCCTCCCCACCCCAAC3' R- 5'CCATGGCCATCTCGAGCTGC3'