

Appendix A Eighty SSR markers used to detect genetic similarity value between wheat varieties

Locus	Marker type	Chromosome	Number of alleles	PIC value	Fragment size (bp)	Marker grade
<i>Xcwm65</i>	EST-SSR	1A	10	0.66	220-260	1
<i>Xbarc80</i>	Genomic-SSR	1B	6	0.61	97-125	1
<i>Xcfd72</i>	Genomic-SSR	1D	11	0.66	210-240	1
<i>Xgwm294</i>	Genomic-SSR	2A	16	0.74	67-105	1
<i>Xgwm429</i>	Genomic-SSR	2B	12	0.67	190-230	1
<i>Xgwm261</i>	Genomic-SSR	2D	11	0.67	160-210	1
<i>Xgwm155</i>	Genomic-SSR	3A/1D	9	0.74	120-160	1
<i>Xswes185</i>	EST-SSR	3B	4	0.58	180-190	1
<i>Xgdm72</i>	Genomic-SSR	3D	10	0.71	120-150	1
<i>Xgwm610</i>	Genomic-SSR	4A	7	0.55	160-175	1
<i>Xksum62</i>	EST-SSR	4B	9	0.77	170-210	1
<i>Xbarc91</i>	Genomic-SSR	2B/4D	12	0.76	110-160	1
<i>Xgwm304</i>	Genomic-SSR	2A/5A	16	0.80	200-230	1
<i>Xgwm67</i>	Genomic-SSR	3A/5B/7D	8	0.58	70-100	1
<i>Xcfd29</i>	Genomic-SSR	5D	14	0.82	160-190	1
<i>Xgwm334</i>	Genomic-SSR	6A	21	0.80	100-140	1
<i>Xbarc198</i>	Genomic-SSR	6A /6B	12	0.66	110-160	1
<i>Xcfd76</i>	Genomic-SSR	6D	14	0.79	140-170	1
<i>Xcfa2028</i>	Genomic-SSR	7A/7B	7	0.49	230-260	1
<i>Xgwm333</i>	Genomic-SSR	7B	8	0.61	140-150	1
<i>Xgwm437</i>	Genomic-SSR	7D	18	0.69	90-140	1
<i>Xbarc17</i>	Genomic-SSR	1A	8	0.77	250-280	2
<i>Xcwm75</i>	EST-SSR	1A	4	0.50	210-240	2
<i>Xbarc240</i>	Genomic-SSR	1A/1B/1D/5B	8	0.70	240-280	2
<i>Xgwm268</i>	Genomic-SSR	1B	19	0.82	230-250	2
<i>Xcfd48</i>	Genomic-SSR	1B	5	0.79	250-380	2
<i>Xcwm170</i>	EST-SSR	1D	2	0.37	230-250	2
<i>Xcwm334</i>	EST-SSR	2A	3	0.53	175-180	2
<i>Xgwm425</i>	Genomic-SSR	2A	9	0.72	120-141	2
<i>Xwmc764</i>	Genomic-SSR	2B	7	0.81	130-180	2
<i>Xgwm539</i>	Genomic-SSR	2D	13	0.83	130-170	2
<i>Xksum73</i>	EST-SSR	2D	3	0.55	160-180	2
<i>Xwmc532</i>	Genomic-SSR	3A	8	0.59	160-200	2
<i>Xbarc324</i>	Genomic-SSR	3A	7	0.69	247-380	2
<i>Xwmc326</i>	Genomic-SSR	3B	8	0.76	170-210	2
<i>Xgwm161</i>	Genomic-SSR	3D	8	0.69	150-170	2
<i>Xwmc468</i>	Genomic-SSR	4A	12	0.84	130-170	2
<i>Xgwm495</i>	Genomic-SSR	4B	9	0.75	150-180	2
<i>Xwmc457</i>	Genomic-SSR	4D	4	0.58	160-170	2
<i>Xcfa2155</i>	Genomic-SSR	5A	5	0.74	220-240	2

<i>Xbarc21</i>	Genomic-SSR	5B/6D	7	0.65	200-215	2
<i>Xcwm232</i>	EST-SSR	5B	2	0.36	160-200	2
<i>Xcfd8</i>	Genomic-SSR	5D	7	0.66	150-160	2
<i>Xgwm169</i>	Genomic-SSR	6A	8	0.70	180-235	2
<i>Xgwm570</i>	Genomic-SSR	6A/6B	8	0.74	120-150	2
<i>Xbarc354</i>	Genomic-SSR	6B	7	0.75	180-260	2
<i>Xgwm325</i>	Genomic-SSR	6D	8	0.76	130-150	2
<i>Xcfd49</i>	Genomic-SSR	6D	12	0.82	160-240	2
<i>Xwmc603</i>	Genomic-SSR	7A	10	0.74	90-120	2
<i>Xwmc702</i>	Genomic-SSR	7D	8	0.80	150-190	2
<i>Xksum182</i>	Genomic-SSR	1A	4	0.53	170-200	3
<i>Xcnl105</i>	EST-SSR	1B	2	0.37	110-140	3
<i>Xbarc174</i>	Genomic-SSR	1B	7	0.76	160-230	3
<i>Xgdm111</i>	Genomic-SSR	1D	5	0.61	280-320	3
<i>Xbarc168</i>	Genomic-SSR	2D	4	0.56	150-180	3
<i>Xwmc264</i>	Genomic-SSR	3A	11	0.82	120-150	3
<i>Xwmc428</i>	Genomic-SSR	3A	8	0.72	230-260	3
<i>Xbarc12</i>	Genomic-SSR	3A	9	0.84	201-350	3
<i>Xgwm566</i>	Genomic-SSR	3B	7	0.76	120-140	3
<i>Xwmc777</i>	Genomic-SSR	3B	11	0.67	100-170	3
<i>Xcfd152</i>	Genomic-SSR	3D	7	0.73	290-350	3
<i>Xgwm645</i>	Genomic-SSR	3D	12	0.89	135-170	3
<i>Xksum134</i>	EST-SSR	4A	2	0.36	250-280	3
<i>Xbarc170</i>	Genomic-SSR	4AL	13	0.80	110-150	3
<i>Xbarc20</i>	Genomic-SSR	4B/7B	6	0.74	180-210	3
<i>Xwmc349</i>	Genomic-SSR	4B	7	0.57	85-110	3
<i>Xwmc285</i>	Genomic-SSR	4D	3	0.62	290-320	3
<i>Xwmc720</i>	Genomic-SSR	4D	13	0.81	100-140	3
<i>Xgwm186</i>	Genomic-SSR	5A	7	0.75	132-180	3
<i>Xcwem44</i>	EST-SSR	5A/5B/5D	4	0.74	50-70	3
<i>Xwes26</i>	EST-SSR	5B	2	0.38	160-175	3
<i>Xgwm617</i>	Genomic-SSR	5A/6A	11	0.76	100-180	3
<i>Xwmc1</i>	Genomic-SSR	3B/6A	5	0.47	130-160	3
<i>Xgwm459</i>	Genomic-SSR	6A	13	0.82	118-126	3
<i>Xbarc196</i>	Genomic-SSR	6D	3	0.42	130-217	3
<i>Xcfd33</i>	Genomic-SSR	6D	3	0.51	170-242	3
<i>Xgwm469</i>	Genomic-SSR	6D	9	0.80	150-180	3
<i>Xswes209</i>	EST-SSR	7B	4	0.63	280-300	3
<i>Xgwm344</i>	Genomic-SSR	7B	8	0.61	130-150	3
<i>Xgwm44</i>	Genomic-SSR	7D	12	0.84	160-210	3

Appendix B Genetic similarity value (GSV) of 26 pairs of varieties based on 68, 103 and 146 markers

No. of Variety A	No. of Variety B	GSV (%) based on	GSV (%) based on	GSV (%) based on
		68 markers	103 markers	146 markers
A2008-121	S -265	99	99	99
A2008-69	S -160	99	99	99
A2008-22	S -192	99	99	99
A2008-103	S -364	96	97	97
A2008-104	S -370	97	97	97
A2008-92	S-121	97	97	97
A2008-32	S-14	97	97	97
A2008-52	S -284	96	96	97
A2008-71	S -247	96	95	95
A2008-121	S -247	96	94	95
A2008-71	S -23	96	95	93
A2008-113	S -213	94	93	95
A2008-53	S -304	94	95	94
A2008-56	S -25	94	95	95
A2008-48	S -336	94	94	94
A2008-91	S -150	94	94	94
A2008-121	S-23	94	92	95
A2008-71	S-265	93	91	91
A2008-110	S -213	93	92	92
A2008-104	S -371	93	94	95
A2008-110	A2008-113	91	94	94
A2008-71	A2008-121	91	88	89
A2008-79	S -163	90	93	95
A2008-92	A2008-100	90	93	92
A2008-20	A2008-29	88	91	93
A2008-86	A2008-84	87	89	90