

Table S1: List of SSR markers and their sequence and annealing temperature that were used in this study across 24 wheat genotypes

Oligo Name	Chromosome	Sequence 5 to 3		Annealing temp.	Repeat
		F	R		
Xbarc124	2A	TGCACCCCTTCCAAATCT	TGCGAGTCGTGTGGTTGT	52	-
Xbarc182	7B	CCATGGCCAACAGCTCAAGGTCTC	CGCAAACCGCATCAGGGAAGCACCAAT	58	(CT)15
Xcfd1	6B,6D,6A	ACCAAAGAACTTGCCTGGTG	AAGCCTGACCTAGCCCAAAT	60	(GCC)6
Xbarc161	5D	GCGAAAGGGAAAGCTAAGTAACAC TAA	TTTTTGGCATTGATCTGCTG	50	-
Xcfd18	5D	CATCCAACAGCACCAAGAGA	GCTACTACTATTTTCATTGCGACCA	60	(GA)25
Xcfd183	5D	ACTTGCACTTGCTATACTTACGAA	GTGTGTCGGTGTGTGGAAAG	60	(CA)22
Xgwm410	2B	GCTTGAGACCGGCACAGT	CGAGACCTTGAGGGTCTAGA	55	-
Xcfd46	7D	TGGTGGTATAGTCGTTGGAGC	CCACACACACACACCATCAA	60	(GT)29
Xcfd49	6D	TGAGTTCTTCTGGTGAGGCA	GAATCGGTTCAACAAGGGAAA	60	(GA)33
Xgwm55	2B	GCATCTGGTACACTAGCTGCC	TCATGGATGCATCACATCCT	60	-
Xcfd66	7D	AGGTCTTGGTGGTTTTGGTG	TTTTCACATGCCACAGTTG	60	(GC)9(AG)60
Xcfd9	3D	TTGCACGCACCTAAACTCTG	CAAGTGTGAGCGTCGG	60	(TC)29
Xbarc58	7D, 5B	GCGACTTTGTGTATATGTTTTAA	ATGGGGCAATTAGTGTTTTCTTCGT	50	-
Xbarc111	7D	GCGGTCACCAGTAGTTCAACA	GCGTATCCCATTGCTCTTCTTCACTAAC	50	-
Xgwm174	5D	GGGTTCTATCTGGTAAATCCC	GACACACATGTTCTGCCAC	55	(CT)22
Xbarc112	-	GCG TTA AGT AGT GTT CGG GGG ATT GTT	GCG AAC AAC TCC AAC GAA AAC AAT TCT AAC	50	(ATT)29
Xgwm205	5D,5A	CGACCCGGTTCACCTCAG	AGTCGCCGTTGTATAGTGCC	60	(CT)21
Xgwm210	2A	TGCATCAAGAATAGTGGAAG	TGAGAGGAAGGCTCACACCT	55	(GA)20
Xbarc110	5D	CCCGAACAATGGCTTTGGTGTGTAAT	CATGGTGACGGCAAGTGTGAGGT	50	-
Xgwm249	2D	CAAATGGATCGAGAAAGGGA	CTGCCATTTTTCTGGATCTACC	55	(GA)11(GGA)8
Xgwm296	2D,7D	AATTCAACCTACCAATCTCTG	GCCTAATAAACTGAAAACGAG	55	(CT)28
Xgwm299	3B,2B	ACTACTTAGGCCTCCCGCC	TGACCCACTTGCAATTCATC	55	(GA)31(TAG)4
Xgwm312	2A	ATCGCATGATGCACGTAGAG	ACATGCATGCCTACCTAATGG	60	(GA)37
Xgwm314	3D,4B	AGGAGCTCCTCTGTGCCAC	TTCGGGACTCTCTCCCTG	55	(CT)25imp
Xgwm335	5B	CGTACTCCACTCCACACGG	CGGTCCAAGTGCTACCTTC	55	(GA)14(GCGT)3
Xgwm340	3B	GCAATCTTTTTTCTGACCACG	ACGAGGCAAGAACACACATG	60	(GA)26

Xgwm350	7D	ACCTCATCCACATGTTCTACG	GCATGGATAGGACGCCC	55	(GT)14
Xbarc167	2B	AAAGGCCCATCAACATGCAAGTACC	CGCAGTATTCTTAGTCCCTCAT	50	(GA)18
Xbarc170	4A	CGCTTGACTTTGAATGGCTGAACA	CGCCCACTTTTTACCTAATCCTTTTGAA	50	-
Xgwm539	2D	CTGCTCTAAGATTCATGCAACC	GAGGCTTGTGCCCTCTGTAG	60	(GA)27
Xbarc109	5B	GGCAAAAGAGAAGGCTCGGAAGAACC	CGCATCGACGTAACATCACCACAATCATT	50	-
Xbarc34	3A	GAT CGC CTG GTA GTT TCG TAT	CGG TCT ACG CGA ACA CAA TAA TGA	50	-
Xwmc11	3A, 3D	TTGTGATCCTGGTTGTGTTGTGA	CACCCAGCCGTTATATATGTTGA	61	-
Xwmc74	4B, 5D	AAcggcATTgAgcTcAccTTgg	TgcgTgAAggcAgcTcAATcgg	61	-
Xwmc154	2B	ATgcTcgTcAgTgTcATgTTTg	AAAaggAAccTaccTcAcTcTT	61	-
Xwmc177	2A	AgggcTcTcTTTAATTcTTgcT	ggTcTATcgTAATccAccTgTA	51	-
Xwmc405	7A	gTgcggAAAgAgAcgAggTT	TATgTccAcgTTggcAgAgg	61	-
Xwmc367	1B	CTGACGTTGATGGGCCACTATT	GTGGTGGAAGAGGAAGGAGAGG	61	(GCC)5 125 to 139
Xwmc419	4B	GTTTCGATAAAAACCGGAGTGC	ACTACTTGTGGGTTATCACCAGCC	61	(GA)16 111 to 142
Xwmc245	2A,2D	gcTcAgATcATccAccAAcTTc	AgATgcTcTgggAgAgTccTTA	61	-
Xbarc44	-	CCCTACAAAATACGAACATGAAGTCAG	GGGTCCTACTCAGATAGTGACAGTCAAC	50	-
Xwmc503	2D	GCAATAGTTCCCGCAAGAAAAG	ATCAACTACCTCCAGATCCCGT	61	(GT)11 112 to 133
Xwmc661	2B	CCACCATGGTGCTAATAGTGTC	AGCTCGTAACGTAATGCAACTG	61	-