

Appendix 1 Primer Locations at *MSX1* Locus.

PCR Product Size	Start	End	Primer Sequences	PCR Conditions
A - 491	2	21	CTTCAGCGCAGAGGAAAGTT	94°C 5 min (1 cycle), 94°C 30 sec, 57°C 45 sec, 72°C 1 min 30 sec (35 cycles)
B - 851	473	492	ACACCGAGTGGCAAAGAAGT	94°C 3 min (1 cycle), 94°C 30 sec, 63°C 30 sec, 72°C 2 min (40 cycles), 72°C 3 min (1 cycle)
	414	433	TGGCCAGTGCTGCGGCAGAA	
C - 355	1246	1264	ATTCATCCGCTGGGGTGAA	94°C 3 min (1 cycle), 94°C 30 sec, 55°C 30 sec, 72°C 30 sec (40 cycles)
	1207	1226	CATGATCCCTCATCTGATCC	
D - 659	1552	1572	CCACTTTAATGGCTCAGTCCT	94°C 2 min (1 cycle), 94°C 30 sec, 57°C 30 sec, 72°C 1 min 40 sec (40 cycles)
	1490	1508	GGGCACCAAGTCAATTAGG	
E - 597	2129	2148	TCCCGGCAGAAAGTGAATTC	94°C 3 min (1 cycle), 94°C 30 sec, 55°C 30 sec, 72°C 30 sec (40 cycles)
	2090	2109	TACTTAGGCAAAACCCGCGT	
	2667	2686	CGGGATTCTAGGAGTAGTTC	
F - 546	2622	2638	TGCACCCTCCATGATGG	94°C 3 min (1 cycle), 94°C 30 sec, 55°C 30 sec, 72°C 30 sec (40 cycles)
G - 799	3146	3167	AGCCAAACAATACCAGATATTG	94°C 2 min (1 cycle), 94°C 30 sec, 57°C 30 sec, 72°C 1 min 40 sec (40 cycles)
	2941	2961	AGGTGATTTACATCTTCCCA	
	3722	3739	ACCAGGGCTGGAGGAATC	
H - 922	3587	3604	TGTACCACCTGACATAGA	94°C 3 min (1 cycle), 94°C 30 sec, 55°C 30 sec, 72°C 30 sec (35 cycles), 72°C 3 min (1 cycle)
	4479	4505	AAAATAAAAGACTCAATCAGTAAAGAG	