

Table 1 Suppl. List of ISSR and IRAP primer sequences and their annealing temperatures (Ta).

Methods	Primer	Primer sequence (5'→3')	Ta [°C]
ISSR	IS1	AACAACAACAACAACG	43.0
	IS2	ACAGACAGACAGACAGACAG	48.0
	IS3	GAGAGAGAGAGAGAGAGAC	50.5
	IS4	CAGCAGCAGCAGCAG	47.0
	IS5	GAGAGAGAGAGAGAGACC	48.0
	IS6	GAGAGAGAGAGAGAGAT	44.0
	IS7	ACACACACACACACACCT	47.0
	IS8	GTGTGTGTGTGTGTGTCC	50.0
	IS9	AGAGAGAGAGAGAGAGT	45.0
	IS10	AGAGAGAGAGAGAGAGC	47.0
	IS11	AGCAGCAGCAGCAGCAGCG	55.6
	IS12	GGAAGGAAGGAAGGAAGGAA	50.0
	IS13	CTGTCTGTCTGTCTGTCTGTG	53.0
	IS14	ACACACACACACACACACT	52.0
	IS15	TGATGATGATGATGATGAA	42.0
	IS16	GAGAGAGAGAGAGAGACT	47.5
IRAP	IR1	GAGGCTCACTAGGGACACAG	56.0
	IR2	GTGCTTGGCGGTTAGCCTCG	60.0
	IR3	TGCGCACTTTGTCTCACTCA	52.4
	IR4	CGCTCCAGCGGTACTGCC	56.0
	IR5	GCAAGCTTCCGTTTCCGC	52.0
	IR6	GTCACGCCCAAGATGCGACC	48.0

Table 2 Suppl. List of ITAP and REMAP primer sequences and their annealing temperatures (Ta).

Methods	Primer	Primer sequence (5' → 3')	Ta [°C]
ITAP	IT1	GGAATAAAGGCTGTTGCGAA	51.5
	IT2	TTCGTGGCAGAACCGGGACT	58.0
	IT3	CGAGACCAGGGACGAATTTT	51.5
	IT4	ACGGTTGAGTCTAGGCACAC	53.0
	IT5	TTCAGCCGGGTCCTAAGAG	53.0
REMAP	IR1/ IS11	GAGGCTCACTAGGGACACAG AGCAGCAGCAGCAGCAGCG	56.0
	IR1/ IS12	GAGGCTCACTAGGGACACAG GGAAGGAAGGAAGGAAGGAA	52.0
	IR3/ IS14	TGCGCACTTTGTCCTCACTCA ACACACACACACACACACT	52.0
	IR4/ IS11	CGCTCCAGCGGTACTGCC AGCAGCAGCAGCAGCAGCG	56.0
	IR4/ IS12	CGCTCCAGCGGTACTGCC GGAAGGAAGGAAGGAAGGAA	52.0
	IR5/ IS5	GCAAGCTTCCGTTTCCGC GAGAGAGAGAGAGAGACC	52.0
	IR5/ IS12	GCAAGCTTCCGTTTCCGC GGAAGGAAGGAAGGAAGGAA	52.0
	IR6/ IS14	GTCACGCCCCAAGATGCGACC ACACACACACACACACACT	52.0
	IR6/ IS11	GTCACGCCCCAAGATGCGACC AGCAGCAGCAGCAGCAGCG	56.0
	IR6/ IS12	GTCACGCCCCAAGATGCGACC GGAAGGAAGGAAGGAAGGAA	52.0
	IR3/ IS12	TGCGCACTTTGTCCTCACTCA GGAAGGAAGGAAGGAAGGAA	52.0
	IR5/ IS4	GCAAGCTTCCGTTTCCGC CAGCAGCAGCAGCAG	48.0
	IR5/ IS3	GCAAGCTTCCGTTTCCGC GAGAGAGAGAGAGAGAGAC	48.0
	IR6/ IS3	GTCACGCCCCAAGATGCGACC GAGAGAGAGAGAGAGAGAC	50.0
	IR3/ IS11	TGCGCACTTTGTCCTCACTCA AGCAGCAGCAGCAGCAGCG	56.0

Table 3 Suppl. Summary of rearrangements which occurred in hybrids (wheat × rye) genomes of F₂ and F₃ generations with the use of ISSR, IRAP, REMAP and ITAP.

Hybrid combination	Total number of bands	Number/percentage of eliminated bands	Number/percentage of new bands	Total number/percentage of changed bands
Ostka Strzelecka × Dańkowskie złote	709	357/50.35 %	103/14.53 %	460/64.88 %
STHN 1002/1003 × Dańkowskie złote	718	374/52.09 %	105/14.62 %	479/66.71 %
STHN 5067 × Dańkowskie złote	747	405/54.22 %	134/17.94 %	539/72.15 %
Tonacja × Dańkowskie złote	719	418.8/58.25 %	121.5/16.90 %	540.3/75.15 %
Zyta × Dańkowskie złote	667	323.5/48.50 %	119.5/17.91 %	443/66.42 %