**Table S1**

List of 18 simple sequence repeat (SSR) primer pairs used in investigation.

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| Primer | Primer sequences (5`-3`) | Motif | References |
| RiM017 | F:AAACAGGTGGAAAGAAACCTGR:CATTGTGCTTATGATGGTTTCG | (TG) 6 | Castillo at al., 2010 |
| Rub 262 | F:TGCATGAAGGCGATATAAAGGR:TCCGCAAGGGTTGTATCCTA | (AG) 15 | Graham et al., 2004 |
| RiM015 | F: CGACACCGATCAGAGCTAATTCR: ATAGTTGCATTGGCAGGCTTAT | (ATC) 5 | Castillo at al., 2010 |
| Rub 228 | F:TGGACAGCTTTGTGCAGAGTR:GCTTGCTTGTATCTCCATTGC | (GA) 41 | Graham et al., 2004 |
| Rub 277 | F:GCCCCATCCTGTACAAAGAAR:TTGCAACAAAGGTACGTAATGG | (A)11 (AG) 8 | Graham et al., 2004 |
| RhM 021 | F: CAGTCCCTTATAGGATCCAACGR: GAACTCCACCATCTCCTCGTAG | (TC) 6 | Castillo at al., 2010 |
| RhM 001 | F: GGTTCGGATAGTTAATCCTCCCR: CCAACTGTTGTAAATGCAGGAA | (CA) 7 | Castillo at al., 2010 |
| RhM 011 | F: AAAGACAAGGCGTCCACAACR: GGTTATGCTTTGATTAGGCTGG | (TC) 18 | Castillo at al., 2010 |
| RiM 019 | F: ATTCAAGAGCTTAACTGTGGGCR: CAATATGCCATCCACAGAGAAA | (AG) 12 | Castillo at al., 2010 |
| RhM 003 | F: CCATCTCCAATTCAGTTCTTCCR: AGCAGAATCGGTTCTTACAAGC | (TG) 10 | Castillo at al., 2010 |
| RhM 043 | F: GGACACGGTTCTAACTATGGCTR: ATTGTCGCTCCAACGAAGATT | (AC) 6 | Castillo at al., 2010 |
| Rub 25a | F:GCCAAACACACCGTTATCTTR:CATTACCACACGCTTGATGC | (GT) 8 | Graham et al., 2004 |
| Rub 157b | F:ACTCTGCTACCGCCAGAAATR:CAATTCCCAAGCTCAGTGAAG | (CT) 47 | Graham et al., 2004 |
| RhM 018 | F: CACCAATTGTACACCCAACAACR: GATTGTGAGCTGGTGTTACCAA | (CTT) 6 | Castillo at al., 2010 |
| Rub 108a | F:CCCTACACATCGATCGCTTACR:AACACTCCAAATGCCCAATC | (CT) 9 (AT)5 | Graham et al., 2004 |
| Rig001 | F: TGTCCGATCCTTTTCTTTGGR: CGCTTCTTGATCCTTGACTTGT | (AT) 6 | Castillo at al., 2010 |
| Rub 223a | F:TCTCTTGCATGTTGAGATTCTATTR:TTAAGGCGTCGTGGATAAGG | (AT) 4 (TA) 8 (AT) 10 | Graham et al., 2004 |
| RiM 036 | F: AGCAACCACCACCTCAACTAATR: CTAGCAGAATCACCTGAGGCTT | (TG) 7 | Castillo at al., 2010 |

**Table S2:**

List of allele sizes and frequencies for each locus of 18 simple sequence repeat (SSR) primer pairs evaluated of 53 raspberry genotypes.

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| Primers |
| RiM 017 | Rub 262 | RiM 015 | Rub 228 | Rub 277 | RhM 021 | RhM 001 | RhM 011 | RiM 019 | RhM 003 | RhM 043 | Rub 25a | Rub 157b | RhM 018 | Rub 108a | Rig 001 | Rub 223a | RiM 036 |
| 185 (0.08) | 205 (0.17) | 352 (0.66) | 112 (0.03) | 233 (0.19) | 284 (0.85) | 235 (0.03) | 271 (0.05) | 165 (0.24) | 189 (0.02) | 357 (0.01) | 142 (0.36) | 170 (0.01) | 319 (0.04) | 151 (0.10) | 325 (0.02) | 144 (0.01) | 296 (0.05) |
| 189 (0.01) | 207 (0.22) | 354 (0.18) | 116 (0.06) | 235 (0.51) | 286 (0.06) | 237 (0.69) | 279 (0.05) | 171 (0.01) | 195 (0.08) | 367 (0.04) | 144 (0.19) | 178 (0.01) | 356 (0.01) | 153 (0.42) | 341 (0.49) | 146 (0.18) | 308 (0.03) |
| 193 (0.05) | 209 (0.07) | 356 (0.07) | 120 (0.02) | 237 (0.21) | 290 (0.08) | 239 (0.29) | 283 (0.02) | 173 (0.02) | 197 (0.22) | 371 (0.19) | 146 (0.56) | 192 (0.02) | 358 (0.03) | 157 (0.42) | 343 (0.49) | 148 (0.03) | 310 (0.55) |
| 195 (0.65) | 211 (0.04) | 358 (0.06) | 122 (0.02) | 239 (0.05) |  |  | 285 (0.12) | 175 (0.11) | 199 (0.35) | 373 (0.68) | 152 (0.29) | 194 (0.03) | 375 (0.02) | 159 (0.06) |  | 150 (0.04) | 312 (0.38) |
| 197 (0.12) | 213 (0.04) | 362 (0.01) | 124 (0.02) | 241 (0.02) |  |  | 287 (0.26) | 177 (0.11) | 201 (0.01) | 375 (0.03) | 154 (0.08) | 202 (0.03) | 377 (0.53) |  |  | 152 (0.21) |  |
| 199 (0.06) | 215 (0.10) | 364 (0.01) | 126 (0.09) | 243 (0.02) |  |  | 289 (0.12) | 179 (0.22) | 203 (0.14) | 377 (0.04) | 156 (0.02) | 206 (0.31) | 379 (0.36) |  |  | 154 (0.11) |  |
| 201 (0.03) | 217 (0.19) | 366 (0.01) | 136 (0.07) |  |  |  | 291 (0.06) | 181 (0.05) | 207 (0.16) | 411 (0.01) |  | 208 (0.22) | 393 (0.02) |  |  | 156 (0.04) |  |
|  | 219 (0.05) |  | 138 (0.03) |  |  |  | 293 (0.01) | 183 (0.04) | 211 (0.01) | 413 (0.01) |  | 226 (0.25) |  |  |  | 158 (0.06) |  |
|  | 221 (0.11) |  | 140 (0,06) |  |  |  | 295 (0,08) | 187 (0,02) | 213 (0,01) |  |  | 228 (0,02) |  |  |  | 160 (0,06) |  |
|  | 231 (0,01) |  | 142 (0,12) |  |  |  | 297 (0,07) | 189 (0,09) |  |  |  | 250 (0,05) |  |  |  | 162 (0,04) |  |
|  |  |  | 144 (0,01) |  |  |  | 303 (0.05) | 191 (0.24) |  |  |  | 272 (0.03) |  |  |  | 164 (0.06) |  |
|  |  |  | 146 (0.10) |  |  |  | 307 (0.05) | 195 (0.01) |  |  |  | 278 (0.03) |  |  |  | 166 (0.15) |  |
|  |  |  | 148 (0.22) |  |  |  | 311 (0.02) | 199 (0.02) |  |  |  | 308 (0.01) |  |  |  | 168 (0.01) |  |
|  |  |  | 152 (0.01) |  |  |  | 313 (0.12) | 213 (0.11) |  |  |  |  |  |  |  | 176 (0.01) |  |
|  |  |  | 156 (0.01) |  |  |  | 315 (0.26) | 215 (0.11) |  |  |  |  |  |  |  | 180 (0.01) |  |
|  |  |  | 158 (0.04) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 160 (0.03) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 162 (0.03) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 164 (0.02) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 166 (0.02) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No° of alleles |
| 7 | 10 | 7 | 20 | 6 | 3 | 3 | 15 | 15 | 9 | 8 | 6 | 13 | 7 | 4 | 3 | 15 | 4 |