S3 Table. Description of haplotypes associated with pigments colour traits.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Haplotype | Number of SNPs | Favorable allele series | Chromosome | SNP (Position in cM) |
| *hap\_2A\_5* | 4 | ABAB | 2A | Excalibur\_rep\_c113914\_309 (22.8) Tdurum\_contig54634\_815 (22.8) BS00067159\_51 (24.7) RAC875\_rep\_c113106\_56 (24.7) |
| *hap\_2A\_12* | 4 | BBBA | wsnp\_Ex\_c2887\_5330426 (74.6) Kukri\_rep\_c73477\_888 (78.0) Tdurum\_contig560\_239 (78.0) wsnp\_JD\_c18695\_17091254 (78.0) |
| *hap\_2A\_18* | 9 | BBBABBBAA | CAP7\_c2791\_231 (117.6) Tdurum\_contig11021\_100 (117.6) Tdurum\_contig12589\_325 (117.6) wsnp\_CAP11\_c838\_518859 (117.6) BobWhite\_c41527\_201 (117.7) Kukri\_c57078\_153 (121.0) wsnp\_Ex\_c32910\_41489631 (121.0) IAAV80 (121.3) Tdurum\_contig30451\_88 (121.3) |
| *hap\_3B\_32* | 3 | BBA | 3B | Jagger\_c3814\_160 (201.5) tplb0048c20\_2437 (205.1) RAC875\_c5222\_245 (205.5) |
| *hap\_3B\_33* | 3 | BAB | BS00059475\_51 (208.0) BS00003884\_51 (209.1) Tdurum\_contig54973\_1510 (209.6) |
| *hap\_4B\_6* | 9 | AABAABBBB | 4B | Tdurum\_contig28671\_295 (28.5) Tdurum\_contig61142\_146 (28.5) Tdurum\_contig61142\_740 (28.5) Tdurum\_contig10257\_241 (28.8) Tdurum\_contig51688\_681 (28.8) wsnp\_RFL\_Contig1910\_1074716 (29.1) RAC875\_c2226\_933 (29.5) BS00100839\_51 (30.8) RAC875\_c44584\_162 (30.8) |
| *hap\_4B\_7* | 7 | BAABBBA | BS00023766\_51 (32.7) RAC875\_c27536\_611 (32.9) BS00095286\_51 (34.4) Excalibur\_c23248\_148 (34.4) Tdurum\_contig44718\_835 (34.4) wsnp\_Ex\_c9440\_15657149 (35.0) Tdurum\_contig92931\_322 (35.2) |
| *hap\_4B\_8* | 9 | ABBBAABAA | BS00063035\_51 (37.4) Tdurum\_contig6153\_192 (37.4) Tdurum\_contig43279\_1088 (39.4) Tdurum\_contig45706\_1182 (39.4) Tdurum\_contig47706\_190 (39.4) Tdurum\_contig63153\_343 (39.4) Tdurum\_contig6645\_443 (39.4) Tdurum\_contig77081\_121 (39.4) RAC875\_c61701\_129 (41.7) |
| *hap\_4B\_12* | 6 | BBBAAB | BS00022194\_51 (58.7) Tdurum\_contig69405\_332 (59.8) Excalibur\_c7964\_1290 (60.0) Tdurum\_contig37811\_134 (60.0) Tdurum\_contig11735\_1294 (60.4) Tdurum\_contig26812\_281 (60.4) |
| *hap\_5B\_25* | 4 | ABAA | 5B | BS00022673\_51 (129.7) BS00021736\_51 (131.2) BS00079321\_51 (131.2) Kukri\_c6176\_1400 (131.2) |
| *hap\_7A\_32* | 10 | ABAAABBBBA |  | Tdurum\_contig31699\_276 (180.2) BobWhite\_c41378\_532 (180.3) D\_contig76674\_178 (180.3) Kukri\_c26118\_1645 (180.3) Tdurum\_contig64566\_402 (180.3) Tdurum\_contig43216\_852 (181.4) Tdurum\_contig54832\_139 (181.4) Excalibur\_c61603\_1138 (181.8) Tdurum\_contig61864\_1352 (181.8) wsnp\_Ex\_c61603\_61581218 (181.8) |
| *hap\_7B\_36* | 2 | AB |  | RFL\_Contig2814\_385 (202.9) BS00066456\_51 (206.3) |