**Table-S1:List of saffron germplasm accessions and their origin of collection/procurement**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Saffron Accession** | **Collection/Procurement** | **Indigenous/Exotic** |
| 1 | SRS-Saf-1 | Pochal, Kishtwar, District Doda | **Indigenous** |
| 2 | SRS-Saf-2 | Pochal, Kishtwar, District Doda | **Indigenous** |
| 3 | SRS-Saf-3 | Pochal, Kishtwar, District Doda | **Indigenous** |
| 4 | SRS-Saf-4 | Pochal, Kishtwar, District Doda | **Indigenous** |
| 5 | SRS-Saf-5 | Hidyal, Kishtwar, District Doda | **Indigenous** |
| 6 | **SRS-Saf-6** | Bemarnag, Kishtwar, District Doda | **Indigenous** |
| 7 | **SRS-Saf-7** | Bemarnag, Kishtwar, District Doda | **Indigenous** |
| 8 | **SRS-Saf-8** | Bemarnag, Kishtwar, District Doda | **Indigenous** |
| 9 | **SRS-Saf-9** | Bemarnag, Kishtwar, District Doda | **Indigenous** |
| 10 | **SRS-Saf-10** | Hudri, Kishtwar, District Doda | **Indigenous** |
| 11 | **SRS-Saf-11** | Hudri, Kishtwar, District Doda | **Indigenous** |
| 12 | **SRS-Saf-12** | Nagni, Kishtwar, District Doda | **Indigenous** |
| 13 | **SRS-Saf-13** | Nagni, Kishtwar, District Doda | **Indigenous** |
| 14 | **SRS-Saf-14** | Nagni, Kishtwar, District Doda | **Indigenous** |
| 15 | **SRS-Saf-15** | Pallar, Kishtwar, District Doda | **Indigenous** |
| 16 | **SRS-Saf-16** | Pallar, Kishtwar, District Doda | **Indigenous** |
| 17 | **SRS-Saf-17** | Beerwar, Kishtwar, District Doda | **Indigenous** |
| 18 | **SRS-Saf-18** | Chirhar, Kishtwar, District Doda | **Indigenous** |
| 19 | **SRS-Saf-19** | Chirhar, Kishtwar, District Doda | **Indigenous** |
| 20 | **SRS-Saf-20** | Chirhar, Kishtwar, District Doda | **Indigenous** |
| 21 | **SRS-Saf-21** | Berabhatta, Kishtwar, District Doda | **Indigenous** |
| 22 | **SRS-Saf-22** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 23 | **SRS-Saf-23** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 24 | **SRS-Saf-24** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 25 | **SRS-Saf-25** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 26 | **SRS-Saf-26** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 27 | **SRS-Saf-27** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 28 | **SRS-Saf-28** | Wuyan, Pampore, District Pulwama | **Indigenous** |
| 29 | **SRS-Saf-29** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 30 | **SRS-Saf-30** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 31 | **SRS-Saf-31** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 32 | **SRS-Saf-32** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 33 | **SRS-Saf-33** | Khrew, Pampore, District Pulwama | **Indigenous** |
| 34 | **SRS-Saf-34** | Khrew, Pampore, District Pulwama | **Indigenous** |
| 35 | **SRS-Saf-35** | Khrew, Pampore, District Pulwama | **Indigenous** |
| 36 | **SRS-Saf-36** | Sathpukhrain, Pampore, District Pulwama | **Indigenous** |
| 37 | **SRS-Saf-37** | Sathpukhrain, Pampore, District Pulwama | **Indigenous** |
| 38 | **SRS-Saf-38** | Baithan, Pampore, District Pulwama | **Indigenous** |
| 39 | **SRS-Saf-39** | Baithan, Pampore, District Pulwama | **Indigenous** |
| 40 | **SRS-Saf-40** | Zaintrag, Pampore, District Pulwama | **Indigenous** |
| 41 | **SRS-Saf-41** | Zaintrag, Pampore, District Pulwama | **Indigenous** |
| 42 | **SRS-Saf-42** | Zaintrag, Pampore, District Pulwama | **Indigenous** |
| 43 | **SRS-Saf-43** | Zaintrag, Pampore, District Pulwama | **Indigenous** |
| 44 | **SRS-Saf-44** | Shar, Pampore, District Pulwama | **Indigenous** |
| 45 | **SRS-Saf-45** | Shar, Pampore, District Pulwama | **Indigenous** |
| 46 | **SRS-Saf-46** | Shar, Pampore, District Pulwama | **Indigenous** |
| 47 | **SRS-Saf-47** | Mandekpal, Pampore, District Pulwama | **Indigenous** |
| 48 | **SRS-Saf-48** | Mandekpal, Pampore, District Pulwama | **Indigenous** |
| 49 | **SRS-Saf-49** | Ladhoo, Pampore, District Pulwama | **Indigenous** |
| 50 | **SRS-Saf-50** | Ladhoo, Pampore, District Pulwama | **Indigenous** |
| 51 | **SRS-Saf-51** | Ladhoo, Pampore, District Pulwama | **Indigenous** |
| 52 | **SRS-Saf-52** | Ladhoo, Pampore, District Pulwama | **Indigenous** |
| 53 | **SRS-Saf-53** | Gundbal, Pampore, District Pulwama | **Indigenous** |
| 54 | **SRS-Saf-54** | Gundbal, Pampore, District Pulwama | **Indigenous** |
| 55 | **SRS-Saf-55** | Gundbal, Pampore, District Pulwama | **Indigenous** |
| 56 | **SRS-Saf-56** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 57 | **SRS-Saf-57** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 58 | **SRS-Saf-58** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 59 | **SRS-Saf-59** | Androosa, Pampore, District Pulwama | **Indigenous** |
| 60 | **SRS-Saf-60** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 61 | **SRS-Saf-61** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 62 | **SRS-Saf-62** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 63 | **SRS-Saf-63** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 64 | **SRS-Saf-64** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 65 | **SRS-Saf-65** | Konibal, Pampore, District Pulwama | **Indigenous** |
| 66 | **SRS-Saf-66** | Konibal, Pampore, District Pulwama | **Indigenous** |
| 67 | **SRS-Saf-67** | Konibal, Pampore, District Pulwama | **Indigenous** |
| 68 | **SRS-Saf-68** | Konibal, Pampore, District Pulwama | **Indigenous** |
| 69 | **SRS-Saf-69** | Konibal, Pampore, District Pulwama | **Indigenous** |
| 70 | **SRS-Saf-70** | Konibal, Pampore, District Pulwama | **Indigenous** |
| 71 | **SRS-Saf-71** | Dussu, Pampore, District Pulwama | **Indigenous** |
| 72 | **SRS-Saf-72** | Dussu, Pampore, District Pulwama | **Indigenous** |
| 73 | **SRS-Saf-73** | Dussu, Pampore, District Pulwama | **Indigenous** |
| 74 | **SRS-Saf-74** | Dussu, Pampore, District Pulwama | **Indigenous** |
| 75 | **SRS-Saf-75** | Dussu, Pampore, District Pulwama | **Indigenous** |
| 76 | **SRS-Saf-76** | Drangbal, Pampore, District Pulwama | **Indigenous** |
| 77 | **SRS-Saf-77** | Drangbal, Pampore, District Pulwama | **Indigenous** |
| 78 | **SRS-Saf-78** | Meej, Pampore, District Pulwama | **Indigenous** |
| 79 | **SRS-Saf-79** | Meej, Pampore, District Pulwama | **Indigenous** |
| 80 | **SRS-Saf-80** | Meej, Pampore, District Pulwama | **Indigenous** |
| 81 | **SRS-Saf-81** | Sambora, Pampore, District Pulwama | **Indigenous** |
| 82 | **SRS-Saf-82** | Sambora, Pampore, District Pulwama | **Indigenous** |
| 83 | **SRS-Saf-83** | Parigam, District Pulwama | **Indigenous** |
| 84 | **SRS-Saf-84** | Parigam, District Pulwama | **Indigenous** |
| 85 | **SRS-Saf-85** | Parigam, District Pulwama | **Indigenous** |
| 86 | **SRS-Saf-86** | Parigam, District Pulwama | **Indigenous** |
| 87 | **SRS-Saf-87** | Parigam, District Pulwama | **Indigenous** |
| 88 | **SRS-Saf-88** | Parigam, District Pulwama | **Indigenous** |
| 89 | **SRS-Saf-89** | Lethpora, Pampore, District Pulwama | **Indigenous** |
| 90 | **SRS-Saf-90** | Lethpora, Pampore, District Pulwama | **Indigenous** |
| 91 | **SRS-Saf-91** | Lethpora, Pampore, District Pulwama | **Indigenous** |
| 92 | **SRS-Saf-92** | Lethpora, Pampore, District Pulwama | **Indigenous** |
| 93 | **SRS-Saf-93** | Lethpora, Pampore, District Pulwama | **Indigenous** |
| 94 | **SRS-Saf-94** | Hatiwara, Pampore, District Pulwama | **Indigenous** |
| 95 | **SRS-Saf-95** | Hatiwara, Pampore, District Pulwama | **Indigenous** |
| 96 | **SRS-Saf-96** | Hatiwara, Pampore, District Pulwama | **Indigenous** |
| 97 | **SRS-Saf-97** | Chandhara, Pampore, District Pulwama | **Indigenous** |
| 98 | **SRS-Saf-98** | Chandhara, Pampore, District Pulwama | **Indigenous** |
| 99 | **SRS-Saf-99** | Chandhara, Pampore, District Pulwama | **Indigenous** |
| 100 | **SRS-Saf-100** | Chandhara, Pampore, District Pulwama | **Indigenous** |
| 101 | **SRS-Saf-101** | Chandhara, Pampore, District Pulwama | **Indigenous** |
| 102 | **SRS-Saf-102** | Lolipora, Pampore, District Pulwama | **Indigenous** |
| 103 | **SRS-Saf-103** | Wanpora, Pampore, District Pulwama | **Indigenous** |
| 104 | **SRS-Saf-104** | Wanpora, Pampore, District Pulwama | **Indigenous** |
| 105 | **SRS-Saf-105** | Wanpora, Pampore, District Pulwama | **Indigenous** |
| 106 | **SRS-Saf-106** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 107 | **SRS-Saf-107** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 108 | **SRS-Saf-108** | Barsoo, Pampore, District Pulwama | **Indigenous** |
| 109 | **SRS-Saf-109** | Nehama, Pampore, District Pulwama | **Indigenous** |
| 110 | **SRS-Saf-110** | Chrarisharif, District Budgam | **Indigenous** |
| 111 | **SRS-Saf-111** | Chrarisharif, District Budgam | **Indigenous** |
| 112 | **SRS-Saf-112** | Chrarisharif, District Budgam | **Indigenous** |
| 113 | **SRS-Saf-113** | Chrawani, Chrarisharif, District Budgam | **Indigenous** |
| 114 | **SRS-Saf-114** | Chrawani, Chrarisharif, District Budgam | **Indigenous** |
| 115 | **SRS-Saf-115** | Chrawani, Chrarisharif, District Budgam | **Indigenous** |
| 116 | **SRS-Saf-116** | Chrawani, Chrarisharif, District Budgam | **Indigenous** |
| 117 | **SRS-Saf-117** | Chrawani, Chrarisharif, District Budgam | **Indigenous** |
| 118 | **SRS-Saf-118** | Hayatpora, Nagam, District Budgam | **Indigenous** |
| 119 | **SRS-Saf-119** | Hayatpora, Nagam, District Budgam | **Indigenous** |
| 120 | **SRS-Saf-120** | Hayatpora, Nagam, District Budgam | **Indigenous** |
| 121 | **SRS-Saf-121** | Hayatpora, Nagam, District Budgam | **Indigenous** |
| 122 | **SRS-Saf-122** | Sarai, Nagam, District Budgam | **Indigenous** |
| 123 | **SRS-Saf-123** | Sarai, Nagam, District Budgam | **Indigenous** |
| 124 | **SRS-Saf-124** | Sarai, Nagam, District Budgam | **Indigenous** |
| 125 | **SRS-Saf-125** | Sarai, Nagam, District Budgam | **Indigenous** |
| 126 | **SRS-Saf-126** | Sarai, Nagam, District Budgam | **Indigenous** |
| 127 | **SRS-Saf-127** | Sarai, Nagam, District Budgam | **Indigenous** |
| 128 | **SRS-Saf-128** | Sarai, Nagam, District Budgam | **Indigenous** |
| 129 | **SRS-Saf-129** | Chadoora, District Budgam | **Indigenous** |
| 130 | **SRS-Saf-130** | Chadoora, District Budgam | **Indigenous** |
| 131 | **SRS-Saf-131** | Chadoora, District Budgam | **Indigenous** |
| 132 | **SRS-Saf-132** | Wadipora, Chadoora, District Budgam | **Indigenous** |
| 133 | **SRS-Saf-133** | Wadipora, Chadoora, District Budgam | **Indigenous** |
| 134 | **SRS-Saf-134** | Wadipora, Chadoora, District Budgam | **Indigenous** |
| 135 | **SRS-Saf-135** | Wadipora, Chadoora, District Budgam | **Indigenous** |
| 136 | **SRS-Saf-136** | Nubugh, Chadoora, District Budgam | **Indigenous** |
| 137 | **SRS-Saf-137** | Nubugh, Chadoora, District Budgam | **Indigenous** |
| 138 | **SRS-Saf-138** | Nubugh, Chadoora, District Budgam | **Indigenous** |
| 139 | **SRS-Saf-139** | Nubugh, Chadoora, District Budgam | **Indigenous** |
| 140 | **SRS-Saf-140** | Khanda, Chadoora, District Budgam | **Indigenous** |
| 141 | **SRS-Saf-141** | Khanda, Chadoora, District Budgam | **Indigenous** |
| 142 | **SRS-Saf-142** | Khanda, Chadoora, District Budgam | **Indigenous** |
| 143 | **SRS-Saf-143** | Khanda, Chadoora, District Budgam | **Indigenous** |
| 144 | **SRS-Saf-144** | Khanda, Chadoora, District Budgam | **Indigenous** |
| 145 | **SRS-Saf-145** | Khunmoh, District Srinagar | **Indigenous** |
| 146 | **SRS-Saf-146** | Khunmoh, District Srinagar | **Indigenous** |
| 147 | **SRS-Saf-147** | Khunmoh, District Srinagar | **Indigenous** |
| 148 | **SRS-Saf-148** | Khunmoh, District Srinagar | **Indigenous** |
| 149 | **SRS-Saf-149** | Khunmoh, District Srinagar | **Indigenous** |
| 150 | **SRS-Saf-150** | Khunmoh, District Srinagar | **Indigenous** |
| 151 | **SRS-Saf-151** | Khunmoh, District Srinagar | **Indigenous** |
| 152 | **SRS-Saf-152** | Khunmoh, District Srinagar | **Indigenous** |
| 153 | **SRS-Saf-153** | Khunmoh, District Srinagar | **Indigenous** |
| 154 | **SRS-Saf-154** | Khunmoh, District Srinagar | **Indigenous** |
| 155 | **SRS-Saf-155** | Khunmoh, District Srinagar | **Indigenous** |
| 156 | **SRS-Saf-156** | Zewan, District Srinagar | **Indigenous** |
| 157 | **SRS-Saf-157** | Zewan, District Srinagar | **Indigenous** |
| 158 | **SRS-Saf-158** | Zewan, District Srinagar | **Indigenous** |
| 159 | **SRS-Saf-159** | Zewan, District Srinagar | **Indigenous** |
| 160 | **SRS-Saf-160** | Zewan, District Srinagar | **Indigenous** |
| 161 | **SRS-Saf-161** | Zewan, District Srinagar | **Indigenous** |
| 162 | **SRS-Saf-162** | Zewan, District Srinagar | **Indigenous** |
| 163 | **SRS-Saf-163** | Zewan, District Srinagar | **Indigenous** |
| 164 | **SRS-Saf-164** | Zewan, District Srinagar | **Indigenous** |
| 165 | **SRS-Saf-165** | Yachnambal, District Srinagar | **Indigenous** |
| 166 | **SRS-Saf-166** | Yachnambal, District Srinagar | **Indigenous** |
| 167 | **SRS-Saf-167** | Yachnambal, District Srinagar | **Indigenous** |
| 168 | **SRS-Saf-168** | Yachnambal, District Srinagar | **Indigenous** |
| 169 | **SRS-Saf-169** | Yachnambal, District Srinagar | **Indigenous** |
| 170 | **SRS-Saf-170** | Yachnambal, District Srinagar | **Indigenous** |
| 171 | **SRS-Saf-171** | ITAPA, Spain | Exotic |
| 172 | **SRS-Saf-172** | ITAPA, Spain | Exotic |
| 173 | **SRS-Saf-173** | ITAPA, Spain | Exotic |
| 174 | **SRS-Saf-174** | ITAPA, Spain | Exotic |
| 175 | **SRS-Saf-175** | ITAPA, Spain | Exotic |
| 176 | **SRS-Saf-176** | ITAPA, Spain | Exotic |
| 177 | **SRS-Saf-177** | ITAPA, Spain | Exotic |
| 178 | **SRS-Saf-178** | ITAPA, Spain | Exotic |
| 179 | **SRS-Saf-179** | ITAPA, Spain | Exotic |
| 180 | **SRS-Saf-180** | ITAPA, Spain | Exotic |
| 181 | **SRS-Saf-181** | ITAPA, Spain | Exotic |
| 182 | **SRS-Saf-182** | MSE, Netherland | Exotic |
| 183 | **SRS-Saf-183** | MSE, Netherland | Exotic |
| 184 | **SRS-Saf-184** | MSE, Netherland | Exotic |
| 185 | **SRS-Saf-185** | MSE, Netherland | Exotic |
| 186 | **SRS-Saf-186** | MSE, Netherland | Exotic |
| 187 | **SRS-Saf-187** | MSE, Netherland | Exotic |
| 188 | **SRS-Saf-188** | MSE, Netherland | Exotic |
| 189 | **SRS-Saf-189** | MSE, Netherland | Exotic |
| 190 | **SRS-Saf-190** | MSE, Netherland | Exotic |
| 191 | **SRS-Saf-191** | MSE, Netherland | Exotic |
| 192 | **SRS-Saf-192** | MSE, Netherland | Exotic |
| 193 | **SRS-Saf-193** | MSE, Netherland | Exotic |
| 194 | **SRS-Saf-194** | MSE, Netherland | Exotic |
| 195 | **SRS-Saf-195** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 196 | **SRS-Saf-196** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 197 | **SRS-Saf-197** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 198 | **SRS-Saf-198** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 199 | **SRS-Saf-199** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 200 | **SRS-Saf-200** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 201 | **SRS-Saf-201** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 202 | **SRS-Saf-202** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 203 | **SRS-Saf-203** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 204 | **SRS-Saf-204** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 205 | **SRS-Saf-205** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 206 | **SRS-Saf-206** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 207 | **SRS-Saf-207** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 208 | **SRS-Saf-208** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 209 | **SRS-Saf-209** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 210 | **SRS-Saf-210** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 211 | **SRS-Saf-211** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 212 | **SRS-Saf-212** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 213 | **SRS-Saf-213** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 214 | **SRS-Saf-214** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 215 | **SRS-Saf-215** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 216 | **SRS-Saf-216** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 217 | **SRS-Saf-217** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 218 | **SRS-Saf-218** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 219 | **SRS-Saf-219** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 220 | **SRS-Saf-220** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 221 | **SRS-Saf-221** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 222 | **SRS-Saf-222** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 223 | **SRS-Saf-223** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 224 | **SRS-Saf-224** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 225 | **SRS-Saf-225** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 226 | **SRS-Saf-226** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 227 | **SRS-Saf-227** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 228 | **SRS-Saf-228** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 229 | **SRS-Saf-229** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 230 | **SRS-Saf-230** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 231 | **SRS-Saf-231** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 232 | **SRS-Saf-232** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 233 | **SRS-Saf-233** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 234 | **SRS-Saf-234** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 235 | **SRS-Saf-235** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 236 | **SRS-Saf-236** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 237 | **SRS-Saf-237** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 238 | **SRS-Saf-238** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 239 | **SRS-Saf-239** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 240 | **SRS-Saf-240** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 241 | **SRS-Saf-241** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 242 | **SRS-Saf-242** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 243 | **SRS-Saf-243** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 244 | **SRS-Saf-244** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 245 | **SRS-Saf-245** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 246 | **SRS-Saf-246** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 247 | **SRS-Saf-247** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 248 | **SRS-Saf-248** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 249 | **SRS-Saf-249** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 250 | **SRS-Saf-250** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 251 | **SRS-Saf-251** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 252 | **SRS-Saf-252** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 253 | **SRS-Saf-253** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 254 | **SRS-Saf-254** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 255 | **SRS-Saf-255** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 256 | **SRS-Saf-256** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 257 | **SRS-Saf-257** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 258 | **SRS-Saf-258** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 259 | **SRS-Saf-259** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 260 | **SRS-Saf-260** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 261 | **SRS-Saf-261** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 262 | **SRS-Saf-262** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 263 | **SRS-Saf-263** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 264 | **SRS-Saf-264** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 265 | **SRS-Saf-265** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 266 | **SRS-Saf-266** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 267 | **SRS-Saf-267** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 268 | **SRS-Saf-268** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 269 | **SRS-Saf-269** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 270 | **SRS-Saf-270** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 271 | **SRS-Saf-271** | ARSSSS, SKUAST-K, Pampore | Indigenous |
| 272 | **SRS-Saf-272** | ARSSSS, SKUAST-K, Pampore | Mutant variety |

**ARSSSS-** *Advanced Research Station for Saffron & Seed Spices.*

**Table-S2:** Details of check varieties used in the experiment

|  |  |  |  |
| --- | --- | --- | --- |
| **Checks** | **Accession name** | **Origin** | **Pedigree** |
| C1 | Shalimar Saffron-1 (272) | SKUAST-Kashmir | Variety |
| C2 | SRS-Saf-14 | Nagni, Kishtwar, District Doda | Indigenous accession |
| C3 | SRS-Saf-58 | Androosa, Pampore, District Pulwama | Indigenous accession |
| C4 | SRS-Saf-81 | Sambora, Pampore, District Pulwama | Indigenous accession |
| C5 | **SRS-Saf-144** | Khanda, Chadoora, District Budgam | Indigenous accession |
| C6 | **SRS-Saf-165** | Yachnambal, District Srinagar | Indigenous accession |
| C7 | **SRS-Saf-176** | ITAPA, Spain | Exotic accession |
| C8 | **SRS-Saf-182** | MSE, Netherland | Exotic accession |

**Table-S3: Frequency distribution of different morphological traits in saffron**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Character** |  | **Number** | **Percentage** |
| 1 | Foliage colour (FC) | Green | 114 | 41.91 |
| Dark Green | 116 | 42.65 |
| Light Green | 42 | 15.44 |
| 2 | Presence of leaves at flowering (PLF) | Yes | 40 | 14.71 |
| No | 232 | 85.29 |
| 3 | Cataphyll colour (CC) | Brownish | 17 | 6.25 |
| Light yellow | 4 | 1.47 |
| White | 237 | 87.87 |
| Greenish | 10 | 4.41 |
| 4 | Tepal Shape (TS) | Obovate | 165 | 60.66 |
| Linear | 18 | 6.62 |
| Oblanceolate | 81 | 29.78 |
| Elliptic | 8 | 2.94 |
| 5 | Tepal Apex Shape (TAS) | Obtuse | 170 | 62.50 |
| Acuminate | 35 | 12.87 |
| Rounded | 33 | 12.13 |
| Acute | 34 | 12.50 |
| 6 | Uniformity of colour pattern of tepals (inner surface) (UCPIT) | NO | 260 | 95.59 |
| YES | 12 | 4.41 |
| 7 | Uniformity of colour pattern of tepals (outer surface) (UCPOT) | NO | 260 | 95.59 |
| Yes | 12 | 4.41 |
| 8 | Background colour of inner tepals (BCIT) | Light Violet | 121 | 44.49 |
| Dark violet | 64 | 23.53 |
| Violet | 48 | 17.65 |
| Purplish | 39 | 14.34 |
| 9 | Background colour of outer tepals (BCOT) | Light Violet | 112 | 41.18 |
| Dark violet | 67 | 24.63 |
| Violet | 58 | 21.32 |
| Purplish | 35 | 12.87 |
| 10 | Veining pattern of inner tepals (VPIT) | Discontinuous veining | 180 | 66.18 |
| More marked at base of segment | 45 | 16.54 |
| Only the main veins are marked | 39 | 14.34 |
| Uniformly veined | 8 | 2.94 |
| 11 | Veining pattern of outer tepals (VPOT) | Discontinuous veining | 184 | 67.65 |
| More marked at base of segment | 40 | 14.71 |
| Only the main veins are marked | 39 | 13.60 |
| Uniformly veined | 11 | 4.04 |
| 12 | Colour of the floral tube throat (CFTT) | Violet | 198 | 72.79 |
| With a purple ring | 74 | 27.21 |
| 13 | Pubescence of the floral tube throat (PFTT) | Glabrous | 264 | 97.06 |
| Pubescent | 8 | 2.94 |
| 14 | Stigma Colour | Dark Red | 111 | 40.81 |
|  | Light Red | 161 | 59.15 |
| 15 | Corm Tunic Texture (CTC) | Smooth and Splitting | 153 | 56.25 |
| Papery and Splitting | 61 | 23.16 |
| Interwoven fibres | 23 | 9.19 |
| Wholly parallel fibrous | 31 | 11.40 |
| 16 | Corm Tunic Texture (CTC) | Brown | 197 | 72.43 |
| Dark brown | 36 | 13.24 |
| Light yellow | 12 | 5.15 |
| Yellow | 23 | 9.19 |
| 17 | Shape of Naked Corm (SNC) | Flattened-globose | 127 | 46.69 |
| Sub-globose | 23 | 8.46 |
| Elongated Ovoid | 79 | 29.04 |
| Flattened | 31 | 11.40 |
| Ovoid | 12 | 4.41 |

**Table-S4: Analysis of variance for morphological, yield and yield attributing traits in Saffron**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **df** | **NLMS** | **NBPC** | **NSBpC** | **NDSFFF** | **NDSSFF** | **NFpC** | **CD (cm)** | **IWC (g)** | **ANDCPP** | **AWBCPP (g)** | **PL (cm)** | **PLWT (mg)** | **OTL (cm)** |
| **Block (ignoring Treatments)** | 7 | 7.36 \*\* | 9.26 \*\* | 2.59 \*\* | 10.77 \*\* | 8.55 \*\* | 0.05 ns | 0.4 \*\* | 18.99 \*\* | 1.56 \*\* | 14.11 \* | 0.11 ns | 0.96 \*\* | 0.08 ns |
| **Treatment (eliminating Blocks)** | 271 | 3.06 \*\* | 6.59 \*\* | 0.72 \*\* | 2.01 ns | 2.13 ns | 0.15 \* | 0.12 \*\* | 9.62 \*\* | 1.12 \*\* | 12.13 \*\* | 0.53 \*\* | 0.32 \* | 0.13 \*\* |
| **Treatment: Check** | 7 | 2.3 \* | 47.07 \*\* | 5.1 \*\* | 10.27 \*\* | 14.63 \*\* | 0.14 ns | 0.55 \*\* | 45.41 \*\* | 3.24 \*\* | 63.99 \*\* | 1.93 \*\* | 3.26 \*\* | 1.12 \*\* |
| **Treatment: Test and Test vs. Check** | 264 | 3.08 \*\* | 5.52 \*\* | 0.6 \*\* | 1.79 ns | 1.8 ns | 0.15 \* | 0.11 \*\* | 8.67 \*\* | 1.07 \*\* | 10.75 \*\* | 0.49 \*\* | 0.25 ns | 0.1 \*\* |
| **Residuals** | 49 | 0.79 | 1.9 | 0.22 | 1.62 | 1.48 | 0.1 | 0.06 | 1.83 | 0.26 | 5.35 | 0.18 | 0.19 | 0.05 |

**NLMS**- No. of leaves in main sprout; **NBPC**- No. of buds/corm; **NSBpC-**Number of sprouted buds per corm; **NDSFFF -** Number of days from sowing to 50% sprouting (d); **NDSSFF -** Number of days to 50% flowering (d); **NFpC-**Number of flowers per corm; **CD-**Corm Diameter (Cm); **IWC**- Initial Weight of Corms (g); **ANDCPP**-Average number of daughter corms per plant**; AWBCPP**- Average weight of daughter corms per plant**; PL-**Pistal Length (cm); **PLWT**-Parianth Length with Tube (cm); **OTL-**Outer Tepal Length (cm)

***Table-S4 contd.***

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **df** | **OTW(cm)** | **ITL(cm)** | **ITW(cm)** | **STYL(cm)** | **FWOFPP(mg)** | **FWOPPP(mg)** | **DWOPPP(mg)** | **STML(cm)** | **WSTG(mg)** | **TNL** | **LL(cm)** |
| **Block (ignoring Treatments)** | 7 | 0.09 \* | 0.06 ns | 0.02 \* | 0.06 ns | 1975.49 \*\* | 79.49 \*\* | 1.64 \*\* | 0.32 \*\* | 0.0006\*\* | 231.54 \*\* | 31.64 \*\* |
| **Treatment (eliminating Blocks)** | 271 | 0.08 \*\* | 0.09 \* | 0.02 \*\* | 0.11 \*\* | 1140.32 \*\* | 27.1 \*\* | 0.53 \* | 0.27 \*\* | 0.0003 \*\* | 74.98 \*\* | 7.15 ns |
| **Treatment: Check** | 7 | 1.46 \*\* | 1.42 \*\* | 0.07 \*\* | 0.57 \*\* | 6110.36 \*\* | 418.69 \*\* | 1.24 \*\* | 2.11 \*\* | 0.003 \*\* | 327.62 \*\* | 22.59 \*\* |
| **Treatment: Test and Test vs. Check** | 264 | 0.04 ns | 0.06 ns | 0.02 \*\* | 0.09 \*\* | 1008.54 \*\* | 16.72 ns | 0.51 \* | 0.22 \*\* | 0.00023 \*\* | 68.28 \*\* | 6.74 ns |
| **Residuals** | 49 | 0.03 | 0.05 | 0.01 | 0.04 | 501.19 | 12.42 | 0.32 | 0.1 | 1E-04 | 21.59 | 5.28 |

**OTW**- Outer Tepal Width (cm); **ITL-** Outer Tepal Length (cm);**ITW-** Outer Tepal Width (cm); **STYL-**Style Length (cm);**FWOFPP-Fresh Weight of Flowers per plant (mg), FWOPPP**-Fresh Weight of Pistals per plant **(mg)**; **DWOPPP-**Dry Weight of Pistals per plants **(mg)**; **STML-**Stigma Length (cm); **WSTG-**Weight of Stigma (mg);**;** TNL-Total No. of leaves; **LL**-Leaf Length (cm).

**Table-S5: Factor loading of principal components among the among 272 genotypes of saffron**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Character** | **PC1** | **PC2** | **PC3** | **PC4** | **PC5** | **PC6** | **PC7** | **PC8** | **PC9** | **PC10** | **PC11** | **PC12** |
| **NLMS** | -0.44 | -0.03 | -0.02 | 0.31 | -0.11 | 0.10 | -0.22 | 0.03 | -0.49 | -0.27 | 0.32 | -0.01 |
| **NBPC** | -0.41 | -0.15 | -0.24 | 0.25 | -0.28 | -0.16 | -0.09 | -0.44 | -0.21 | -0.18 | -0.11 | 0.04 |
| **NSBpC** | -0.14 | -0.28 | -0.23 | -0.11 | -0.53 | -0.32 | -0.24 | -0.22 | 0.01 | 0.33 | 0.07 | 0.13 |
| **NDSFFF** | -0.50 | -0.29 | -0.44 | -0.52 | 0.06 | -0.07 | 0.14 | 0.14 | -0.03 | 0.07 | 0.04 | 0.02 |
| **NDSSFF** | -0.49 | -0.25 | -0.37 | -0.55 | 0.06 | -0.06 | 0.16 | 0.01 | -0.08 | 0.08 | 0.07 | 0.07 |
| **NFpC** | -0.46 | -0.08 | -0.01 | 0.02 | -0.03 | 0.18 | -0.16 | 0.43 | -0.30 | -0.18 | -0.22 | 0.43 |
| **CD (cm)** |  0.02 | -0.50 | -0.05 | -0.02 | -0.22 | -0.13 | 0.32 | 0.35 | -0.03 | -0.29 | 0.24 | -0.41 |
| **IWC (g)** | -0.22 | -0.59 | 0.35 | **0.34** | -0.13 | 0.082 | 0.33 | -0.12 | 0.03 | 0.10 | -0.08 | 0.05 |
| **ANDCPP** | -0.55 | -0.27 | 0.32 | 0.21 | 0.18 | -0.25 | 0.14 | -0.01 | 0.10 | 0.03 | 0.06 | 0.17 |
| **AWBCPP (g)** | -0.25 | -0.67 | 0.35 | 0.25 | 0.04 | 0.09 | 0.09 | 0.05 | 0.06 | 0.18 | -0.10 | 0.06 |
| **PL (cm)** | -0.50 | 0.16 | -0.21 | 0.09 | 0.18 | 0.32 | 0.23 | -0.33 | -0.03 | 0.04 | 0.18 | 0.09 |
| **PLWT (mg)** | -0.54 | 0.10 | -0.23 | -0.01 | 0.21 | 0.25 | 0.35 | -0.31 | 0.01 | -0.11 | 0.05 | -0.05 |
| **OTL (cm)** | -0.63 | **0.27** | -0.06 | 0.11 | 0.03 | -0.13 | 0.21 | 0.29 | 0.04 | 0.01 | -0.31 | 0.01 |
| **OTW (cm)** | -0.60 | **0.40** | -0.14 | 0.31 | -0.16 | -0.11 | 0.07 | 0.08 | 0.22 | -0.02 | 0.10 | -0.02 |
| **ITL (cm)** | -0.65 | **0.32** | -0.26 | 0.18 | -0.00 | -0.19 | 0.12 | 0.07 | 0.07 | -0.01 | -0.17 | 0.08 |
| **ITW (cm)** | -0.49 | 0.20 | -0.11 | **0.38** | -0.08 | -0.07 | -0.16 | 0.22 | 0.23 | 0.19 | 0.37 | -0.06 |
| **STYL (cm)** | -0.40 | -0.14 | -0.24 | 0.10 | -0.25 | 0.43 | -0.21 | -0.00 | 0.02 | 0.08 | -0.39 | -0.43 |
| **FWOFPP (mg)** | -0.38 | 0.29 | **0.64** | -0.34 | -0.31 | 0.09 | 0.05 | -0.05 | -0.01 | -0.04 | 0.07 | 0.01 |
| **FWOPPP(mg)** | -0.50 | -0.12 | 0.26 | -0.02 | **0.51** | 0.04 | -0.32 | -0.01 | -0.10 | 0.13 | 0.13 | -0.11 |
| **DWOPPP (mg)** | -0.56 | 0.21 | **0.50** | -0.39 | -0.32 | 0.07 | 0.05 | -0.05 | 0.02 | -0.05 | 0.05 | 0.01 |
| **STML (cm)** |  0.73 | 0.19 | 0.30 | -0.21 | -0.06 | 0.07 | -0.11 | -0.01 | 0.05 | 0.05 | -0.05 | -0.14 |
| **WSTG (mg)** | -0.61 | -0.28 | -0.08 | -0.10 | 0.20 | 0.07 | -0.36 | 0.04 | 0.08 | 0.15 | 0.05 | -0.06 |
| **TNL** | -0.29 | 0.13 | 0.23 | -0.01 | **0.29** | -0.58 | -0.01 | -0.17 | -0.31 | -0.03 | -0.20 | -0.28 |
| **LL (cm)** | -0.25 | -0.31 | -0.02 | -0.12 | 0.09 | -0.09 | -0.30 | -0.16 | 0.52 | -0.58 | -0.05 | 0.08 |

**Contd. Table S5**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Character** | **PC13** | **PC14** | **PC15** | **PC16** | **PC17** | **PC18** | **PC19** | **PC20** | **PC21** | **PC22** | **PC23** | **PC24** |
| **NLMS** | 0.25 | -0.17 | 0.28 | 0.01 | 0.03 | -0.10 | -0.08 | -0.02 | -0.02 | -0.01 | -0.01 | 0.01 |
| **NBPC** | 0.14 | 0.33 | -0.28 | -0.07 | 0.00 | 0.15 | -0.02 | 0.12 | -0.03 | 0.03 | -0.01 | -0.02 |
| **NSBpC** | -0.29 | -0.03 | 0.22 | 0.18 | 0.02 | -0.08 | 0.05 | 0.03 | 0.01 | -0.06 | -0.01 | 0.01 |
| **NDSFFF** | 0.16 | -0.10 | -0.04 | -0.07 | -0.04 | 0.01 | -0.01 | 0.01 | -0.04 | -0.02 | -0.27 | -0.08 |
| **NDSSFF** | 0.23 | -0.14 | -0.14 | 0.02 | 0.08 | 0.01 | 0.03 | 0.01 | 0.03 | -0.01 | 0.25 | 0.05 |
| **NFpC** | -0.33 | -0.06 | -0.18 | 0.03 | -0.09 | -0.01 | 0.07 | 0.01 | 0.04 | 0.01 | 0.01 | -0.01 |
| **CD (cm)** | -0.26 | 0.19 | 0.03 | -0.01 | 0.04 | 0.07 | 0.09 | 0.01 | 0.01 | 0.02 | 0.02 | -0.01 |
| **IWC (g)** | 0.11 | -0.14 | -0.05 | 0.09 | 0.03 | 0.02 | -0.06 | -0.08 | 0.34 | 0.020 | -0.04 | -0.01 |
| **ANDCPP** | -0.03 | 0.07 | -0.08 | -0.21 | 0.21 | -0.41 | 0.06 | 0.01 | -0.12 | 0.04 | 0.01 | -0.02 |
| **AWBCPP (g)** | 0.08 | -0.07 | 0.12 | 0.01 | -0.22 | 0.22 | 0.03 | 0.04 | -0.29 | -0.03 | 0.04 | 0.01 |
| **PL (cm)** | -0.33 | -0.14 | 0.08 | -0.23 | 0.22 | 0.24 | 0.03 | 0.01 | -0.01 | -0.03 | -0.01 | 0.01 |
| **PLWT (mg)** | -0.15 | 0.07 | 0.01 | 0.33 | -0.27 | -0.23 | -0.08 | 0.01 | -0.05 | 0.02 | 0.01 | -0.01 |
| **OTL (cm)** | 0.03 | 0.11 | 0.18 | 0.11 | 0.21 | 0.04 | -0.28 | 0.18 | 0.01 | -0.12 | 0.01 | 0.02 |
| **OTW (cm)** | 0.09 | -0.04 | -0.02 | -0.19 | -0.25 | -0.03 | 0.18 | 0.01 | 0.102 | -0.26 | 0.03 | -0.03 |
| **ITL (cm)** | 0.11 | 0.11 | 0.20 | 0.11 | 0.04 | 0.11 | 0.21 | -0.28 | -0.031 | 0.19 | 0.01 | 0.01 |
| **ITW (cm)** | -0.03 | -0.17 | -0.33 | 0.17 | 0.02 | 0.08 | -0.15 | 0.02 | -0.064 | 0.12 | -0.02 | 0.02 |
| **STYL (cm)** | -0.01 | -0.14 | -0.10 | -0.02 | 0.15 | -0.15 | 0.07 | -0.07 | -0.077 | -0.04 | -0.01 | 0.01 |
| **FWOFPP (mg)** | 0.01 | 0.01 | -0.06 | 0.10 | 0.09 | 0.07 | -0.04 | -0.10 | -0.071 | -0.05 | 0.05 | -0.22 |
| **FWOPPP(mg)** | 0.05 | 0.21 | -0.04 | 0.26 | 0.12 | 0.07 | 0.25 | 0.05 | 0.075 | -0.13 | -0.05 | 0.04 |
| **DWOPPP (mg)** | 0.01 | 0.09 | -0.05 | -0.03 | -0.04 | -0.01 | -0.03 | -0.09 | -0.042 | -0.04 | -0.08 | 0.25 |
| **STML (cm)** | 0.01 | -0.06 | 0.15 | -0.12 | -0.12 | -0.01 | 0.10 | 0.29 | 0.118 | 0.24 | 0.01 | -0.02 |
| **WSTG (mg)** | -0.10 | 0.28 | 0.09 | -0.22 | -0.14 | 0.01 | -0.28 | -0.18 | 0.096 | 0.01 | 0.06 | -0.03 |
| **TNL** | -0.19 | -0.29 | -0.08 | -0.03 | -0.09 | 0.05 | -0.06 | -0.07 | -0.009 | -0.02 | 0.01 | 0.01 |
| **LL (cm)** | -0.01 | -0.18 | 0.06 | 0.08 | 0.06 | 0.05 | -0.01 | 0.01 | 0.005 | -0.02 | -0.01 | 0.02 |

**NLMS**- No. of leaves in main sprout; **NBPC**- No. of buds/corm; **NSBpC-**Number of sprouted buds per corm; **NDSFFF -** Number of days from sowing to 50% sprouting (d); **NDSSFF -** Number of days to 50% flowering (d); **NFpC-**Number of flowers per corm; **CD-**Corm Diameter (Cm); **IWC**- Initial Weight of Corms;ANDCPP-Average number of daughter corms per plant**;** AWBCPP- Average weight of daughter corms per plant**; PL-**Pistal Length (cm); **PLWT**-Parianth Length with Tube (cm); **OTL-**Outer Tepal Length (cm); **OTW**- Outer Tepal Width (cm); **ITL-** Outer Tepal Length (cm);**ITW-** Outer Tepal Width (cm); **STYL-**Style Length (cm);**FWOFPP-Fresh Weight of Flowers per plant, FWOPPP**-Fresh Weight of Pistals per plant; **DWOPPP-**Dry Weight of Pistals per plants; **STML-**Stigma Length (cm); **WSTG-**Weight of Stigma (mg);**;** TNL-Total No. of leaves; **LL**-Leaf Length (cm).

**Table-S6: Potential accessions for yield and yield attributing traits in Saffron.**

|  |  |  |
| --- | --- | --- |
| Saffron Accession  | Stigma Weight (mg) | Stigma length (cm) |
| SRS-Saf-175 | 0.07 | 2.29 |
| SRS-Saf-23 | 0.06 | 1.35 |
| SRS-Saf-163 | 0.06 | 1.73 |
| SRS-Saf-190 | 0.06 | 1.57 |
| SRS-Saf-101 | 0.05 | 2.11 |
| SRS-Saf-135 | 0.05 | 1.72 |
| SRS-Saf-155 | 0.04 | 2.19 |
| SRS-Saf-210 | 0.04 | 1.52 |
| SRS-Saf-243 | 0.03 | 2.15 |
| C1 | 0.03 | 1.86 |
| C2 | 0.03 | 1.72 |
| C3 | 0.02 | 1.71 |
| C4 | 0.06 | 2.23 |
| C5 | 0.03 | 1.68 |

Table-S7: Correlation of morphological, yield and yield attributing traits in saffron accessions

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **NLMS** | **NDSFFF** | **NFpC** | **CD** | **IWC** | **ANDCPP** | **AWBCPP** | **PL** | **STYL** | **PL** | **FWOFPP** | **FWOPPP** | **DWOPPP** | **STML** | **WSTG** | **TNL** | **LL** |
| NLMS | 1.000 | -0.108NS | 0.130\* | 0.038NS | 0.049NS | -0.033NS | 0.025NS | 0.026NS | 0.058NS | 0.058NS | -0.008NS | -0.038NS | -0.034NS | 0.028NS | -0.082NS | 0.030NS | -0.067NS |
| NDSFFF |  | 1.000 | 0.047NS | 0.062NS | -0.062NS | -0.038NS | -0.096NS | 0.064NS | -0.018NS | -0.036NS | 0.070NS | 0.004NS | 0.070NS | 0.054NS | -0.062NS | 0.007NS | 0.027NS |
| NFpC |  |  | 1.000 | -0.036NS | -0.013NS | -0.015NS | 0.029NS | 0.044NS | 0.046NS | 0.035NS | 0.114NS | -0.080NS | 0.053NS | 0.053NS | -0.095NS | -0.011NS | -0.019NS |
| CD |  |  |  | 1.000 | 0.180\*\* | 0.121\* | 0.183\*\* | -0.124\* | -0.082NS | -0.143\* | -0.075NS | -0.054NS | -0.074NS | -0.087NS | -0.080NS | -0.010NS | 0.063NS |
| IWC |  |  |  |  | 1.000 | 0.488\*\* | 0.657\*\* | 0.001NS | -0.005NS | 0.071NS | 0.082NS | 0.040NS | 0.071NS | 0.081NS | -0.026NS | 0.034NS | 0.035NS |
| ANDCPP |  |  |  |  |  | 1.000 | 0.405\*\* | 0.010NS | -0.116NS | -0.030NS | 0.086NS | 0.118NS | 0.086NS | 0.009NS | 0.008NS | 0.170\*\* | 0.070NS |
| AWBCPP |  |  |  |  |  |  | 1.000 | -0.074NS | -0.023NS | 0.032NS | 0.010NS | 0.099NS | 0.030NS | 0.065NS | 0.015NS | 0.009NS | 0.026NS |
| PL |  |  |  |  |  |  |  | 1.000 | 0.069NS | 0.018NS | -0.011NS | -0.022NS | -0.023NS | 0.023NS | 0.039NS | -0.054NS | -0.054NS |
| STYL |  |  |  |  |  |  |  |  | 1.000 | 0.538\*\* | -0.009NS | 0.077NS | -0.025NS | 0.207\*\* | 0.054NS | -0.071NS | -0.006NS |
| PL |  |  |  |  |  |  |  |  |  | 1.000 | 0.357\*\* | 0.006NS | 0.351\*\* | 0.679\*\* | 0.014NS | -0.011NS | -0.064NS |
| FWOFPP |  |  |  |  |  |  |  |  |  |  | 1.000 | 0.025NS | 0.953\*\* | 0.599\*\* | 0.005NS | 0.084NS | -0.036NS |
| FWOPPP |  |  |  |  |  |  |  |  |  |  |  | 1.000 | 0.059NS | 0.011NS | 0.018NS | 0.137\* | -0.043NS |
| DWOPPP |  |  |  |  |  |  |  |  |  |  |  |  | 1.000 | 0.630\*\* | 0.018NS | 0.080NS | 0.005NS |
| STML |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.000 | 0.074NS | 0.124\* | 0.026NS |
| WSTG |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.000 | -0.027NS | 0.047NS |
| TNL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.000 | 0.005NS |
| LL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.000 |
|  |

**NLMS**- No. of leaves in main sprout; **NBPC**- No. of buds/corm; **NSBpC-**Number of sprouted buds per corm; **NDSFFF -** Number of days from sowing to 50% sprouting (d); **NDSSFF -** Number of days to 50% flowering (d); **NFpC-**Number of flowers per corm; **CD-**Corm Diameter (Cm); **IWC**- Initial Weight of Corms (g);ANDCPP-Average number of daughter corms per plant**;** AWBCPP- Average weight of daughter corms per plant**; PL-**Pistal Length (cm); **PLWT**-Parianth Length with Tube (cm); **OTL-**Outer Tepal Length (cm); **OTW**- Outer Tepal Width (cm); **ITL-** Outer Tepal Length (cm);**ITW-** Outer Tepal Width (cm); **STYL-**Style Length (cm);**FWOFPP-Fresh Weight of Flowers per plant (mg), FWOPPP**-Fresh Weight of Pistals per plant (mg); **DWOPPP-**Dry Weight of Pistals per plants (mg); **STML-**Stigma Length (cm); **WSTG-**Weight of Stigma (mg);**;** TNL-Total No. of leaves; **LL**-Leaf Length (cm)



**Figure-S1**: **Coefficient of variation for morpho-agronomic traits in Saffron**



**Figure-S2: Genetic Advance for morpho-agronomic traits in Saffron**