**Supplementary Table S1**. *Solanum*-based DNA markers tested for their transferability to silverleaf nightshade from Texas, USA*.*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Primer Name | Source species | Marker type | Repeat motif | Expected amplicon size (bp) | Chrj | Map position (Mb) |
| 1 | TGSa 10927 | *Solanum lycopersicum* | SSRf | ATC5(mis2h) | 256 | 1 | 3.15 |
| 2 | TGS 2984 | *Solanum lycopersicum* | SSR | AAAT4(mis1i) | 278 | 1 | 9.23 |
| 3 | TGS 2465 | *Solanum lycopersicum* | SSR | AAG6(mis1) | 126 | 1 | 12.55 |
| 4 | TGS 2380 | *Solanum lycopersicum* | SSR | AG10(mis1) | 201 | 1 | 15.48 |
| 5 | TGS 11481 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 201 | 1 | 18.69 |
| 6 | TGS 1790 | *Solanum lycopersicum* | SSR | AC11(mis1) | 293 | 1 | 21.48 |
| 7 | TGS 0265 | *Solanum lycopersicum* | SSR | AT23 | 179 | 1 | 24.39 |
| 8 | TGS 1565 | *Solanum lycopersicum* | SSR | AAT9(mis1) | 219 | 1 | 30.73 |
| 9 | TGS 0085 | *Solanum lycopersicum* | SSR | AT31 | 275 | 1 | 36.50 |
| 10 | TGS 7203 | *Solanum lycopersicum* | SSR | AAAG4(mis2) | 266 | 1 | 39.69 |
| 11 | TGS 8920 | *Solanum lycopersicum* | SSR | AATG4(mis2) | 167 | 1 | 42.45 |
| 12 | TGS 13266 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 199 | 1 | 45.63 |
| 13 | TGS 9398 | *Solanum lycopersicum* | SSR | ATC5(mis2) | 221 | 1 | 48.63 |
| 14 | TGS 11095 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 188 | 1 | 51.67 |
| 15 | TGS 4708 | *Solanum lycopersicum* | SSR | AT9(mis2) | 185 | 1 | 54.62 |
| 16 | TGS 4535 | *Solanum lycopersicum* | SSR | GGA6(mis2) | 163 | 1 | 57.53 |
| 17 | TGS 2115 | *Solanum lycopersicum* | SSR | GGA7(mis1) | 136 | 1 | 60.60 |
| 18 | TGS 2656 | *Solanum lycopersicum* | SSR | AAT6(mis1) | 185 | 1 | 63.57 |
| 29 | TGS 8225 | *Solanum lycopersicum* | SSR | AATT4(mis2) | 176 | 1 | 66.65 |
| 20 | TGS 12143 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 172 | 1 | 75.61 |
| 21 | TGS 11545 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 256 | 1 | 81.63 |
| 22 | TGS 12372 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 156 | 1 | 84.62 |
| 23 | TGS 10482 | *Solanum lycopersicum* | SSR | ATC5(mis2) | 232 | 1 | 87.64 |
| 24 | TGS 9583 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 214 | 1 | 90.25 |
| 25 | TGS 10411 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 253 | 2 | 0.32 |
| 26 | TGS 4406 | *Solanum lycopersicum* | SSR | AAT6(mis2) | 232 | 2 | 3.48 |
| 27 | TGS 7378 | *Solanum lycopersicum* | SSR | AGGT4(mis2) | 145 | 2 | 6.44 |
| 28 | TGS 10096 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 224 | 2 | 12.40 |
| 29 | TGS 3008 | *Solanum lycopersicum* | SSR | AAAC4(mis1) | 157 | 2 | 15.49 |
| 30 | TGS 2428 | *Solanum lycopersicum* | SSR | AT10(mis1) | 215 | 2 | 18.54 |
| 31 | TGS 5835 | *Solanum lycopersicum* | SSR | AAAT4(mis2) | 155 | 2 | 24.43 |
| 32 | TGS 0798 | *Solanum lycopersicum* | SSR | AAT9 | 293 | 2 | 27.54 |
| 33 | TGS 12581 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 192 | 2 | 36.59 |
| 34 | TGS 1432 | *Solanum lycopersicum* | SSR | AGC6 | 192 | 2 | 33.55 |
| 35 | TGS 10252 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 196 | 2 | 39.45 |
| 36 | TGS 1838 | *Solanum lycopersicum* | SSR | AG11(mis1) | 217 | 2 | 42.48 |
| 37 | TGS 5494 | *Solanum lycopersicum* | SSR | AAAG4(mis2) | 236 | 2 | 45.51 |
| 38 | TGS 8877 | *Solanum lycopersicum* | SSR | AT8(mis2) | 195 | 3 | 3.02 |
| 39 | TGS 11210 | *Solanum lycopersicum* | SSR | AAC5(mis2) | 216 | 3 | 6.04 |
| 40 | TGS 4954 | *Solanum lycopersicum* | SSR | AT9(mis2) | 186 | 3 | 9.01 |
| 41 | TGS 1020 | *Solanum lycopersicum* | SSR | AAG8 | 223 | 3 | 12.01 |
| 42 | TGS 9879 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 199 | 3 | 15.01 |
| 43 | TGS 3124 | *Solanum lycopersicum* | SSR | AG8(mis1) | 174 | 3 | 18.26 |
| 44 | TGS 0420 | *Solanum lycopersicum* | SSR | AT19 | 235 | 3 | 21.06 |
| 45 | TGS 12123 | *Solanum lycopersicum* | SSR | AAC5(mis2) | 252 | 3 | 24.11 |
| 46 | TGS 0705 | *Solanum lycopersicum* | SSR | AATT7 | 131 | 3 | 27.26 |
| 47 | TGS 11933 | *Solanum lycopersicum* | SSR | ACT5(mis2) | 234 | 3 | 33.54 |
| 48 | TGS 7221 | *Solanum lycopersicum* | SSR | AAAT4(mis2) | 268 | 3 | 36.46 |
| 49 | TGS 12842 | *Solanum lycopersicum* | SSR | GGA5(mis2) | 233 | 3 | 39.63 |
| 50 | TGS 10259 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 239 | 3 | 42.44 |
| 51 | TGS 6246 | *Solanum lycopersicum* | SSR | AT8(mis2) | 225 | 3 | 45.54 |
| 52 | TGS 0430 | *Solanum lycopersicum* | SSR | AT18 | 188 | 3 | 48.52 |
| 53 | TGS 0583 | *Solanum lycopersicum* | SSR | AATT8 | 180 | 3 | 57.45 |
| 54 | TGS 0728 | *Solanum lycopersicum* | SSR | AT14 | 257 | 4 | 3.12 |
| 55 | TGS 11679 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 230 | 4 | 6.27 |
| 56 | TGS 1418 | *Solanum lycopersicum* | SSR | AAG6 | 283 | 4 | 9.25 |
| 57 | TGS 2877 | *Solanum lycopersicum* | SSR | AT9(mis1) | 267 | 4 | 15.24 |
| 58 | TGS 3806 | *Solanum lycopersicum* | SSR | AAG7(mis2) | 172 | 4 | 18.22 |
| 59 | TGS 1711 | *Solanum lycopersicum* | SSR | AAAC6(mis1) | 144 | 4 | 21.13 |
| 60 | TGS 3052 | *Solanum lycopersicum* | SSR | AAAT4(mis1) | 226 | 4 | 24.60 |
| 61 | TGS 11147 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 223 | 4 | 27.32 |
| 62 | TGS 8373 | *Solanum lycopersicum* | SSR | GACT4(mis2) | 217 | 4 | 33.57 |
| 63 | TGS 6934 | *Solanum lycopersicum* | SSR | AAAT4(mis2) | 157 | 4 | 36.55 |
| 64 | TGS 0406 | *Solanum lycopersicum* | SSR | AT19 | 269 | 4 | 39.24 |
| 65 | TGS 1264 | *Solanum lycopersicum* | SSR | AGC7 | 174 | 4 | 42.30 |
| 66 | TGS 0048 | *Solanum lycopersicum* | SSR | AT36 | 137 | 4 | 45.29 |
| 67 | TGS 11520 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 151 | 4 | 48.16 |
| 68 | TGS 1595 | *Solanum lycopersicum* | SSR | AT13(mis1) | 205 | 4 | 51.26 |
| 69 | TGS 1450 | *Solanum lycopersicum* | SSR | AAAT4 | 122 | 4 | 57.31 |
| 70 | TGS 1069 | *Solanum lycopersicum* | SSR | AAT8 | 260 | 4 | 63.24 |
| 71 | TGS 1794 | *Solanum lycopersicum* | SSR | AT11(mis1) | 216 | 5 | 3.08 |
| 72 | TGS 0595 | *Solanum lycopersicum* | SSR | AG16 | 155 | 5 | 9.16 |
| 73 | TGS 12065 | *Solanum lycopersicum* | SSR | ATC5(mis2) | 190 | 5 | 12.33 |
| 74 | TGS 6490 | *Solanum lycopersicum* | SSR | AAAG4(mis2) | 151 | 5 | 15.41 |
| 75 | TGS 0759 | *Solanum lycopersicum* | SSR | AT14 | 124 | 5 | 18.30 |
| 76 | TGS 2398 | *Solanum lycopersicum* | SSR | AAAT5(mis1) | 194 | 5 | 21.48 |
| 77 | TESb 7324 | *Solanum lycopersicum* | SSR | AAC5(mis2) | 194 | 1 | 0.07 |
| 78 | TES 7377 | *Solanum lycopersicum* | SSR | AAT5(mis2) | 229 | 1 | 6.30 |
| 79 | TES 7421 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 199 | 1 | 33.62 |
| 80 | TES 4051 | *Solanum lycopersicum* | SSR | AAGC4(mis2) | 250 | 1 | 69.58 |
| 81 | TES 0187 | *Solanum lycopersicum* | SSR | AGGT6 | 261 | 1 | 78.56 |
| 82 | TES 4332 | *Solanum lycopersicum* | SSR | GGAT4(mis2) | 189 | 2 | 9.20 |
| 83 | TES 5394 | *Solanum lycopersicum* | SSR | ATC5(mis2) | 277 | 2 | 21.51 |
| 84 | TES 5116 | *Solanum lycopersicum* | SSR | AGC5(mis2) | 163 | 2 | 30.42 |
| 85 | TES 1301 | *Solanum lycopersicum* | SSR | AAC6(mis1) | 158 | 2 | 48.54 |
| 86 | TES 2519 | *Solanum lycopersicum* | SSR | AT10(mis2) | 218 | 3 | 0.01 |
| 87 | TES 5971 | *Solanum lycopersicum* | SSR | AAG5(mis2) | 240 | 3 | 30.40 |
| 88 | TES 2367 | *Solanum lycopersicum* | SSR | AAT7(mis2) | 238 | 3 | 51.70 |
| 89 | TES 0236 | *Solanum lycopersicum* | SSR | AATT6 | 271 | 3 | 54.47 |
| 90 | TES 5525 | *Solanum lycopersicum* | SSR | GGT5(mis2) | 253 | 3 | 60.46 |
| 91 | TES 1682 | *Solanum lycopersicum* | SSR | GGC6(mis1) | 246 | 3 | 63.65 |
| 92 | TES 1220 | *Solanum lycopersicum* | SSR | AC10(mis1) | 218 | 4 | 0.09 |
| 93 | TES 1783 | *Solanum lycopersicum* | SSR | AAAG4(mis1) | 179 | 4 | 12.22 |
| 94 | TES 4279 | *Solanum lycopersicum* | SSR | AAAG4(mis2) | 242 | 4 | 30.67 |
| 95 | TES 4572 | *Solanum lycopersicum* | SSR | ATC5(mis2) | 155 | 4 | 54.38 |
| 96 | TES 0080 | *Solanum lycopersicum* | SSR | AT14 | 231 | 4 | 60.12 |
| 97 | TES 4239 | *Solanum lycopersicum* | SSR | AATT4(mis2) | 185 | 5 | 0.06 |
| 98 | TES 2019 | *Solanum lycopersicum* | SSR | AAG5(mis1) | 242 | 5 | 6.12 |
| 99 | SLYD 01 | *Solanum lycopersicoides* | indelg | - | 330 | 1 | 0.04 |
| 100 | SLYD 02 | *Solanum lycopersicoides* | indel | - | 321 | 1 | 27.85 |
| 101 | SLYD 03 | *Solanum lycopersicoides* | indel | - | 320 | 1 | 30.76 |
| 102 | SLYD 04 | *Solanum lycopersicoides* | indel | - | 338 | 2 | 27.25 |
| 103 | SLYD 05 | *Solanum lycopersicoides* | indel | - | 347 | 2 | 36.06 |
| 104 | SLYD 06 | *Solanum lycopersicoides* | indel | - | 338 | 2 | 45.01 |
| 105 | SLYD 07 | *Solanum lycopersicoides* | indel | - | 349 | 2 | 54.05 |
| 106 | SLYD 08 | *Solanum lycopersicoides* | indel | - | 236 | 3 | 0.01 |
| 107 | SLYD 09 | *Solanum lycopersicoides* | indel | - | 261 | 1 | 3.03 |
| 108 | SLYD 10 | *Solanum lycopersicoides* | indel | - | 282 | 1 | 6.17 |
| 109 | SLYD 11 | *Solanum lycopersicoides* | indel | - | 380 | 1 | 15.50 |
| 110 | SLYD 12 | *Solanum lycopersicoides* | indel | - | 352 | 1 | 79.10 |
| 111 | SLYD 13 | *Solanum lycopersicoides* | indel | - | 218 | 1 | 93.22 |
| 112 | SLYD 14 | *Solanum lycopersicoides* | indel | - | 316 | 2 | 0.04 |
| 113 | SLYD 15 | *Solanum lycopersicoides* | indel | - | 273 | 2 | 9.26 |
| 114 | SLYD 16 | *Solanum lycopersicoides* | indel | - | 374 | 2 | 15.60 |
| 115 | SLYD 17 | *Solanum lycopersicoides* | indel | - | 143 | 2 | 18.13 |
| 116 | SLYD 18 | *Solanum lycopersicoides* | indel | - | 296 | 2 | 24.10 |
| 117 | SLYD 19 | *Solanum lycopersicoides* | indel | - | 389 | 3 | 3.02 |
| 118 | SLYD 20 | *Solanum lycopersicoides* | indel | - | 226 | 3 | 6.22 |
| 119 | SLYD 21 | *Solanum lycopersicoides* | indel | - | 362 | 3 | 18.36 |
| 120 | SLYD 22 | *Solanum lycopersicoides* | indel | - | 278 | 3 | 24.02 |
| 121 | SLYD 23 | *Solanum lycopersicoides* | indel | - | 203 | 3 | 51.68 |
| 122 | SLYD 24 | *Solanum lycopersicoides* | indel | - | 308 | 4 | 0.03 |
| 123 | SLYD 25 | *Solanum lycopersicoides* | indel | - | 377 | 4 | 12.30 |
| 124 | SLYD 26 | *Solanum lycopersicoides* | indel | - | 244 | 4 | 24.31 |
| 125 | SLYD 27 | *Solanum lycopersicoides* | indel | - | 204 | 4 | 30.44 |
| 126 | SLYD 28 | *Solanum lycopersicoides* | indel | - | 251 | 4 | 47.98 |
| 127 | SLYD 29 | *Solanum lycopersicoides* | indel | - | 238 | 5 | 0.13 |
| 128 | SLYD 30 | *Solanum lycopersicoides* | indel | - | 270 | 5 | 18.74 |
| 129 | SLYD 31 | *Solanum lycopersicoides* | indel | - | 392 | 5 | 33.41 |
| 130 | SLYD 32 | *Solanum lycopersicoides* | indel | - | 207 | 5 | 45.13 |
| 131 | SLYD 33 | *Solanum lycopersicoides* | indel | - | 271 | 5 | 57.42 |
| 132 | SLYD 34 | *Solanum lycopersicoides* | indel | - | 269 | 6 | 3.17 |
| 133 | SLYD 35 | *Solanum lycopersicoides* | indel | - | 322 | 6 | 6.75 |
| 134 | SLYD 36 | *Solanum lycopersicoides* | indel | - | 266 | 6 | 15.51 |
| 135 | SLYD 37 | *Solanum lycopersicoides* | indel | - | 361 | 6 | 24.86 |
| 136 | SLYD 38 | *Solanum lycopersicoides* | indel | - | 276 | 6 | 30.52 |
| 137 | SLYD 39 | *Solanum lycopersicoides* | indel | - | 335 | 7 | 3.37 |
| 138 | SLYD 40 | *Solanum lycopersicoides* | indel | - | 253 | 7 | 9.13 |
| 139 | SLYD 41 | *Solanum lycopersicoides* | indel | - | 412 | 7 | 15.54 |
| 140 | SLYD 42 | *Solanum lycopersicoides* | indel | - | 355 | 7 | 24.13 |
| 141 | SLYD 43 | *Solanum lycopersicoides* | indel | - | 306 | 7 | 36.28 |
| 142 | SLYD 44 | *Solanum lycopersicoides* | indel | - | 397 | 8 | 3.42 |
| 143 | SLYD 45 | *Solanum lycopersicoides* | indel | - | 468 | 8 | 9.17 |
| 144 | SLYD 46 | *Solanum lycopersicoides* | indel | - | 315 | 8 | 24.47 |
| 145 | SLYD 47 | *Solanum lycopersicoides* | indel | - | 228 | 8 | 33.47 |
| 146 | SLYD 48 | *Solanum lycopersicoides* | indel | - | 357 | 8 | 45.28 |
| 147 | SLYD 49 | *Solanum lycopersicoides* | indel | - | 298 | 9 | 3.24 |
| 148 | SLYD 50 | *Solanum lycopersicoides* | indel | - | 230 | 9 | 12.33 |
| 149 | SLYD 51 | *Solanum lycopersicoides* | indel | - | 370 | 9 | 18.63 |
| 150 | SLYD 52 | *Solanum lycopersicoides* | indel | - | 372 | 9 | 27.98 |
| 151 | SLYD 53 | *Solanum lycopersicoides* | indel | - | 293 | 9 | 33.70 |
| 152 | SLYD 54 | *Solanum lycopersicoides* | indel | - | 335 | 10 | 3.02 |
| 153 | SEAc 1 | *Solanum elaeagnifolium* | SSR | - | 308 | - | - |
| 154 | SEA 2 | *Solanum elaeagnifolium* | SSR | - | 221-232 | - | - |
| 155 | SEA 3 | *Solanum elaeagnifolium* | SSR | - | - | - | - |
| 156 | SEA 4 | *Solanum elaeagnifolium* | SSR | - | 328-331 | - | - |
| 157 | SEA 5 | *Solanum elaeagnifolium* | SSR | - | 196-204 | - | - |
| 158 | SEA 6 | *Solanum elaeagnifolium* | SSR | - | 256-278 | - | - |
| 159 | SEA 7 | *Solanum elaeagnifolium* | SSR | - | 226-259 | - | - |
| 160 | SEA 8 | *Solanum elaeagnifolium* | SSR | - | 195-202 | - | - |
| 161 | SEA 9 | *Solanum elaeagnifolium* | SSR | - | 226-268 | - | - |
| 162 | SEA 10 | *Solanum elaeagnifolium* | SSR | - | 213 | - | - |
| 163 | SEA 11 | *Solanum elaeagnifolium* | SSR | - | 231 | - | - |
| 164 | SEA 12 | *Solanum elaeagnifolium* | SSR | - | 238 | - | - |
| 165 | SEA 13 | *Solanum elaeagnifolium* | SSR | - | - | - | - |
| 166 | SEA 14 | *Solanum elaeagnifolium* | SSR | - | 299 | - | - |
| 167 | SEA 15 | *Solanum elaeagnifolium* | SSR | - | 174-186 | - | - |
| 168 | SEA 16 | *Solanum elaeagnifolium* | SSR | - | - | - | - |
| 169 | SEA 17 | *Solanum elaeagnifolium* | SSR | - | 162-174 | - | - |
| 170 | SEA 18 | *Solanum elaeagnifolium* | SSR | - | 185 | - | - |
| 171 | SEA 19 | *Solanum elaeagnifolium* | SSR | - | 216 | - | - |
| 172 | SEA 20 | *Solanum elaeagnifolium* | SSR | - | 218-242 | - | - |
| 173 | SEA 21 | *Solanum elaeagnifolium* | SSR | - | 245-289 | - | - |
| 174 | SEA 22 | *Solanum elaeagnifolium* | SSR | - | 202-257 | - | - |
| 175 | SEA 23 | *Solanum elaeagnifolium* | SSR | - | 294 | - | - |
| 176 | SEA 24 | *Solanum elaeagnifolium* | SSR | - | 353 | - | - |
| 177 | SEA 25 | *Solanum elaeagnifolium* | SSR | - | 224 | - | - |
| 178 | SEA 26 | *Solanum elaeagnifolium* | SSR | - | 123-160 | - | - |
| 179 | STUd 1 | *Solanum tuberosum* | SSR | - | 136-163 | 4 | - |
| 180 | STU 2 | *Solanum tuberosum* | SSR | - | 177-192 | 3 | - |
| 181 | SMEe 1 | *Solanum melongena* | SSR | - | 260 | - | - |
| 182 | SME 2 | *Solanum melongena* | SSR | - | 268 | - | - |
| 183 | SME 3 | *Solanum melongena* | SSR | - | 228 | - | - |
| 184 | SME 4 | *Solanum melongena* | SSR | - | 123 | - | - |
| 185 | SME 5 | *Solanum melongena* | SSR | - | 213 | - | - |
| 186 | SME 6 | *Solanum melongena* | SSR | - | 248 | - | - |
| 187 | SME 7 | *Solanum melongena* | SSR | - | 230-243 | - | - |

agenomic-based tomato SSRs

bexpressed sequence tag (EST)-based tomato SSRs

cEST-based, silverleaf nightshade-specific markers designed by Zhu et al. (2013)

dpotato SSRs screened for transferability to silverleaf nightshade by Zhu et al. (2012)

eeggplant SSRs screened for transferability to silverleaf nightshade by Zhu et al. (2012)

fsimple sequence repeats

ginsertion/deletion

himperfect SSR motif having 2-base mismatches in the SSR region

i imperfect SSR motif having 1-base mismatch in the SSR region

jChr = chromosome number