Table S3 Construction of potato populations with light and dark browning

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Browning light（Q） | Number | Browning dark（Z） |
| 2021 |  | 2022 | 2021 |  | 2022 |
| Browning Index % | Browning Intensity | Cooking browning Index |  | Browning Index % | Browning Intensity | Cooking browning Index | Browning Index % | Browning Intensity | Cooking browning Index |  | Browning Index % | Browning Intensity | Cooking browning Index |
| T37 | 16.67  | 0.045  | 8.00  |  | 8.33  | 0.080  | 7.00  | T5 | 100.00  | 0.334  | 6.75  |  | 91.67  | 0.104  | 6.33  |
| T41 | 33.33  | 0.109  | 7.50  |  | 25.00  | 0.000  | 7.00  | T6 | 100.00  | 0.303  | 5.25  |  | 91.67  | 0.154  | 6.67  |
| T44 | 0.00  | 0.035  | 8.00  |  | 25.00  | 0.039  | 6.00  | T18 | 100.00  | 0.248  | 5.00  |  | 91.67  | 0.038  | 6.33  |
| T46 | 16.67  | 0.110  | 7.75  |  | 0.00  | 0.053  | 7.00  | T30 | 100.00  | 0.380  | 5.00  |  | 100.00  | 0.251  | 7.00  |
| T60 | 41.67  | 0.036  | 7.00  |  | 5.56  | 0.041  | 7.00  | T40 | 100.00  | 0.212  | 7.25  |  | 75.00  | 0.247  | 6.33  |
| T83 | 44.44  | 0.119  | 7.75  |  | 33.33  | 0.065  | 8.00  | T53 | 100.00  | 0.241  | 7.50  |  | 100.00  | 0.240  | 7.00  |
| T120 | 0.00  | 0.104  | 8.00  |  | 8.33  | 0.091  | 8.00  | T72 | 100.00  | 0.312  | 7.00  |  | 50.00  | 0.206  | 7.33  |
| T150 | 66.67  | 0.033  | 8.00  |  | 8.33  | 0.022  | 8.00  | T74 | 16.67  | 0.187  | 6.25  |  | 12.50  | 0.079  | 6.50  |
| T166 | 0.00  | 0.071  | 7.50  |  | 41.67  | 0.050  | 7.33  | T76 | 100.00  | 0.328  | 6.50  |  | 75.00  | -0.011  | 6.50  |
| T175 | 62.50  | 0.041  | 7.00  |  | 25.00  | 0.070  | 7.00  | T86 | 100.00  | 0.231  | 7.00  |  | 75.00  | 0.146  | 7.00  |
| T183 | 33.33  | 0.139  | 7.00  |  | 16.67  | 0.144  | 7.00  | T142 | 91.67  | 0.396  | 7.00  |  | 100.00  | 0.488  | 6.00  |
| T199 | 0.00  | 0.079  | 8.00  |  | 16.67  | 0.011  | 6.83  | T146 | 100.00  | 0.167  | 6.75  |  | 100.00  | 0.059  | 7.67  |
| T201 | 8.33  | 0.187  | 7.00  |  | 16.67  | 0.045  | 6.00  | T149 | 100.00  | 0.238  | 7.00  |  | 75.00  | 0.194  | 5.67  |
| T230 | 8.33  | 0.076  | 8.00  |  | 66.67  | 0.023  | 7.67  | T156 | 100.00  | 0.566  | 5.25  |  | 100.00  | 0.160  | 6.50  |
| T250 | 32.50  | 0.083  | 9.00  |  | 100.00  | 0.251  | 8.00  | T169 | 100.00  | 0.547  | 6.00  |  | 100.00  | 0.147  | 6.00  |
| T256 | 16.67  | 0.128  | 7.00  |  | 16.67  | 0.051  | 8.00  | T190 | 91.67  | 0.368  | 8.00  |  | 100.00  | 0.376  | 7.33  |
| T286 | 25.00  | 0.081  | 7.00  |  | 8.33  | 0.086  | 7.00  | T232 | 100.00  | 0.071  | 5.50  |  | 66.67  | 0.174  | 7.00  |
| T299 | 0.00  | 0.086  | 8.50  |  | 0.00  | 0.055  | 7.17  | T238 | 100.00  | 0.352  | 7.00  |  | 83.33  | 0.077  | 7.00  |
| T303 | 12.50  | 0.055  | 8.50  |  | 0.00  | 0.109  | 8.00  | T253 | 100.00  | 　 | 5.75  |  | 100.00  | 0.102  | 7.00  |
| T304 | 25.00  | 0.088  | 6.75  |  | 33.33  | 0.060  | 4.67  | T257 | 100.00  | 0.219  | 7.25  |  | 100.00  | 0.320  | 7.00  |
| T331 | 33.33  | 0.165  | 7.25  |  | 58.33  | 0.031  | 7.00  | T258 | 66.67  | 0.402  | 4.00  |  | 100.00  | 0.260  | 6.67  |
| T338 | 0.00  | 0.048  | 7.50  |  | 0.00  | 0.033  | 7.67  | T261 | 100.00  | 0.229  | 9.00  |  | 100.00  | 0.103  | 6.67  |
| T354 | 8.33  | 0.100  | 7.25  |  | 0.00  | 0.016  | 8.00  | T270 | 100.00  | 0.436  | 7.00  |  | 91.67  | 0.220  | 6.00  |
| T371 | 8.33  | 0.119  | 8.00  |  | 16.67  | 0.051  | 8.00  | T274 | 100.00  | 0.212  | 6.00  |  | 77.78  | 0.101  | 6.00  |
| T377 | 58.33  | 0.078  | 8.00  |  | 25.00  | 0.035  | 8.00  | T302 | 100.00  | 0.478  | 6.25  |  | 86.11  | 0.184  | 6.67  |
| T384 | 25.00  | 0.015  | 7.00  |  | 37.50  | 0.072  | 6.50  | T321 | 100.00  | 0.498  | 7.00  |  | 100.00  | 0.178  | 6.00  |
| T396 | 0.00  | 0.087  | 8.00  |  | 8.33  | 0.065  | 7.83  | T328 | 100.00  | 0.212  | 7.25  |  | 100.00  | 0.218  | 6.67  |
| T404 | 0.00  | 0.151  | 8.00  |  | 0.00  | 0.018  | 8.00  | T337 | 100.00  | 0.354  | 6.75  |  | 83.33  | 0.102  | 6.67  |
| T405 | 0.00  | 0.154  | 8.25  |  | 50.00  | 0.074  | 7.00  | T353 | 100.00  | 0.159  | 6.75  |  | 100.00  | 0.235  | 7.33  |
| T414 | 8.33  | 0.172  | 4.75  |  | 25.00  | 0.109  | 7.00  | T359 | 100.00  | 0.220  | 6.00  |  | 83.33  | 0.187  | 6.00  |