**Supplementary Table 1.** Tomato accessions for the evaluation of physiological traits against low temperature in winter 2020-2021.

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Origin name** | **Field number** | **Fruit type** |
| T01 | IT173771 | WTM23 | Wild |
| T02 | L3708 | WTM24 | Wild |
| T03 | MEX-SBY-1997-2799 | WTM02 | Cherry |
| T04 | K160289 | WTM09 | Cherry |
| T05 | Wonye 9014 | WTM10 | Cherry |
| T06 | VI037163 | WTM11 | Cherry |
| T07 | SY x 11AVT-2\_4 (F9) | WTM12 | Cherry |
| T08 | Wonye 9015 | WTM13 | Cherry |
| T09 | AVTO1020 | WTM14 | Cherry |
| T10 | T088-47 | WTM15 | Cherry |
| T11 | Power Guard | WTM16 | Cherry |
| T12 | T088-43 | WTM17 | Cherry |
| T13 | ACC416 | WTM18 | Cherry |
| T14 | Yulwon | WTM20 | Cherry |
| T15 | SWEETIE | WTM21 | Cherry |
| T16 | ACC440 | WTM22 | Cherry |
| T17 | Minichal | WTM30 | Cherry |
| T18 | Candy Plus | WTM31 | Cherry |
| T19 | TY Sispen | WTM32 | Cherry |
| T20 | Black Cue | WTM33 | Cherry |
| T21 | Icon513 | WTM34 | Cherry |
| T22 | TY Endorphin | WTM35 | Cherry |
| T23 | AVTO1314 | WTM03 | Medium |
| T24 | AVTO1219 | WTM04 | Medium |
| T25 | K012912 | WTM05 | Medium |
| T26 | L05945 | WTM06 | Medium |
| T27 | AVTO1456 | WTM07 | Medium |
| T28 | B-strong | WTM08 | Medium |
| T29 | ACC417 | WTM19 | Medium |
| T30 | Hoyoung | WTM28 | Medium |
| T31 | Black Change | WTM29 | Medium |
| T32 | Tom Little | WTM25 | Medium |
| T33 | Tom Heart | WTM26 | Medium |
| T34 | AVTO9001 | WTM01 | Large |
| T35 | Dafnis | WTM27 | Large |

**Supplementary Table 2.** Loading matrix associated with the principal components analysis (PCA) for 9 physiological traits.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Value | **PC1** | **PC2** | **PC3** | **PC4** | **PC5** | **PC6** | **PC7** | **PC8** | **PC9** |
| Eigenvalue | 3.692 | 2.396 | 1.142 | .799 | .452 | .220 | .139 | .099 | .060 |
| Variability (%) | 41.024 | 26.626 | 12.683 | 8.877 | 5.027 | 2.449 | 1.542 | 1.100 | .671 |
| Cumulative (%) | 41.024 | 67.650 | 80.333 | 89.210 | 94.237 | 96.687 | 98.228 | 99.329 | 100.000 |
| Component loading |  |  |  |  |  |  |  |  |  |
| LL | **.941** | .144 | .114 | .016 | .122 | .084 | -.011 | -.243 | .000 |
| LW | **.939** | .023 | .041 | -.024 | .202 | .112 | .040 | .246 | .012 |
| FS | .041 | **.932** | .306 | -.020 | .145 | -.081 | .014 | -.014 | -.094 |
| NFR | .074 | **.746** | .288 | .479 | .217 | -.077 | .045 | .008 | .264 |
| MY | .060 | .222 | **.967** | .013 | -.033 | .005 | -.105 | -.012 | .006 |
| FY | .142 | **.391** | **.765** | .262 | .167 | .056 | .375 | .015 | .018 |
| NFL | -.025 | .086 | .079 | **.986** | .118 | .006 | .021 | -.002 | -.003 |
| PH | .294 | .225 | .033 | .165 | **.909** | .086 | .022 | .003 | .010 |
| SD | **.659** | -.196 | .054 | -.003 | .160 | **.706** | .012 | .002 | -.006 |