**Table S1.** Number of markers and number of probes per chromosome

| Scaffold | Scaffold Length (Kb) | Chromosome number | Number of markers | Number of Probes |
|---|---|---|---|---|
| VaccDscaff1 | 46 295.995 | 1 | 8 793 | 954 |
| VaccDscaff2 | 44 818.276 | 2 | 7 430 | 815 |
| VaccDscaff4 | 42 981.373 | 3 | 8 216 | 892 |
| VaccDscaff6 | 42 795.824 | 4 | 5 311 | 583 |
| VaccDscaff7 | 41 705.179 | 5 | 7 163 | 737 |
| VaccDscaff11 | 40 122.599 | 6 | 7 319 | 825 |
| VaccDscaff12 | 39 741.682 | 7 | 5 665 | 590 |
| VaccDscaff13 | 39 652.356 | 8 | 7 090 | 771 |
| VaccDscaff17 | 38 874.919 | 9 | 7 824 | 855 |
| VaccDscaff20 | 37 996.905 | 10 | 6 437 | 690 |
| VaccDscaff21 | 37 975.728 | 11 | 8 565 | 904 |
| VaccDscaff22 | 37 315.645 | 12 | 7 117 | 774 |
| **Total** | **49 0276.481** | **12** | **86 930** | **9 390** |

**Table S2.** Predictive ability (PA), standard deviation (SD), standard error of the mean (SE), confidence interval (95%; CI), and Tukey groups obtained for the analyses involving the number of probes and sequencing depth for fruit firmness, fruit weight, and yield.

| Sequencing Depth | Probe Filter | Trait | PA | SD | SE | CI | *TukeyGroup |
|---|---|---|---|---|---|---|---|
| 24 | 9630 | Firmness | 0.469 | 0.001 | 0 | 0.001 | a |
| 48 | 9630 | Firmness | 0.471 | 0.001 | 0.001 | 0.002 | a |
| 60 | 9630 | Firmness | 0.471 | 0 | 0 | 0.001 | a |
| 12 | 9630 | Firmness | 0.468 | 0.003 | 0.001 | 0.003 | ba |
| 6 | 9630 | Firmness | 0.465 | 0.007 | 0.003 | 0.009 | cba |
| 24 | 2000 | Firmness | 0.449 | 0.001 | 0 | 0.001 | dcba |
| 2 | 9630 | Firmness | 0.445 | 0.01 | 0.004 | 0.012 | edc |
| 24 | 5000 | Firmness | 0.444 | 0.001 | 0 | 0.001 | edc |
| 48 | 3000 | Firmness | 0.445 | 0.001 | 0 | 0.001 | edc |
| 60 | 3000 | Firmness | 0.445 | 0.001 | 0 | 0.001 | edc |
| 48 | 2000 | Firmness | 0.446 | 0.001 | 0 | 0.001 | edcb |
| 60 | 2000 | Firmness | 0.446 | 0.002 | 0.001 | 0.002 | edcb |
| 48 | 5000 | Firmness | 0.442 | 0.001 | 0.001 | 0.002 | fed |
| 24 | 3000 | Firmness | 0.443 | 0.001 | 0 | 0.001 | fedc |
| 60 | 5000 | Firmness | 0.443 | 0.001 | 0.001 | 0.001 | fedc |
| 6 | 5000 | Firmness | 0.431 | 0.003 | 0.001 | 0.003 | gfed |
| 12 | 2000 | Firmness | 0.428 | 0.002 | 0.001 | 0.002 | gfed |
| 12 | 3000 | Firmness | 0.436 | 0.001 | 0 | 0.001 | gfed |
| 12 | 5000 | Firmness | 0.437 | 0.003 | 0.001 | 0.003 | gfed |
| 24 | 500 | Firmness | 0.427 | 0.005 | 0.002 | 0.006 | gfed |
| 24 | 1000 | Firmness | 0.428 | 0.004 | 0.002 | 0.005 | gfed |
| 48 | 500 | Firmness | 0.428 | 0.004 | 0.002 | 0.005 | gfed |
| 48 | 1000 | Firmness | 0.432 | 0.003 | 0.001 | 0.004 | gfed |
| 60 | 500 | Firmness | 0.429 | 0.004 | 0.002 | 0.005 | gfed |
| 60 | 1000 | Firmness | 0.431 | 0.003 | 0.001 | 0.003 | gfed |
| 6 | 2000 | Firmness | 0.425 | 0 | 0 | 0.001 | hgfe |
| 12 | 1000 | Firmness | 0.418 | 0.003 | 0.001 | 0.004 | ihg |
| 6 | 3000 | Firmness | 0.42 | 0.002 | 0.001 | 0.003 | ihgf |
| 2 | 3000 | Firmness | 0.401 | 0.002 | 0.001 | 0.002 | ji |
| 12 | 500 | Firmness | 0.401 | 0.003 | 0.001 | 0.004 | ji |
| 2 | 2000 | Firmness | 0.404 | 0.003 | 0.001 | 0.003 | jih |
| 2 | 5000 | Firmness | 0.4 | 0.002 | 0.001 | 0.003 | kji |
| 6 | 1000 | Firmness | 0.391 | 0.003 | 0.001 | 0.004 | lkj |
| 48 | 100 | Firmness | 0.378 | 0.009 | 0.004 | 0.011 | mlk |
| 60 | 100 | Firmness | 0.383 | 0.012 | 0.005 | 0.015 | mlkj |
| 6 | 500 | Firmness | 0.372 | 0.009 | 0.004 | 0.011 | nml |
| 24 | 100 | Firmness | 0.372 | 0.012 | 0.005 | 0.015 | onml |
| 2 | 1000 | Firmness | 0.361 | 0.004 | 0.002 | 0.005 | ponm |
| 12 | 100 | Firmness | 0.352 | 0.009 | 0.004 | 0.011 | qpon |
| 2 | 500 | Firmness | 0.334 | 0.006 | 0.003 | 0.008 | rq |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24 | 50 | Firmness | 0.338 | 0.015 | 0.007 | 0.019 | rq |
| 48 | 50 | Firmness | 0.348 | 0.017 | 0.008 | 0.022 | rqp |
| 60 | 50 | Firmness | 0.35 | 0.02 | 0.009 | 0.025 | rqpo |
| 6 | 100 | Firmness | 0.309 | 0.009 | 0.004 | 0.011 | s |
| 12 | 50 | Firmness | 0.328 | 0.019 | 0.009 | 0.024 | sr |
| 2 | 100 | Firmness | 0.252 | 0.015 | 0.007 | 0.018 | t |
| 6 | 50 | Firmness | 0.269 | 0.023 | 0.01 | 0.028 | t |
| 2 | 50 | Firmness | 0.219 | 0.028 | 0.012 | 0.034 | u |
| 60 | 9630 | Weight | 0.493 | 0 | 0 | 0 | a |
| 12 | 9630 | Weight | 0.488 | 0.003 | 0.001 | 0.003 | ba |
| 24 | 9630 | Weight | 0.492 | 0.002 | 0.001 | 0.002 | ba |
| 48 | 9630 | Weight | 0.492 | 0.001 | 0 | 0.001 | ba |
| 6 | 9630 | Weight | 0.485 | 0.002 | 0.001 | 0.002 | cba |
| 2 | 9630 | Weight | 0.475 | 0.013 | 0.006 | 0.016 | dcba |
| 60 | 3000 | Weight | 0.472 | 0.002 | 0.001 | 0.003 | dcba |
| 48 | 3000 | Weight | 0.469 | 0.002 | 0.001 | 0.003 | edcba |
| 60 | 2000 | Weight | 0.469 | 0.001 | 0 | 0.001 | edcba |
| 60 | 5000 | Weight | 0.468 | 0.003 | 0.002 | 0.004 | edcba |
| 12 | 3000 | Weight | 0.464 | 0.003 | 0.001 | 0.003 | fedcb |
| 12 | 5000 | Weight | 0.465 | 0.003 | 0.001 | 0.003 | fedcba |
| 24 | 2000 | Weight | 0.468 | 0.002 | 0.001 | 0.002 | fedcba |
| 24 | 3000 | Weight | 0.466 | 0.002 | 0.001 | 0.002 | fedcba |
| 24 | 5000 | Weight | 0.467 | 0.003 | 0.001 | 0.004 | fedcba |
| 48 | 2000 | Weight | 0.468 | 0.001 | 0 | 0.001 | fedcba |
| 48 | 5000 | Weight | 0.466 | 0.003 | 0.001 | 0.004 | fedcba |
| 6 | 3000 | Weight | 0.459 | 0.002 | 0.001 | 0.003 | gfedc |
| 6 | 5000 | Weight | 0.457 | 0.003 | 0.001 | 0.003 | hgfed |
| 12 | 2000 | Weight | 0.456 | 0.001 | 0 | 0.001 | hgfed |
| 48 | 1000 | Weight | 0.456 | 0.002 | 0.001 | 0.003 | ihgfed |
| 60 | 1000 | Weight | 0.456 | 0.002 | 0.001 | 0.003 | ihgfed |
| 24 | 1000 | Weight | 0.448 | 0.002 | 0.001 | 0.003 | jihgfed |
| 6 | 2000 | Weight | 0.44 | 0.002 | 0.001 | 0.002 | kjihgf |
| 2 | 3000 | Weight | 0.443 | 0.002 | 0.001 | 0.002 | kjihgfe |
| 12 | 1000 | Weight | 0.443 | 0.001 | 0.001 | 0.002 | kjihgfe |
| 6 | 1000 | Weight | 0.422 | 0.003 | 0.001 | 0.003 | lkj |
| 24 | 500 | Weight | 0.423 | 0.005 | 0.002 | 0.006 | lkj |
| 48 | 500 | Weight | 0.428 | 0.008 | 0.004 | 0.01 | lkji |
| 2 | 2000 | Weight | 0.43 | 0.003 | 0.001 | 0.004 | lkjih |
| 60 | 500 | Weight | 0.43 | 0.007 | 0.003 | 0.009 | lkjih |
| 2 | 5000 | Weight | 0.433 | 0.003 | 0.001 | 0.003 | lkjihg |
| 12 | 500 | Weight | 0.416 | 0.008 | 0.004 | 0.01 | mlk |
| 2 | 1000 | Weight | 0.408 | 0.002 | 0.001 | 0.003 | nml |
| 48 | 100 | Weight | 0.383 | 0.019 | 0.008 | 0.023 | on |
| 60 | 100 | Weight | 0.386 | 0.02 | 0.009 | 0.024 | on |
| 6 | 500 | Weight | 0.39 | 0.011 | 0.005 | 0.013 | onm |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 500 | Weight | 0.365 | 0.007 | 0.003 | 0.009 | po |
| 24 | 100 | Weight | 0.375 | 0.018 | 0.008 | 0.022 | po |
| 12 | 100 | Weight | 0.354 | 0.019 | 0.008 | 0.023 | qp |
| 48 | 50 | Weight | 0.35 | 0.021 | 0.009 | 0.026 | qp |
| 60 | 50 | Weight | 0.349 | 0.021 | 0.009 | 0.026 | qp |
| 6 | 100 | Weight | 0.318 | 0.013 | 0.006 | 0.016 | r |
| 24 | 50 | Weight | 0.332 | 0.028 | 0.013 | 0.035 | rq |
| 12 | 50 | Weight | 0.311 | 0.018 | 0.008 | 0.022 | sr |
| 2 | 100 | Weight | 0.269 | 0.01 | 0.004 | 0.012 | t |
| 6 | 50 | Weight | 0.284 | 0.022 | 0.01 | 0.028 | ts |
| 2 | 50 | Weight | 0.234 | 0.03 | 0.013 | 0.037 | u |
| 12 | 9630 | Yield | 0.355 | 0.005 | 0.002 | 0.006 | a |
| 24 | 9630 | Yield | 0.357 | 0.002 | 0.001 | 0.002 | a |
| 48 | 9630 | Yield | 0.357 | 0.001 | 0 | 0.001 | a |
| 60 | 9630 | Yield | 0.357 | 0 | 0 | 0 | a |
| 6 | 9630 | Yield | 0.349 | 0.002 | 0.001 | 0.002 | ba |
| 2 | 9630 | Yield | 0.34 | 0.013 | 0.006 | 0.016 | cba |
| 60 | 2000 | Yield | 0.335 | 0.005 | 0.002 | 0.007 | dcba |
| 24 | 2000 | Yield | 0.332 | 0.006 | 0.003 | 0.007 | edcba |
| 48 | 2000 | Yield | 0.333 | 0.005 | 0.002 | 0.006 | edcba |
| 60 | 1000 | Yield | 0.326 | 0.002 | 0.001 | 0.002 | fedcb |
| 2 | 2000 | Yield | 0.299 | 0.007 | 0.003 | 0.008 | g |
| 6 | 1000 | Yield | 0.296 | 0.002 | 0.001 | 0.002 | g |
| 6 | 3000 | Yield | 0.302 | 0.006 | 0.002 | 0.007 | gf |
| 12 | 500 | Yield | 0.305 | 0.007 | 0.003 | 0.009 | gf |
| 2 | 3000 | Yield | 0.307 | 0.003 | 0.001 | 0.004 | gfe |
| 6 | 5000 | Yield | 0.307 | 0.001 | 0.001 | 0.002 | gfe |
| 24 | 500 | Yield | 0.307 | 0.007 | 0.003 | 0.009 | gfe |
| 2 | 5000 | Yield | 0.311 | 0.001 | 0.001 | 0.002 | gfed |
| 12 | 3000 | Yield | 0.311 | 0.004 | 0.002 | 0.006 | gfed |
| 6 | 2000 | Yield | 0.317 | 0.006 | 0.003 | 0.007 | gfedc |
| 12 | 1000 | Yield | 0.315 | 0.002 | 0.001 | 0.002 | gfedc |
| 12 | 2000 | Yield | 0.321 | 0.004 | 0.002 | 0.005 | gfedc |
| 12 | 5000 | Yield | 0.319 | 0.001 | 0.001 | 0.001 | gfedc |
| 24 | 1000 | Yield | 0.317 | 0.002 | 0.001 | 0.003 | gfedc |
| 24 | 3000 | Yield | 0.319 | 0.003 | 0.001 | 0.004 | gfedc |
| 24 | 5000 | Yield | 0.321 | 0.001 | 0.001 | 0.002 | gfedc |
| 48 | 500 | Yield | 0.318 | 0.005 | 0.002 | 0.007 | gfedc |
| 48 | 1000 | Yield | 0.321 | 0.002 | 0.001 | 0.002 | gfedc |
| 48 | 3000 | Yield | 0.321 | 0.004 | 0.002 | 0.005 | gfedc |
| 48 | 5000 | Yield | 0.32 | 0.002 | 0.001 | 0.002 | gfedc |
| 60 | 500 | Yield | 0.32 | 0.004 | 0.002 | 0.005 | gfedc |
| 60 | 3000 | Yield | 0.322 | 0.004 | 0.002 | 0.005 | gfedc |
| 60 | 5000 | Yield | 0.321 | 0.001 | 0.001 | 0.002 | gfedc |
| 2 | 1000 | Yield | 0.261 | 0.003 | 0.001 | 0.004 | h |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | 500 | Yield | 0.265 | 0.002 | 0.001 | 0.003 | h |
| 60 | 100 | Yield | 0.247 | 0.015 | 0.007 | 0.019 | ih |
| 24 | 100 | Yield | 0.235 | 0.02 | 0.009 | 0.025 | ji |
| 48 | 100 | Yield | 0.242 | 0.015 | 0.007 | 0.018 | jih |
| 2 | 500 | Yield | 0.22 | 0.007 | 0.003 | 0.008 | kj |
| 12 | 100 | Yield | 0.225 | 0.022 | 0.01 | 0.027 | kji |
| 6 | 100 | Yield | 0.207 | 0.022 | 0.01 | 0.027 | lk |
| 48 | 50 | Yield | 0.199 | 0.016 | 0.007 | 0.02 | mlk |
| 60 | 50 | Yield | 0.204 | 0.016 | 0.007 | 0.02 | mlk |
| 12 | 50 | Yield | 0.166 | 0.005 | 0.002 | 0.006 | n |
| 2 | 100 | Yield | 0.177 | 0.015 | 0.007 | 0.019 | nm |
| 24 | 50 | Yield | 0.184 | 0.009 | 0.004 | 0.012 | nml |
| 6 | 50 | Yield | 0.138 | 0.028 | 0.012 | 0.034 | o |
| 2 | 50 | Yield | 0.093 | 0.032 | 0.014 | 0.04 | p |

Tukey groups obtained for the analyses involving the number of probes and sequencing depth for fruit firmness, fruit weight, and yield considering $\alpha=0.05$, groups that share a letter are not significantly different from one another and a > b > … > z