

## Supplementary materials

**Table S1.** List of volatile compounds identified from mānuka plants, under their respective chemical classes and their variable importance in projection (VIP) coefficients under various components.

|   | comp1 | comp2 | comp3 | comp4 | comp5 | comp6 | comp7 | comp8 | comp9 | comp10 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| <b><u>Green volatiles</u></b>                     |       |       |       |       |       |       |       |       |       |        |
| (Z)-3-Hexenol <sup>i</sup>                        | 0.000 | 2.423 | 2.085 | 1.835 | 1.609 | 1.481 | 1.377 | 1.312 | 1.255 | 1.232  |
| (Z)-3-Hexenyl acetate <sup>i</sup>                | 0.000 | 2.753 | 2.369 | 2.085 | 1.827 | 1.683 | 1.564 | 1.490 | 1.426 | 1.399  |
| Hexanol <sup>i</sup>                              | 0.398 | 0.290 | 0.249 | 0.219 | 0.193 | 1.131 | 1.051 | 1.002 | 1.114 | 1.093  |
| <b><u>Monoterpenoids</u></b>                      |       |       |       |       |       |       |       |       |       |        |
| Eucalyptol <sup>i</sup>                           | 1.872 | 1.363 | 1.173 | 1.032 | 0.905 | 0.846 | 0.786 | 0.749 | 0.717 | 0.704  |
| $\alpha$ -Phellandrene <sup>i</sup>               | 0.000 | 0.000 | 1.885 | 1.659 | 1.454 | 1.404 | 1.304 | 1.311 | 1.329 | 1.304  |
| $\alpha$ -Pinene <sup>i</sup>                     | 0.000 | 0.000 | 0.313 | 0.275 | 0.241 | 0.222 | 0.206 | 0.415 | 0.397 | 0.389  |
| $\alpha$ -Terpineol <sup>i</sup>                  | 0.649 | 0.473 | 0.407 | 0.358 | 0.423 | 0.625 | 0.580 | 0.582 | 0.557 | 0.547  |
| $\beta$ -Myrcene <sup>i</sup>                     | 0.317 | 0.231 | 0.199 | 0.175 | 0.153 | 0.228 | 1.817 | 1.736 | 1.660 | 1.700  |
| $\beta$ -Pinene <sup>i</sup>                      | 0.000 | 0.000 | 0.000 | 0.794 | 0.766 | 0.705 | 0.655 | 0.672 | 0.665 | 0.653  |
| Limonene <sup>i</sup>                             | 0.195 | 0.142 | 0.122 | 0.797 | 0.699 | 0.644 | 0.598 | 0.578 | 0.553 | 0.542  |
| <i>o</i> -Cymene                                  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.822 | 0.764 | 1.028 | 1.065 | 1.061  |
| Perillene   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.506 | 0.471 | 1.051 | 1.296 | 1.324  |
| Sabinene  | 1.810 | 1.318 | 1.135 | 0.999 | 0.875 | 0.809 | 0.752 | 0.716 | 0.903 | 0.886  |
| Nerol <sup>i</sup>                                | 0.000 | 0.000 | 0.000 | 1.575 | 1.380 | 1.271 | 1.181 | 1.126 | 1.077 | 1.057  |
| <b><u>Sesquiterpenoids</u></b>                    |       |       |       |       |       |       |       |       |       |        |
| Isolatedene                                       | 2.830 | 2.061 | 1.774 | 1.561 | 1.368 | 1.260 | 1.171 | 1.116 | 1.068 | 1.048  |
| Chamigrene  | 0.366 | 0.267 | 0.229 | 0.202 | 0.779 | 0.735 | 0.683 | 0.651 | 0.812 | 0.797  |
| Cadinadiene-1,4                                   | 0.000 | 0.000 | 1.032 | 0.908 | 0.796 | 0.886 | 0.823 | 0.802 | 0.767 | 0.753  |
| Calamenene  | 0.000 | 0.000 | 0.000 | 0.000 | 0.724 | 0.670 | 0.622 | 0.593 | 0.568 | 0.558  |
| ( <i>E</i> )- $\beta$ -Caryophyllene <sup>i</sup> | 0.000 | 0.000 | 1.445 | 1.272 | 1.115 | 1.027 | 0.954 | 0.909 | 0.917 | 0.900  |
| Copaene   | 0.000 | 1.463 | 1.259 | 1.108 | 0.972 | 0.895 | 0.832 | 0.813 | 1.050 | 1.031  |
| ( <i>E</i> )- $\alpha$ -Bergamotene               | 2.221 | 1.617 | 1.392 | 1.225 | 1.269 | 1.168 | 1.086 | 1.034 | 0.990 | 0.972  |
| Ylangene  | 2.146 | 1.563 | 1.345 | 1.184 | 1.705 | 1.570 | 1.459 | 1.390 | 1.330 | 1.306  |
| $\alpha$ -Amorphene                               | 0.497 | 0.362 | 0.312 | 0.274 | 1.450 | 1.335 | 1.241 | 1.182 | 1.131 | 1.110  |
| $\alpha$ -Selinene                                | 0.000 | 0.611 | 0.526 | 0.463 | 0.406 | 0.374 | 0.347 | 0.331 | 0.317 | 0.374  |
| $\beta$ -Selinene                                 | 0.295 | 0.232 | 0.200 | 0.176 | 1.025 | 0.944 | 0.877 | 0.842 | 0.806 | 0.791  |
| $\gamma$ -Cadinene                                | 2.715 | 1.977 | 1.702 | 1.498 | 1.332 | 1.226 | 1.139 | 1.086 | 1.039 | 1.019  |
| $\beta$ -Elemene                                  | 1.037 | 0.755 | 0.650 | 0.572 | 0.732 | 1.067 | 0.992 | 0.945 | 1.017 | 1.065  |
| $\alpha$ -Cubebene                                | 0.000 | 0.000 | 1.419 | 1.248 | 1.094 | 1.008 | 0.937 | 0.946 | 0.905 | 0.888  |
| <b><u>Other aldehydes</u></b>                     |       |       |       |       |       |       |       |       |       |        |
| Nonanal   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.284 | 0.602 | 0.576 | 0.775  |
| Octanal   | 0.000 | 0.000 | 0.000 | 0.000 | 0.732 | 0.674 | 0.989 | 0.942 | 0.901 | 0.998  |
| Decanal   | 0.000 | 0.000 | 0.000 | 0.424 | 0.377 | 0.347 | 0.908 | 0.882 | 0.891 | 0.969  |
| Heptanal  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.302 | 0.281 | 0.924 | 0.884 | 0.868  |
| <b><u>Other volatiles</u></b>                     |       |       |       |       |       |       |       |       |       |        |
| $\alpha$ -Ionene                                  | 0.191 | 0.139 | 0.120 | 0.105 | 0.607 | 1.330 | 1.236 | 1.178 | 1.127 | 1.106  |
| Isoamyl acetate                                   | 0.000 | 0.000 | 0.000 | 1.937 | 1.698 | 1.564 | 1.453 | 1.385 | 1.325 | 1.300  |

<sup>i</sup>Compounds verified by authentic standards

**Table S2.** GLM summary for major chemical classes.

| Response              | Level (genotypes)        | <i>t</i> | <i>p</i> | Response                | Level (genotypes)        | <i>t</i> | <i>p</i> | Response               | Level (genotypes)        | <i>t</i> | <i>p</i> |
|-----------------------|--------------------------|----------|----------|-------------------------|--------------------------|----------|----------|------------------------|--------------------------|----------|----------|
| <b>GLVs</b>           | Blue vs CVT2             | -2.48    | 0.019*   | <b>Monoterpenoids</b>   | CVT4 vs Orange           | -0.62    | 0.542    | <b>Other volatiles</b> | Blue vs CVT2             | -0.01    | 0.992    |
|                       | Blue vs CVT4             | -2.61    | 0.014*   |                         | CVT4 vs Pink             | -0.52    | 0.604    |                        | Blue vs CVT4             | 1.62     | 0.116    |
|                       | Blue vs Lime green       | 0.71     | 0.485    |                         | CVT4 vs Yellow           | -0.30    | 0.770    |                        | Blue vs Lime green       | 1.11     | 0.275    |
|                       | Blue vs Mint green       | -2.46    | 0.020*   |                         | Lime green vs Mint green | -0.21    | 0.835    |                        | Blue vs Mint green       | 2.48     | 0.019*   |
|                       | Blue vs Orange           | -1.38    | 0.177    |                         | Lime green vs Orange     | 0.83     | 0.415    |                        | Blue vs Orange           | -0.47    | 0.639    |
|                       | Blue vs Pink             | 0.26     | 0.800    |                         | Lime green vs Pink       | 0.92     | 0.365    |                        | Blue vs Pink             | -1.08    | 0.288    |
|                       | Blue vs Yellow           | -1.06    | 0.297    |                         | Lime green vs Yellow     | 1.15     | 0.260    |                        | Blue vs Yellow           | 1.52     | 0.138    |
|                       | CVT2 vs CVT4             | -0.13    | 0.896    |                         | Mint green vs Orange     | 1.04     | 0.308    |                        | CVT2 vs CVT4             | 1.63     | 0.114    |
|                       | CVT2 vs Lime green       | 3.19     | 0.003*   |                         | Mint green vs Pink       | 1.13     | 0.268    |                        | CVT2 vs Lime green       | 1.12     | 0.271    |
|                       | CVT2 vs Mint green       | 0.03     | 0.978    |                         | Mint green vs Yellow     | 1.36     | 0.184    |                        | CVT2 vs Mint green       | 2.49     | 0.018*   |
|                       | CVT2 vs Orange           | 1.10     | 0.279    |                         | Orange vs Pink           | 0.09     | 0.927    |                        | CVT2 vs Orange           | -0.46    | 0.646    |
|                       | CVT2 vs Pink             | 2.74     | 0.010*   |                         | Orange vs Yellow         | 0.32     | 0.750    |                        | CVT2 vs Pink             | -1.07    | 0.292    |
|                       | CVT2 vs Yellow           | 1.42     | 0.164    |                         | Pink vs Yellow           | 0.23     | 0.821    |                        | CVT2 vs Yellow           | 1.53     | 0.135    |
|                       | CVT4 vs Lime green       | 3.32     | 0.002*   | <b>Sesquiterpenoids</b> | Blue vs CVT2             | -2.12    | 0.042*   |                        | CVT4 vs Lime green       | -0.51    | 0.617    |
|                       | CVT4 vs Mint green       | 0.16     | 0.875    |                         | Blue vs CVT4             | -0.38    | 0.710    |                        | CVT4 vs Mint green       | 0.86     | 0.395    |
|                       | CVT4 vs Orange           | 1.23     | 0.227    |                         | Blue vs Lime green       | -0.72    | 0.475    |                        | CVT4 vs Orange           | -2.09    | 0.045*   |
|                       | CVT4 vs Pink             | 2.87     | 0.007*   |                         | Blue vs Mint green       | -3.35    | 0.002*   |                        | CVT4 vs Pink             | -2.70    | 0.011*   |
|                       | CVT4 vs Yellow           | 1.55     | 0.130    |                         | Blue vs Orange           | -0.51    | 0.611    |                        | CVT4 vs Yellow           | -0.09    | 0.927    |
|                       | Lime green vs Mint green | -3.16    | 0.003*   |                         | Blue vs Pink             | -0.63    | 0.533    |                        | Lime green vs Mint green | 1.37     | 0.181    |
|                       | Lime green vs Orange     | -2.09    | 0.045*   |                         | Blue vs Yellow           | -0.22    | 0.828    |                        | Lime green vs Orange     | -1.58    | 0.123    |
|                       | Lime green vs Pink       | -0.45    | 0.655    |                         | CVT2 vs CVT4             | 1.74     | 0.091    |                        | Lime green vs Pink       | -2.19    | 0.036*   |
|                       | Lime green vs Yellow     | -1.77    | 0.087    |                         | CVT2 vs Lime green       | 1.39     | 0.173    |                        | Lime green vs Yellow     | 0.41     | 0.683    |
|                       | Mint green vs Orange     | 1.07     | 0.291    |                         | CVT2 vs Mint green       | -1.23    | 0.228    |                        | Mint green vs Orange     | -2.95    | 0.006*   |
|                       | Mint green vs Pink       | 2.71     | 0.011*   |                         | CVT2 vs Orange           | 1.60     | 0.119    |                        | Mint green vs Pink       | -3.56    | 0.001*   |
|                       | Mint green vs Yellow     | 1.40     | 0.173    |                         | CVT2 vs Pink             | 1.49     | 0.147    |                        | Mint green vs Yellow     | -0.96    | 0.347    |
|                       | Orange vs Pink           | 1.64     | 0.111    |                         | CVT2 vs Yellow           | 1.90     | 0.067    |                        | Orange vs Pink           | -0.61    | 0.548    |
|                       | Orange vs Yellow         | 0.32     | 0.749    |                         | CVT4 vs Lime green       | -0.35    | 0.731    |                        | Orange vs Yellow         | 2.00     | 0.054    |
|                       | Pink vs Yellow           | -1.32    | 0.198    |                         | CVT4 vs Mint green       | -2.97    | 0.006*   |                        | Pink vs Yellow           | 2.60     | 0.014*   |
| <b>Monoterpenoids</b> | Blue vs CVT2             | 0.53     | 0.599    |                         | CVT4 vs Orange           | -0.14    | 0.891    | <b>Other aldehydes</b> | Blue vs CVT2             | -1.62    | 0.116    |
|                       | Blue vs CVT4             | 1.86     | 0.073    |                         | CVT4 vs Pink             | -0.26    | 0.800    |                        | Blue vs CVT4             | -0.05    | 0.958    |
|                       | Blue vs Lime green       | 0.41     | 0.682    |                         | CVT4 vs Yellow           | 0.16     | 0.877    |                        | Blue vs Lime green       | -0.58    | 0.564    |
|                       | Blue vs Mint green       | 0.20     | 0.840    |                         | Lime green vs Mint green | -2.62    | 0.013*   |                        | Blue vs Mint green       | -0.45    | 0.653    |
|                       | Blue vs Orange           | 1.24     | 0.224    |                         | Lime green vs Orange     | 0.21     | 0.836    |                        | Blue vs Orange           | -0.48    | 0.638    |
|                       | Blue vs Pink             | 1.33     | 0.193    |                         | Lime green vs Pink       | 0.09     | 0.927    |                        | Blue vs Pink             | 0.17     | 0.869    |
|                       | Blue vs Yellow           | 1.56     | 0.129    |                         | Lime green vs Yellow     | 0.50     | 0.618    |                        | Blue vs Yellow           | -0.38    | 0.708    |
|                       | CVT2 vs CVT4             | 1.32     | 0.195    |                         | Mint green vs Orange     | 2.83     | 0.008*   |                        | CVT2 vs CVT4             | 1.56     | 0.128    |

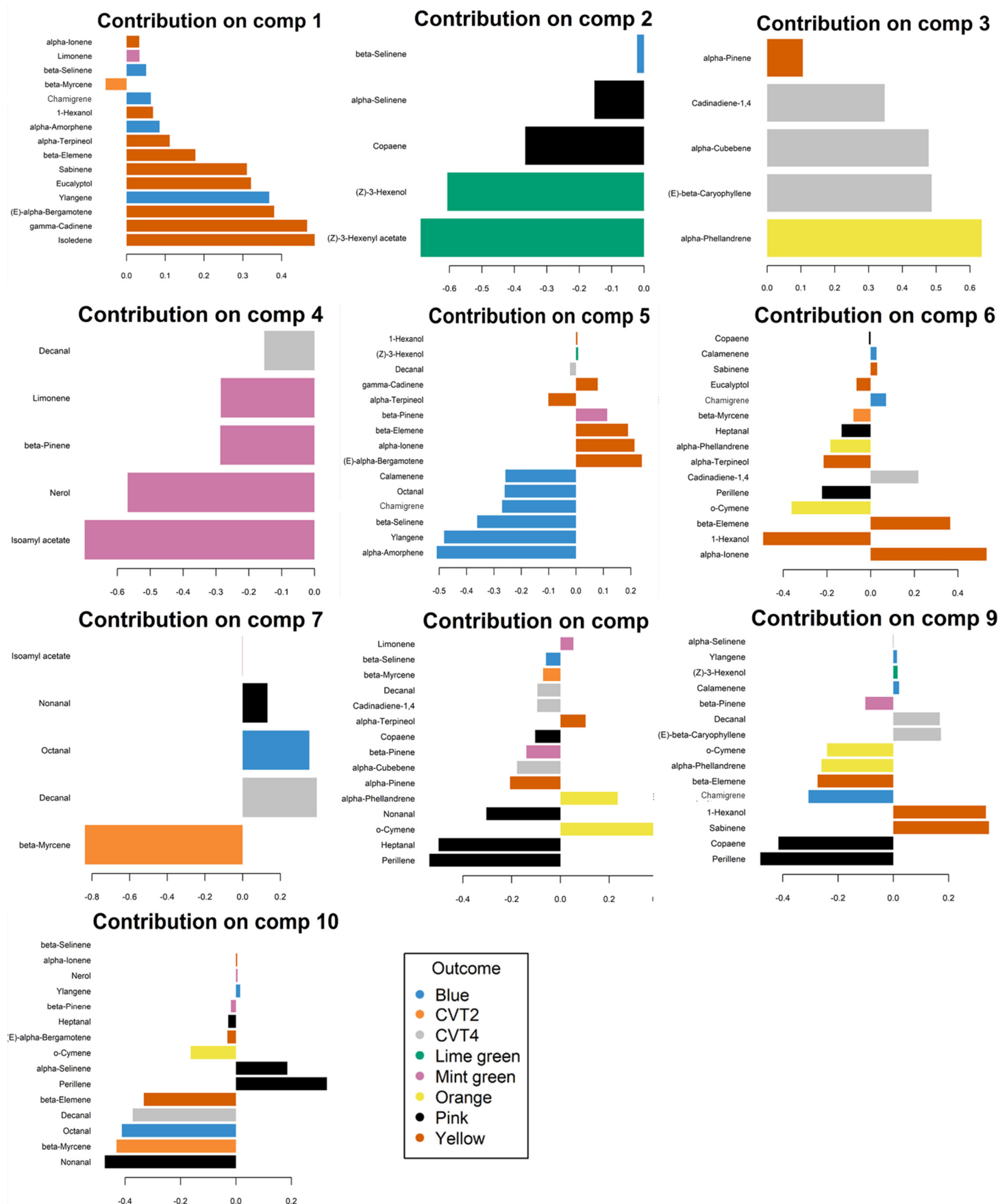
|  |                    |        |       |  |                      |       |        |  |                    |       |       |
|--|--------------------|--------|-------|--|----------------------|-------|--------|--|--------------------|-------|-------|
|  | CVT2 vs Lime green | -0.118 | 0.907 |  | Mint green vs Pink   | 2.72  | 0.011* |  | CVT2 vs Lime green | 1.03  | 0.309 |
|  | CVT2 vs Mint green | -0.33  | 0.745 |  | Mint green vs Yellow | 3.13  | 0.004* |  | CVT2 vs Mint green | 1.16  | 0.253 |
|  | CVT2 vs Orange     | 0.71   | 0.484 |  | Orange vs Pink       | -0.12 | 0.908  |  | CVT2 vs Orange     | 1.14  | 0.262 |
|  | CVT2 vs Pink       | 0.80   | 0.430 |  | Orange vs Yellow     | 0.29  | 0.771  |  | CVT2 vs Pink       | 1.78  | 0.084 |
|  | CVT2 vs Yellow     | 1.03   | 0.311 |  | Pink vs Yellow       | 0.41  | 0.684  |  | CVT2 vs Yellow     | 1.24  | 0.224 |
|  | CVT4 vs Lime green | -1.44  | 0.159 |  |                      |       |        |  | CVT4 vs Lime green | -0.53 | 0.600 |
|  | CVT4 vs Mint green | -1.65  | 0.108 |  |                      |       |        |  | CVT4 vs Mint green | -0.40 | 0.691 |
|  |                    |        |       |  |                      |       |        |  | CVT4 vs Orange     | -0.42 | 0.675 |

Table S2 (continued)

| Response        | Level (genotypes)        | <i>t</i> | <i>p</i> | Response        | Level (genotypes)  | <i>t</i> | <i>p</i> | Response        | Level (genotypes)        | <i>t</i> | <i>p</i> |
|-----------------|--------------------------|----------|----------|-----------------|--------------------|----------|----------|-----------------|--------------------------|----------|----------|
| Other aldehydes | CVT4 vs Pink             | 0.22     | 0.828    | Total emissions | Blue vs CVT2       | -0.40    | 0.692    | Total emissions | CVT4 vs Pink             | -0.38    | 0.708    |
|                 | CVT4 vs Yellow           | -0.33    | 0.747    |                 | Blue vs CVT4       | 1.06     | 0.297    |                 | CVT4 vs Yellow           | -0.19    | 0.852    |
|                 | Lime green vs Mint green | 0.13     | 0.898    |                 | Blue vs Lime green | 0.06     | 0.949    |                 | Lime green vs Mint green | -0.70    | 0.490    |
|                 | Lime green vs Orange     | 0.11     | 0.915    |                 | Blue vs Mint green | -0.63    | 0.531    |                 | Lime green vs Orange     | 0.47     | 0.645    |
|                 | Lime green vs Pink       | 0.75     | 0.459    |                 | Blue vs Orange     | 0.53     | 0.600    |                 | Lime green vs Pink       | 0.62     | 0.541    |
|                 | Lime green vs Yellow     | 0.21     | 0.839    |                 | Blue vs Pink       | 0.68     | 0.500    |                 | Lime green vs Yellow     | 0.81     | 0.425    |
|                 | Mint green vs Orange     | -0.02    | 0.983    |                 | Blue vs Yellow     | 0.87     | 0.390    |                 | Mint green vs Orange     | 1.16     | 0.253    |
|                 | Mint green vs Pink       | 0.62     | 0.540    |                 | CVT2 vs CVT4       | 1.46     | 0.154    |                 | Mint green vs Pink       | 1.32     | 0.198    |
|                 | Mint green vs Yellow     | -0.08    | 0.940    |                 | CVT2 vs Lime green | 0.47     | 0.645    |                 | Mint green vs Yellow     | 1.51     | 0.142    |
|                 | Orange vs Pink           | -0.64    | 0.525    |                 | CVT2 vs Mint green | -0.23    | 0.817    |                 | Orange vs Pink           | 0.15     | 0.880    |
|                 | Orange vs Yellow         | 0.10     | 0.923    |                 | CVT2 vs Orange     | 0.93     | 0.359    |                 | Orange vs Yellow         | 0.34     | 0.735    |
|                 | Pink vs Yellow           | -0.54    | 0.590    |                 | CVT2 vs Pink       | 1.08     | 0.287    |                 | Pink vs Yellow           | 0.19     | 0.850    |
|                 |                          |          |          |                 | CVT2 vs Yellow     | 1.27     | 0.212    |                 |                          |          |          |
|                 |                          |          |          |                 | CVT4 vs Lime green | -0.10    | 0.327    |                 |                          |          |          |
|                 |                          |          |          |                 | CVT4 vs Mint green | -1.67    | 0.100    |                 |                          |          |          |
|                 |                          |          |          |                 | CVT4 vs Orange     | -0.53    | 0.600    |                 |                          |          |          |

GLVs = Green leaf volatiles

*p* < 0.050 considered significant\*



**Figure S1.** Loading values of variables selected on each component

**Table S3.** GLM summary for green leaf volatiles and other compounds with VIP coefficient  $\geq 1$ .

| Response                     | Level (genotypes)        | <i>t</i> | <i>p</i> | Response                     | Level (genotypes)        | <i>t</i> | <i>p</i> |
|------------------------------|--------------------------|----------|----------|------------------------------|--------------------------|----------|----------|
| <b>(Z)-3-Hexenol</b>         | Blue vs CVT2             | -6.07    | <0.001*  | <b>(Z)-3-Hexenyl acetate</b> | CVT4 vs Orange           | 1.27     | 0.214    |
|                              | Blue vs CVT4             | -1.57    | 0.126    |                              | CVT4 vs Pink             | 2.88     | 0.007*   |
|                              | Blue vs Lime green       | 1.10     | 0.279    |                              | CVT4 vs Yellow           | 1.54     | 0.134    |
|                              | Blue vs Mint green       | -1.16    | 0.255    |                              | Lime green vs Mint green | -3.46    | 0.002*   |
|                              | Blue vs Orange           | -0.97    | 0.339    |                              | Lime green vs Orange     | -2.13    | 0.041*   |
|                              | Blue vs Pink             | 0.74     | 0.463    |                              | Lime green vs Pink       | -0.52    | 0.607    |
|                              | Blue vs Yellow           | -0.76    | 0.456    |                              | Lime green vs Yellow     | -1.86    | 0.072    |
|                              | CVT2 vs CVT4             | 4.50     | <0.001*  |                              | Mint green vs Orange     | 1.33     | 0.195    |
|                              | CVT2 vs Lime green       | 7.17     | <0.001*  |                              | Mint green vs Pink       | 2.94     | 0.007*   |
|                              | CVT2 vs Mint green       | 4.91     | <0.001*  |                              | Mint green vs Yellow     | 1.60     | 0.121    |
|                              | CVT2 vs Orange           | 5.10     | <0.001*  |                              | Orange vs Pink           | 1.61     | 0.116    |
|                              | CVT2 vs Pink             | 6.81     | <0.001*  |                              | Orange vs Yellow         | 0.27     | 0.789    |
|                              | CVT2 vs Yellow           | 5.31     | <0.001*  |                              | Pink vs Yellow           | -1.34    | 0.188    |
|                              | CVT4 vs Lime green       | 2.67     | 0.012*   | <b>Hexanol</b>               | Blue vs CVT2             | 0.43     | 0.671    |
|                              | CVT4 vs Mint green       | 0.41     | 0.682    |                              | Blue vs CVT4             | -3.09    | 0.004*   |
|                              | CVT4 vs Orange           | 0.60     | 0.553    |                              | Blue vs Lime green       | -3.09    | 0.004*   |
|                              | CVT4 vs Pink             | 2.32     | 0.027*   |                              | Blue vs Mint green       | 0.59     | 0.562    |
|                              | CVT4 vs Yellow           | 0.82     | 0.421    |                              | Blue vs Orange           | 0.77     | 0.445    |
|                              | Lime green vs Mint green | -2.26    | 0.031*   |                              | Blue vs Pink             | 1.42     | 0.165    |
|                              | Lime green vs Orange     | -2.07    | 0.046*   |                              | Blue vs Yellow           | 1.69     | 0.100    |
|                              | Lime green vs Pink       | -0.36    | 0.723    |                              | CVT2 vs CVT4             | -3.52    | 0.001*   |
|                              | Lime green vs Yellow     | -1.86    | 0.073    |                              | CVT2 vs Lime green       | -3.52    | 0.001*   |
|                              | Mint green vs Orange     | 0.19     | 0.853    |                              | CVT2 vs Mint green       | 0.16     | 0.877    |
|                              | Mint green vs Pink       | 1.90     | 0.066    |                              | CVT2 vs Orange           | 0.35     | 0.733    |
|                              | Mint green vs Yellow     | 0.40     | 0.690    |                              | CVT2 vs Pink             | 0.99     | 0.329    |
|                              | Orange vs Pink           | 1.72     | 0.096    |                              | CVT2 vs Yellow           | 1.27     | 0.215    |
|                              | Orange vs Yellow         | 0.22     | 0.830    |                              | CVT4 vs Lime green       | 0.00     | 1.000    |
|                              | Pink vs Yellow           | -1.50    | 0.144    |                              | CVT4 vs Mint green       | 3.68     | 0.001*   |
|                              |                          |          |          |                              | CVT4 vs Orange           | 3.89     | 0.001*   |
|                              |                          |          |          |                              | CVT4 vs Pink             | 4.52     | <0.001*  |
| <b>(Z)-3-Hexenyl acetate</b> | Blue vs CVT2             | -2.50    | 0.018*   |                              | CVT4 vs Yellow           | 4.79     | <0.001*  |
|                              | Blue vs CVT4             | -2.79    | 0.009*   |                              | Lime green vs Mint green | 3.68     | 0.001*   |
|                              | Blue vs Lime green       | 0.62     | 0.542    |                              | Lime green vs Orange     | 3.87     | 0.001*   |
|                              | Blue vs Mint green       | -2.84    | 0.008*   |                              | Lime green vs Pink       | 4.52     | <0.001*  |
|                              | Blue vs Orange           | -1.52    | 0.139    |                              | Lime green vs Yellow     | 4.79     | <0.001*  |
|                              | Blue vs Pink             | 0.10     | 0.923    |                              | Mint green vs Orange     | 0.19     | 0.852    |
|                              | Blue vs Yellow           | -1.25    | 0.221    |                              | Mint green vs Pink       | 0.84     | 0.409    |
|                              | CVT2 vs CVT4             | -0.29    | 0.775    |                              | Mint green vs Yellow     | 1.11     | 0.276    |
|                              | CVT2 vs Lime green       | 3.11     | 0.004*   |                              | Orange vs Pink           | 0.65     | 0.522    |
|                              | CVT2 vs Mint green       | -0.35    | 0.733    |                              | Orange vs Yellow         | 0.92     | 0.364    |
|                              | CVT2 vs Orange           | 0.98     | 0.334    |                              | Pink vs Yellow           | 0.27     | 0.787    |
|                              | CVT2 vs Pink             | 2.59     | 0.014*   |                              |                          |          |          |
|                              | CVT2 vs Yellow           | 1.25     | 0.221    |                              |                          |          |          |
|                              | CVT4 vs Lime green       | 3.40     | 0.002*   |                              |                          |          |          |
|                              | CVT4 vs Mint green       | -0.06    | 0.956    |                              |                          |          |          |
|                              |                          |          |          |                              |                          |          |          |

Table S3 (continued)

| Response                          | Level (genotypes)        | <i>t</i> | <i>p</i> | Response               | Level (genotypes)        | <i>t</i> | <i>p</i> |
|-----------------------------------|--------------------------|----------|----------|------------------------|--------------------------|----------|----------|
| <b><math>\alpha</math>-Ionene</b> | Blue vs CVT2             | 4.03     | <0.001*  | <b>Isoamyl acetate</b> | Blue vs CVT2             | -0.63    | 0.533    |
|                                   | Blue vs CVT4             | 6.75     | <0.001*  |                        | Blue vs CVT4             | -5.45    | <0.001*  |
|                                   | Blue vs Lime green       | 6.22     | <0.001*  |                        | Blue vs Lime green       | -5.45    | <0.001*  |
|                                   | Blue vs Mint green       | 0.00     | 1.000    |                        | Blue vs Mint green       | 2.84     | 0.008*   |
|                                   | Blue vs Orange           | 4.54     | <0.001*  |                        | Blue vs Orange           | -5.45    | <0.001*  |
|                                   | Blue vs Pink             | 3.44     | 0.001*   |                        | Blue vs Pink             | -2.46    | 0.020*   |
|                                   | Blue vs Yellow           | 6.65     | <0.001*  |                        | Blue vs Yellow           | -5.45    | <0.001*  |
|                                   | CVT2 vs CVT4             | 2.72     | 0.010*   |                        | CVT2 vs CVT4             | -4.82    | <0.001*  |
|                                   | CVT2 vs Lime green       | 2.19     | 0.036*   |                        | CVT2 vs Lime green       | -4.82    | <0.001*  |
|                                   | CVT2 vs Mint green       | -4.03    | <0.001*  |                        | CVT2 vs Mint green       | 3.47     | 0.002*   |
|                                   | CVT2 vs Orange           | 0.51     | 0.613    |                        | CVT2 vs Orange           | -4.82    | <0.001*  |
|                                   | CVT2 vs Pink             | -0.59    | 0.558    |                        | CVT2 vs Pink             | -1.83    | 0.077    |
|                                   | CVT2 vs Yellow           | 2.62     | 0.013*   |                        | CVT2 vs Yellow           | -4.82    | <0.001*  |
|                                   | CVT4 vs Lime green       | -0.54    | 0.597    |                        | CVT4 vs Lime green       | 0.00     | 1.000    |
|                                   | CVT4 vs Mint green       | -6.75    | <0.001*  |                        | CVT4 vs Mint green       | 8.28     | <0.001*  |
|                                   | CVT4 vs Orange           | -2.21    | 0.034*   |                        | CVT4 vs Orange           | 0.00     | 1.000    |
|                                   | CVT4 vs Pink             | -3.31    | 0.002*   |                        | CVT4 vs Pink             | 2.99     | 0.005*   |
|                                   | CVT4 vs Yellow           | -0.10    | 0.922    |                        | CVT4 vs Yellow           | 0.00     | 1.000    |
|                                   | Lime green vs Mint green | -6.22    | <0.001*  |                        | Lime green vs Mint green | 8.28     | <0.001*  |
|                                   | Lime green vs Orange     | -1.68    | 0.103    |                        | Lime green vs Orange     | 0.00     | 1.000    |
|                                   | Lime green vs Pink       | -2.78    | 0.009*   |                        | Lime green vs Pink       | 2.99     | 0.005*   |
|                                   | Lime green vs Yellow     | 0.44     | 0.665    |                        | Lime green vs Yellow     | 0.00     | 1.000    |
|                                   | Mint green vs Orange     | 4.54     | <0.001*  |                        | Mint green vs Orange     | -8.28    | <0.001*  |
|                                   | Mint green vs Pink       | 3.44     | 0.002*   |                        | Mint green vs Pink       | -5.28    | <0.001*  |
|                                   | Mint green vs Yellow     | 6.65     | <0.001*  |                        | Mint green vs Yellow     | -8.28    | <0.001*  |
|                                   | Orange vs Pink           | -1.10    | 0.278    |                        | Orange vs Pink           | 2.99     | 0.005*   |
|                                   | Orange vs Yellow         | 2.11     | 0.043*   |                        | Orange vs Yellow         | 0.00     | 1.000    |
|                                   | Pink vs Yellow           | 3.22     | 0.003*   |                        | Pink vs Yellow           | -2.99    | 0.0058   |

$p < 0.050$  considered significant\*

**Table S4.** GLM summary for monoterpenoids with VIP coefficient  $\geq 1$ .

| Response                                | Level (genotypes)        | <i>t</i> | <i>p</i> | Response                                | Level (genotypes)        | <i>t</i> | <i>p</i> | Response        | Level (genotypes)        | <i>t</i> | <i>p</i> |
|---|--------------------------|----------|----------|---|--------------------------|----------|----------|-----------------|--------------------------|----------|----------|
| <b>Eucalyptol</b>                       | Blue vs CVT2             | -6.63    | <0.001*  | <b><math>\alpha</math>-Phellandrene</b> | CVT4 vs Orange           | 0.61     | 0.544    | <b>Sabinene</b> | Blue vs CVT2             | -3.76    | 0.001*   |
|   | Blue vs CVT4             | -0.56    | 0.580    |   | CVT4 vs Pink             | -0.28    | 0.814    |                 | Blue vs CVT4             | 0.94     | 0.355    |
|   | Blue vs Lime green       | -6.63    | <0.001*  |   | CVT4 vs Yellow           | -0.60    | 0.556    |                 | Blue vs Lime green       | -3.76    | 0.001*   |
|   | Blue vs Mint green       | 1.46     | 0.155    |   | Lime green vs Mint green | 5.23     | <0.001*  |                 | Blue vs Mint green       | -1.03    | 0.311    |
|   | Blue vs Orange           | -0.13    | 0.898    |   | Lime green vs Orange     | 6.89     | <0.001*  |                 | Blue vs Orange           | -1.14    | 0.263    |
|   | Blue vs Pink             | -0.55    | 0.587    |   | Lime green vs Pink       | 6.04     | <0.001*  |                 | Blue vs Pink             | -0.71    | 0.483    |
|   | Blue vs Yellow           | 1.92     | 0.065    |   | Lime green vs Yellow     | 5.68     | <0.001*  |                 | Blue vs Yellow           | 1.45     | 0.158    |
|   | CVT2 vs CVT4             | 6.07     | <0.001*  |   | Mint green vs Orange     | 1.66     | 0.107    |                 | CVT2 vs CVT4             | 4.70     | <0.001*  |
|   | CVT2 vs Lime green       | 0.00     | 1.000    |   | Mint green vs Pink       | 0.81     | 0.426    |                 | CVT2 vs Lime green       | 0.00     | 1.000    |
|   | CVT2 vs Mint green       | 8.09     | <0.001*  |   | Mint green vs Yellow     | 0.45     | 0.657    |                 | CVT2 vs Mint green       | 2.73     | 0.010*   |
|   | CVT2 vs Orange           | 6.50     | <0.001*  | <b><math>\beta</math>-Myrcene</b>       | Orange vs Pink           | -0.85    | 0.402    |                 | CVT2 vs Orange           | 2.62     | 0.013*   |
|   | CVT2 vs Pink             | 6.08     | <0.001*  |   | Orange vs Yellow         | -1.21    | 0.256    |                 | CVT2 vs Pink             | 3.05     | 0.005*   |
|   | CVT2 vs Yellow           | 8.55     | <0.001*  |   | Pink vs Yellow           | -0.36    | 0.722    |                 | CVT2 vs Yellow           | 5.21     | <0.001*  |
|   | CVT4 vs Lime green       | -6.07    | <0.001*  |   | Blue vs CVT2             | 3.05     | 0.005*   |                 | CVT4 vs Lime green       | -4.70    | <0.001*  |
|   | CVT4 vs Mint green       | 2.02     | 0.052    |   | Blue vs CVT4             | 1.35     | 0.187    |                 | CVT4 vs Mint green       | -1.97    | 0.058    |
|   | CVT4 vs Orange           | 0.43     | 0.671    |   | Blue vs Lime green       | -0.92    | 0.365    |                 | CVT4 vs Orange           | -2.08    | 0.046*   |
|   | CVT4 vs Pink             | 0.01     | 0.992    |   | Blue vs Mint green       | 0.23     | 0.817    |                 | CVT4 vs Pink             | -1.65    | 0.109    |
|   | CVT4 vs Yellow           | 2.47     | 0.019*   |   | Blue vs Orange           | 2.51     | 0.017*   |                 | CVT4 vs Yellow           | 0.51     | 0.614    |
|   | Lime green vs Mint green | 8.09     | <0.001*  |   | Blue vs Pink             | 2.18     | 0.036*   |                 | Lime green vs Mint green | 2.73     | 0.010*   |
|   | Lime green vs Orange     | 6.50     | <0.001*  |   | Blue vs Yellow           | -0.53    | 0.599    |                 | Lime green vs Orange     | 2.62     | 0.013*   |
| <b><math>\alpha</math>-Phellandrene</b> | Lime green vs Pink       | 6.08     | <0.001*  |   | CVT2 vs CVT4             | -1.70    | 0.100    | <b>o-Cymene</b> | Lime green vs Pink       | 3.05     | 0.005*   |
|   | Lime green vs Yellow     | 8.55     | <0.001*  |   | CVT2 vs Lime green       | -3.96    | <0.001*  |                 | Lime green vs Yellow     | 5.21     | <0.001*  |
|   | Mint green vs Orange     | -1.59    | 0.122    |   | CVT2 vs Mint green       | -2.81    | 0.008*   |                 | Mint green vs Orange     | -0.11    | 0.914    |
|   | Mint green vs Pink       | -2.01    | 0.053    |   | CVT2 vs Orange           | -0.54    | 0.596    |                 | Mint green vs Pink       | 0.32     | 0.751    |
|   | Mint green vs Yellow     | 0.46     | 0.651    |   | CVT2 vs Pink             | -0.86    | 0.395    |                 | Mint green vs Yellow     | 2.48     | 0.019*   |
|   | Orange vs Pink           | -0.42    | 0.678    |   | CVT2 vs Yellow           | -3.58    | 0.001    |                 | Orange vs Pink           | 0.43     | 0.670    |
|   | Orange vs Yellow         | 2.05     | 0.049*   |   | CVT4 vs Lime green       | -2.27    | 0.030*   |                 | Orange vs Yellow         | 2.59     | 0.015*   |
|   | Pink vs Yellow           | 2.46     | 0.019*   |   | CVT4 vs Mint green       | -1.12    | 0.273    |                 | Pink vs Yellow           | 2.16     | 0.039*   |
|   | Blue vs CVT2             | 0.00     | 1.000    |   | CVT4 vs Orange           | 1.16     | 0.255    |                 | Blue vs CVT2             | -6.09    | <0.001*  |
|   | Blue vs CVT4             | 6.28     | <0.001*  |   | CVT4 vs Pink             | 0.83     | 0.410    |                 | Blue vs CVT4             | 0.83     | 0.413    |
|   | Blue vs Lime green       | 0.00     | 1.000    |   | CVT4 vs Yellow           | -1.88    | 0.069    |                 | Blue vs Lime green       | -6.09    | <0.001*  |
|   | Blue vs Mint green       | 5.23     | <0.001*  |   | Lime green vs Mint green | 1.15     | 0.258    |                 | Blue vs Mint green       | 1.33     | 0.194    |
|   | Blue vs Orange           | 6.89     | <0.001*  |   | Lime green vs Orange     | 3.43     | 0.002*   |                 | Blue vs Orange           | 2.17     | 0.038*   |
|   | Blue vs Pink             | 6.04     | <0.001*  |   | Lime green vs Pink       | 3.10     | 0.004*   |                 | Blue vs Pink             | 1.65     | 0.109    |
|   | Blue vs Yellow           | 5.68     | <0.001*  |   | Lime green vs Yellow     | 0.39     | 0.701    |                 | Blue vs Yellow           | 0.66     | 0.517    |
|   | CVT2 vs CVT4             | 6.28     | <0.001*  |   | Mint green vs Orange     | 2.28     | 0.030*   |                 | CVT2 vs CVT4             | 6.92     | <0.001*  |
|   | CVT2 vs Lime green       | 0.00     | 1.000    |   | Mint green vs Pink       | 1.95     | 0.060    |                 | CVT2 vs Lime green       | 0.00     | 1.000    |
|   | CVT2 vs Mint green       | 5.23     | <0.001*  |   | Mint green vs Yellow     | -0.77    | 0.450    |                 | CVT2 vs Mint green       | 7.42     | <0.001*  |
|   | CVT2 vs Orange           | 6.89     | <0.001*  |   | Orange vs Pink           | -0.33    | 0.746    |                 | CVT2 vs Orange           | 8.26     | <0.001*  |
|   | CVT2 vs Pink             | 6.04     | <0.001*  |   | Orange vs Yellow         | -3.04    | 0.005*   |                 | CVT2 vs Pink             | 7.74     | <0.001*  |
|   | CVT2 vs Yellow           | 5.68     | <0.001*  |   | Pink vs Yellow           | -2.72    | 0.011*   |                 | CVT2 vs Yellow           | 6.75     | <0.001*  |
|   | CVT4 vs Lime green       | -6.28    | <0.001*  |   |                          |          |          |                 | CVT4 vs Lime green       | -6.92    | <0.001*  |
|   | CVT4 vs Mint green       | -1.04    | 0.304    |   |                          |          |          |                 | CVT4 vs Mint green       | 0.50     | 0.622    |



Table S4 (continued).  $p < 0.050$  considered significant\*

| Response        | Level (genotypes)        | <i>t</i> | <i>p</i> | Response         | Level (genotypes)        | <i>t</i> | <i>p</i> |  |  |  |  |
|-----------------|--------------------------|----------|----------|------------------|--------------------------|----------|----------|--|--|--|--|
| <b>o-Cymene</b> | CVT4 vs Orange           | 1.34     | 0.189    | <b>Perillene</b> | Blue vs CVT2             | 0.89     | 0.378    |  |  |  |  |
|                 | CVT4 vs Pink             | 0.82     | 0.417    |                  | Blue vs CVT4             | 1.76     | 0.089    |  |  |  |  |
|                 | CVT4 vs Yellow           | -0.17    | 0.864    |                  | Blue vs Lime green       | 1.77     | 0.086    |  |  |  |  |
|                 | Lime green vs Mint green | 7.42     | <0.001*  |                  | Blue vs Mint green       | -4.05    | <0.001*  |  |  |  |  |
|                 | Lime green vs Orange     | 8.26     | <0.001*  |                  | Blue vs Orange           | 3.65     | 0.001*   |  |  |  |  |
|                 | Lime green vs Pink       | 7.74     | <0.001*  |                  | Blue vs Pink             | 3.64     | 0.001*   |  |  |  |  |
|                 | Lime green vs Yellow     | 6.75     | <0.001*  |                  | Blue vs Yellow           | 1.84     | 0.075    |  |  |  |  |
|                 | Mint green vs Orange     | 0.84     | 0.405    |                  | CVT2 vs CVT4             | 0.86     | 0.394    |  |  |  |  |
|                 | Mint green vs Pink       | 0.32     | 0.748    |                  | CVT2 vs Lime green       | 0.88     | 0.387    |  |  |  |  |
|                 | Mint green vs Yellow     | -0.67    | 0.507    |                  | CVT2 vs Mint green       | -4.94    | <0.001*  |  |  |  |  |
|                 | Orange vs Pink           | -0.52    | 0.607    |                  | CVT2 vs Orange           | 2.76     | 0.010*   |  |  |  |  |
|                 | Orange vs Yellow         | -1.51    | 0.140    |                  | CVT2 vs Pink             | 2.75     | 0.010*   |  |  |  |  |
|                 | Pink vs Yellow           | -0.10    | 0.327    |                  | CVT2 vs Yellow           | 0.95     | 0.350    |  |  |  |  |
| <b>Nerol</b>    | Blue vs CVT2             | -3.39    | 0.002*   |                  | CVT4 vs Lime green       | 0.01     | 0.990    |  |  |  |  |
|                 | Blue vs CVT4             | -0.32    | 0.752    |                  | CVT4 vs Mint green       | -5.81    | <0.001*  |  |  |  |  |
|                 | Blue vs Lime green       | -0.15    | 0.885    |                  | CVT4 vs Orange           | 1.90     | 0.067    |  |  |  |  |
|                 | Blue vs Mint green       | 1.17     | 0.253    |                  | CVT4 vs Pink             | 1.88     | 0.069    |  |  |  |  |
|                 | Blue vs Orange           | -1.22    | 0.232    |                  | CVT4 vs Yellow           | 0.09     | 0.933    |  |  |  |  |
|                 | Blue vs Pink             | -0.44    | 0.663    |                  | Lime green vs Mint green | -5.82    | <0.001*  |  |  |  |  |
|                 | Blue vs Yellow           | -0.34    | 0.734    |                  | Lime green vs Orange     | 1.88     | 0.069    |  |  |  |  |
|                 | CVT2 vs CVT4             | 3.07     | 0.004*   |                  | Lime green vs Pink       | 1.87     | 0.071    |  |  |  |  |
|                 | CVT2 vs Lime green       | 3.25     | 0.003*   |                  | Lime green vs Yellow     | 0.07     | 0.943    |  |  |  |  |
|                 | CVT2 vs Mint green       | 4.56     | <0.001*  |                  | Mint green vs Orange     | 7.70     | <0.001*  |  |  |  |  |
|                 | CVT2 vs Orange           | 2.18     | 0.037*   |                  | Mint green vs Pink       | 7.69     | <0.001*  |  |  |  |  |
|                 | CVT2 vs Pink             | 2.95     | 0.006*   |                  | Mint green vs Yellow     | 5.89     | <0.001*  |  |  |  |  |
|                 | CVT2 vs Yellow           | 3.05     | 0.005*   |                  | Orange vs Pink           | -0.01    | 0.990    |  |  |  |  |
|                 | CVT4 vs Lime green       | 0.17     | 0.864    |                  | Orange vs Yellow         | -1.81    | 0.080    |  |  |  |  |
|                 | CVT4 vs Mint green       | 1.48     | 0.148    |                  | Pink vs Yellow           | -1.80    | 0.082    |  |  |  |  |
|                 | CVT4 vs Orange           | -0.90    | 0.375    |                  |                          |          |          |  |  |  |  |
|                 | CVT4 vs Pink             | -0.12    | 0.905    |                  |                          |          |          |  |  |  |  |
|                 | CVT4 vs Yellow           | -0.02    | 0.981    |                  |                          |          |          |  |  |  |  |
|                 | Lime green vs Mint green | 1.31     | 0.199    |                  |                          |          |          |  |  |  |  |
|                 | Lime green vs Orange     | -1.07    | 0.291    |                  |                          |          |          |  |  |  |  |
|                 | Lime green vs Pink       | -0.29    | 0.771    |                  |                          |          |          |  |  |  |  |
|                 | Lime green vs Yellow     | -0.20    | 0.845    |                  |                          |          |          |  |  |  |  |
|                 | Mint green vs Orange     | -2.38    | 0.023*   |                  |                          |          |          |  |  |  |  |
|                 | Mint green vs Pink       | -1.61    | 0.118    |                  |                          |          |          |  |  |  |  |
|                 | Mint green vs Yellow     | -1.51    | 0.141    |                  |                          |          |          |  |  |  |  |
|                 | Orange vs Pink           | 0.78     | 0.442    |                  |                          |          |          |  |  |  |  |
|                 | Orange vs Yellow         | 0.88     | 0.388    |                  |                          |          |          |  |  |  |  |
|                 | Pink vs Yellow           | 0.10     | 0.924    |                  |                          |          |          |  |  |  |  |



Table S5. GLM summary for sesquiterpenoids with VIP coefficient  $\geq 1$ .

| Response                         |  | Level (genotypes)        | <i>t</i> | <i>p</i> | Response         | Level (genotypes)        | <i>t</i> | <i>p</i> | Response                          | Level (genotypes)        | <i>t</i> | <i>p</i> |
|----------------------------------|--|--------------------------|----------|----------|------------------|--------------------------|----------|----------|-----------------------------------|--------------------------|----------|----------|
| <i>E</i> - $\alpha$ -Bergamotene |  | Blue vs CVT2             | 0.00     | 1.000    | <b>Isoledene</b> | CVT4 vs Orange           | 5.49     | <0.001*  | $\gamma$ -Cadinene                | Blue vs CVT2             | -6.20    | <0.001*  |
|                                  |  | Blue vs CVT4             | 0.00     | 1.000    |                  | CVT4 vs Pink             | 0.00     | 1.000    |                                   | Blue vs CVT4             | -6.20    | <0.001*  |
|                                  |  | Blue vs Lime green       | 4.41     | <0.001*  |                  | CVT4 vs Yellow           | 9.45     | <0.001*  |                                   | Blue vs Lime green       | -6.20    | <0.001*  |
|                                  |  | Blue vs Mint green       | 0.00     | 1.000    |                  | Lime green vs Mint green | 0.00     | 1.000    |                                   | Blue vs Mint green       | -6.20    | <0.001*  |
|                                  |  | Blue vs Orange           | 4.64     | <0.001*  |                  | Lime green vs Orange     | 5.49     | <0.001*  |                                   | Blue vs Orange           | -6.20    | <0.001*  |
|                                  |  | Blue vs Pink             | 4.69     | <0.001*  |                  | Lime green vs Pink       | 0.00     | 1.000    |                                   | Blue vs Pink             | -6.20    | <0.001*  |
|                                  |  | Blue vs Yellow           | 7.95     | <0.001*  |                  | Lime green vs Yellow     | 9.45     | <0.001*  |                                   | Blue vs Yellow           | 3.69     | 0.001*   |
|                                  |  | CVT2 vs CVT4             | 0.00     | 1.000    |                  | Mint green vs Orange     | 5.49     | <0.001*  |                                   | CVT2 vs CVT4             | 0.00     | 1.000    |
|                                  |  | CVT2 vs Lime green       | 4.41     | <0.001*  |                  | Mint green vs Pink       | 0.00     | 1.000    |                                   | CVT2 vs Lime green       | 0.00     | 1.000    |
|                                  |  | CVT2 vs Mint green       | 0.00     | 1.000    |                  | Mint green vs Yellow     | 9.45     | <0.001*  |                                   | CVT2 vs Mint green       | 0.00     | 1.000    |
|                                  |  | CVT2 vs Orange           | 4.64     | <0.001*  |                  | Orange vs Pink           | -5.49    | <0.001*  |                                   | CVT2 vs Orange           | 0.00     | 1.000    |
|                                  |  | CVT2 vs Pink             | 4.69     | <0.001*  |                  | Orange vs Yellow         | 3.96     | <0.001*  |                                   | CVT2 vs Pink             | 0.00     | 1.000    |
|                                  |  | CVT2 vs Yellow           | 7.95     | <0.001*  |                  | Pink vs Yellow           | 9.45     | <0.001*  |                                   | CVT2 vs Yellow           | 9.89     | <0.001*  |
|                                  |  | CVT4 vs Lime green       | 4.41     | <0.001*  | <b>Ylangene</b>  | Blue vs CVT2             | -23.5    | <0.001*  |                                   | CVT4 vs Lime green       | 0.00     | 1.000    |
|                                  |  | CVT4 vs Mint green       | 0.00     | 1.000    |                  | Blue vs CVT4             | -23.5    | <0.001*  |                                   | CVT4 vs Mint green       | 0.00     | 1.000    |
|                                  |  | CVT4 vs Orange           | 4.64     | <0.001*  |                  | Blue vs Lime green       | -23.5    | <0.001*  |                                   | CVT4 vs Orange           | 0.00     | 1.000    |
|                                  |  | CVT4 vs Pink             | 4.69     | <0.001*  |                  | Blue vs Mint green       | -23.5    | <0.001*  |                                   | CVT4 vs Pink             | 0.00     | 1.000    |
|                                  |  | CVT4 vs Yellow           | 7.95     | <0.001*  |                  | Blue vs Orange           | -23.5    | <0.001*  |                                   | CVT4 vs Yellow           | 9.89     | <0.001*  |
|                                  |  | Lime green vs Mint green | -4.41    | <0.001*  |                  | Blue vs Pink             | -23.5    | <0.001*  |                                   | Lime green vs Mint green | 0.00     | 1.000    |
|                                  |  | Lime green vs Orange     | 0.24     | 0.814    |                  | Blue vs Yellow           | -1.89    | 0.068    |                                   | Lime green vs Orange     | 0.00     | 1.000    |
|                                  |  | Lime green vs Pink       | 0.28     | 0.780    |                  | CVT2 vs CVT4             | 0.00     | 1.000    |                                   | Lime green vs Pink       | 0.00     | 1.000    |
|                                  |  | Lime green vs Yellow     | 3.54     | 0.001*   |                  | CVT2 vs Lime green       | 0.00     | 1.000    |                                   | Lime green vs Yellow     | 9.89     | <0.001*  |
|                                  |  | Mint green vs Orange     | 4.64     | <0.001*  |                  | CVT2 vs Mint green       | 0.00     | 1.000    |                                   | Mint green vs Orange     | 0.00     | 1.000    |
|                                  |  | Mint green vs Pink       | 4.69     | <0.001*  |                  | CVT2 vs Orange           | 0.00     | 1.000    |                                   | Mint green vs Pink       | 0.00     | 1.000    |
|                                  |  | Mint green vs Yellow     | 7.95     | <0.001*  |                  | CVT2 vs Pink             | 0.00     | 1.000    |                                   | Mint green vs Yellow     | 9.89     | <0.001*  |
|                                  |  | Orange vs Pink           | 0.04     | 0.965    |                  | CVT2 vs Yellow           | 21.7     | <0.001*  |                                   | Orange vs Pink           | 0.00     | 1.000    |
|                                  |  | Orange vs Yellow         | 3.30     | 0.002*   |                  | CVT4 vs Lime green       | 0.00     | 1.000    |                                   | Orange vs Yellow         | 9.89     | <0.001*  |
|                                  |  | Pink vs Yellow           | 3.26     | 0.003*   |                  | CVT4 vs Mint green       | 0.00     | 1.000    |                                   | Pink vs Yellow           | 9.89     | <0.001*  |
| <b>Isoledene</b>                 |  | Blue vs CVT2             | -8.41    | <0.001*  |                  | CVT4 vs Orange           | 0.00     | 1.000    | <b><math>\beta</math>-Elemene</b> | Blue vs CVT2             | -0.70    | 0.491    |
|                                  |  | Blue vs CVT4             | -8.41    | <0.001*  |                  | CVT4 vs Pink             | 0.00     | 1.000    |                                   | Blue vs CVT4             | 0.99     | 0.331    |
|                                  |  | Blue vs Lime green       | -8.41    | <0.001*  |                  | CVT4 vs Yellow           | 21.7     | <0.001*  |                                   | Blue vs Lime green       | 1.42     | 0.166    |
|                                  |  | Blue vs Mint green       | -8.41    | <0.001*  |                  | Lime green vs Mint green | 0.00     | 1.000    |                                   | Blue vs Mint green       | -4.87    | <0.001*  |
|                                  |  | Blue vs Orange           | 2.92     | 0.006*   |                  | Lime green vs Orange     | 0.00     | 1.000    |                                   | Blue vs Orange           | 0.15     | 0.886    |
|                                  |  | Blue vs Pink             | -8.41    | <0.001*  |                  | Lime green vs Pink       | 0.00     | 1.000    |                                   | Blue vs Pink             | -4.87    | <0.001*  |
|                                  |  | Blue vs Yellow           | 1.04     | 0.307    |                  | Lime green vs Yellow     | 21.7     | <0.001*  |                                   | Blue vs Yellow           | 1.78     | 0.084    |
|                                  |  | CVT2 vs CVT4             | 0.00     | 1.000    |                  | Mint green vs Orange     | 0.00     | 1.000    |                                   | CVT2 vs CVT4             | 1.69     | 0.491    |
|                                  |  | CVT2 vs Lime green       | 0.00     | 1.000    |                  | Mint green vs Pink       | 0.00     | 1.000    |                                   | CVT2 vs Lime green       | 2.12     | 0.042*   |
|                                  |  | CVT2 vs Mint green       | 0.00     | 1.000    |                  | Mint green vs Yellow     | 21.7     | <0.001*  |                                   | CVT2 vs Mint green       | -4.18    | <0.001*  |
|                                  |  | CVT2 vs Orange           | 5.49     | <0.001*  |                  | Orange vs Pink           | 0.00     | 1.000    |                                   | CVT2 vs Orange           | 0.84     | 0.406    |
|                                  |  | CVT2 vs Pink             | 0.00     | 1.000    |                  | Orange vs Yellow         | 21.7     | <0.001*  |                                   | CVT2 vs Pink             | -4.18    | <0.001*  |
|                                  |  | CVT2 vs Yellow           | 9.45     | <0.001*  |                  | Pink vs Yellow           | 21.7     | <0.001*  |                                   | CVT2 vs Yellow           | 2.48     | 0.019*   |
|                                  |  | CVT4 vs Lime green       | 0.00     | 1.000    |                  |                          |          |          |                                   | CVT4 vs Lime green       | 0.43     | 0.669    |
|                                  |  | CVT4 vs Mint green       | 0.00     | 1.000    |                  |                          |          |          |                                   | CVT4 vs Mint green       | -5.86    | <0.001*  |

Table S5 (continued)

| Response           | Level (genotypes)        | <i>t</i> | <i>p</i> | Response          | Level (genotypes)        | <i>t</i> | <i>p</i> | Response       | Level (genotypes)        | <i>t</i> | <i>p</i> |
|--------------------|--------------------------|----------|----------|-------------------|--------------------------|----------|----------|----------------|--------------------------|----------|----------|
| <b>β-Elemene</b>   | CVT4 vs Orange           | -0.84    | 0.406    | <b>β-Selinene</b> | Blue vs CVT2             | -3.10    | 0.004*   | <b>Copaene</b> | Blue vs CVT2             | -2.25    | 0.031*   |
|                    | CVT4 vs Pink             | -5.86    | <0.001*  |                   | Blue vs CVT4             | -1.61    | 0.118    |                | Blue vs CVT4             | -1.76    | 0.088    |
|                    | CVT4 vs Yellow           | 0.80     | 0.432    |                   | Blue vs Lime green       | -1.55    | 0.131    |                | Blue vs Lime green       | 0.32     | 0.751    |
|                    | Lime green vs Mint green | -6.29    | <0.001*  |                   | Blue vs Mint green       | -8.96    | <0.001*  |                | Blue vs Mint green       | -3.09    | 0.004*   |
|                    | Lime green vs Orange     | -1.27    | 0.212    |                   | Blue vs Orange           | -1.05    | 0.303    |                | Blue vs Orange           | 0.54     | 0.596    |
|                    | Lime green vs Pink       | -6.29    | <0.001*  |                   | Blue vs Pink             | -1.21    | 0.237    |                | Blue vs Pink             | 0.59     | 0.557    |
|                    | Lime green vs Yellow     | 0.37     | 0.718    |                   | Blue vs Yellow           | -0.99    | 0.331    |                | Blue vs Yellow           | -0.40    | 0.695    |
|                    | Mint green vs Orange     | 5.02     | <0.001*  |                   | CVT2 vs CVT4             | 1.49     | 0.146    |                | CVT2 vs CVT4             | 0.49     | 0.626    |
|                    | Mint green vs Pink       | 0.00     | 1.000    |                   | CVT2 vs Lime green       | 1.55     | 0.131    |                | CVT2 vs Lime green       | 2.57     | 0.015*   |
|                    | Mint green vs Yellow     | 6.66     | <0.001*  |                   | CVT2 vs Mint green       | -5.86    | <0.001*  |                | CVT2 vs Mint green       | -0.84    | 0.408    |
|                    | Orange vs Pink           | -5.02    | <0.001*  |                   | CVT2 vs Orange           | 2.05     | 0.048*   |                | CVT2 vs Orange           | 2.79     | 0.009*   |
|                    | Orange vs Yellow         | 1.64     | 0.111    |                   | CVT2 vs Pink             | 1.89     | 0.068    |                | CVT2 vs Pink             | 2.85     | 0.008*   |
|                    | Pink vs Yellow           | 6.66     | <0.001*  |                   | CVT2 vs Yellow           | 2.11     | 0.043*   |                | CVT2 vs Yellow           | 1.86     | 0.072    |
|                    | Blue vs CVT2             | -7.47    | <0.001*  |                   | CVT4 vs Lime green       | 0.06     | 0.955    |                | CVT4 vs Lime green       | 2.08     | 0.045*   |
| <b>α-Amorphene</b> | Blue vs CVT4             | -7.47    | <0.001*  |                   | CVT4 vs Mint green       | -7.36    | <0.001*  |                | CVT4 vs Mint green       | -1.33    | 0.193    |
|                    | Blue vs Lime green       | -1.64    | 0.110    |                   | CVT4 vs Orange           | 0.56     | 0.579    |                | CVT4 vs Orange           | 2.30     | 0.028*   |
|                    | Blue vs Mint green       | -7.47    | <0.001*  |                   | CVT4 vs Pink             | 0.40     | 0.691    |                | CVT4 vs Pink             | 2.36     | 0.025*   |
|                    | Blue vs Orange           | -1.94    | 0.061    |                   | CVT4 vs Yellow           | 0.62     | 0.540    |                | CVT4 vs Yellow           | 1.37     | 0.182    |
|                    | Blue vs Pink             | -2.65    | 0.012*   |                   | Lime green vs Mint green | -7.41    | <0.001*  |                | Lime green vs Mint green | -3.41    | 0.002*   |
|                    | Blue vs Yellow           | -1.40    | 0.171    |                   | Lime green vs Orange     | 0.50     | 0.618    |                | Lime green vs Orange     | 0.22     | 0.830    |
|                    | CVT2 vs CVT4             | 0.00     | 1.000    |                   | Lime green vs Pink       | 0.34     | 0.733    |                | Lime green vs Pink       | 0.27     | 0.786    |
|                    | CVT2 vs Lime green       | 5.83     | <0.001*  |                   | Lime green vs Yellow     | 0.56     | 0.578    |                | Lime green vs Yellow     | -0.72    | 0.476    |
|                    | CVT2 vs Mint green       | 0.00     | 1.000    |                   | Mint green vs Orange     | 7.92     | <0.001*  |                | Mint green vs Orange     | 3.63     | 0.001*   |
|                    | CVT2 vs Orange           | 5.53     | <0.001*  |                   | Mint green vs Pink       | 7.76     | <0.001*  |                | Mint green vs Pink       | 3.69     | 0.00*    |
|                    | CVT2 vs Pink             | 4.82     | <0.001*  |                   | Mint green vs Yellow     | 7.98     | <0.001*  |                | Mint green vs Yellow     | 2.70     | 0.011*   |
|                    | CVT2 vs Yellow           | 6.07     | <0.001*  |                   | Orange vs Pink           | -0.16    | 0.875    |                | Orange vs Pink           | 0.06     | 0.954    |
|                    | CVT4 vs Lime green       | 5.83     | <0.001*  |                   | Orange vs Yellow         | 0.06     | 0.954    |                | Orange vs Yellow         | -0.93    | 0.358    |
|                    | CVT4 vs Mint green       | 0.00     | 1.000    |                   | Pink vs Yellow           | 0.22     | 0.829    |                | Pink vs Yellow           | -0.99    | 0.330    |
|                    | CVT4 vs Orange           | 5.53     | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | CVT4 vs Pink             | 4.82     | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | CVT4 vs Yellow           | 6.07     | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | Lime green vs Mint green | -5.83    | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | Lime green vs Orange     | -0.30    | 0.767    |                   |                          |          |          |                |                          |          |          |
|                    | Lime green vs Pink       | -1.01    | 0.321    |                   |                          |          |          |                |                          |          |          |
|                    | Lime green vs Yellow     | 0.24     | 0.812    |                   |                          |          |          |                |                          |          |          |
|                    | Mint green vs Orange     | 5.53     | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | Mint green vs Pink       | 4.82     | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | Mint green vs Yellow     | 6.07     | <0.001*  |                   |                          |          |          |                |                          |          |          |
|                    | Orange vs Pink           | -0.71    | 0.483    |                   |                          |          |          |                |                          |          |          |
|                    | Orange vs Yellow         | 0.54     | 0.593    |                   |                          |          |          |                |                          |          |          |
|                    | Pink vs Yellow           | 1.25     | 0.221    |                   |                          |          |          |                |                          |          |          |

Table S5 (continued)

| Response                             | Level (genotypes)        | <i>t</i> | <i>p</i> | Response           | Level (genotypes)        | <i>t</i> | <i>p</i> | Response        | Level (genotypes)        | <i>t</i> | <i>p</i> |
|--------------------------------------|--------------------------|----------|----------|--------------------|--------------------------|----------|----------|-----------------|--------------------------|----------|----------|
| ( <i>E</i> )- $\beta$ -Caryophyllene | Blue vs CVT2             | 0.38     | 0.709    | $\alpha$ -Cubebene | Blue vs CVT2             | 0.17     | 0.869    | Cadinadiene-1,4 | Blue vs CVT2             | 0.28     | 0.783    |
|                                      | Blue vs CVT4             | 2.49     | 0.018*   |                    | Blue vs CVT4             | 1.30     | 0.205    |                 | Blue vs CVT4             | 1.56     | 0.129    |
|                                      | Blue vs Lime green       | 1.12     | 0.273    |                    | Blue vs Lime green       | -0.22    | 0.830    |                 | Blue vs Lime green       | 0.99     | 0.331    |
|                                      | Blue vs Mint green       | 0.29     | 0.772    |                    | Blue vs Mint green       | -1.31    | 0.201    |                 | Blue vs Mint green       | -3.58    | 0.001*   |
|                                      | Blue vs Orange           | 1.35     | 0.187    |                    | Blue vs Orange           | 0.99     | 0.329    |                 | Blue vs Orange           | 1.10     | 0.279    |
|                                      | Blue vs Pink             | 1.85     | 0.074    |                    | Blue vs Pink             | 1.06     | 0.299    |                 | Blue vs Pink             | 0.72     | 0.474    |
|                                      | Blue vs Yellow           | 0.23     | 0.822    |                    | Blue vs Yellow           | 0.44     | 0.661    |                 | Blue vs Yellow           | 0.71     | 0.484    |
|                                      | CVT2 vs CVT4             | 2.11     | 0.043*   |                    | CVT2 vs CVT4             | 1.13     | 0.267    |                 | CVT2 vs CVT4             | 1.28     | 0.209    |
|                                      | CVT2 vs Lime green       | 0.74     | 0.465    |                    | CVT2 vs Lime green       | -0.38    | 0.704    |                 | CVT2 vs Lime green       | 0.71     | 0.483    |
|                                      | CVT2 vs Mint green       | -0.09    | 0.933    |                    | CVT2 vs Mint green       | -1.47    | 0.151    |                 | CVT2 vs Mint green       | -3.86    | 0.001*   |
|                                      | CVT2 vs Orange           | 0.97     | 0.338    |                    | CVT2 vs Orange           | 0.82     | 0.416    |                 | CVT2 vs Orange           | 0.82     | 0.416    |
|                                      | CVT2 vs Pink             | 1.47     | 0.152    |                    | CVT2 vs Pink             | 0.89     | 0.380    |                 | CVT2 vs Pink             | 0.45     | 0.658    |
|                                      | CVT2 vs Yellow           | -0.15    | 0.881    |                    | CVT2 vs Yellow           | 0.28     | 0.784    |                 | CVT2 vs Yellow           | 0.43     | 0.670    |
|                                      | CVT4 vs Lime green       | -1.37    | 0.180    |                    | CVT4 vs Lime green       | -1.51    | 0.140    |                 | CVT4 vs Lime green       | -0.57    | 0.572    |
|                                      | CVT4 vs Mint green       | -2.20    | 0.036*   |                    | CVT4 vs Mint green       | -2.60    | 0.014*   |                 | CVT4 vs Mint green       | -5.14    | <0.001*  |
|                                      | CVT4 vs Orange           | -1.14    | 0.263    |                    | CVT4 vs Orange           | -0.30    | 0.763    |                 | CVT4 vs Orange           | -0.46    | 0.650    |
|                                      | CVT4 vs Pink             | -0.64    | 0.526    |                    | CVT4 vs Pink             | -0.24    | 0.813    |                 | CVT4 vs Pink             | -0.84    | 0.410    |
|                                      | CVT4 vs Yellow           | -2.26    | 0.031*   |                    | CVT4 vs Yellow           | -0.85    | 0.401    |                 | CVT4 vs Yellow           | -0.85    | 0.401    |
|                                      | Lime green vs Mint green | -0.82    | 0.416    |                    | Lime green vs Mint green | -1.09    | 0.284    |                 | Lime green vs Mint green | -4.57    | <0.001*  |
|                                      | Lime green vs Orange     | 0.23     | 0.818    |                    | Lime green vs Orange     | 1.21     | 0.236    |                 | Lime green vs Orange     | 0.11     | 0.911    |
|                                      | Lime green vs Pink       | 0.73     | 0.471    |                    | Lime green vs Pink       | 1.27     | 0.212    |                 | Lime green vs Pink       | -0.26    | 0.794    |
|                                      | Lime green vs Yellow     | -0.89    | 0.380    |                    | Lime green vs Yellow     | 0.66     | 0.514    |                 | Lime green vs Yellow     | -0.28    | 0.781    |
|                                      | Mint green vs Orange     | 1.06     | 0.299    |                    | Mint green vs Orange     | 2.30     | 0.028*   |                 | Mint green vs Orange     | 4.68     | <0.001*  |
|                                      | Mint green vs Pink       | 1.55     | 0.130    |                    | Mint green vs Pink       | 2.36     | 0.024*   |                 | Mint green vs Pink       | 4.30     | <0.001*  |
|                                      | Mint green vs Yellow     | -0.07    | 0.948    |                    | Mint green vs Yellow     | 1.75     | 0.090    |                 | Mint green vs Yellow     | 4.29     | <0.001*  |
|                                      | Orange vs Pink           | 0.50     | 0.622    |                    | Orange vs Pink           | 0.07     | 0.948    |                 | Orange vs Pink           | -0.38    | 0.709    |
|                                      | Orange vs Yellow         | -1.12    | 0.270    |                    | Orange vs Yellow         | -0.55    | 0.588    |                 | Orange vs Yellow         | -0.39    | 0.697    |
|                                      | Pink vs Yellow           | -1.62    | 0.115    |                    | Pink vs Yellow           | -0.61    | 0.544    |                 | Pink vs Yellow           | -0.02    | 0.987    |

$p < 0.050$  considered significant\*