

Table S5. Eigenvalue and percentage of variation explained by the first eleven factors for all traits analyzed.

| | Principal components | | | | | | | | | | |
|--------------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Eigenvalues | 10.667 | 4.433 | 3.060 | 2.242 | 1.269 | 0.983 | 0.564 | 0.434 | 0.207 | 0.093 | 0.050 |
| PC variation (%) | 44.444 | 18.469 | 12.751 | 9.34 | 5.287 | 4.096 | 2.35 | 1.807 | 0.861 | 0.388 | 0.208 |
| Cumulative variation (%) | 44.444 | 62.913 | 75.664 | 85.004 | 90.291 | 94.387 | 96.737 | 98.544 | 99.405 | 99.793 | 100.001 |
| Trait | Unrotated factors | | | | | | | | | | |
| PC | -0.446 | -0.411 | 0.205 | 0.622 | -0.334 | 0.049 | 0.013 | 0.282 | -0.085 | -0.053 | -0.012 |
| TW | -0.185 | 0.691 | 0.566 | 0.217 | -0.006 | 0.241 | 0.223 | -0.094 | -0.014 | 0.021 | -0.057 |
| TKW | -0.282 | 0.809 | 0.372 | 0.058 | -0.220 | 0.050 | 0.193 | -0.002 | 0.149 | -0.114 | 0.037 |
| TPC | 0.969 | -0.161 | 0.045 | 0.122 | -0.013 | 0.063 | -0.017 | 0.100 | -0.003 | -0.050 | -0.024 |
| TFC | 0.969 | -0.133 | 0.171 | 0.071 | -0.031 | 0.018 | 0.004 | 0.074 | -0.042 | -0.005 | 0.013 |
| TPAC | 0.926 | -0.098 | 0.297 | 0.088 | -0.142 | 0.070 | -0.007 | -0.079 | -0.020 | 0.078 | -0.009 |
| TYPC | -0.801 | 0.414 | 0.035 | -0.089 | 0.213 | -0.317 | 0.034 | 0.039 | -0.149 | 0.069 | -0.057 |
| DPPH | 0.964 | -0.137 | 0.183 | 0.102 | -0.057 | 0.060 | -0.001 | 0.011 | -0.029 | -0.023 | 0.008 |
| TEAC | 0.972 | -0.073 | 0.184 | 0.086 | -0.065 | 0.052 | 0.000 | -0.009 | -0.032 | 0.023 | -0.025 |
| Protocatechuic acid | -0.648 | -0.316 | 0.364 | 0.264 | 0.276 | -0.090 | 0.427 | 0.071 | -0.077 | 0.023 | 0.015 |
| p -Hydroxybenzoic acid | -0.220 | -0.519 | 0.400 | 0.278 | 0.539 | 0.373 | -0.023 | -0.060 | 0.093 | 0.031 | 0.033 |
| Vanillic acid | 0.430 | 0.528 | -0.188 | -0.573 | -0.104 | 0.185 | 0.135 | 0.324 | -0.018 | -0.027 | 0.058 |
| Caffeic acid | 0.821 | -0.102 | -0.303 | 0.123 | 0.347 | -0.143 | 0.092 | -0.189 | -0.018 | -0.148 | 0.046 |
| Syringic acid | 0.785 | -0.245 | -0.208 | -0.239 | 0.371 | -0.095 | 0.256 | 0.075 | -0.052 | -0.043 | -0.012 |
| Vanillin | -0.060 | 0.598 | 0.227 | -0.245 | 0.543 | 0.309 | -0.313 | 0.193 | -0.025 | -0.015 | -0.021 |
| p-Coumaric acid | 0.870 | -0.102 | -0.309 | -0.244 | 0.027 | -0.208 | 0.087 | 0.025 | 0.119 | 0.046 | -0.097 |

| | | | | | | | | | | | |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Syringaldeide | 0.047 | 0.128 | -0.736 | 0.539 | 0.014 | 0.354 | 0.039 | -0.051 | 0.116 | -0.018 | -0.073 |
| Ferulic acid | 0.662 | 0.524 | -0.253 | 0.402 | 0.025 | -0.013 | -0.073 | -0.119 | -0.152 | 0.086 | 0.105 |
| Sinapic acid | -0.878 | -0.336 | -0.115 | -0.233 | -0.150 | -0.002 | -0.080 | -0.109 | 0.075 | -0.009 | 0.054 |
| trans-Cinnamic acid | 0.539 | 0.096 | 0.739 | -0.273 | 0.027 | -0.180 | 0.047 | -0.067 | 0.187 | 0.062 | 0.024 |
| cis-Cinnamic acid | 0.152 | 0.616 | -0.615 | 0.364 | 0.086 | -0.044 | 0.146 | 0.145 | 0.132 | 0.122 | 0.047 |
| Narigenin | -0.175 | -0.945 | -0.086 | -0.017 | 0.047 | 0.018 | 0.018 | 0.220 | 0.105 | 0.061 | 0.040 |
| Catechin | 0.900 | -0.091 | 0.350 | 0.061 | -0.195 | 0.117 | -0.035 | 0.033 | -0.031 | 0.039 | -0.001 |
| Quercitin | -0.188 | -0.319 | -0.297 | -0.606 | -0.179 | 0.529 | 0.239 | -0.159 | -0.107 | 0.049 | 0.001 |
