Supplementary File

Figure S1. Sketch of Slope trunk with vertical shoot positioning training system (M-VSP).
Table S1. Correlation coefficients between some variables on ‘Cabernet sauvignon’ grape from two vineyards in 2011 and 2012. A, Total concentrations of anthocyanins; B, 3’5’-substituted anthocyanins; C, 3’-substituted anthocyanins; D, non-acylated anthocyanins; E, acetylated anthocyanins; F, cinnamylated anthocyanins; G, non-methoxylated; H, methoxylated anthocyanins; I, berry fresh weight; J, skin fresh weight; K, cluster weight; L, cluster compactness; M, δ13C; N, N status of the plant; O, Leaf chlorophyll I; P, organic matter in soils; Q, water content in soils.

<table>
<thead>
<tr>
<th>Variant</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.999**</td>
<td>0.718</td>
<td>0.950*</td>
<td>0.998**</td>
<td>0.749</td>
<td>0.749</td>
<td>0.996</td>
<td>-0.677</td>
<td>0.951*</td>
<td>-0.551</td>
<td>-0.972*</td>
<td>0.968*</td>
<td>-0.961*</td>
<td>-0.92</td>
<td>-0.939</td>
<td>-0.939</td>
</tr>
<tr>
<td>B</td>
<td>0.69</td>
<td>0.946</td>
<td>0.999**</td>
<td>0.753</td>
<td>0.755</td>
<td>0.994**</td>
<td>-0.67</td>
<td>0.956*</td>
<td>-0.527</td>
<td>-0.961*</td>
<td>0.956*</td>
<td>-0.965*</td>
<td>-0.927</td>
<td>-0.928</td>
<td>-0.928</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.821</td>
<td>0.673</td>
<td>0.281</td>
<td>0.63</td>
<td>0.703</td>
<td>-0.788</td>
<td>0.515</td>
<td>-0.547</td>
<td>-0.825</td>
<td>0.825</td>
<td>-0.69</td>
<td>-0.452</td>
<td>-0.746</td>
<td>-0.746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>0.934</td>
<td>0.506</td>
<td>0.894</td>
<td>0.92</td>
<td>-0.872</td>
<td>0.809</td>
<td>-0.375</td>
<td>-0.924</td>
<td>0.916</td>
<td>-0.979*</td>
<td>-0.754</td>
<td>-0.834</td>
<td>-0.834</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>0.774</td>
<td>0.736</td>
<td>0.995**</td>
<td>-0.645</td>
<td>0.965*</td>
<td>-0.541</td>
<td>-0.959*</td>
<td>0.955</td>
<td>-0.957*</td>
<td>0.939</td>
<td>-0.933</td>
<td>-0.933</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.155</td>
<td>0.803</td>
<td>-0.02</td>
<td>0.908</td>
<td>-0.776</td>
<td>-0.743</td>
<td>0.749</td>
<td>-0.567</td>
<td>-0.938</td>
<td>-0.846</td>
<td>-0.846</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>0.683</td>
<td>-0.951*</td>
<td>0.555</td>
<td>0.081</td>
<td>-0.655</td>
<td>0.640</td>
<td>-0.900</td>
<td>-0.487</td>
<td>-0.505</td>
<td>-0.505</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>-0.611</td>
<td>0.969*</td>
<td>-0.62</td>
<td>-0.978*</td>
<td>0.976*</td>
<td>-0.93</td>
<td>-0.945</td>
<td>-0.964*</td>
<td>-0.964*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>-0.425</td>
<td>-0.011</td>
<td>0.648</td>
<td>-0.636</td>
<td>0.816</td>
<td>0.344</td>
<td>0.458</td>
<td>0.485</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>-0.627</td>
<td>-0.909</td>
<td>0.908</td>
<td>-0.86</td>
<td>-0.996**</td>
<td>-0.932</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>0.696</td>
<td>-0.71</td>
<td>0.306</td>
<td>0.644</td>
<td>0.804</td>
<td>0.804</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>-1.00**</td>
<td>0.892</td>
<td>0.877</td>
<td>0.98*</td>
<td>0.98*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>-0.883</td>
<td>-0.877</td>
<td>-0.983*</td>
<td>-0.983*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>0.814</td>
<td>0.811</td>
<td>0.811</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>0.916</td>
<td>0.916</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>1.00**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** significant at 0.01 level, * significant at 0.05 level.