**Supplementary material**

**Table S1.** MANOVA of white and red grapes. Factors: pH, water regime and grape variety.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **pH** | **Water regime (Hr)** | **Grape variety (Gv)** | **pH x Wr** | **pH x Gv** | **Wr x Gv** | **pH x Wr x Gv** |
| Alcohols | 0.06 |  | \*\* |  | \*\*\* |  |  |
| Aldehydes | \*\*\* |  |  |  | \* |  |  |
| Esters |  |  |  |  |  |  |  |
| Terpenes |  |  |  |  |  |  |  |
| Norisoprenoids | \*\*\* |  |  |  |  |  |  |
| Acids |  |  |  |  |  |  |  |
| *\* p value < 0.05; \*\* p value < 0.01; \*\*\* p value < 0.001* | | | | | | | |

**Table S2.** Component Weights for Figures 3 and 4.

a) White grapes rainfed

|  |  |  |
| --- | --- | --- |
|  | *Component 1 (40.42%)* | *Component 2 (22.45%)* |
| Alcohols | 0.409513 | -0.314554 |
| Aldehydes | 0.110761 | -0.707071 |
| Esters | 0.612995 | 0.0180794 |
| Terpenes | 0.0859962 | 0.193415 |
| Norisoprenoids | 0.250957 | 0.600986 |
| Acids | 0.611468 | 0.0467609 |

b) White grapes irrigation

|  |  |  |
| --- | --- | --- |
|  | *Component 1 (41.13%)* | *Component 2 (22.50%)* |
| Alcohols | 0.452012 | 0.195566 |
| Aldehydes | 0.244286 | -0.45777 |
| Esters | 0.592665 | 0.0759325 |
| Terpenes | -0.178412 | -0.563537 |
| Norisoprenoids | -0.163338 | 0.654331 |
| Acids | 0.571181 | -0.026679 |

c) Red grapes rainfed

|  |  |  |
| --- | --- | --- |
|  | *Component 1 (40.50%)* | *Component 2 (21.30%)* |
| Alcohols | 0.459061 | -0.273039 |
| Aldehydes | -0.102971 | 0.708868 |
| Esters | 0.431823 | 0.470922 |
| Terpenes | 0.438554 | -0.298216 |
| Norisoprenoids | 0.350023 | -0.114467 |
| Acids | 0.526634 | 0.314885 |

d) Red grapes irrigation

|  |  |  |
| --- | --- | --- |
|  | *Component 1 (41.47%)* | *Component 2 (20.56%)* |
| Alcohols | 0.424413 | -0.462833 |
| Aldehydes | 0.510526 | 0.138586 |
| Esters | 0.330236 | -0.230429 |
| Terpenes | 0.396104 | -0.121107 |
| Norisoprenoids | 0.518877 | 0.242199 |
| Acids | 0.155076 | 0.800096 |