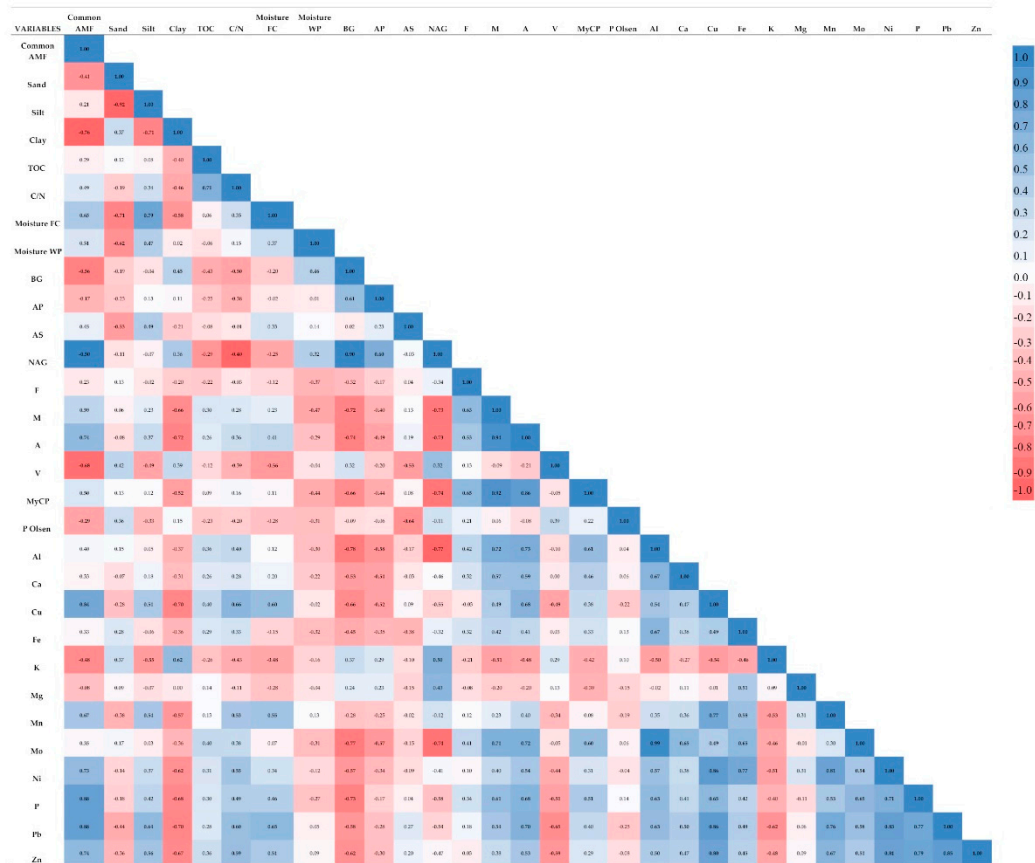


# Supplementary material - agriculture-3125995

Table S1. Mycorrhization rate and commune mycorrhizal species sampled from ungrafted (AL-ORV) and grafted (AL-420A) grapevine roots.

| Vine samples | Mycorrhization<br>rate % | AMF species                   |
|--------------|--------------------------|-------------------------------|
| AL-ORV1      | 67.5                     | <i>Paraglomus laccatum</i>    |
| AL-ORV2      | 75.0                     | <i>Scutellospora alterata</i> |
| AL-ORV3      | 77.8                     | <i>Scutellospora alterata</i> |
| AL-ORV4      | 61.9                     | <i>Acaulospora baetica</i>    |
| AL-ORV5      | 90.6                     | <i>Scutellospora alterata</i> |
| AL-ORV6      | 87.5                     | <i>Scutellospora alterata</i> |
| AL-ORV7      | 77.9                     | <i>Scutellospora alterata</i> |
| AL-ORV8      | 75.9                     | <i>Scutellospora alterata</i> |
| AL-ORV9      | 75.5                     | <i>Paraglomus laccatum</i>    |
| AL-ORV10     | 83.0                     | <i>Scutellospora alterata</i> |
| AL-420A1     | 92.6                     | <i>Paraglomus laccatum</i>    |
| AL-420A2     | 79.5                     | <i>Paraglomus laccatum</i>    |
| AL-420A3     | 79.0                     | <i>Acaulospora laevis</i>     |
| AL-420A4     | 99.3                     | <i>Scutellospora alterata</i> |
| AL-420A5     | 87.8                     | <i>Scutellospora alterata</i> |
| AL-420A6     | 87.4                     | <i>Scutellospora alterata</i> |
| AL-420A7     | 93.3                     | <i>Scutellospora alterata</i> |
| AL-420A8     | 82.8                     | <i>Scutellospora alterata</i> |
| AL-420A9     | 73.6                     | <i>Scutellospora alterata</i> |
| AL-420A10    | 91.5                     | <i>Scutellospora alterata</i> |



**Figure S1.** Heatmap of Person correlation among all the soil physical-chemical properties, soil enzymatic activity and hydrological parameters, and AMF presence and frequency (mycorrhization rate) in the rhizosphere of the tested vineyards. Abbreviations: arbuscular mycorrhizal fungi- AMF more common in vineyards (%); clay, silt and sand content (%); ratio between carbon and nitrogen – C/N; total organic carbon – TOC (%); Moisture FC soil moisture – (vol.) at field capacity – Moisture FC soil moisture – (vol.) at wilting point – WP; soil enzymes ( $\mu\text{mol g}^{-1} \text{h}^{-1}$ ): (beta-glucosidase – BG; alkaline phosphatase or acid phosphatase – AP; arylsulfatase – AS; N-acetylglucosaminidase – NAG; mycorrhization traits and rate (%): frequency of mycorrhizal colonization – F; intensity of mycorrhizal colonization – M; frequency of arbuscules - A and vesicles -V; mycorrhizal colonization - Mycorrhization rate or MyCP; mineral elements (% or ppm): Phosphorus Olsen - P Olsen; soil organic Phosphorous – P; Aluminum – Al; calcium – Ca; iron – Fe; available Potassium – K; magnesium – Mg; manganese – Mn; molybdenous – Mo; heavy metals (mg kg<sup>-1</sup>): nichel – Ni; lead – Pb; zinc – Zn; copper – Cu;