

## Supplementary Material

**SUPPLEMENTARY TABLE 1.** Seasonal pre-dawn water potential ( $\Psi_{pd}$ , MPa) of field-grown Pinot noir grafted onto different rootstocks. Means followed by the same letter do not differ at  $p < 0.05$  by Fisher's LSD test. Values are average of six replicates.

| Day of year | Rootstocks     |           |          |           |          |
|-------------|----------------|-----------|----------|-----------|----------|
|             | Riparia Gloire | 101-14MGt | 41B MGt  | Kober 5BB | 3309C    |
| 184         | -0.20 AB       | -0.23 B   | -0.19 AB | -0.16 A   | -0.16 A  |
| 201         | -0.31 C        | -0.34 C   | -0.25 B  | -0.19 A   | -0.19 A  |
| 208         | -0.34 B        | -0.36 B   | -0.38 B  | -0.23 A   | -0.26 A  |
| 213         | -0.35 B        | -0.35 B   | -0.31 B  | -0.19 A   | -0.17 A  |
| 218         | -0.54 C        | -0.64 D   | -0.64 D  | -0.29 A   | -0.40 B  |
| 226         | -0.34 A        | -0.47 B   | -0.48 B  | -0.27 A   | -0.28 A  |
| 233         | -0.42 B        | -0.55 C   | -0.59 C  | -0.30 A   | -0.33 AB |
| 240         | -0.52 B        | -0.69 C   | -0.69 C  | -0.36 A   | -0.45 B  |
| 247         | -0.49 B        | -0.69 C   | -0.68 C  | -0.37 A   | -0.41 AB |

**SUPPLEMENTARY TABLE 2.** Seasonal stem water potential ( $\Psi_{stem}$ , MPa) of field-grown Pinot noir grafted onto different rootstocks. Means followed by the same letter do not differ at  $p < 0.05$  by Fisher's LSD test. Values are average of six replicates.

| Day of year | Rootstocks     |           |           |           |         |
|-------------|----------------|-----------|-----------|-----------|---------|
|             | Riparia Gloire | 101-14MGt | 41B MGt   | Kober 5BB | 3309C   |
| 166         | -0.56 C        | -0.47 AB  | -0.52 BC  | -0.48 AB  | -0.47 A |
| 173         | -0.62 C        | -0.48 A   | -0.56 B   | -0.49 A   | -0.49 A |
| 184         | -0.59 BC       | -0.63 C   | -0.57 ABC | -0.55 AB  | -0.53 A |
| 193         | -0.73 A        | -0.73 A   | -0.68 A   | -0.64 A   | -0.65 A |
| 201         | -0.89 B        | -1.02 D   | -0.96 C   | -0.76 A   | -0.78 A |
| 208         | -0.85 AB       | -0.91 C   | -1.03 C   | -0.79 AB  | -0.76 A |
| 213         | -0.93 B        | -1.06 C   | -1.07 C   | -0.80 A   | -0.77 A |
| 218         | -1.11 C        | -1.17 C   | -1.19 C   | -0.86 A   | -0.97 B |
| 225         | -0.92 BC       | -0.93 C   | -1.20 D   | -0.80 AB  | -0.78 A |
| 233         | -0.89 A        | -0.98 A   | -1.18 A   | -0.94 A   | -0.91 A |
| 240         | -1.16 B        | -1.25 B   | -1.43 C   | -0.96 A   | -1.00 A |
| 247         | -1.16 B        | -1.24 B   | -1.34 C   | -1.04 A   | -1.00 A |

**SUPPLEMENTARY DATA**

Rita de Souza, C., Gindro, K., Verdenal, T., Spring, J.-L., Spangenberg, J.E., & Zufferey, V. (2022).  
*Water deficit responses of field-grown Pinot noir mediated by rootstock genotypes in a cool climate region. OENO One, 56(2).*  
<https://doi.org/10.20870/oeno-one.2022.56.2.3567>

**SUPPLEMENTARY TABLE 3.** Seasonal trends of photosynthesis ( $A$ ,  $\mu\text{mol m}^{-2}\text{s}^{-1}$ ) of field-grown Pinot noir grafted onto different rootstocks during the morning and afternoon. Means followed by the same letter do not differ at  $p < 0.05$  by Fisher's LSD test. Values are average of six replicates.

| Day of year | Rootstocks     |           |         |           |         |
|-------------|----------------|-----------|---------|-----------|---------|
|             | Riparia Gloire | 101-14MGt | 41B MGt | Kober 5BB | 3309C   |
| Morning     |                |           |         |           |         |
| 166         | 18.90 A        | 19,11 A   | 19,22 A | 19,19 A   | 19,19 A |
| 173         | 16.92 A        | 17,31 A   | 17,41 A | 17,72 A   | 17,36 A |
| 184         | 14.61 A        | 15,05 A   | 16,26 A | 16,76 A   | 15,35 A |
| 193         | 14.07 A        | 14,96 A   | 14,13 A | 15,41 A   | 16,11 A |
| 201         | 12.97 A        | 13,62 A   | 14,32 A | 15,97 A   | 14,98 A |
| 213         | 14.78A         | 14,29 A   | 14,14 A | 15,10 A   | 15,97 A |
| 218         | 11.40 A        | 11,01 A   | 10,49 A | 12,11 A   | 12,61 A |
| 225         | 13.71 A        | 13,82 A   | 11,04 A | 12,97 A   | 14,90 A |
| 233         | 12.31 A        | 12,10 A   | 11,03 A | 13,05 A   | 13,27 A |
| 240         | 9.15 B         | 7.10 B    | 7.70 B  | 12.58 A   | 11.91 A |
| 247         | 11.04 A        | 10,50 A   | 9,62 A  | 11,81 A   | 12,70 A |
| Afternoon   |                |           |         |           |         |
| 208         | 11.44 A        | 12.68 A   | 11.39 A | 12.77 A   | 14.89 A |
| 213         | 12.19 A        | 12.14 A   | 9.52 A  | 11.57 A   | 13.47 A |
| 218         | 5.78 A         | 7.29 A    | 4.94 A  | 8.99 A    | 7.99 A  |
| 225         | 9.70 A         | 9.62 A    | 6.22 B  | 9.10 A    | 11.20 A |
| 233         | 8.67 BC        | 9.61 B    | 6.41 C  | 10.94 AB  | 11.47 A |
| 240         | 4.26 AB        | 3.15 B    | 2.99 B  | 7.19 A    | 6.62 A  |
| 247         | 7.10 A         | 7.92 A    | 5.67 A  | 7.90 A    | 8.72 A  |

**SUPPLEMENTARY TABLE 4.** Seasonal trends of stomatal conductance ( $g_s$ ,  $\text{mol m}^{-2}\text{s}^{-1}$ ) of field-grown Pinot noir grafted onto different rootstocks during the morning and afternoon. Means followed by the same letter do not differ at  $p < 0.05$  by Fisher's LSD test. Values are average of six replicates.

| Day of year | Rootstocks     |           |         |           |        |
|-------------|----------------|-----------|---------|-----------|--------|
|             | Riparia Gloire | 101-14MGt | 41B MGt | Kober 5BB | 3309C  |
| Morning     |                |           |         |           |        |
| 166         | 0.37 A         | 0.37 A    | 0.38 A  | 0.36 A    | 0.39 A |
| 173         | 0.31 A         | 0.30 A    | 0.32 A  | 0.34 A    | 0.38 A |
| 184         | 0.23 A         | 0.27 A    | 0.30 A  | 0.30 A    | 0.29 A |
| 193         | 0.20 A         | 0.23 A    | 0.20 A  | 0.24 A    | 0.26 A |
| 201         | 0.18 A         | 0.21 A    | 0.23 A  | 0.27 A    | 0.28 A |
| 213         | 0.26 AB        | 0.22 B    | 0.22 B  | 0.25 AB   | 0.32 A |
| 218         | 0.15 A         | 0.15 A    | 0.13 A  | 0.15 A    | 0.17 A |
| 225         | 0.18 A         | 0.17 A    | 0.13 B  | 0.17 A    | 0.25 A |
| 233         | 0.20 A         | 0.17 A    | 0.15 A  | 0.22 A    | 0.21 A |
| 240         | 0.12 B         | 0.08 B    | 0.09 B  | 0.19 A    | 0.17 A |
| 247         | 0.15 A         | 0.15 A    | 0.12 A  | 0.18A     | 0.21 A |
| Afternoon   |                |           |         |           |        |
| 208         | 0.16 A         | 0.20 A    | 0.16 A  | 0.18 A    | 0.25 A |
| 213         | 0.17 A         | 0.21 A    | 0.12 A  | 0.15 A    | 0.22 A |
| 218         | 0.07 A         | 0.06 A    | 0.05 A  | 0.11 A    | 0.10 A |
| 225         | 0.13 AB        | 0.15 A    | 0.08 B  | 0.12 AB   | 0.17 A |
| 233         | 0.10 BC        | 0.13 AB   | 0.06 C  | 0.14 AB   | 0.16 A |
| 240         | 0.04 B         | 0.03 B    | 0.03 B  | 0.08 A    | 0.09 A |
| 247         | 0.10 A         | 0.10 A    | 0.06 A  | 0.14 A    | 0.12 A |

**SUPPLEMENTARY DATA**

Rita de Souza, C., Gindro, K., Verdenal, T., Spring, J.-L., Spangenberg, J.E., & Zufferey, V. (2022). *Water deficit responses of field-grown Pinot noir mediated by rootstock genotypes in a cool climate region. OENO One, 56(2).* <https://doi.org/10.20870/oeno-one.2022.56.2.3567>

**SUPPLEMENTARY TABLE 5.** Seasonal trends of transpiration ( $E$ ,  $\text{mmol m}^{-2}\text{s}^{-1}$ ) of field-grown Pinot noir grafted onto different rootstocks during the morning and afternoon. Means followed by the same letter do not differ at  $p < 0.05$  by Fisher's LSD test. Values are average of six replicates.

| Day of year | Rootstocks     |           |          |           |         |
|-------------|----------------|-----------|----------|-----------|---------|
|             | Riparia Gloire | 101-14MGt | 41B MGt  | Kober 5BB | 3309C   |
| Morning     |                |           |          |           |         |
| 166         | 4.88 A         | 4.87 A    | 4.99 A   | 4.92 A    | 5.11 A  |
| 173         | 5.65 A         | 5.88 A    | 6.16 A   | 6.59 A    | 6.48 A  |
| 184         | 4.44 A         | 4.82 A    | 5.30 A   | 5.27 A    | 5.45 A  |
| 193         | 3.70 A         | 3.82 A    | 3.54 A   | 4.16 A    | 4.25 A  |
| 201         | 2.83 C         | 3.07 BC   | 3.57 ABC | 4.02 A    | 3.73 AB |
| 213         | 4.57 A         | 4.22 A    | 4.14 A   | 5.14 A    | 5.28 A  |
| 218         | 3.45 A         | 3.38 A    | 3.02 A   | 3.71 A    | 3.83 A  |
| 225         | 3.47 A         | 3.73 A    | 2.68 A   | 3.35 A    | 4.21 A  |
| 233         | 3.75 A         | 3.27 A    | 3.09 A   | 4.10 A    | 4.05 A  |
| 240         | 2.79 BC        | 2.05 C    | 2.15 C   | 4.09 A    | 3.71 AB |
| 247         | 2.97 A         | 2.70 A    | 2.17 A   | 3.33 A    | 3.49 A  |
| Afternoon   |                |           |          |           |         |
| 208         | 2.99 A         | 3.72 A    | 3.24 A   | 3.51 A    | 4.26 A  |
| 213         | 4.67 A         | 5.24 A    | 3.97 A   | 4.96 A    | 6.12 A  |
| 218         | 2.42 A         | 3.09 A    | 2.03A    | 3.84 A    | 3.49A   |
| 225         | 4.73 AB        | 5.39 A    | 3.12 B   | 4.68 AB   | 6.25 A  |
| 233         | 3.05 BC        | 3.66 AB   | 2.08 C   | 4.12 A    | 4.55 A  |
| 240         | 2.18 B         | 1.63 B    | 1.53 B   | 3.69 A    | 3.93 A  |
| 247         | 3.18 A         | 3.06 A    | 1.99 A   | 3.29 A    | 3.69 A  |

**SUPPLEMENTARY TABLE 6.** Seasonal trends of intrinsic water use efficiency ( $A/g_s$ ,  $\mu\text{mol mol}^{-1}$ ) of field-grown Pinot noir grafted onto different rootstocks during the morning and afternoon. Means followed by the same letter do not differ at  $p < 0.05$  by Fisher's LSD test. Values are average of six replicates.

| Day of year | Rootstocks     |           |          |           |          |
|-------------|----------------|-----------|----------|-----------|----------|
|             | Riparia Gloire | 101-14MGt | 41B MGt  | Kober 5BB | 3309C    |
| Morning     |                |           |          |           |          |
| 166         | 51.30 A        | 51.15 A   | 51.00 A  | 52.87 A   | 49.44 A  |
| 173         | 55.82 A        | 57.88 A   | 56.04 A  | 53.02 A   | 58.18 A  |
| 184         | 65.46 A        | 56.00 B   | 55.15 B  | 56.68 B   | 53.82 B  |
| 193         | 70.73 A        | 66.95 A   | 70.14 A  | 66.26 A   | 64.02 A  |
| 201         | 76.24 A        | 69.59A    | 67.11 A  | 60.62 A   | 58.17 A  |
| 213         | 59.23 AB       | 65.77 AB  | 69.49 A  | 61.20 AB  | 50.71 B  |
| 218         | 81.51 A        | 85.02 A   | 87.69 A  | 81.92 A   | 79.18 A  |
| 225         | 76.42 B        | 74.67 B   | 94.74 A  | 80.99 AB  | 63.49B   |
| 233         | 64.27 B        | 74.96 AB  | 80.87 A  | 68.14 B   | 64.68 B  |
| 240         | 81.31 AB       | 90.40 A   | 92.12 A  | 69.28 C   | 72.39 BC |
| 247         | 74.04 A        | 75.32 A   | 87.84 A  | 71.69 A   | 63.50 A  |
| Afternoon   |                |           |          |           |          |
| 208         | 78.80 A        | 64.67 A   | 77.12 A  | 72.93 A   | 60.17 A  |
| 213         | 75.15 A        | 62.57 B   | 83.11 A  | 77.10 A   | 61.17 B  |
| 218         | 97.29 A        | 96.79 A   | 100.02 A | 88.20 A   | 86.00 A  |
| 225         | 78.45 AB       | 69.55 B   | 87.91 A  | 81.70 AB  | 68.65 B  |
| 233         | 95.51 AB       | 85.37 B   | 109.02 A | 87.35 B   | 78.49 B  |
| 240         | 89.18 A        | 87.71 A   | 109.02 A | 94.81 A   | 76.08 A  |
| 247         | 85.14 A        | 84.47 A   | 98.14 A  | 88.50 A   | 76.02 A  |

**SUPPLEMENTARY DATA**

Rita de Souza, C., Gindro, K., Verdenal, T., Spring, J.-L., Spangenberg, J.E., & Zufferey, V. (2022).

*Water deficit responses of field-grown Pinot noir mediated by rootstock genotypes in a cool climate region. OENO One, 56(2).*

<https://doi.org/10.20870/oeno-one.2022.56.2.3567>

**SUPPLEMENTARY TABLE 7.** Comparison of the regression slopes between stomatal conductance ( $g_s$ ) versus vapour pressure deficit leaf (VPDL) and predawn leaf water potential ( $\Psi_{pd}$ ) among different grapevine rootstocks. Values are experimental  $t$  ( $t_{exp}$ ).

| Rootstocks     | Riparia Gloire | 101-14 MGt | 3309C   | Kober 5BB | 41BMGt |
|----------------|----------------|------------|---------|-----------|--------|
| $V_{pdl}$      |                |            |         |           |        |
| Riparia Gloire | -              |            |         |           |        |
| 101-14 MGt     | -0,0438        | -          |         |           |        |
| 3309C          | 0,0903         | 0,2301     | -       |           |        |
| Kober 5BB      | 0,2218         | 0,2587     | 0,0213  | -         |        |
| 41B MGt        | 0,2347         | 0,1983     | -0,0238 | -0,0357   | -      |
| $\Psi_{pd}$    |                |            |         |           |        |
| Riparia Gloire | -              |            |         |           |        |
| 101-14 MGt     | -0,5745        | -          |         |           |        |
| 3309C          | -0,4752        | -0,0360    | -       |           |        |
| Kober 5BB      | 0,0912         | 0,4976     | 0,1294  | -         |        |
| 41B MGt        | -0,8667        | 0,0056     | 0,0166  | -0,1642   | -      |

Values from the Student's t-tables was  $t_{tab} = 1.746$  for  $p = 0.05$ , and  $t_{tab} = 2.921$  for  $p = 0.01$ .