Xynas, B., Barnes, C., & Howell, K. (2024). Amending high sugar in V. vinifera cv. Shiraz wine must by pre-fermentation water treatments results in subtle sensory differences for naïve wine consumers. *OENO One*, 58(3).
https://doi.org/10.20870/oeno-one.2024.58.3.8009

# SUPPLEMENTARY DATA

**Supp.Table 1.** The coefficient length of day (d) by latitude for the HI Index. (Tonietto and Carbonneau, 2004.)

| Latitude | Length of Day coefficient (d) |
|---|---|
| <40°00’ | 1.00 |
| 40°01’ - 42°00’ | 1.02 |
| 42°01’ - 44°00’ | 1.03 |
| 44°01’ - 46°00’ | 1.04 |
| 46°01’ - 48°00’ | 1.05 |
| 48°01’ - 50°00’ | 1.06 |

**Supp.Table 2.** Classes of viticultural climate for the heliothermal index of the grape-growing regions. (Tonietto and Carbonneau, 2004.)

| Index | Class of viticultural climate | Acronym | Class interval |
|---|---|---|---|
| Heliothermal index, HI | Very warm | HI + 3 | >3000 |
| | Warm | HI + 2 | >2400 ≤ 3000 |
| | Temperate warm | HI + 1 | >2100 ≤ 2400 |
| | Temperate | HI − 1 | >1800 ≤ 2100 |
| | Cool | HI − 2 | >1500 ≤ 1800 |
| | Very cool | HI − 3 | ≤1500 |

**Supp.Table 3.** Monthly Mean Maximum temperature for weather station Yarrawonga (located 45KM from Dookie, Victoria). Station Number: 081124,Victoria, Latitude: 36.03°S, Longitude: 146.03°E, Elevation: 129 m. (Australian Bureau of Meteorology (a).)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | 35.3 | 32.8 | 29.4 | 27.2 | 18.9 | 14.6 | 14.3 | 14.9 | 19.4 | 25.2 | 27.4 | 32.8 | 24.3 |
| 2019 | 37.2 | 32.0 | 29.3 | 24.9 | 17.4 | 14.7 | 13.8 | 14.3 | 18.7 | 25.7 | 27.1 | 33.1 | 24.0 |
| 2020 | 33.2 | 31.1 | 26.6 | 21.3 | 16.7 | 13.8 | 13.8 | 14.5 | 19.1 | 23.3 | 30.7 | 29.9 | 22.8 |
| 2021 | 32.4 | 30.0 | 26.0 | 23.0 | 18.9 | 13.7 | 12.8 | 15.5 | 18.5 | 21.0 | 24.0 | 30.5 | 22.2 |

**Supp.Table 4.** Monthly Mean Minimum temperature for weather station Yarrawonga (located 45KM from Dookie, Victoria). Station Number: 081124,Victoria, Latitude: 36.03°S, Longitude: 146.03°E, Elevation: 129 m. (Australian Bureau of Meteorology (b).)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | 17.2 | 15.5 | 12.3 | 10.1 | 6.0 | 3.3 | 2.7 | 2.7 | 2.9 | 8.0 | 11.3 | 16.7 | 9.1 |
| 2019 | 19.7 | 15.7 | 14.6 | 10.1 | 7.2 | 3.5 | 4.5 | 1.8 | 3.7 | 7.1 | 10.3 | 14.1 | 9.4 |
| 2020 | 15.7 | 16.4 | 12.8 | 9.6 | 5.0 | 3.5 | 2.7 | 3.5 | 6.1 | 9.0 | 12.6 | 12.3 | 9.1 |
| 2021 | 15.5 | 14.3 | 11.6 | 7.5 | 5.8 | 4.8 | 4.2 | 3.7 | 5.2 | 6.6 | 10.3 | 12.4 | 8.5 |
| 2022 | 17.7 | 15.0 | 14.0 | 11.2 | 7.0 | 4.3 | 1.0 | 4.5 | 5.6 | 9.4 | 10.1 | 12.3 | 9.3 |

**Supp.Table 5.** Monthly Rainfall (mm) for weather station Numurkah (located 33.7km from Dookie, Victoria) Station Number: 8010, Victoria, Latitude: 36.09° S, Longitude: 145.45° Elevation: 105 m. (Australian Bureau of Meteorology (c).)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2019 | | 5.4 | | 9.4 | 49.4 | 42.4 | 54.3 | 20.6 | 11.2 | 7.1 | 43.1 | 0.0 | |
| 2020 | *67.9* | *20.0* | *69.6* | 105.2 | *28.8* | *22.8* | *30.8* | *50.6* | *16.1* | 50.6 | 21.0 | *12.7* | *496.1* |
| 2021 | *69.6* | *10.6* | *70.7* | *4.2* | 21.0 | *64.7* | *46.0* | *27.0* | *79.2* | *19.2* | *59.6* | *9.0* | *480.8* |
| 2022 | *78.2* | *9.4* | *45.2* | *70.6* | | *38.2* | *20.2* | *63.8* | *90.3* | *175.8* | 77.4 | *74.8* | |

**SUPPLEMENTARY DATA**
Xynas, B., Barnes, C., & Howell, K. (2024). Amending high sugar in V. vinifera cv. Shiraz wine must by pre-fermentation water treatments results in subtle sensory differences for naïve wine consumers. *OENO One*, 58(3).
https://doi.org/10.20870/oeno-one.2024.58.3.8009

**Supp.Table 6.** Harvest time and water must treatment effects on measures of pigmented tannin %, chemical Age 1 and 2, colour density (a.u.), free anthocyanins (mg/L), hue, pigmented tannin a.u.), total phenolics (a.u.) total pigment (a.u.) and total tannin (%). Combined data results for 2020 (Year 1) and 2021 (Year 2) years.

| Phenolic Compound / Treatment | Early 13.5° Bé | | | Middle 14.5° Bé | | | 14.5° Bé Middle Diluted 13.5° Bé | | | Late 15.5° Bé | | | 15.5° Bé Late Diluted 13.5° Bé | | | 15.5° Bé Late Diluted 14.5° Bé | | | 15.5° Bé Late Bleed and Replace 13.5° Bé | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Standard Error (SE) | 95% CI | Mean | Standard Error (SE) | 95% CI | Mean | Standard Error (SE) | 95% CI | Mean | Standard Error (SE) | 95% CI | Mean | Standard Error (SE) | 95% CI | Mean | Standard Error (SE) | 95% CI | Mean | Standard Error (SE) | 95% CI |
| **Pigmented Tannin (%)** | 15.80 | 0.86 | 14.05, 17.55 ab | 16.23 | 0.86 | 14.48, 17.98 abc | 15.36 | 0.86 | 13.61, 17.11a | 18.60 | 0.86 | 16.85, 20.35 cd | 19.81 | 0.80 | 18.19, 21.43 d | 18.20 | 0.86 | 16.45, 19.95 bcd | 17.26 | 0.71 | 15.82, 18.71 abc |
| **Chemical Age 1** | 0.43 | 0.01 | 0.40, 0.45 a | 0.44 | 0.01 | 0.42, 0.47 ab | 0.43 | 0.01 | 0.40, 045 a | 0.49 | 0.01 | 0.46, 0.51 | 0.49 | 0.01 | 0.47, 0.52 c | 0.47 | 0.01 | 0.44, 0.49 bc | 0.45 | 0.01 | 0.43, 0.47 ab |
| **Chemical Age 2** | 0.16 | 0.01 | 0.14, 0.18 ab | 0.16 | 0.01 | 0.15, 0.18 abc | 0.15 | 0.01 | 0.13, 0.17 a | 0.19 | 0.01 | 0.17, 0.20 cd | 0.20 | 0.01 | 0.18, 0.22 d | 0.18 | 0.01 | 0.17, 0.20 bcd | 0.17 | 0.01 | 0.16, 0.19 abc |
| **Colour Density (a.u.)** | 11.75 | 0.34 | 11.06, 12,44 a | 14.98 | 0.34 | 14.29, 15.67 | 13.18 | 0.34 | 12.49, 13.87 b | 17.00 | 0.34 | 16.31, 17.69 d | 14.59 | 0.32 | 13.95, 15.23 c | 14.53 | 0.34 | 13.84, 15.22 c | 14.33 | 0.28 | 13.75, 14.90 c |
| **Free Anthocyanins (mg/L)** | 292.67 | 12.85 | 266.65, 318.68 a | 359.50 | 12.85 | 333.49, 385.51 b | 316.33 | 12.85 | 290.32, 342.35 a | 363.83 | 12.85 | 337.82, 389.85 b | 288.41 | 11.92 | 264.29, 312.53 a | 318.00 | 12.84 | 291.99, 344.01 a | 318.28 | 10.61 | 296.81, 339.76 a |
| **Hue** | 0.72 | 0.01 | 0.70, 0.73 abc | 0.72 | 0.01 | 0.71, 0.74 bc | 0.73 | 0.01 | 0.72, 0.75 c | 0.71 | 0.01 | 0.70, 0.73 abc | 0.72 | 0.01 | 0.70, 0.73 abc | 0.71 | 0.01 | 0.69, 0.72 ab | 0.70 | 0.01 | 0.69, 0.71 a |
| **Pigmented Tannin (a.u.)** | 2.87 | 0.14 | 2.58, 3.16 a | 3.84 | 0.14 | 3.55, 4.14 bc | 3.22 | 0.14 | 2.93, 3.51 a | 4.84 | 0.14 | 4.55, 5.13 d | 4.17 | 0.13 | 3.90, 4.44 c | 3.92 | 0.14 | 3.63, 4.21 bc | 3.67 | 0.12 | 3.52, 4.00 b |
| **Total Phenolics (a.u.)** | 47.00 | 1.11 | 44.75, 49.25 a | 57.67 | 1.11 | 55.41, 59.92 c | 51.33 | 1.11 | 49.08, 53.59 b | 61.50 | 1.11 | 59.25, 63.75 d | 51.78 | 1.03 | 49.70, 53.87 b | 52.67 | 1.11 | 50.92, 54.92 b | 52.61 | 0.92 | 50.75, 54.47 b |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Pigment (a.u.)** | 19.41 | 0.66 | 18.07, 20.75 | 24.39 | 0.66 | 23.04, 25.73 | 21.19 | 0.66 | 19.85, 22.53 ab | 26.25 | 0.66 | 24.90, 27.59 c | 21.38 | 0.62 | 20.14, 22.63 b | 22.44 | 0.66 | 21.09, 23.78 b | 22.18 | 0.55 | 21.07, 23.29 b |
| **Total Tannin (%)** | 1.13 | 0.05 | 1.03, 1.23 a | 1.57 | 0.05 | 1.47, 1.67 c | 1.30 | 0.05 | 1.20, 1.40 b | 1.74 | 0.05 | 1.65, 1.84 d | 1.35 | 0.05 | 1.26, 1.44 b | 1.35 | 0.05 | 1.25, 1.45 b | 1.39 | 0.04 | 1.31, 1.47 b |

Mean measurements for triplicate samples are presented. Treatment groups that do not have statistically significant differences ($p < 0.05$) in these plots will share the same letter (95% CI), those processes that are statistically different will have different letters. For the cells where no letters are present, this indicates no overall difference between any treatment groups/processes for that attribute.

**Supp.Table 7.** Just About Right Naïve Wine Consumer sensory analysis raw data, by process (treatment group) and sensory attributes, combined results for 2020 (Year 1) and 2021 (Year 2).

| Process | Mean | SE | df | 95% CI | group |
|---|---|---|---|---|---|
| Colour intensity | | | | | |
| Early 13.5 | 3.06 | 0.06 | 505 | 2.94, 3.19 | a |
| Middle diluted 13.5 | 3.21 | 0.06 | 505 | 3.09, 3.33 | b |
| Late diluted 13.5 | 3.44 | 0.06 | 505 | 3.32, 3.56 | c |
| Late bleed replace 13.5 | 3.47 | 0.06 | 505 | 3.35, 3.59 | c |
| Middle 14.5 | 3.43 | 0.06 | 505 | 3.31, 3.55 | c |
| Late diluted 14.5 | 3.49 | 0.06 | 505 | 3.37, 3.61 | c |
| Late 15.5 | 3.53 | 0.06 | 505 | 3.41, 3.65 | c |
| Red fruit smell | | | | | |
| Early 13.5 | 2.83 | 0.08 | 726 | 2.68, 2.97 | a |
| Middle diluted 13.5 | 2.88 | 0.08 | 726 | 2.73, 3.03 | ab |
| Late diluted 13.5 | 2.98 | 0.08 | 726 | 2.83, 3.12 | abc |
| Late bleed replace 13.5 | 2.93 | 0.08 | 726 | 2.78, 3.08 | ab |
| Middle 14.5 | 3.04 | 0.08 | 726 | 2.89, 3.19 | bc |
| Late diluted 14.5 | 3.13 | 0.08 | 726 | 2.98, 3.28 | c |
| Late 15.5 | 2.95 | 0.08 | 726 | 2.80, 3.10 | abc |
| Dark fruit smell | | | | | |
| Early 13.5 | 3.04 | 0.07 | 694 | 2.90, 3.18 | |
| Middle diluted 13.5 | 2.99 | 0.07 | 694 | 2.85, 3.12 | |
| Late diluted 13.5 | 3.10 | 0.07 | 694 | 2.96, 3.24 | |
| Late bleed replace 13.5 | 2.94 | 0.07 | 694 | 2.80, 3.08 | |
| Middle 14.5 | 3.02 | 0.07 | 694 | 2.88, 3.16 | |
| Late diluted 14.5 | 3.13 | 0.07 | 694 | 2.99, 3.27 | |
| Late 15.5 | 3.16 | 0.07 | 694 | 3.02, 3.30 | |
| Ripe fruit smell | | | | | |
| Early 13.5 | 2.90 | 0.08 | 682 | 2.75, 3.05 | |
| Middle diluted 13.5 | 3.00 | 0.08 | 682 | 2.85, 3.15 | |
| Late diluted 13.5 | 3.09 | 0.08 | 682 | 2.94, 3.24 | |
| Late bleed replace 13.5 | 2.96 | 0.08 | 682 | 2.81, 3.11 | |
| Middle 14.5 | 2.99 | 0.08 | 682 | 2.84, 3.14 | |
| Late diluted 14.5 | 3.14 | 0.08 | 682 | 2.99, 3.29 | |
| Late 15.5 | 3.09 | 0.08 | 682 | 2.94, 3.24 | |
| Vegetal smell | | | | | |
| Early 13.5 | 2.50 | 0.08 | 638 | 2.33, 2.66 | a |
| Middle diluted 13.5 | 2.73 | 0.08 | 638 | 2.56, 2.89 | bcd |
| Late diluted 13.5 | 2.80 | 0.08 | 638 | 2.64, 2.96 | cd |
| Late bleed replace 13.5 | 2.89 | 0.08 | 638 | 2.72, 3.05 | d |
| Middle 14.5 | 2.72 | 0.08 | 638 | 2.56, 2.88 | bcd |
| Late diluted 14.5 | 2.62 | 0.08 | 638 | 2.46, 2.79 | abc |
| Late 15.5 | 2.57 | 0.08 | 638 | 2.41, 2.73 | ab |
| Odour intensity | | | | | |
| Early 13.5 | 3.04 | 0.07 | 686 | 2.90, 3.19 | |

| | | | | | |
|---|---|---|---|---|---|
| Middle diluted 13.5 | 2.92 | 0.07 | 686 | 2.78, 3.07 | |
| Late diluted 13.5 | 3.02 | 0.07 | 686 | 2.87, 3.17 | |
| Late bleed replace 13.5 | 3.04 | 0.07 | 686 | 2.90, 3.19 | |
| Middle 14.5 | 2.91 | 0.07 | 686 | 2.76, 3.06 | |
| Late diluted 14.5 | 2.93 | 0.07 | 686 | 2.79, 3.08 | |
| Late 15.5 | 3.02 | 0.07 | 686 | 2.87, 3.17 | |
| Odour complexity | | | | | |
| Early 13.5 | 2.81 | 0.07 | 703 | 2.67, 2.95 | |
| Middle diluted 13.5 | 2.95 | 0.07 | 703 | 2.81, 3.09 | |
| Late diluted 13.5 | 2.93 | 0.07 | 703 | 2.79, 3.07 | |
| Late bleed replace 13.5 | 2.93 | 0.07 | 703 | 2.79, 3.07 | |
| Middle 14.5 | 2.89 | 0.07 | 703 | 2.75, 3.03 | |
| Late diluted 14.5 | 2.98 | 0.07 | 703 | 2.84, 3.12 | |
| Late 15.5 | 3.08 | 0.07 | 703 | 2.94, 3.22 | |
| Red fruit taste | | | | | |
| Early 13.5 | 2.99 | 0.07 | 694 | 2.84, 3.13 | |
| Middle diluted 13.5 | 3.03 | 0.07 | 694 | 2.89, 3.18 | |
| Late diluted 13.5 | 2.88 | 0.07 | 694 | 2.74, 3.03 | |
| Late bleed replace 13.5 | 3.03 | 0.07 | 694 | 2.88, 3.17 | |
| Middle 14.5 | 2.91 | 0.07 | 694 | 2.76, 3.05 | |
| Late diluted 14.5 | 3.03 | 0.07 | 694 | 2.89, 3.18 | |
| Late 15.5 | 2.87 | 0.07 | 694 | 2.72, 3.01 | |
| Dark fruit taste | | | | | |
| Early 13.5 | 3.05 | 0.07 | 600 | 2.92, 3.19 | |
| Middle diluted 13.5 | 3.04 | 0.07 | 600 | 2.90, 3.17 | |
| Late diluted 13.5 | 3.06 | 0.07 | 600 | 2.92, 3.20 | |
| Late bleed replace 13.5 | 3.08 | 0.07 | 600 | 2.94, 3.21 | |
| Middle 14.5 | 3.01 | 0.07 | 600 | 2.88, 3.15 | |
| Late diluted 14.5 | 3.11 | 0.07 | 600 | 2.97, 3.25 | |
| Late 15.5 | 3.12 | 0.07 | 600 | 2.99, 3.26 | |
| Vegetal taste | | | | | |
| Early 13.5 | 2.56 | 0.08 | 512 | 2.40, 2.73 | a |
| Middle diluted 13.5 | 2.75 | 0.08 | 512 | 2.59, 2.92 | b |
| Late diluted 13.5 | 2.91 | 0.08 | 512 | 2.74, 3.08 | b |
| Late bleed replace 13.5 | 2.88 | 0.08 | 512 | 2.71, 3.04 | b |
| Middle 14.5 | 2.91 | 0.08 | 512 | 2.74, 3.08 | b |
| Late diluted 14.5 | 2.79 | 0.08 | 512 | 2.63, 2.96 | b |
| Late 15.5 | 2.93 | 0.08 | 512 | 2.76, 3.09 | b |
| Ripe fruit taste | | | | | |
| Early 13.5 | 2.81 | 0.07 | 558 | 2.67, 2.96 | abc |
| Middle diluted 13.5 | 2.80 | 0.07 | 558 | 2.65, 2.94 | abc |
| Late diluted 13.5 | 2.96 | 0.07 | 558 | 2.82, 3.11 | c |
| Late bleed replace 13.5 | 2.79 | 0.07 | 558 | 2.64, 2.94 | ab |
| Middle 14.5 | 2.68 | 0.07 | 558 | 2.53, 2.83 | a |
| Late diluted 14.5 | 2.90 | 0.07 | 558 | 2.75, 3.05 | bc |
| Late 15.5 | 2.93 | 0.07 | 558 | 2.79, 3.08 | bc |

**SUPPLEMENTARY DATA**
Xynas, B., Barnes, C., & Howell, K. (2024). Amending high sugar in V. vinifera cv. Shiraz wine must by pre-fermentation water treatments results in subtle sensory differences for naïve wine consumers. *OENO One*, 58(3).
https://doi.org/10.20870/oeno-one.2024.58.3.8009

| | | | | | |
|---|---|---|---|---|---|
| Astringency | | | | | |
| Early 13.5 | 2.81 | 0.08 | 552 | 2.65, 2.96 | a |
| Middle diluted 13.5 | 2.95 | 0.08 | 552 | 2.79, 3.11 | ab |
| Late diluted 13.5 | 3.01 | 0.08 | 552 | 2.85, 3.16 | bc |
| Late bleed replace 13.5 | 3.09 | 0.08 | 552 | 2.93, 3.24 | bc |
| Middle 14.5 | 3.14 | 0.08 | 552 | 2.98, 3.30 | c |
| Late diluted 14.5 | 3.19 | 0.08 | 552 | 3.03, 3.35 | c |
| Late 15.5 | 3.18 | 0.08 | 552 | 3.02, 3.34 | c |
| Hotness | | | | | |
| Early 13.5 | 2.84 | 0.08 | 624 | 2.69, 3.00 | a |
| Middle diluted 13.5 | 2.81 | 0.08 | 624 | 2.66, 2.97 | a |
| Late diluted 13.5 | 2.95 | 0.08 | 624 | 2.79, 3.10 | ab |
| Late bleed replace 13.5 | 2.78 | 0.08 | 624 | 2.62, 2.94 | a |
| Middle 14.5 | 3.12 | 0.08 | 624 | 2.97, 3.28 | bc |
| Late diluted 14.5 | 3.19 | 0.08 | 624 | 3.04, 3.35 | c |
| Late 15.5 | 3.27 | 0.08 | 624 | 3.12, 3.43 | c |
| Viscosity | | | | | |
| Early 13.5 | 2.61 | 0.07 | 559 | 2.48, 2.74 | a |
| Middle diluted 13.5 | 2.80 | 0.07 | 559 | 2.67, 2.93 | b |
| Late diluted 13.5 | 2.85 | 0.07 | 559 | 2.72, 2.98 | bc |
| Late bleed replace 13.5 | 2.87 | 0.07 | 559 | 2.74, 3.00 | bc |
| Middle 14.5 | 2.78 | 0.07 | 559 | 2.65, 2.90 | b |
| Late diluted 14.5 | 2.90 | 0.07 | 559 | 2.77, 3.03 | bc |
| Late 15.5 | 2.97 | 0.07 | 559 | 2.84, 3.10 | c |
| Body | | | | | |
| Early 13.5 | 2.68 | 0.07 | 499 | 2.54, 2.81 | a |
| Middle diluted 13.5 | 2.88 | 0.07 | 499 | 2.74, 3.01 | bc |
| Late diluted 13.5 | 2.98 | 0.07 | 499 | 2.84, 3.11 | cd |
| Late bleed replace 13.5 | 2.81 | 0.07 | 499 | 2.68, 2.95 | ab |
| Middle 14.5 | 2.96 | 0.07 | 499 | 2.82, 3.09 | bcd |
| Late diluted 14.5 | 3.01 | 0.07 | 499 | 2.88, 3.15 | cd |
| Late 15.5 | 3.04 | 0.07 | 499 | 2.91, 3.18 | d |
| Length | | | | | |
| Early 13.5 | 2.87 | 0.08 | 593 | 2.73, 3.02 | a |
| Middle diluted 13.5 | 2.93 | 0.08 | 593 | 2.78, 3.08 | ab |
| Late diluted 13.5 | 3.11 | 0.08 | 593 | 2.96, 3.26 | c |
| Late bleed replace 13.5 | 3.01 | 0.08 | 593 | 2.86, 3.16 | abc |
| Middle 14.5 | 3.10 | 0.08 | 593 | 2.96, 3.25 | bc |
| Late diluted 14.5 | 3.14 | 0.08 | 593 | 2.99, 3.29 | c |
| Late 15.5 | 3.18 | 0.08 | 593 | 3.04, 3.33 | c |
| Overall | | | | | |
| Early 13.5 | 5.31 | 0.15 | 555 | 5.02, 5.60 | b |
| Middle diluted 13.5 | 5.42 | 0.15 | 555 | 5.13, 5.71 | b |
| Late diluted 13.5 | 5.23 | 0.15 | 555 | 4.94, 5.53 | b |
| Late bleed replace 13.5 | 5.23 | 0.15 | 555 | 4.94, 5.52 | b |
| Middle 14.5 | 4.85 | 0.15 | 555 | 4.56, 5.14 | a |

| | | | | | |
|---|---|---|---|---|---|
| Late diluted 14.5 | 5.33 | 0.15 | 555 | 5.04, 5.62 | b |
| Late 15.5 | 5.15 | 0.15 | 555 | 4.86, 5.44 | ab |
| Purchase likelihood | | | | | |
| Early 13.5 | 2.79 | 0.09 | 531 | 2.62, 2.96 | |
| Middle diluted 13.5 | 2.77 | 0.09 | 531 | 2.60, 2.94 | |
| Late diluted 13.5 | 2.80 | 0.09 | 531 | 2.63, 2.97 | |
| Late bleed replace 13.5 | 2.85 | 0.09 | 531 | 2.68, 3.01 | |
| Middle 14.5 | 2.56 | 0.09 | 531 | 2.39, 2.73 | |
| Late diluted 14.5 | 2.71 | 0.09 | 531 | 2.54, 2.88 | |
| Late 15.5 | 2.66 | 0.09 | 531 | 2.49, 2.83 | |

**Supp Table 8.** Fermentation tracking 2020 (Year 1). Mean measurements for triplicate samples are presented.

| | | DAY 1 | DAY 2 | | DAY 3 | | DAY 4 | | DAY 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| Early 13.5 | Temp (oC) | 21.0 | 22.5 | 25.5 | 28.8 | 27.3 | 24.5 | 24.5 | 23.2 | 22.2 |
| | Baume (Be) | 13.5 | 12.6 | 9.3 | 7.3 | 5.1 | 1.9 | 1.1 | -0.4 | -0.4 |
| Middle 14.5 | Temp (oC) | 16.5 | 18.3 | 20.0 | 22.3 | 24.5 | 26.0 | 29.5 | 21.0 | 20.0 |
| | Baume (Be) | 14.5 | 14.3 | 13.9 | 12.6 | 11.3 | 6.3 | 4.1 | 1.8 | -0.1 |
| Middle dilited 13.5 | Temp (oC) | 16.0 | 18.5 | 19.8 | 22.2 | 24.5 | 26.8 | 28.8 | 21.2 | 20.3 |
| | Baume (Be) | 14.5 | 13.1 | 12.4 | 11.3 | 10.5 | 5.3 | 3.5 | 1.1 | -0.2 |
| Late | Temp (oC) | 18.0 | 19.0 | 19.3 | 21.2 | 22.0 | 25.7 | 28.7 | 21.7 | 21.0 |
| | Baume (Be) | 15.3 | 15.3 | 15.3 | 13.6 | 13.0 | 8.5 | 6.7 | 2.5 | -0.1 |
| Late diluted 14.5 | Temp (oC) | 18.0 | 18.5 | 18.8 | 20.3 | 21.7 | 24.7 | 27.0 | 22.3 | 21.3 |
| | Baume (Be) | 15.2 | 14.5 | 14.2 | 13.1 | 11.9 | 8.4 | 6.5 | 2.6 | -0.1 |
| Late diluted 13.5 | Temp (oC) | 18.0 | 18.8 | 19.0 | 21.2 | 21.5 | 24.5 | 27.2 | 23.3 | 21.0 |
| | Baume (Be) | 15.3 | 13.4 | 13.1 | 12.2 | 11.3 | 7.2 | 5.7 | 1.5 | -0.2 |
| Late bleed and replace 13.5 | Temp (oC) | 18.0 | 19.0 | 19.0 | 20.7 | 22.2 | 24.3 | 26.7 | 23.0 | 21.0 |
| | Baume (Be) | 15.1 | 13.4 | 12.9 | 11.7 | 10.5 | 6.8 | 5.1 | 1.6 | -0.2 |

**Supp. Table 9.** Fermentation tracking 2021 (Year 2). Mean measurements for triplicate samples are presented.

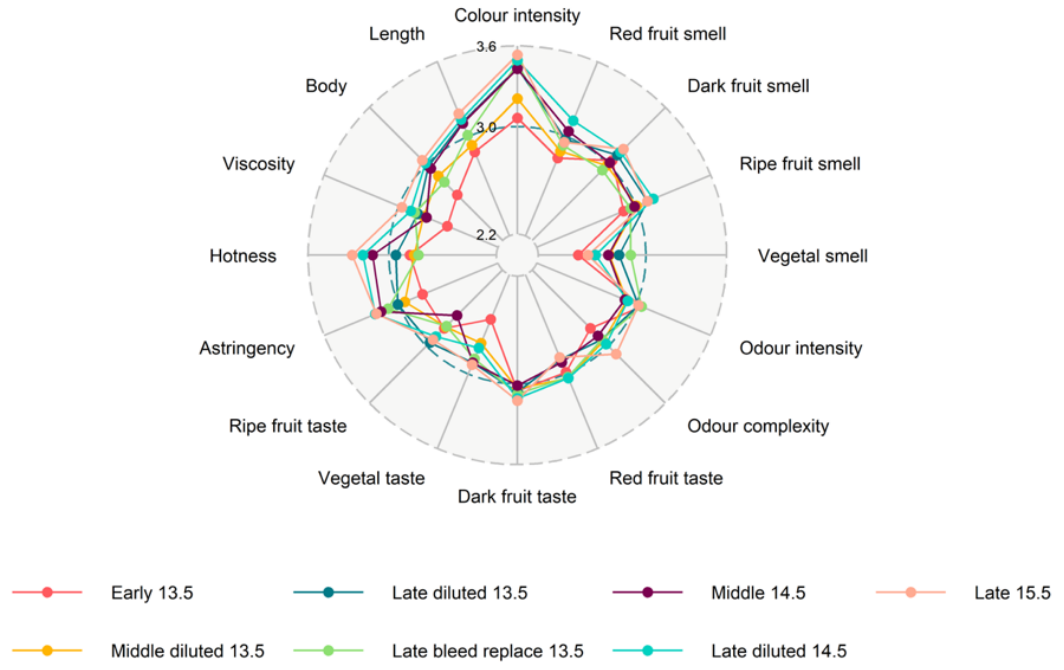
| | | DAY 1 | DAY 2 | | DAY 3 | | DAY 4 | | DAY 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| Early 13.5 | Temp (oC) | 22.0 | 24.5 | 27.8 | 27.5 | 27.3 | 23.5 | 23.3 | 23.1 | 21.1 |
| | Baume (Be) | 13.5 | 12.7 | 9.4 | 7.4 | 5.2 | 3.4 | 2.2 | -0.2 | -0.4 |
| Middle 14.5 | Temp (oC) | 18.0 | 18.6 | 21.0 | 22.0 | 24.5 | 25.5 | 24.5 | 22.5 | 21.2 |
| | Baume (Be) | 14.5 | 14.2 | 13.8 | 12.5 | 11.3 | 6.4 | 3.9 | 1.0 | -0.1 |
| Middle dilited 13.5 | Temp (oC) | 18.0 | 18.4 | 20.0 | 22.0 | 24.5 | 25.4 | 27.4 | 21.6 | 21.3 |
| | Baume (Be) | 14.5 | 13.2 | 12.5 | 11.4 | 10.5 | 6.5 | 3.6 | 1.0 | -0.1 |
| Late | Temp (oC) | 18.5 | 18.6 | 19.3 | 21.4 | 22.0 | 25.4 | 26.8 | 22.5 | 22.0 |
| | Baume (Be) | 15.5 | 15.2 | 14.8 | 13.6 | 13.0 | 6.8 | 3.9 | 1.9 | -0.1 |
| Late diluted 14.5 | Temp (oC) | 18.5 | 18.4 | 19.0 | 21.5 | 21.7 | 25.8 | 26.5 | 23.5 | 22.1 |
| | Baume (Be) | 15.5 | 14.6 | 14.0 | 13.5 | 11.9 | 8.5 | 4.9 | 1.8 | -0.1 |
| Late diluted 13.5 | Temp (oC) | 18.6 | 19.1 | 19.0 | 23.5 | 21.5 | 26.5 | 27.5 | 23.5 | 23.1 |
| | Baume (Be) | 15.4 | 13.6 | 13.0 | 11.9 | 11.3 | 6.9 | 3.5 | 1.6 | -0.1 |
| Late bleed and replace 13.5 | Temp (oC) | 19.0 | 19.1 | 19.5 | 21.5 | 22.2 | 23.9 | 27.4 | 23.0 | 23.1 |
| | Baume (Be) | 15.1 | 13.5 | 12.8 | 11.6 | 10.5 | 6.8 | 3.6 | 1.6 | -0.2 |

**Supp. Table 10.** Analysis of wine treatments post fermentation (day 5) 2020 (Year 1). Mean measurements for triplicate samples are presented.

| Trial | pH | VA g/L | Lactic Acid g/L | Total sugar g/L | TA g/L | Malic Acid g/L |
|---|---|---|---|---|---|---|
| Early 13.5 | 3.61 | 0.48 | 2.10 | 1.93 | 7.01 | 0.82 |
| Middle 14.5 | 3.73 | 0.37 | 1.86 | 2.42 | 6.32 | 0.96 |
| Middle dilited 13.5 | 3.67 | 0.44 | 1.91 | 2.21 | 6.35 | 0.83 |
| Late | 3.71 | 0.38 | 1.53 | 2.32 | 6.35 | 1.07 |
| Late diluted 14.5 | 3.74 | 0.36 | 1.56 | 2.04 | 6.55 | 0.96 |
| Late diluted 13.5 | 3.73 | 0.37 | 1.62 | 1.95 | 6.34 | 0.88 |
| Late bleed and replace 13.5 | 3.72 | 0.39 | 1.70 | 1.63 | 6.37 | 0.78 |

**Supp. Table 11.** Analysis of wine treatments means post fermentation (day 5) 2021 (Year 2). Mean measurements for triplicate samples are presented.

| Trial | pH | VA g/L | Lactic Acid g/L | Total sugar g/L | TA g/L | Malic Acid g/L |
|---|---|---|---|---|---|---|
| Early 13.5 | 3.62 | 0.42 | 2.12 | 1.93 | 6.75 | 0.80 |
| Middle 14.5 | 3.71 | 0.36 | 1.93 | 2.10 | 6.30 | 0.90 |
| Middle dilited 13.5 | 3.70 | 0.38 | 1.91 | 1.96 | 6.29 | 0.82 |
| Late | 3.71 | 0.40 | 1.81 | 2.07 | 6.25 | 1.00 |
| Late diluted 14.5 | 3.74 | 0.31 | 1.68 | 2.00 | 6.36 | 1.01 |
| Late diluted 13.5 | 3.73 | 0.39 | 1.63 | 1.99 | 6.37 | 0.93 |
| Late bleed and replace 13.5 | 3.72 | 0.36 | 1.66 | 1.90 | 6.40 | 0.86 |




**Supp. Figure 1.** Just About Right analysis for all sensory parameters – for 2020 (Year 1) and 2021 (Year 2) combined. Naïve cohort sensory data analysis shows that there is a difference in consumer perception of different wine attributes between wines at Early, Middle and Late harvest times and between different water treatment groups.