**SUPPLEMENTARY MATERIAL**

# Analysis of the energy potential of vine leaves of the 'Regent' cultivar as bio-waste depending on the year of cultivation and the type of rootstock used

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**Table S1.** Technical and elemental analysis evaluation results for the tested leaves of the 'Regent' cultivar

| Factor | Year | Rootstock type | | | | | | Control | *p*-value |
|---|---|---|---|---|---|---|---|---|---|
| | | **101-14** | **125AA** | **SO4** | **SORI** | **5 BB** | **161-49** | | |
| *M* (%) | 2020 | 9.9 ±0.6$^{Aa}$ | 9.4 ±0.6$^{BCa}$ | 9.1 ±0.6$^{CDa}$ | 9.6 ±0.6$^{ABa}$ | 10.0 ±0.7$^{Aa}$ | 9.3 ±0.6$^{BCDa}$ | 8.9 ±0.6$^{Da}$ | *<0.0001* |
| | 2021 | 9.6 ± 0.6$^{Aa}$ | 9.2 ±0.6$^{Ca}$ | 8.8 ±0.6$^{Da}$ | 9.3 ±0.6$^{Ba}$ | 9.7 ±0.6$^{Aa}$ | 9.0 ±0.6$^{Ca}$ | 8.6 ±0.6$^{Ea}$ | *<0.0001* |
| | 2022 | 10.8 ±0.7$^{Aa}$ | 10.2 ±0.7$^{BCa}$ | 9.9 ±0.6$^{Da}$ | 10.4 ±0.7$^{Ba}$ | 10.9 ±0.7$^{Aa}$ | 10.1 ±0.7$^{CDa}$ | 9.6 ±0.6$^{Ea}$ | *<0.0001* |
| *p*-value | | 0.0789 | 0.0745 | 0.8965 | 0.2587 | 0.6952 | 0.3241 | 0.3687 | |
| *A* (%) | 2020 | 11.1 ±0.7$^{Ea}$ | 12.0 ±0.8$^{CDa}$ | 12.7 ±0.8$^{Ca}$ | 12.3 ±0.8$^{CDa}$ | 14.0 ±0.9$^{Aa}$ | 13.2 ±0.9$^{Ba}$ | 10.0 ±0.7$^{Fa}$ | *<0.0001* |
| | 2021 | 10.7 ±0.7$^{Fa}$ | 11.7 ±0.8$^{Ea}$ | 12.3 ±0.81$^{Ca}$ | 11.9 ±0.8$^{Da}$ | 13.6 ±0.9$^{Aa}$ | 12.7 ±0.8$^{Ba}$ | 9.7 ±0.6$^{Ga}$ | *<0.0001* |
| | 2022 | 12.0 ±0.8$^{Da}$ | 13.1 ±0.9$^{Ca}$ | 13.8 ±0.9 $^{Ca}$ | 13.3 ±0.9$^{Ca}$ | 15.3 ±1.0$^{Aa}$ | 14.3 ±0.9$^{Ba}$ | 10.9 ±0.7$^{Ea}$ | *<0.0001* |
| *p*-value | | 0.2365 | 0.3145 | 0.6542 | 0.5231 | 0.4521 | 0.5321 | 0.2561 | |

continue Tab. S1

| Factor | Year | Rootstock type | | | | | | Control | *p*-value |
|---|---|---|---|---|---|---|---|---|---|
| | | **101-14** | **125AA** | **SO4** | **SORI** | **5 BB** | **161-49** | | |
| *V* (%) | 2020 | 72.3 ±4.7$^{Aa}$ | 72.7 ±4.8$^{Aa}$ | 72.9 ±4.8$^{Aa}$ | 72.9 ±4.8$^{Aa}$ | 72.2 ±4.7$^{Aa}$ | 72.3 ±4.7$^{Aa}$ | 72.5 ±4.7$^{Aa}$ | 0.9878 |
| | 2021 | 70.2 ±4.6$^{Aa}$ | 70.6 ±4.6$^{Aa}$ | 70.8 ±4.6$^{Aa}$ | 70.8 ±4.6$^{Aa}$ | 70.1 ±4.6$^{Aa}$ | 70.2 ±4.6$^{Aa}$ | 70.4 ±4.6$^{Aa}$ | 0.9852 |
| | 2022 | 78.7 ±5.2$^{Aa}$ | 79.1 ±5.2$^{Aa}$ | 79.3 ±5.2$^{Aa}$ | 79.3 ±5.2$^{Aa}$ | 78.5 ±5.1$^{Aa}$ | 78.6 ±5.2$^{Aa}$ | 78.8 ±5.2$^{Aa}$ | 0.9632 |
| *p*-value | | 0.5641 | 0.5698 | 0.2589 | 0.3697 | 0.4789 | 0.2563 | 0.9636 | |
| C (%) | 2020 | 44.7 ±2.9$^{Ba}$ | 45.1 ±2.3$^{ABa}$ | 44.6 ±2.9$^{Ba}$ | 44.4 ±2.9$^{Ba}$ | 43.2 ±2.8$^{Ca}$ | 43.8 ±2.8$^{Ca}$ | 45.7 ±3.0$^{Aa}$ | *<0.0001* |
| | 2021 | 43.4 ±2.8$^{Ca}$ | 43.8 ±2.9$^{Ba}$ | 43.3 ±2.8$^{Ca}$ | 43.1 ±2.8$^{Ca}$ | 41.9 ±2.7$^{Ea}$ | 42.5 ±2.79$^{Da}$ | 44.3±2.9$^{Aa}$ | *<0.0001* |
| | 2022 | 48.6 ±3.2$^{BCa}$ | 49.0 ±3.2$^{Ba}$ | 48.5 ±3.2$^{Ca}$ | 48.3 ±3.2$^{Ca}$ | 46.9 ±3.1$^{Ea}$ | 47.6 ±3.12$^{Da}$ | 49.7 ±3.3$^{Aa}$ | *<0.0001* |
| *p*-value | | 0.8523 | 0.8564 | 0.5632 | 0.2323 | 0.1253 | 0.5252 | 0.3636 | |
| H (%) | 2020 | 8.1 ±0.5$^{Aa}$ | 8.4 ±0.5$^{Aa}$ | 8.2 ±0.5$^{Aa}$ | 8.2 ±0.5$^{Aa}$ | 8.1 ±0.5$^{Aa}$ | 8.1 ±0.5$^{Aa}$ | 8.3 ±0.5$^{Aa}$ | 0.8753 |
| | 2021 | 7.9 ±0.5$^{Aa}$ | 8.1 ±0.5$^{Aa}$ | 8.0 ±0.5$^{Aa}$ | 8.0 ±0.5$^{Aa}$ | 7.9 ±0.5$^{Aa}$ | 7.9 ±0.5$^{Aa}$ | 8.0 ±0.5$^{Aa}$ | 0.8321 |
| | 2022 | 8.8 ±0.6$^{Aa}$ | 9.1 ±0.6$^{Aa}$ | 8.92 ±0.6$^{Aa}$ | 8.9 ±0.6$^{Aa}$ | 8.8 ±0.6$^{Aa}$ | 8.8 ±0.6$^{Aa}$ | 9.0 ±0.6$^{Aa}$ | 0.8741 |
| *p*-value | | 0.7856 | 0.7841 | 0.6985 | 0.6549 | 0.8997 | 0.7456 | 0.4569 | |
| N (%) | 2020 | 2.0 ±0.1$^{Ca}$ | 2.3 ±0.1$^{Aa}$ | 2.0 ±0.1$^{Ca}$ | 1.9 ±0.1$^{Da}$ | 1.7 ±0.1$^{Fa}$ | 1.8 ±0.1$^{Ea}$ | 2.1 ±0.1$^{Ba}$ | *<0.0001* |
| | 2021 | 2.0 ±0.1$^{ABCa}$ | 2.3 ±0.1$^{Aa}$ | 2.0 ±0.1$^{ABCa}$ | 1.9 ±0.1$^{ABCa}$ | 1.6 ±0.1$^{Ca}$ | 1.7 ±0.1$^{BCa}$ | 2.0 ±0.1$^{ABa}$ | *<0.0001* |
| | 2022 | 2.2 ±0.1$^{BCa}$ | 2.5 ±0.2$^{Aa}$ | 2.2 ±0.1$^{BCa}$ | 2.1 ±0.1$^{Ca}$ | 1.8 ±0.1$^{Da}$ | 1.9 ±0.1$^{Da}$ | 2.3 ±0.1$^{Ba}$ | *<0.0001* |
| *p*-value | | 0.1596 | 0.1789 | 0.2336 | 0.5269 | 0.1989 | 0.3693 | 0.7531 | |
| S (%) | 2020 | 0.1 ±0.01$^{Ca}$ | 0.3 ±0.02$^{Aa}$ | 0.3 ±0.02$^{Aa}$ | 0.3 ±0.02$^{Aa}$ | 0.2 ±0.02$^{Ba}$ | 0.3 ±0.02$^{Aa}$ | 0.2 ±0.02$^{Ba}$ | *<0.0001* |
| | 2021 | 0.1 ±0.01$^{Ca}$ | 0.3 ±0.02$^{Aa}$ | 0.2 ±0.02$^{Ba}$ | 0.3 ±0.02$^{Aa}$ | 0.2 ±0.02$^{Ba}$ | 0.3 ±0.02$^{Aa}$ | 0.2 ±0.01$^{Ba}$ | *<0.0001* |
| | 2022 | 0.1 ±0.01$^{Ca}$ | 0.3 ±0.02$^{Aa}$ | 0.3 ±0.02$^{Aa}$ | 0.3 ±0.02$^{Aa}$ | 0.3 ±0.02$^{Aa}$ | 0.3 ±0.02$^{Aa}$ | 0.2 ±0.02$^{Ba}$ | *<0.0001* |
| *p*-value | | 0.2523 | 0.3247 | 0.3579 | 0.9513 | 0.9973 | 0.7564 | 0.7963 | |

Explanations: *M* = moisture content, *A* = ash content, *V* = volatile matter content, A, a, B, b, ...., F, f in the columns show significant differences at $\alpha = 0.05$, *p*-values in italic = significant values.

Source: own study.