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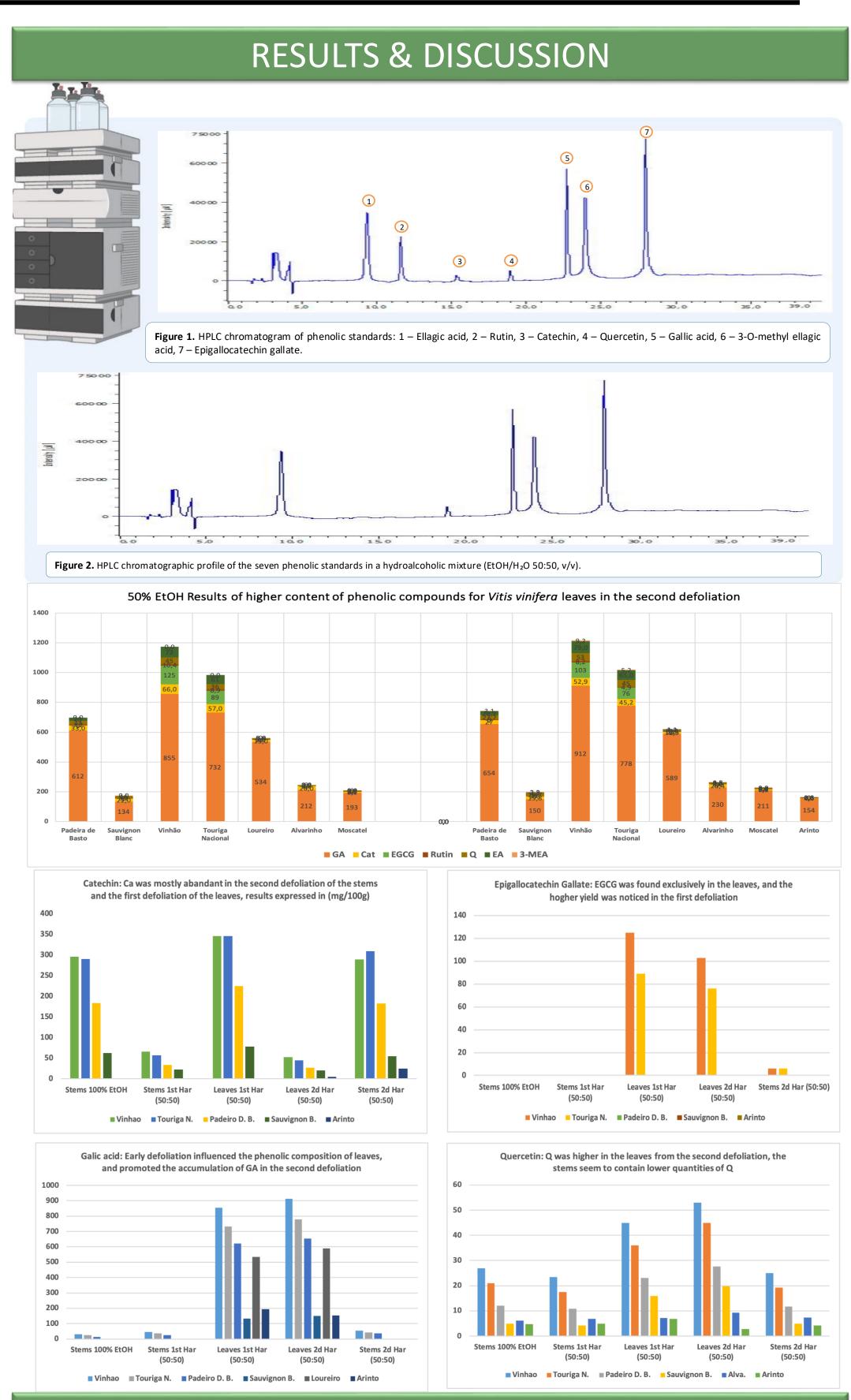
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## Revalorization of vineyard pruning by-products from different Vitis vinifera varieties: Evaluation of the phenolic profile across two defoliation seasons

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#### INTRODUCTION & AIM Vinhao **Alvarinho** Moscatel G. B. Pandeiro de B. **Different pruning** Touriga N. Loureiro seasons Sauvignon B. First seasons **PROBLEMATIC** pruning Alteration of Nutritional **Quality of The Grapes** Alteration of Sensorial **Quality of Wine** Second pruning seasons Resulting of Large Amount of Leaves and Stems **AIM** Both leaves and stems were recovered from VALORIZTION OF THE WASTES (LEAVES & STEMS) FOR two defoliation **BIOACTIVITY PURPOSES** seasons **METHOD** 4 to 5 grinding cycles (20 25 s each **Raw Material** 40°C/6H KERN DBS 50°C/20H moisture Retsch GRINDOMIX GM 200 100-200g/ Vorwerk Thermomix 150°C TM5-2 **Extraction** 300 rpm/1H at RT° Ethanol/ Water 50% (v/v) Recover the supernatant **Analytical** A Thermo Scientific Hypersil Gold C18 column (150 mm \* 2.1 mm, 3 µm) served as the stationary phase. Chromatograms **HPLC-DAD** The analysis was performed on a Jasco LC-4000 system with an AS-4050 autosampler, PU-4180 pump,



#### CONCLUSION

This study confirmed that vineyard pruning residues, especially vine leaves, are a valuable source of bioactive phenolic compounds with potential in food, nutraceutical, and cosmetic applications. Defoliation timing strongly influenced phenolic profiles: early defoliation favored catechin and EGCG accumulation, while later defoliation increased gallic acid and quercetin contents. Among all samples, Vinhão and Touriga Nacional showed the highest phenolic richness extracted with 50% hydroalcoholic solvent.

### FUTURE WORK / REFERENCES

- A third defoliation during the grape ripening stage will be performed to track seasonal changes in bioactive profiles of vine by-products.
- Advanced analytical tools (LC–MS/MS, metabolomics) will help reveal new compounds and subtle variations.

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detector.



and MD-4010 diode-array