

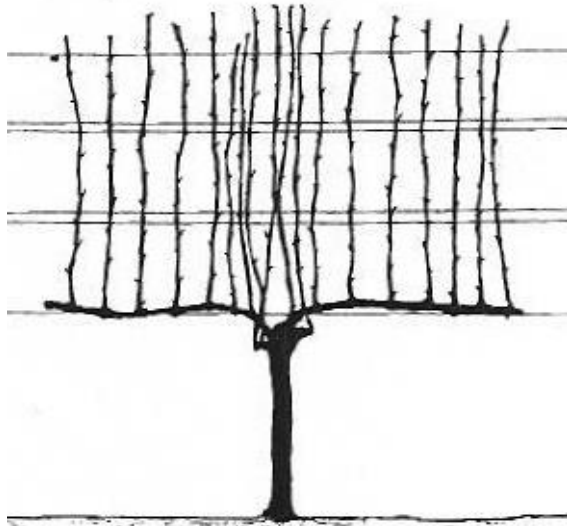


Characterising the Microbiome of Spontaneously Fermented Chenin Blanc Grape Juice from 6 Different Trellis Systems

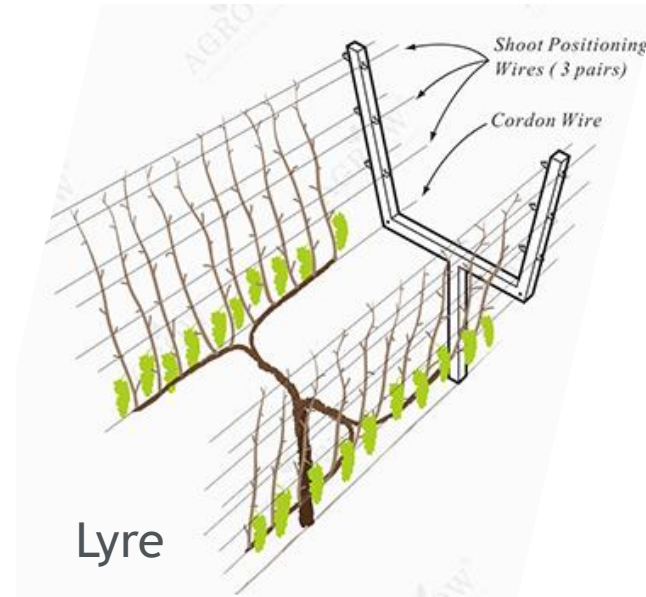
P. van Zijl, E. Setati, F. Bauer

SASEV 44th Conference 26/11/2025

Trellis systems



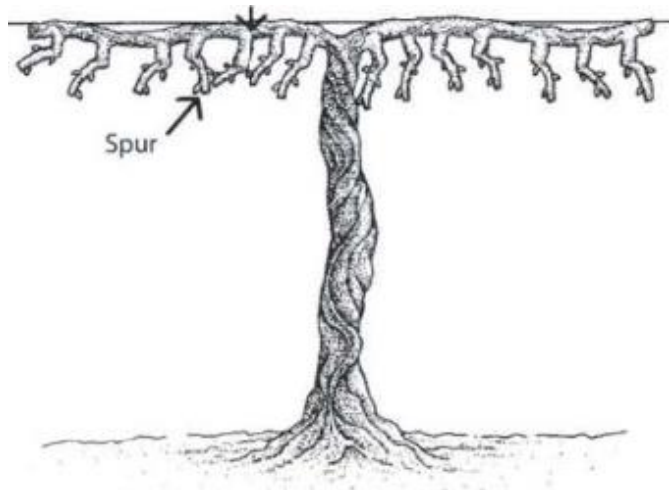
7-strand Double Lengthened



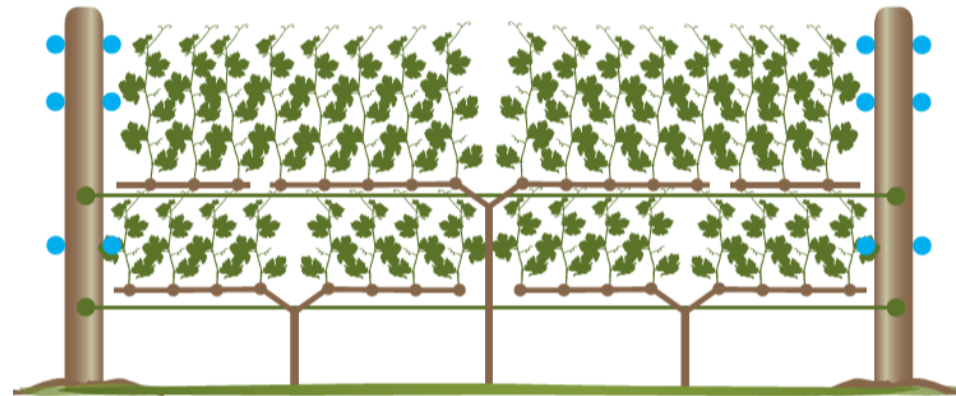
Lyre



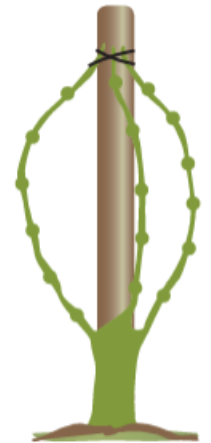
Bush vines



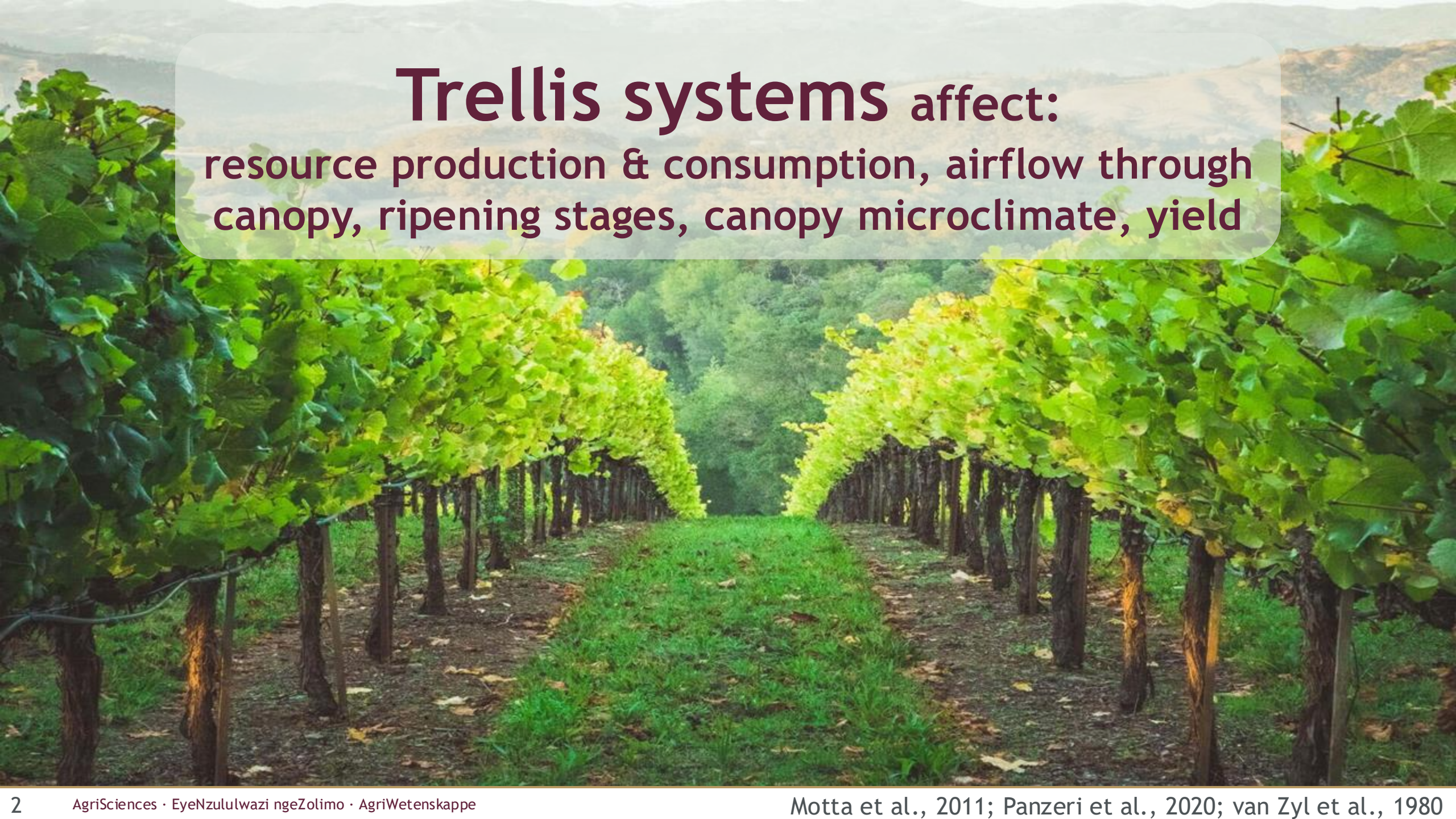
High Wire Perold



2K2T




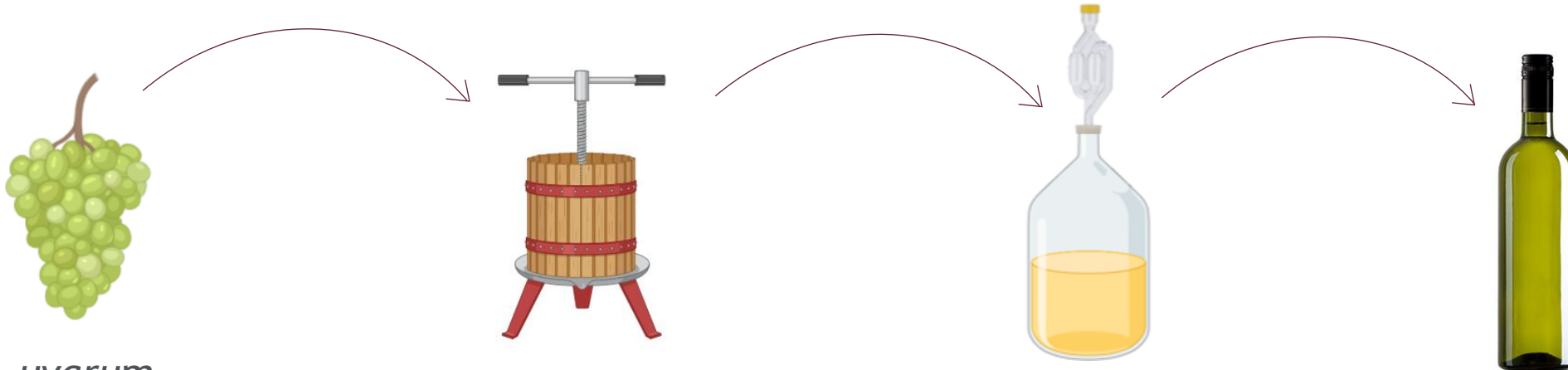
Posted vines



Trellis systems affect:
resource production & consumption, airflow through
canopy, ripening stages, canopy microclimate, yield

Spontaneous fermentations

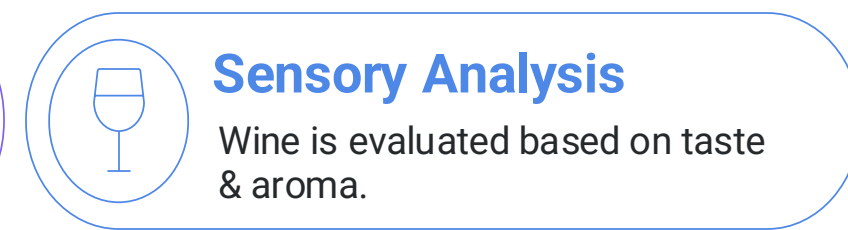
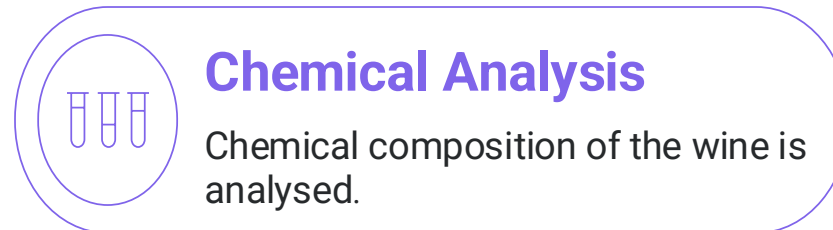
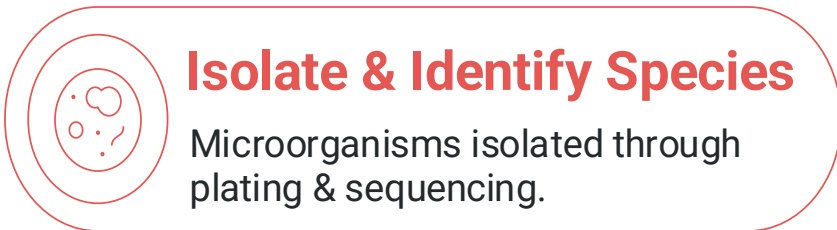
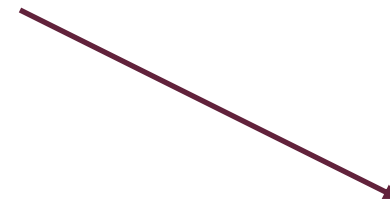
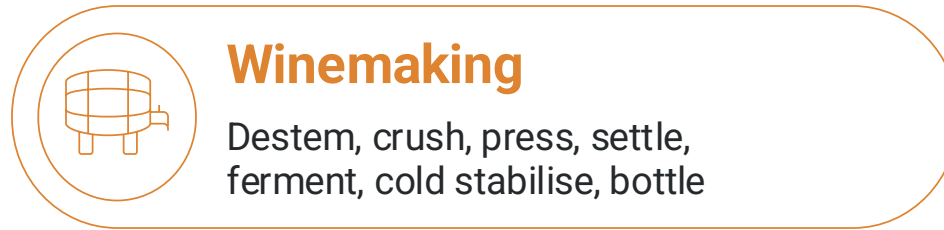
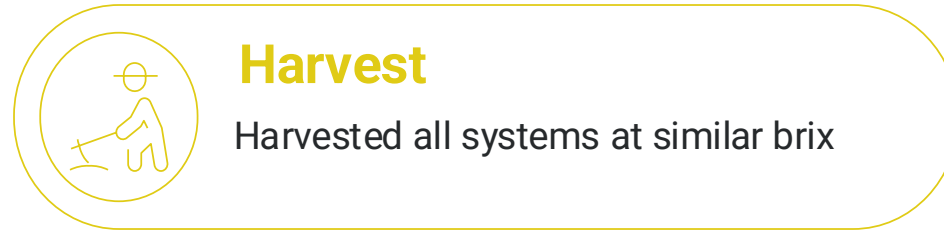
- Indigenous yeast → no inoculation/nutrient addition
- non-*Saccharomyces* yeasts  *Saccharomyces cerevisiae* (High etOH tolerance)



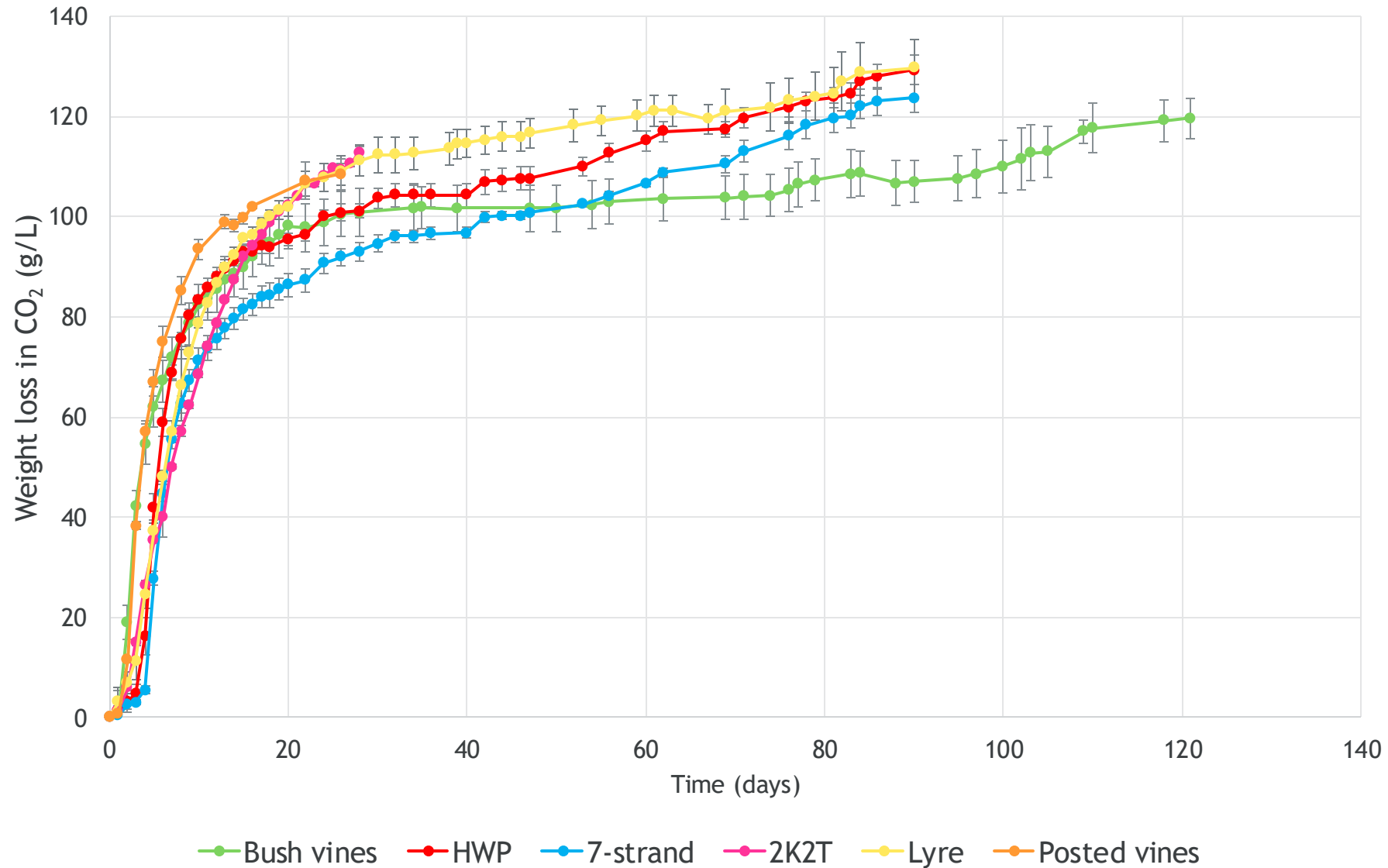
H. uvarum
M. pulcherrima

- Spontaneous wines gaining **popularity**: indigenous yeast strains → increased aromatic diversity of wine

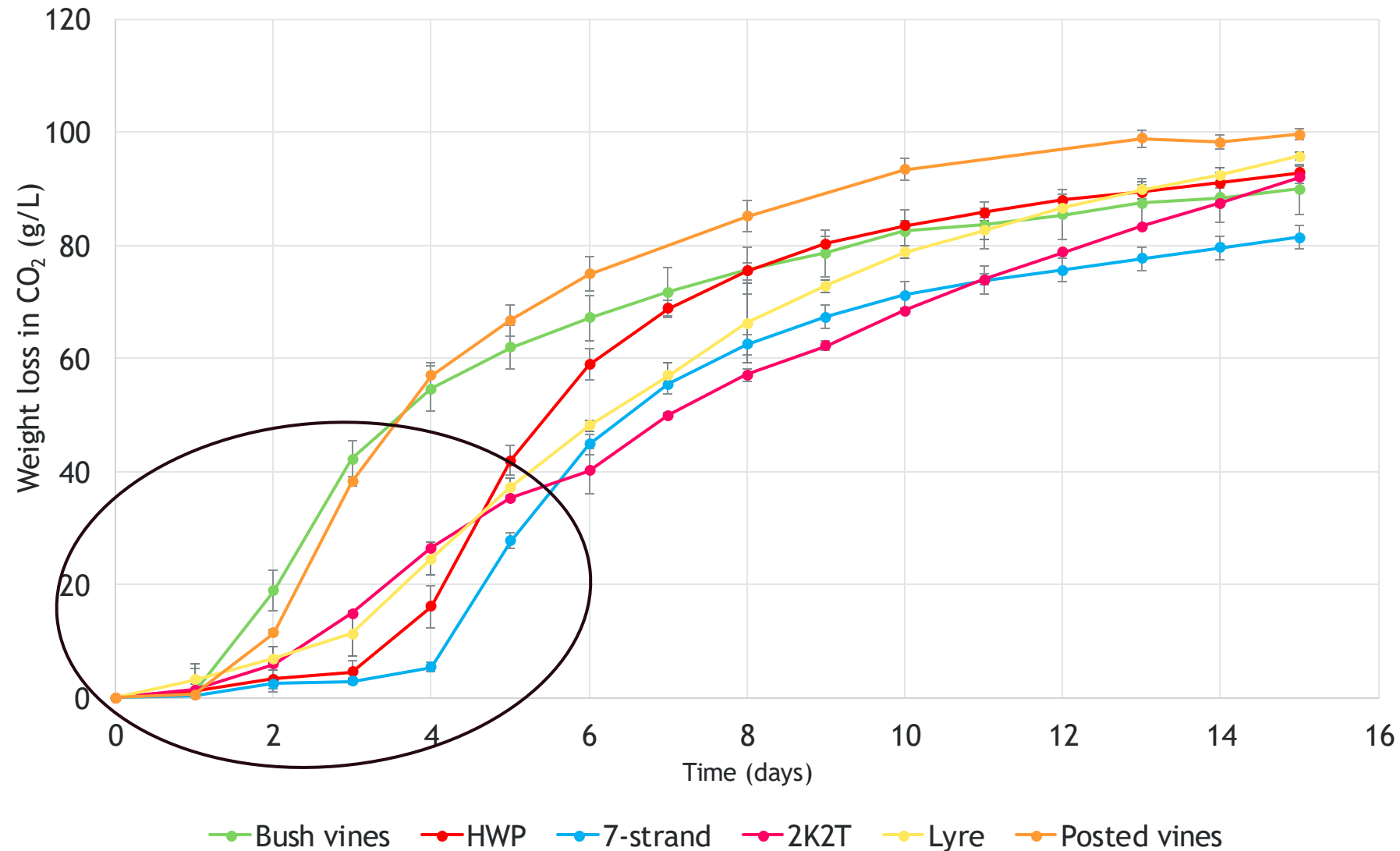
Experimental design - 2025



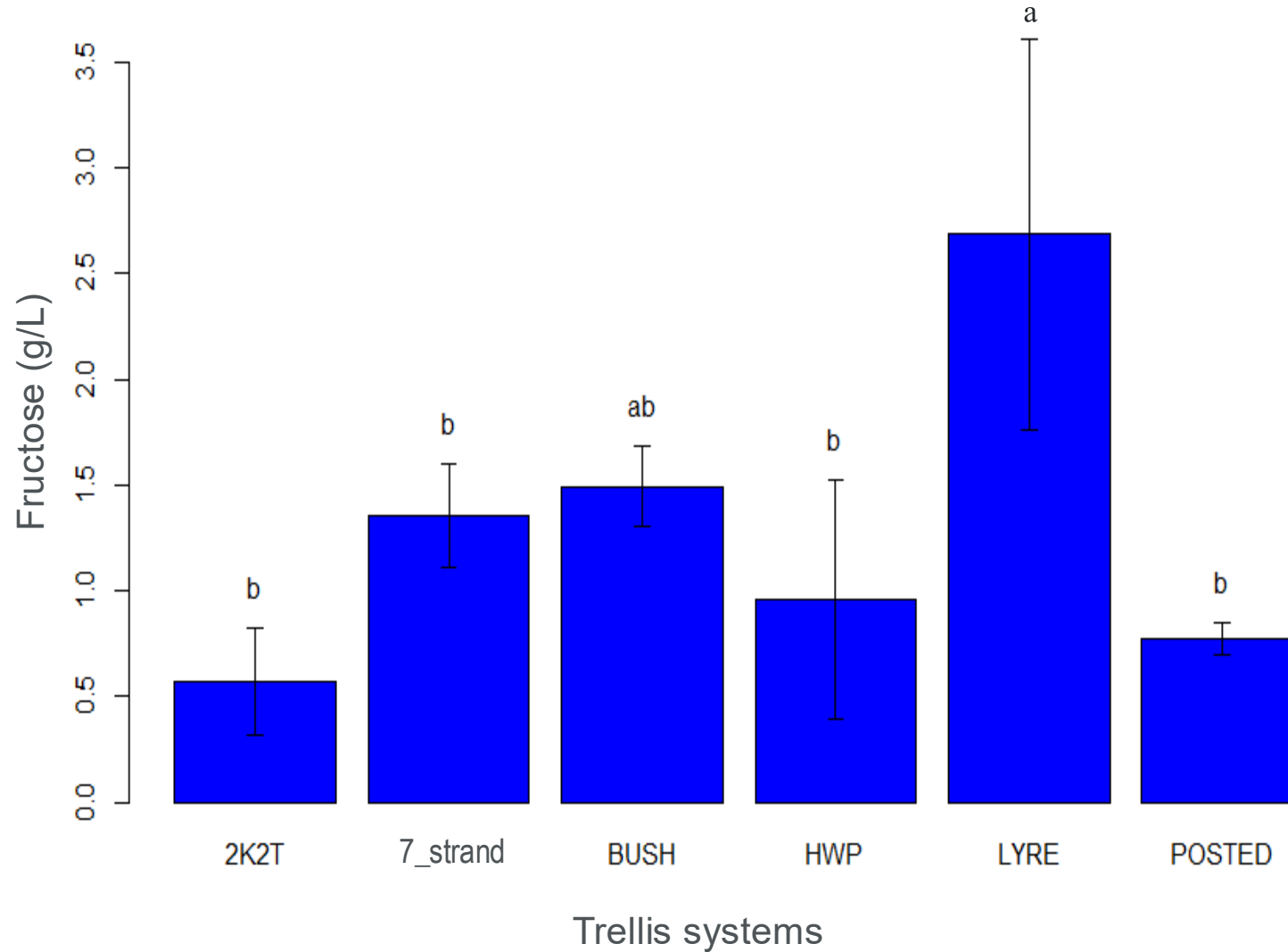
Fermentation kinetics



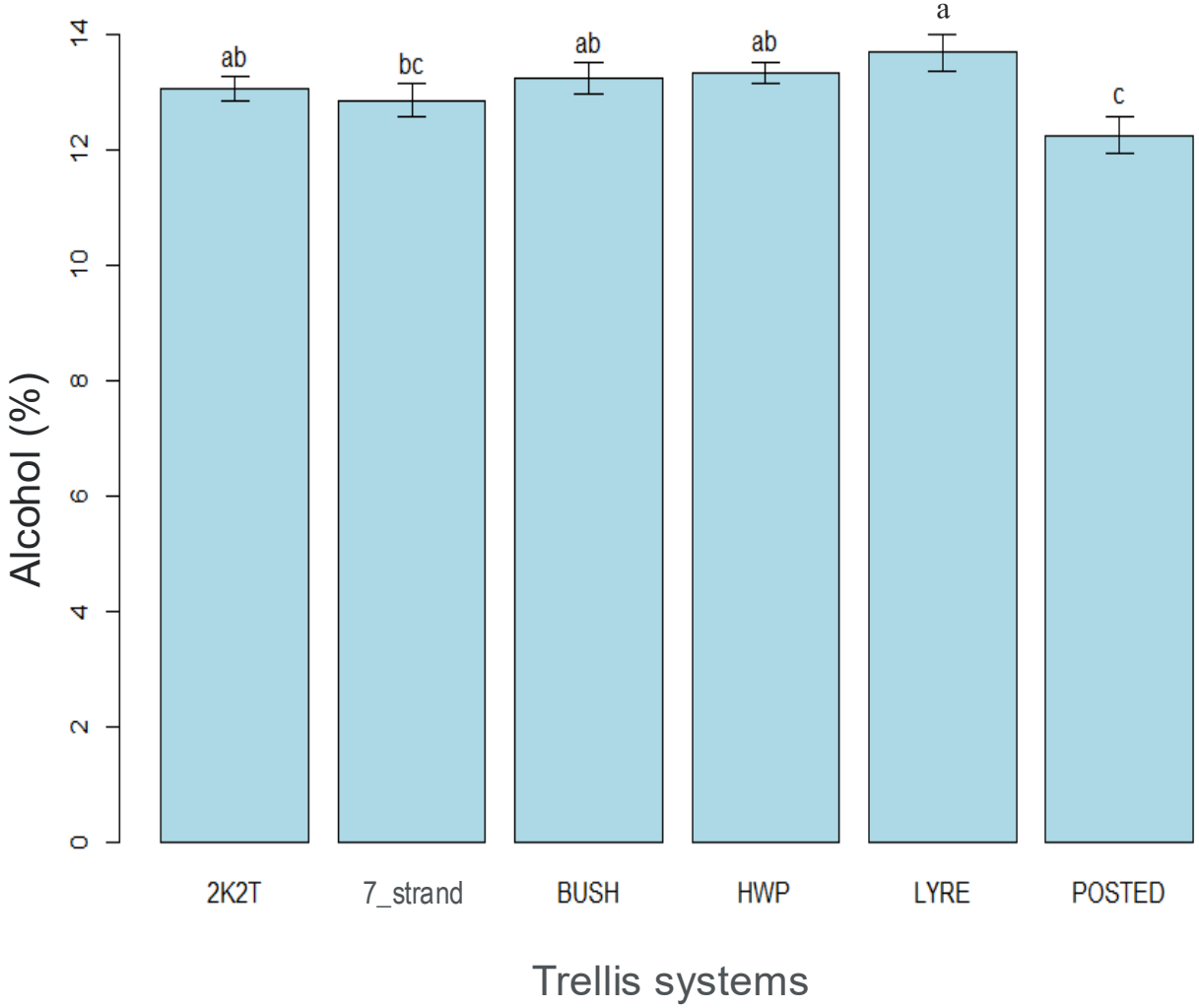
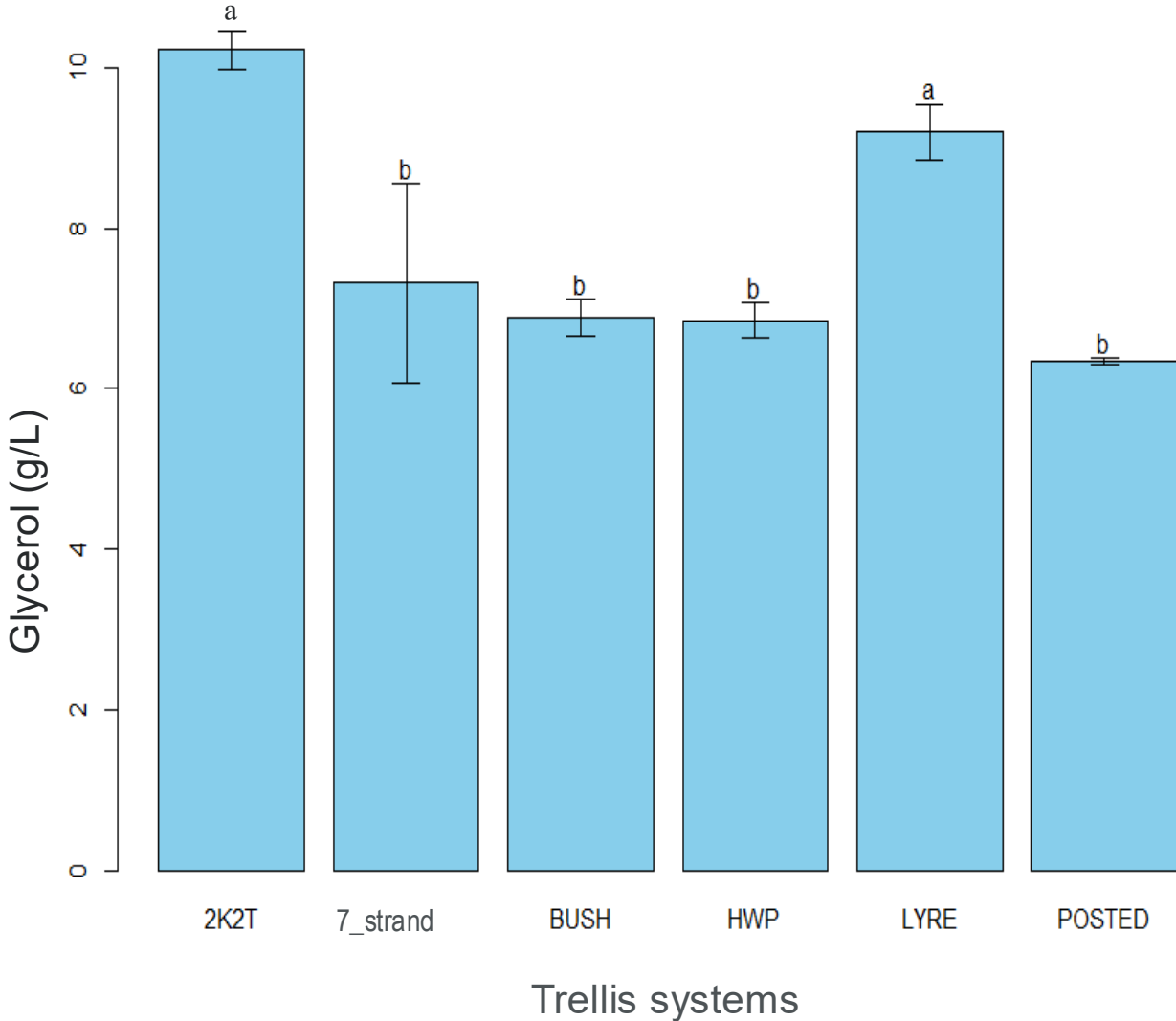
Fermentation kinetics cont.



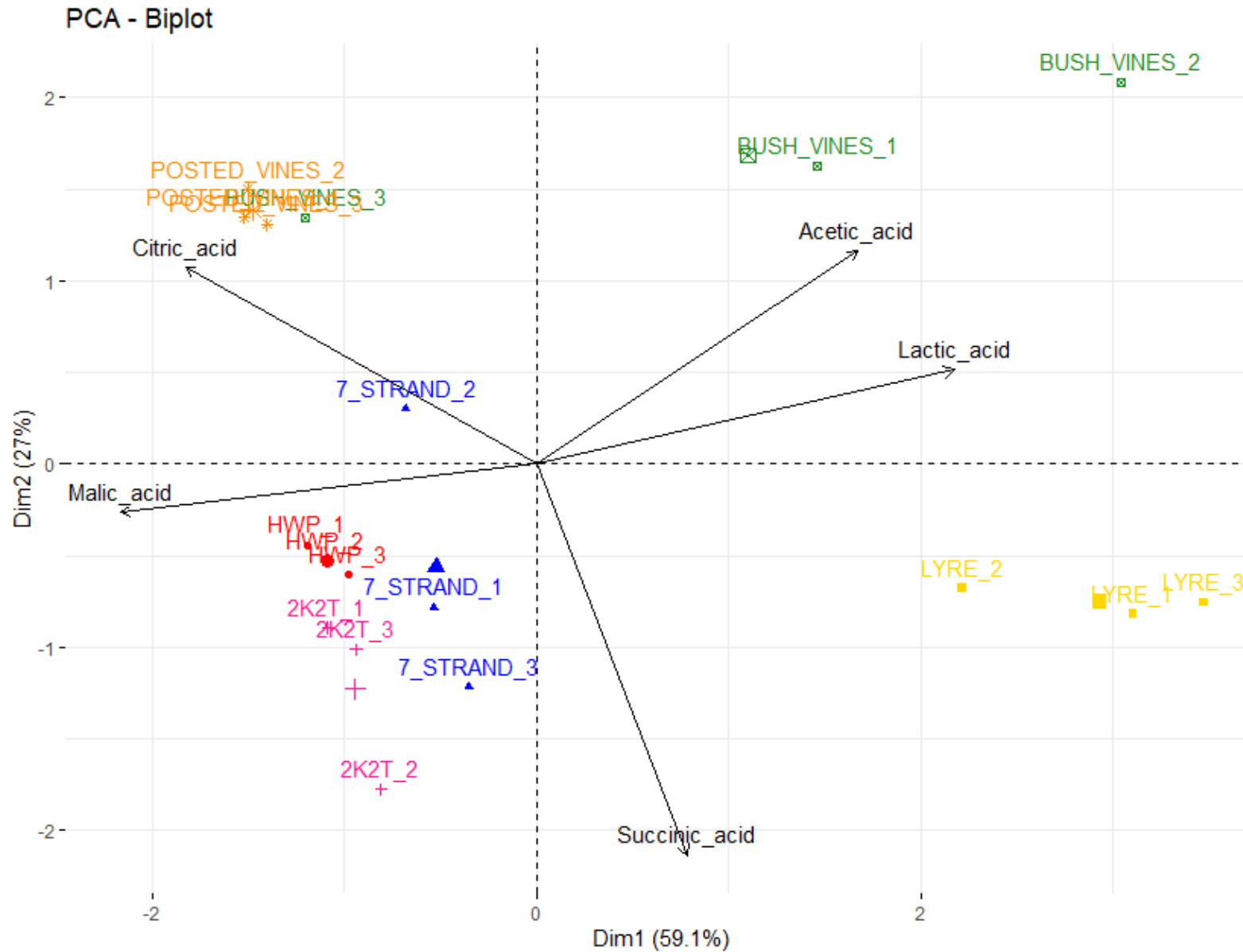
Chemical analysis: Residual sugar



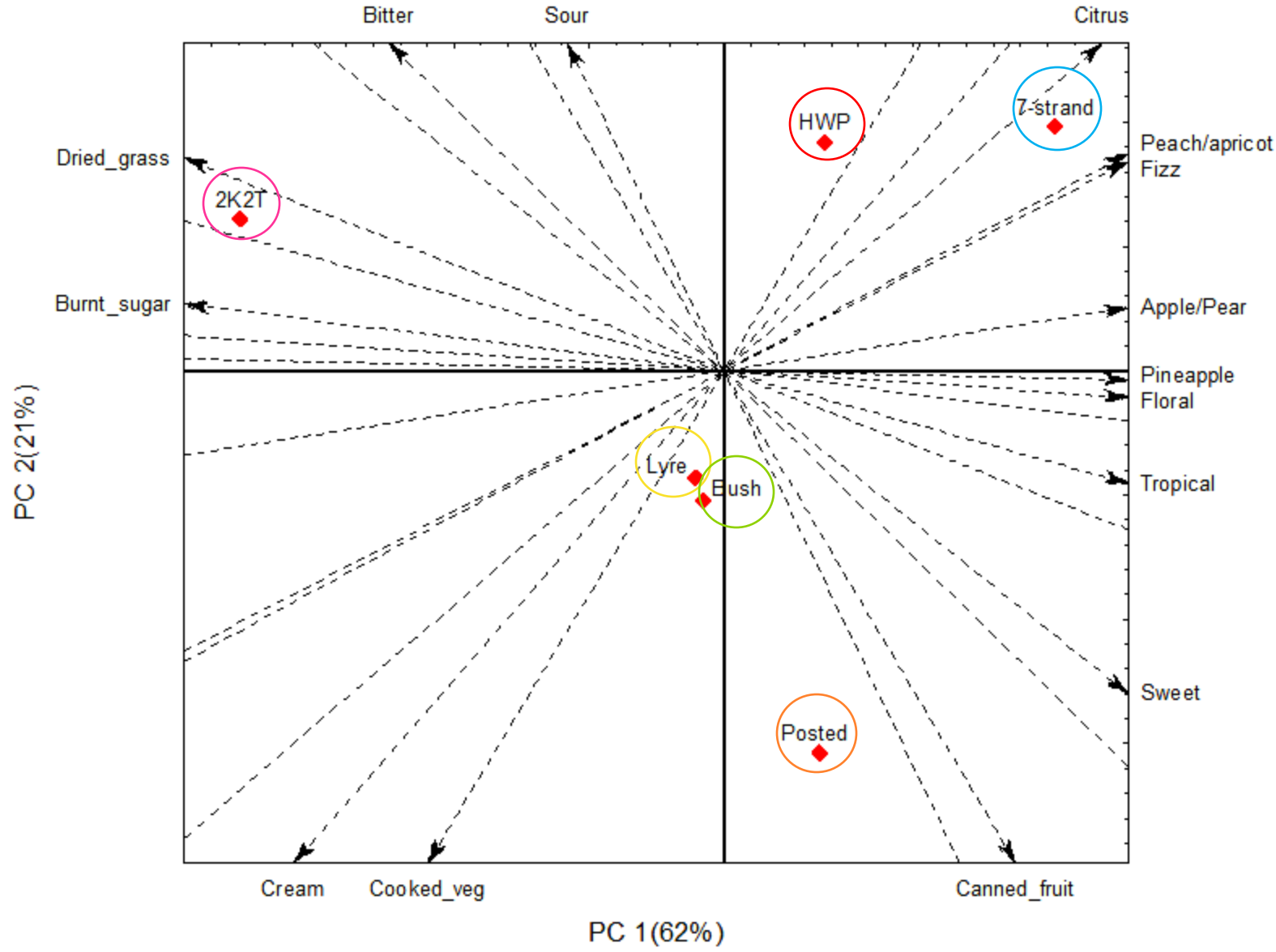
Chemical analysis cont.



Chemical analysis: Organic acids



Sensory analysis:



Conclusion

- Trellis systems have an impact on:
 - Fermentation kinetics, chemical compositions
 - Sensorially (aroma, taste, mouthfeel)
- Preliminary microbial data show differences in must of different trellis systems

Acknowledgements

- Prof F. Bauer & Prof E. Setati
- Winemaking team
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- SAGWRI
- SASEV





Thank you
Dankie
Enkosi

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