



# Characterisation of the transpiration responses and ecophysiological regulation of two apple varieties

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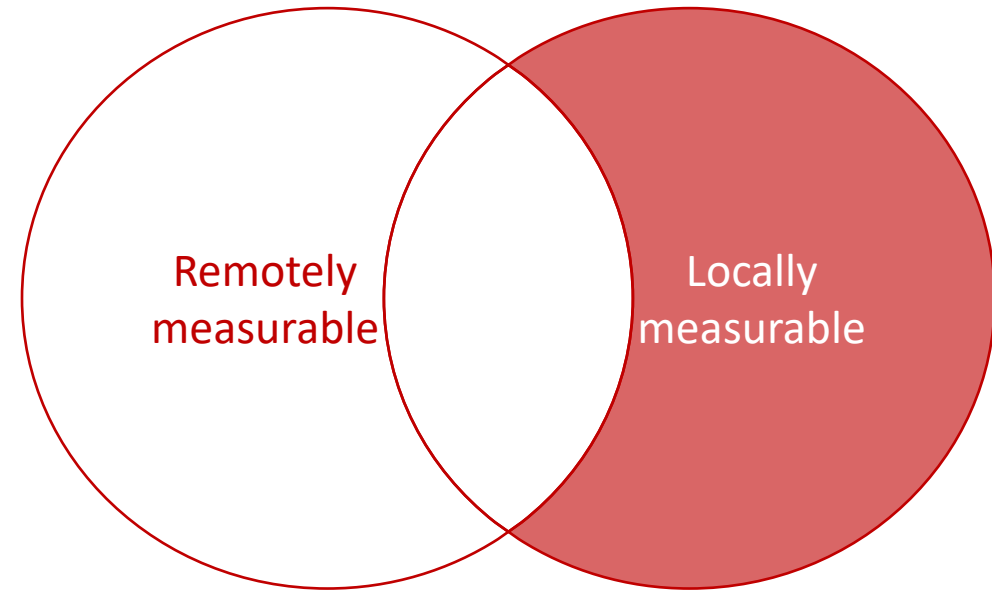


Context





- Agroscope [1000 >]
  - Digital production [ 13 >]
    - Visual [3D and Image analysis, ~6]
    - Locally measurable [Sensors, IoT, ~4]



Research question





- Can we find ecophysiological difference between apple cultivars at water usage level?
- How can this differences be better determinate, in an agricultural context?



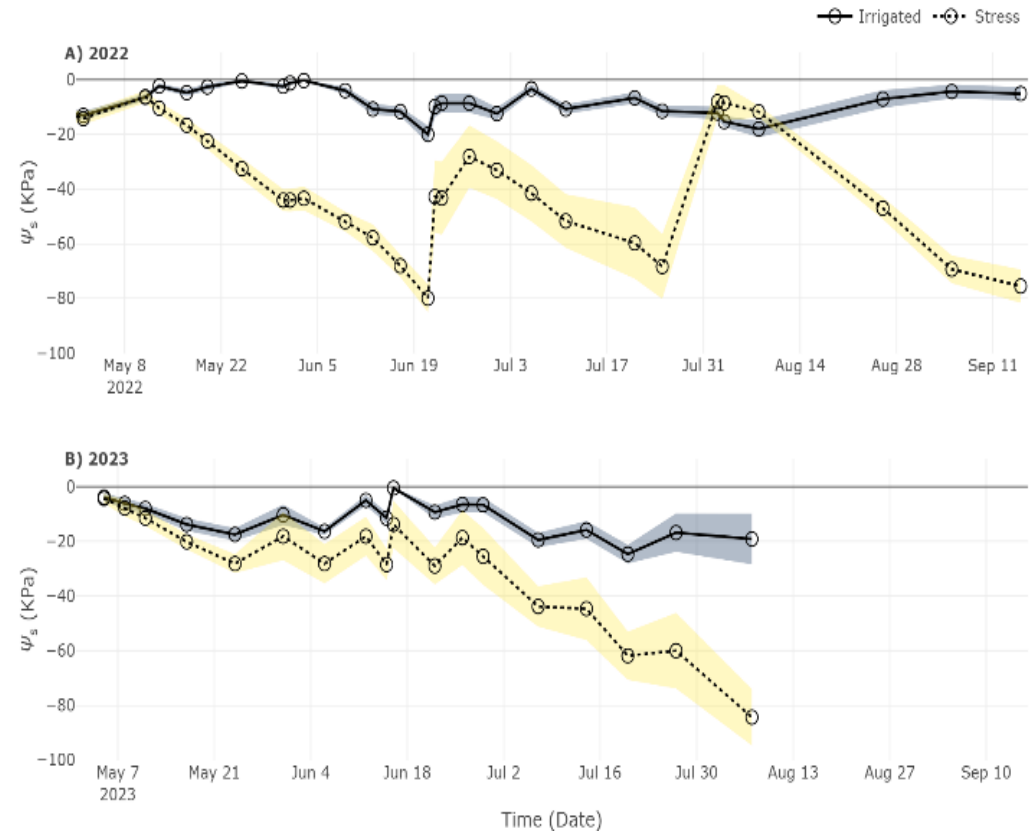
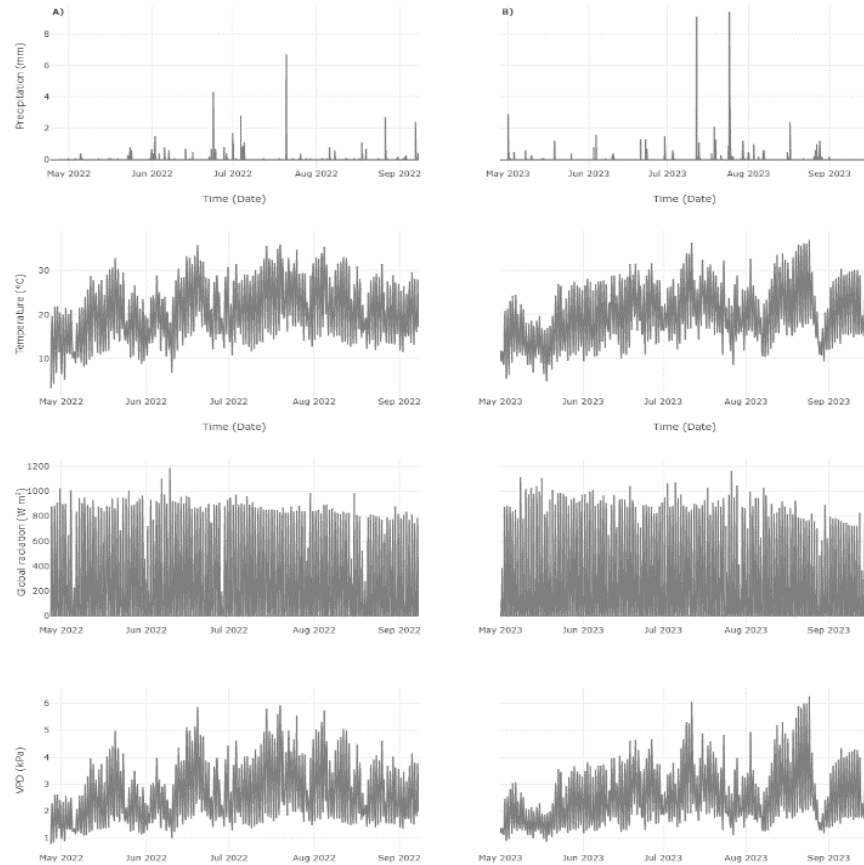


Results





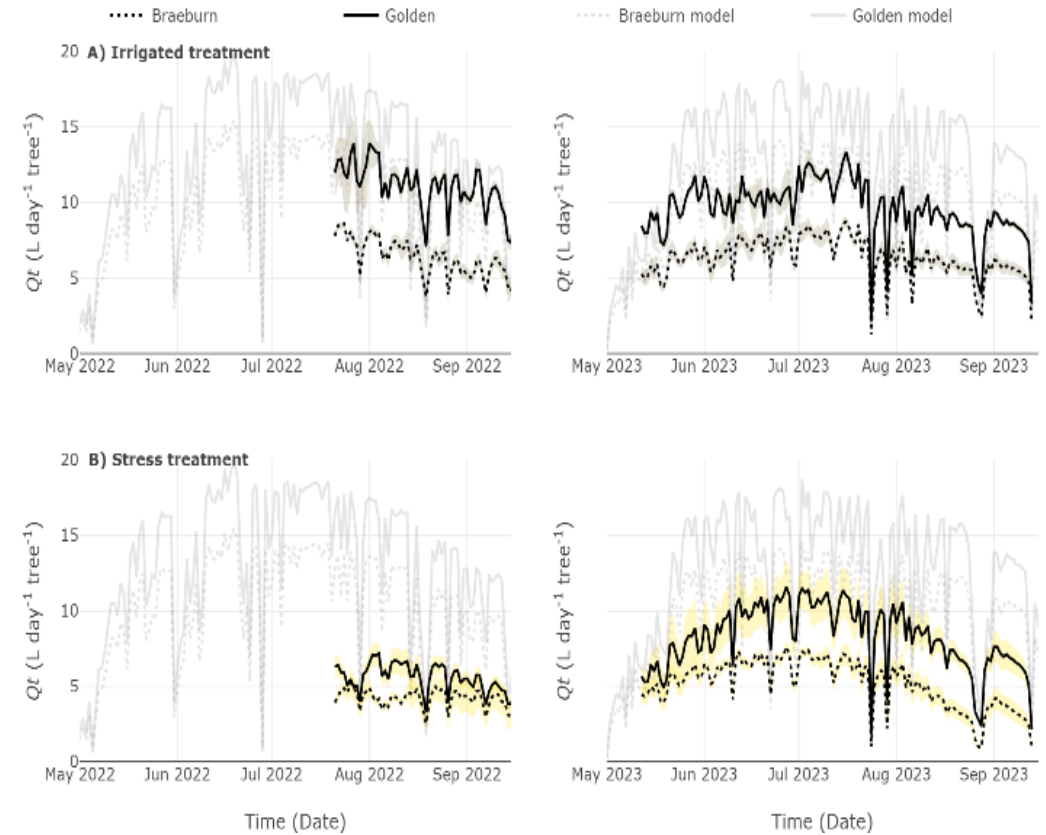
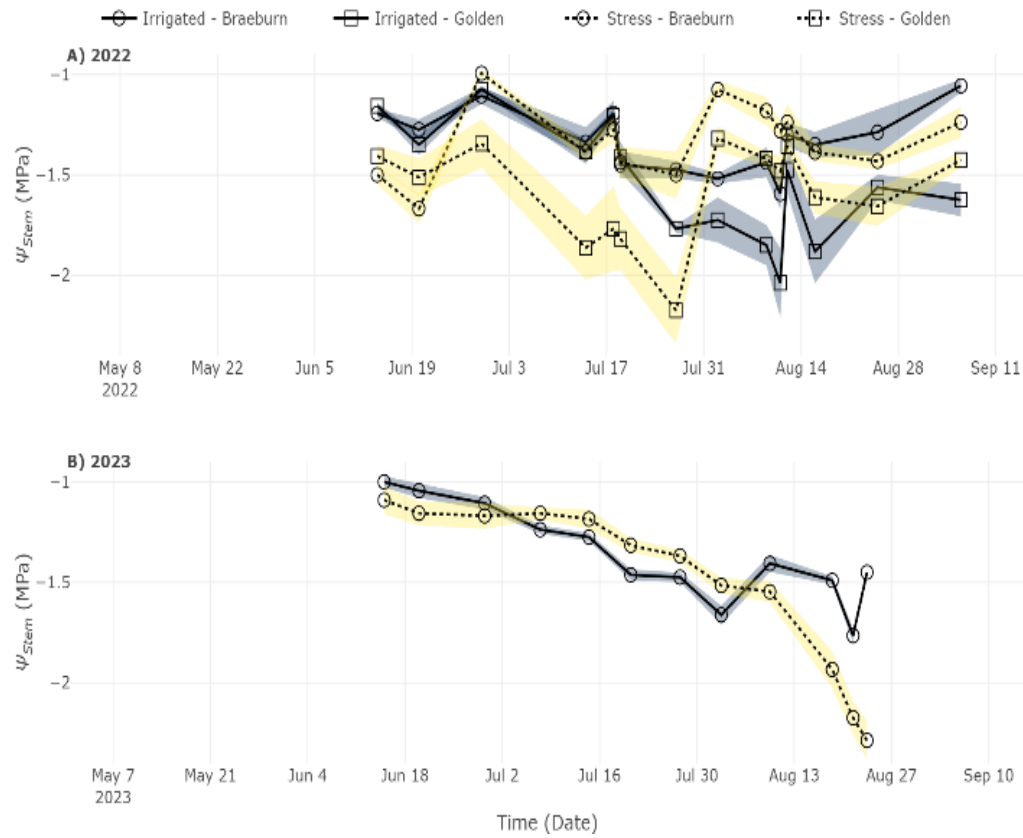
# Weather and treatments





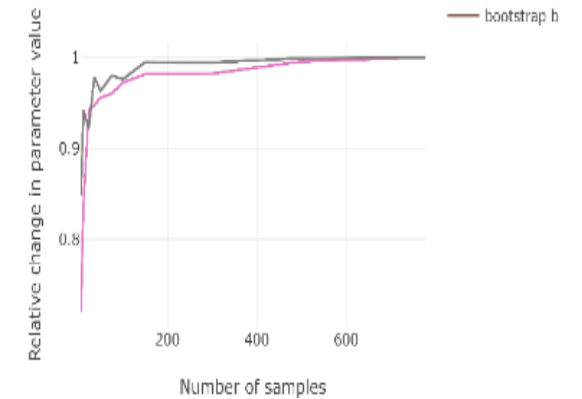
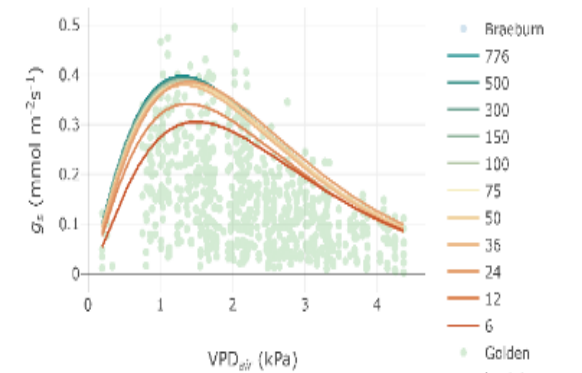
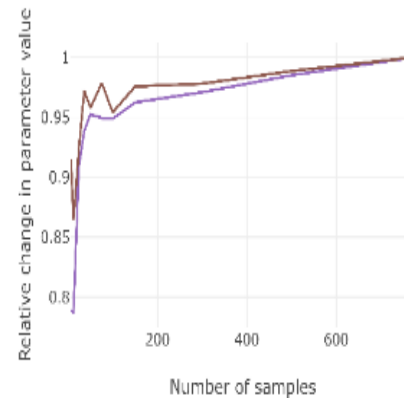
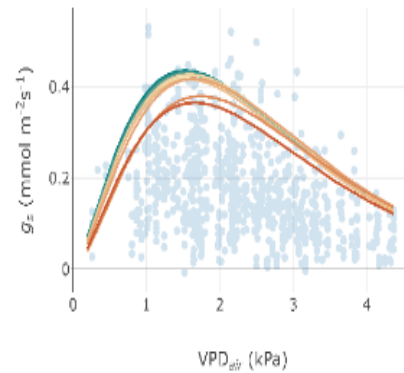
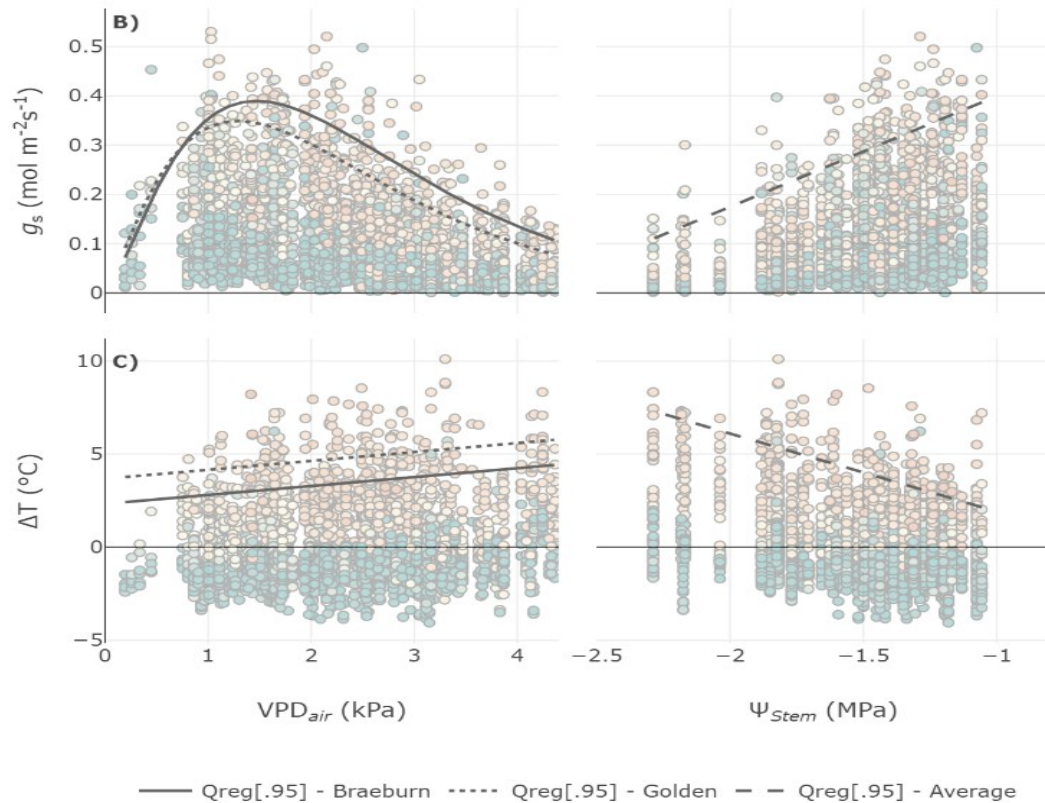


# Soil sensors do not always indicate plant status





# VPD stomatal response differs across varieties



Conclusion





	<b>Braeburn</b>	<b>Golden</b>
LAI (m <sup>2</sup> )	8.1	10.4
Sap flow ( $\Delta$ )	31/18%	47/20%
G <sub>s</sub> - VPD <sub>max</sub>	1.47	1.29
$\Delta T$ °(C)	-	-
WUE(g L <sup>-1</sup> )	11.5	18.9/11.95



Thanks for your attention

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