

EGU22-8928

<https://doi.org/10.5194/egusphere-egu22-8928>

EGU General Assembly 2022

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## **In situ calibration of soil-plant-atmosphere simulations, for precision irrigation practice, using timeseries of crop's vigor and water state**

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In precision irrigation, a wise approach for decision making would consider not only a response to the current observations by sensors or other means. It should also consider forecasting the near future and prospecting hypothetical scenarios for water requirements and potential yield. These would require simulations which, in turn, demand for site specific characterization of the Soil-Plant-Atmosphere scenario. While crop parameters can be retrieved relatively easy from remote sensing, the availability of precise soil data would be limiting the accuracy of the simulations. Such limitations could be alleviated by in-situ calibration of the soil-crop models where the simulated soil water budget is contrasted with observed series of crop's vigor and water state. This contribution describes an example where the soil waterholding capacity was estimated from inverse modelling during the seasons of 2020 and 2021 in a vineyard near Lleida, Spain.