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Enabling better global research outcomes in soil, plant & environmental monitoring

Seminar Workshop on Plant Water Relations with Sap Flow and Psychrometer

Instituto Nacional de Investigação Agrária e Veterinária, I.P. & Centro de Estudos Florestais

3 March 2026

School of Agriculture – University of Lisbon, Portugal

This workshop introduces participants to advanced direct measurement of plant water use and plant water status. Participants will get hands-on experience on the use, calibration, installation, maintenance of the ICT Sap Flow Sensors and Psychrometer. Sap flow and Stem Psychrometer data handling and interpretation skills will also be tackled. In addition, a brief discussion will be made on current measuring techniques in monitoring the physical environment through integrated and networked sensors.

This workshop hinges on providing knowledge, skills and aptitude to participants in soil-plant-atmosphere continuum predominantly the interface of plant water status in relation to prevailing environmental condition using sensors. Participants will be provided electronic copies of handouts and brochures of the topics and instruments that will be discussed in the workshop. In return, workshop participants are expected to engage in the discussion and provide presenters with their own experiences in relation to potential application of their acquired knowledge and skills.

The workshop will follow the suggested format:

9:00-9:30	Introduction and background sharing
9:30-10:10	Brief discussion on plant water relations and ICT capability
10:10-10:20	Break
10:20-12:20	Demonstration and hands-on training on use of Sap Flow Sensor (includes Configuration tips to improve the field data acquisition)
12:20-13:00	Lunch break
13:00-15:00	Demonstration and hands-on training on use of Stem and Leaf Psychrometer
15:00-15:10	Break
15:10-17:00	Managing devices in the field; Diagnosing issues with instruments and data (includes Maintenance practices in the field and after deployment of the sensors)



Instituto Nacional de
Investigação Agrária e
Veterinária, I.P.



Centro
de Estudos
Florestais

Additional information:

Clara Pinto: clara.pinto@iniav.pt

M. Conceição Caldeira: mcaldeira@isa.ulisboa.pt

ICT International Pty Ltd

ABN: 75 002 372 554

PO Box 503 Armidale NSW 2350 Australia

Phone: 61 2 6772 6770 Fax: 61 2 6772 7616

Email: sales@ictinternational.com www.ictinternational.com.au



Sociedade Portuguesa
de Biologia de Plantas
<http://www.spbp.pt>

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