



1st Training workshop on CANOPY SENSORS

25- 27 February, 2013, Maru research Station, Irbid, Jordan

The objective of the workshop is to train selected NCARE staff on crop phenotyping instruments and techniques to be used in the Demonstration fields for canopy measurements (WP2) at Maru research station. Namely: Greenseeker HandHeld, PAR-Fluorpen FP-100-MAX-LM-W, SPAD 502DL Plus Chlorophyll Meter (Minolta), Canopy Temperature IR thermometer and Flag leaf senescence scoring.

The workshop will have the duration of 3 days and it will be conducted by: Dr John Foulkes, Dr Erik Murchie and Dr Pedro Carvalho from the University of Nottingham in collaboration with Dr Yahya Shakhathreh and colleagues from NCARE.

Estimated no. of participants: 15

List of equipment for the course:

- RapidSCAN CS-45 Radiometer (1 – NCARE);
- Canopy Temperature Thermometer (1 – NCARE, 2 – Uni Nott¹); photosynthetic capacity
- PAR-FluorPen FP 100-MAX-LM-W Chlorophyll fluorescence meter (1 – NCARE, 1 – Uni Nott¹), maximum rate of photosystem II;
- Minolta SPAD 502DL Plus Chlorophyll Meter (1 – NCARE, 1 – Uni Nott¹), chlorophyll content;
- Visual Flag-leaf Score Key (10+ Uni Nott), onset/rate senescence.

The Workshop will cover:

- Theory and general in-field application of the phenotyping techniques for physiological traits indicative of resource-use efficiency to be measured in the Demonstration experiments;
- Application of the above-mentioned phenotyping techniques in plant breeding and predictive agronomy.

Workshop programme:

- Day 1 (seminars on theory of canopy sensors) and examples of application,
- Day 2 (in-field demonstration),
- Day 3 (data handling, data-basing), software for downloading leaf and canopy sensor data, calculation of spectral reflectance indices (SRI).

For more information, please, contact Dr. Yahya Shakhathreh shakhathreh12@yahoo.com