



3rd International Plant Phenotyping Symposium

Phenotyping for Agriculture Sustainability

Chennai, 17-19th of February 2014

Plants develop by a complex interaction of genotypes with the environments. This determines their structure and function and thus essential performance parameters like yield, productivity or efficient use of resources. To understand these fundamental processes we need to quantitatively assess the phenotype and generate a link to the genotype in order to understand the genetic basis.

Plant phenotyping science is becoming a central field of research and application in academia and industry. It provides a nourishing ground for the development of new phenotyping platforms and methods. Novel challenges such as the establishment of robust protocols and screening methods, which integrate non-invasive, automated high throughput measurement of relevant plant traits both under controlled greenhouse and field scenarios arise throughout this development. Development of novel sensors and approaches for automated measurements that are integrated in a comprehensive data management and linkage framework are required. Plant phenotyping is developing as scientific field that has the aim to accurately quantify phenotypic traits, to give valuable prognoses for plant performance in the field, driven by the demand of users, who require relevant information on the plant-environment interaction.

With its focus on these themes the symposium will provide excellent networking opportunities between users, platform operators or yet-to-become platform operators, as well as experts in technology development and integration. The 3rd International Plant Phenotyping Symposium will be held in **Chennai, India** during **17-19th of February, 2014**, organized by the M. S. Swaminathan Research Foundation in partnership with several national and international partners.

Speakers are encouraged to present integrated views identifying perspectives and challenges, and prioritizing possible working solutions. There will be ample time in the program for interaction and discussion among speakers, poster presenters and other participants. In addition to invited speakers, several of the submitted abstracts will be selected for presentations.

Preliminary session themes

- Breeding for novel traits
- Low cost phenotyping
- Phenotyping under field conditions
- Development of standards for plant phenotyping
- Non-invasive screening approaches
- Data management and integration
- Data modeling and environmental simulation
- Integrating phenotyping activities

Conference format and planned events

- Three days of presentations (invited speakers, selected abstracts)
- Poster session
- Visits to phenotyping facilities in India
- Conference dinner

Organisation roadmap

- Conference website launch 1st of September 2013
- Opening registration and call for abstracts 15th of September 2013
- Abstract submission deadline 15th of December 2013
- Final conference program 15th of January 2014

International Advisory Group

- Prof. M. S. Swaminathan, Founder, MSSRF, India
- Dr. K. Vijayaraghavan, Secretary, Dept. of Biotechnology, India
- Dr. S. Ayappan, Director General, ICAR, India
- Dr. Samir Brahmachari, Director General, CSIR, India
- Prof. Ulrich Schurr, IPPN Board, Forschungszentrum Jülich, Germany
- Dr. Francois Tardieu, IPPN Board, INRA, France
- Dr. Robert Furbank, IPPN Board, APPF, Australia

National Organising Committee

- Dr. Swapan Kumar Datta, Deputy Director General (Crop Science), ICAR
- Dr. Ajay Parida, Executive Director, MSSRF
- Dr. S.R. Rao, Adviser, DBT
- Dr. K C Bansal, Director, NBPGR
- Prof. Akhilesh K. Tyagi, Director, NIPGR
- Dr. T. Mohapatra, Director, CRRRI
- Dr. N. K. Singh, IARI
- Dr. H.S. Gupta, Director, IARI
- Dr. K.V. Prabhu, Head, Division of Genetics, IARI
- Dr. S. Rajalakshmi, Principal Scientist, MSSRF and Organising Secretary