

Resource Capture by Crops: Integrated Approaches.

10-12 September, 2008. University of Nottingham, Sutton Bonington Campus

This conference set out to consider current and future methods of improving resource capture and utilisation by food and non-food crops. Back in 1992, the University of Nottingham first hosted a conference on the theme of Resource Capture by Crops to mark the retirement of Professor John Monteith. Sixteen years on, the aim of this conference was to review progress in our understanding of resource capture by crops and, in particular, the contribution of plant molecular biologists, with their novel techniques and approaches, to resource capture and use.

The conference was opened by Professor Matthew Reynolds from CIMMYT, whose paper set the scene by reviewing the dimensions of resource capture from the cellular level through to integration of resources to improve yield while protecting the environment. We were also fortunate to have eminent speakers to open each of our main sessions. Dr John Sheehy from IRRRI gave the keynote paper on radiation, challenging delegates to consider how crop production would have to increase to feed future world populations. Prof Graham Farquhar from The Australian National University presented his keynote paper on 'water use efficiency and water use effectiveness', which focussed on considering how plants should 'spend' water to achieve maximum assimilation of CO₂. Prof Jonathan Lynch from Penn State University, the keynote speaker on nutrients, gave a paper entitled 'Roots of the Second Green Revolution', which demonstrated how breeding for specific rooting traits could improve resource capture of specific nutrients.

We had an excellent response to the call for papers with 31 oral presentations and 19 posters. Delegates travelled from around the world, with at least 18 nationalities represented, making it a truly International meeting. While the conference was organised into sessions covering the three key resources; radiation, water and nutrients, many of the papers were cross disciplinary, while others used modelling approaches to integrate across both resources and disciplines.

Prof Peter Gregory closed the conference, reflecting on how the focus on resource capture had moved from crop physiology (1992 conference) to genetic diversity/mapping approaches and the clear, if underexploited, prospects for breeding for improved resource capture. *Debbie Sparkes*

Effects of Climate Change on Plants: Implications for Agriculture

An international group of scientists gathered at Rothamsted Conference Centre in November to consider the 'Effects of Climate Change on Plants: Implications for Agriculture'. There was little evidence of 'Climate Change' in the days preceding the conference: the weather was unrelentingly wet and gloomy. However, the skies cleared in time for the delegates' arrival and we enjoyed, for the most part, two sunny days.

Inside the conference room it was serious stuff. The AAB held a conference in April 1996 on 'Implications of Global Environmental Change for Crops in Europe', back when 'Climate Change' was something that might be going to happen but surely could not be as bad as some people were predicting. Now 'Climate Change' is generally considered to be underway already, and it is no exaggeration to say that how mankind emerges from the coming century or more of predicted major shifts in climate will depend on how well agricultural production can be maintained. As one speaker put it, we are having

AAB Member - Dr Nagib Nassar Celebrates 50 Years Teaching



I have found my teaching experiences extremely rewarding and feel that from teaching I have gained my greatest strength. Teaching for me was like composing a piece of music, and for years and years I had the aspirations of being admired by my students in the same way that they admire their idols of musicians and artists. I have always aimed to create a strong friendship with my students from the moment they joined my class up to their graduation.

My fifty years teaching were spent at Cairo University from 1958 to 1974 followed by the University of Brasilia. This multi-cultural experience exposed me to a broad range of learning styles and allowed me to acquire a number of different teaching methods. In Cairo University I taught Tropical Crops and Conservation of Plant Genetic Resources. At Brasilia University I taught Plant Breeding, Organic Evolution, Evolution of Cultivated Plants, Basic Cytogenetics, Cytogenetic Methods and Techniques, Economic Botany, Plant Breeding of Perennial Crops, and Botany of Cassava to both graduate and post-graduate level. I have introduced these courses to the federal universities of Goias, Vicoso, Rio Grande do Sul, Brasilia, Feira Santana, and Sao Paulo in Brazil, the Inter-american Center in Costa Rica, and Bern University in Switzerland.

Nagib Nassar

to breed crops for environmental conditions that do not exist yet, something that has never been done before. At the same time, agriculture, as one of the major producers of greenhouse gases, has a big part to play in ensuring that the severity of climate change is kept to a minimum by reducing its emissions. Both of these aspects of the problem were presented and debated in great detail.

As someone who has not hitherto been involved in this aspect of plant and agricultural science I was greatly impressed by the quality of the presentations and the commitment of the science community that was represented by the speakers and delegates to making a difference. Past generations have all had to face threats and challenges of one sort or another and 'Climate Change' is our great challenge. Agriculture is part of the problem and the solution, and plant and agricultural scientists are going to play a big part in meeting that challenge. I have no doubt that this will not be the last AAB conference on this topic.

Thanks to my co-organisers, Huw Jones and David Lawlor, and to the AAB staff who helped to make the conference such a success. *Nigel Halford, PPCI Group*