

The following article was prepared for Crop Protection Monthly by Bruce Knight in October 2016 after attending an important international conference

World Agri-Tech investment summit

The two day event held in London attracted around 250 delegates. Jennie Moss, founder and organiser of the event, explained that this fourth annual summit with the largest ever attendance was being held at a time of unprecedented change and consolidation in the industry. The summit attracted international investors, partners and a wide range of innovators.

A panel session called 'Mapping the landscape for global Agribusinesses' was led by Robert Berendes, owner of a Swiss based technology broker. He made the point that with the demands set by population growth and climate change farmers are now calling for even more innovations.

Adrian Percy, Head of R & D, Bayer Crop Science said that with so many new technologies emerging the call is increasingly for a multi-discipline approach to be adopted.

Leticia Gonçalves, CEO, Monsanto Europe, in referring to precision farming technologies described how this gives supply companies an opportunity to visit farms not just to sell products but to help farmers make better decisions. The large multi-nationals cannot deliver all of the services so there will be a call for more start-up businesses and the development of 'disruptive technologies'.

John Dombrosky, CEO, Agtech Accelerator from the US, quoted a recent survey which indicated that across all agricultural supply companies only 10% of R&D expenditure went into new product development. The majority of the spend was used to make existing products and services work better. He also suggested that the time has now come that agriculture could follow the approach adopted in the medical industry, with large companies turning to small innovators and start-ups to meet evolving needs.

Adrian Percy considered the landscape for partnerships to be "fantastic right now". The number of networks involving academics and small companies has grown dramatically. He also quoted a figure of venture capital investment into agriculture in 2015 of \$4.6 billion. Panelists did however report that the figure for 2016 maybe less.

Leticia Gonçalves, said that in the last five years Monsanto had been particularly active in establishing partnerships with the collaboration on soil microbials with Novozyme a significant example. The company was also continuously looking to source innovations through start-ups. A question from the floor asked for examples of successful public-private partnerships. Leticia Gonçalves quoted Brazil as a country where many successful partnerships had been established.

In another panel session covering the adoption of new technologies through 'disruptive thinking' Professor David Baulcombe, head of department of plant science, Cambridge University, told delegates how the approach at Cambridge was to study plant systems before turning to genetic manipulation. He was of the regulatory hurdles presented for GM crop development and that suggested that we should not "pussy foot around" in laying a lot of the blame with the food and retail sectors. Their silence on the support of GM food is denying the consumer the opportunity to buy fresh produce grown with low inputs. As a consequence researchers are being asked to work with their "hands tied behind their backs".

A number of innovations were showcased during the summit. From Holland, Willem-Jen Meulemeesters, Ceradis, described how the spin-off business from Wageningen University, was looking at the use of existing agrochemical molecules, but using novel additives to create new formulations enabled reduced dose rates to be effective. He quoted how in some cases fungicide application rates had been successfully reduced by 25-50%.

Nora Alonso, Iden, Spain, explained that since Iden was founded in 2005 the team of 20 people were focusing on the development of biostimulants and biopesticides based on exudates from unique biological sources. Collaborations include one with Monsanto. The first commercial introduction is planned in India in 2018.

Also from Spain Marisé Borja, Plant Response Biotech, outlined examples of biological products coming out of Spanish Universities and Institutes. One such product, Cybelion, has been shown to offer improved protection against fungal diseases such as *Botrytis*.