#GPCropScience

Enhancing Global Collaborations in Crop Science

GPC Symposium on 4th Nov. 2018

CSSA/ASA Annual meeting In Baltimore USA

Workshop Description

The pressing challenges of increased food security in a changing climate cannot be met by researchers and policymakers working in silos. While in some countries there is excellent work being done on a national scale, we need to facilitate increased international collaboration in research. For many regions of the world – often where food and climate challenges are greatest – such collaborations and the funding models to support them are not well developed. The global community needs to coordinate research for impact, which necessitates new strategies for fostering international collaboration, as well as the improvement of mechanisms for funding and embedding policy and communication programs into such initiatives. While not without its challenges, there are examples across the globe of progress in this front in the fields of photosynthesis and crop improvement. There are also excellent examples of international and large national programmes where knowledge exchange programmes have successfully exploited new understanding in plant and crop science to deliver sustainable environmental policies. **What is special about the way that these collaborations have come together that has attracted generous international funding? Can we develop these models further in other research areas?**

As a coalition of 28 plant and crop science societies across six continents, the **Global Plant Council (GPC)** is well placed to help generate greater international collaborations in key research areas. We recently collaborated in the development of a policy paper addressing food and climate challenges (Reynolds et al. 2017), in which we suggested that improving the global integration of crop research can be aided by developing field laboratories in realistic crop environments. The paper highlights the fact that, in recent decades, scientific developments have led to innovations that have contributed to substantial gains in crop productivity, including many in less economically developed countries, yet current yield trends and agri-food systems are inadequate to match the projected demand for food. The specific proposals for infrastructure development proposed in that paper provided a solid foundation, and we now wish to further develop our thinking and collaboration in this vital area, for research that can substantially benefit humankind.

This **GPC** workshop brings together leading researchers, communications specialists and those interested in policy-making who will provide exemplars of new models for large-scale integrative projects and the lessons learned from their implementation. Attendees will have the opportunity to discuss the issues presented in breakout groups throughout the day, with the aim of bringing forward a possible collaborative project/funding model that addresses the global challenges of food insecurity and climate change.

References

Reynolds MP, Braun HJ, Cavalieri AJ, Chapotin S, Davies WJ, Ellul P, Feuillet C, Govaerts B, Kropff MJ, Lucas H, Nelson J, Powell W, Quilligan E, Rosegrant MW, Singh RP, Sonder K, Tang H, Visscher S, Wang R. (2017) Improving global integration of crop research. **Science** 357, 359-360

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AGENDA

8:30 – 8:35	Welcome by **Barry Pogson (Chair of GPC, Australian National University**) and **William Davies (President of GPC, Lancaster University, UK)**
Session One - Developing research collaborations and spreading best practices in research and developing enhanced capability in plant/science and agronomy. Success examples and lessons learned	
8:35 – 9:05	Mathew Reynolds, CIMMYT, Mexico. *Promoting international collaboration in wheat*
9:05 – 9:35	Julianne Lilley CSIRO Agriculture and Food Australia. *Identifying and closing global yield gaps in canola. A view from Australia*
9:35 – 10:05	Kerry Clark, Division of Applied Social Sciences, University of Missouri. *USAID soybean project in Ghana and other African countries*
10:05 – 10:30	**Coffee break and Networking**
10:30 – 11:00	John Kirkegaard CSIRO Agriculture and Food Australia. *Incremental transformation: systems agronomy in dryland farming systems*
11:00 – 12:00	Session 1 roundtable discussion and summary
12:00 – 13:00	**Lunch (not provided) and Networking**
Session Two - Embedding policy and communication programmes in research collaborations (WITH COFFEE)	
13:00 – 13:30	Jianbo Shen, Food Security Research Institute, China Agricultural University. *China's Green Agriculture Policy and Science and Technology Backyards in China*
13:30 – 14:00	Katherine Denby, York University, UK. *The UK N8 AgriFood Programme*
14:00 – 14:30	Ros Gleadow, Monash University, Australia. *Knowledge Exchange programmes in Science*
14:30 – 15:00	Robert E Sharp (with Shannon K King, Rachel K Owen, Jonathan T Stemmle and Shaozhong Kang), Division of Plant Sciences, University of Missouri. *Missouri China Programme: Science Communication*
15:00 – 15:45	Session 2 roundtable discussion and summary
15:45 – 16:00	**Final summary session** (**Moderator: William Davies- GPC President, Lancaster University, UK)** during which the attendants discuss on future trends and priorities in the short, medium and long term

Intended Audience

Crop scientists, industry, policy and communications specialists.

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