

Contact: **Tiaan Clasen**  
[22729208@nwu.ac.za](mailto:22729208@nwu.ac.za)

### **North West University, DuPont Pioneer Host Plant Science Symposium**

**Potchefstroom, South Africa, Oct. 18, 2016** – A team of graduate students from the North West University Integrated Pest Management (IPM) group is partnering with DuPont to host the interactive Plant Science Symposium to address grain production under stress conditions in Sub-Saharan Africa. This symposium is organised by postgraduate students at the NWU and forms part of the DuPont Plant Science Symposia series, which is co-sponsored by DuPont and hosted by universities around the world. The goal of the series is to improve collaboration and problem solving amongst universities, government organisations and the agricultural industry.

Over the next 30 years, the greatest need will be in Sub-Saharan Africa (“SSA”), where average yields are only 20% of yields achieved in the United States. Africa faces a wide range of challenges in the production of its major cereals. Key among these challenges is the impact of climate change. In addition to inherently high climate variability, the looming threat of higher temperatures and more vicious droughts (arising from climate change) is a major concern. Further, high incidences of diseases, insect-pests, and parasitic plants, and sub-optimal soil nitrogen have also presented a continuous challenge to cereal productivity in SSA.

Crop production in Sub-Saharan Africa is subject to a range of stressful conditions. The diversity of agro-ecological zones in Africa presents a unique landscape in which to manage crops under abiotic stresses as well as biotic stresses caused by diseases, pests and weeds. Modern agriculture involves a multitude of practises that is used in combination to achieve full production. Many African farmers have limited resources available and grain production has followed a declining trend in Sub-Saharan Africa. It is thus essential for farmers to utilise agricultural technology to gain optimal production and limit input costs.

Modern agriculture is also based on crop genetics and biotechnology tools that are available today. Breeders have selected certain traits for production ease such as herbicide tolerance, insect resistance and stacked events (having both characters). In the last decade, resistance towards these technologically advanced crops has become apparent in many localities of the world. This, together with environmental stress agents such as drought will challenge future crop production.

“The main goal of the symposium is to address these issues of abiotic stress which can be caused by wind, heat or cold and or natural disasters. This event brings together experts from various

fields in agricultural science to shed some light on developments in their fields,” said Tiaan Clasen, member of the student organising committee for the symposium.

The event included presentations by leading scientists, student presentations, poster sessions and networking opportunities. Speakers at the symposium will include top researchers from North-West University, the universities of Free State, Pretoria and Stellenbosch; DuPont, CIMMYT and the International Centre of Insect Physiology and Ecology.

Event delegates include participants from all sectors of agriculture, including physiology, soil science, plant genetics and breeding, molecular genetics, agricultural and biological engineering, weed science, entomology, horticulture, agricultural economics, forestry and food science, as well as agronomy and botany.

“The symposium will provide opportunities to work together with colleagues to address complex issues like food security and abiotic stress, as well as a platform to showcase up and coming research in crop improvement and crop management,” Tiaan said. “We want to create networks among graduate schools and dialogue between public and private sectors.”



Participants at the October 18 University of North West (Potchefstroom) South Africa symposia.