



## Plant Sciences

### Conference Contributions 2020

#### Posters presented

**Cozien, R., van der Niet, T., Steenhuisen, S. & Johnson, S.D.** 2020. *Caught in a snap: Elusive ecological interactions revealed through the use of motion trigger camera traps*. Poster presented at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa Campus, South Africa. 7-10 January.

**Miles, C., van Biljon, A., Booyse, M. & Labuschagne, M.** 2020. *The influence of different milling procedures on Mixsmart parameters and their relationships with primary wheat quality criteria*. Poster presented at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

**Moloi, D. & Ngara, R.** 2020. *Screening wheat varieties for drought tolerance using physiological and growth parameters*. Poster presented at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Moloi, K., Martin, G. Clark, V.R. & Steenhuisen, S.** 2020. *A review of the invasive genus *Cotoneaster medik* (Rosaceae) in southern Africa*. Poster presented at the Grassland Society of Southern Africa (GSSA) conference, Online South Africa. 30 June-2 July.

**Moloi, M.J., Zungu, M.S. & van der Merwe, R.** 2020. *Ascorbate peroxidase: a possible tool for drought tolerance selection in edamame*. Poster presented at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Mosea, D. & Ngara, R.** 2020. *Effects of polyethylene glycol-induced osmotic stress on the viability of sorghum cell suspension cultures*. Poster presented at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.



**Muthego, D. & Ngara, R.** 2020. *Gene expression analysis of sorghum cell suspension cultures in response to exogenous abscisic acid.* Poster presented at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Ngwenya, S. & Ngara, R.** 2020. *Proteomic changes of sorghum cell suspension cultures in response to combined heat and osmotic stresses.* Poster presented at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Wentzel, B., van Biljon, A., Miles, M., Booyse, M. & Labuschagne, M.T.** 2020. *How useful is SDS-sedimentation as an indication of baking quality in a breeding programme?* Poster presented at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

### Papers delivered:

**Adams, L.D., Martin, G.D., Clark, V.R., Downs, C.T., Thabethe, V., Raji, A. & Steenhuisen, S.** 2020. *The effect of birds on seed dispersal and germination of invasive firethorn.* Paper delivered at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Amegbor, I.K., Van Biljon, A., Tarekegne, A., Shargie, N. & Labuschagne, M.T.** 2020. *Genetic analysis for grain yield and quality traits of CIMMYT quality protein maize inbred lines.* Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

**Anderson, J., van der Niet, T., Johnson, S.D., Steenhuisen, S., Cozien R.J.** 2020. *How to train your dragon: Flower colour and nectar scent lure lizard pollinators to the Drakensberg's Hidden flower.* Paper delivered at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.



**Herselman, L., Maré, A., Boshoff, W.H.P. & Pretorius, Z.A.** 2020. *Wheat pre-breeding for rust and Fusarium head blight resistance at the University of the Free State*. Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

**Labuschagne, M.T.** 2020. *Genetic biofortification of crops in Africa, the current situation and the way forward*. Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

**Labuschagne, M.T.** 2020. *Research-industry linkages for the promotion of biofortified maize and wheat*. Keynote paper delivered at Nutritious Maize: Technologies, Development and Availability in South Asia. International Webinar organised by CIMMYT, supported by USAID. 20-22 July.

**Malepe, C.B.B., Gryzenhout, M. & Marais, G.J.** 2020. *Fusarium species associated with pecan (*Carya illinoensis*) in South Africa*. Paper delivered at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Mapaura, A., Canavan, K., Richardson, D.M., Clark, V.R. & Steenhuisen S.** 2020. *Nassella tussock invasion in South Africa: an overview*. Paper delivered at the 46<sup>th</sup> Annual Conference of the South African Association of Botanists (SAAB), University of the Free State, QwaQwa campus, South Africa. 7-10 January.

**Mapaura, A., Canavan, K., Richardson, D.M., Clark, V.R. & Steenhuisen S.** 2020. *The impact of the invasive grass *Nassella trichotoma* (Nees) Arech. on the plant species richness, diversity and composition in Karoo Escarpment Grassland, Sneeuberg Centre of Floristic Endemism*. Paper delivered at the Congress of the Grassland Society of Southern Africa (GSSA), Online South Africa. 30 June-2 July 2020.

**Mbuma, N.W., Labuschagne, M.T. & Gerrano, A.** 2020. *Assessment of genetic variability among cowpea genotypes for nutritional value*. Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.



**Msani, F., Zhou, M.M. & Van Der Merwe, R.** 2020. *The effect of tramline and continuous row spacing on breeding and genetic parameters of sugarcane populations.* Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

**Phakela, K., Van Biljon, A., Wentzel, B., Guzmán, C. & Labuschagne, M.** 2020. *Proteomic analysis of abiotic stress influence on durum wheat gluten composition.* Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.

**Swart, W.J.** 2020. *Climate change and the phytobiome: Implications for plant and soil health* (Plenary Lecture). Inaugural Arable Farming Symposium of the North-West Department of Agriculture and Rural Development (DARD), Potchefstroom, South Africa. 19 March.

**Szabo, L.J., Johnson, J.L., Visser, B., Olivera, P.D. & Jin, Y.** 2020. *Elucidating the evolutionary history of Puccinia graminis f. sp. tritici lineages through analysis of allelic variation of selected genes.* Paper delivered at the 2020 Borlaug Global Rust Initiative (BGRI) Technical Workshop (online). 7-9 October.

**van Biljon, A., Olckers, S-L., Osthoff, G. & Labuschagne, M.T.** 2020. *The relationship between starch, amylose and zein protein fractions of quality protein maize grown under different nitrogen conditions.* Paper delivered at the 13<sup>th</sup> Southern African Plants Breeders' Association (SAPBA) Symposium, University of Pretoria, South Africa. 8-11 March.