

## PLANT SCIENCES RESEARCH OUTPUTS

### Conference Contributions 2021

#### Conference Papers/Posters

**Basson, H.J., Van der Merwe, R., Maré, A. & Minnaar-Ontong, A.** 2021. *A pre-breeding approach towards soybean sudden death syndrome resistance in South African soybeans*. Paper delivered at the Annual post-graduate symposium of the Department of Botany and Plant Biotechnology at the University of Johannesburg (virtual). 9-12 November 2021.

**Coertzen, R.D., Van Biljon, A. & Van der Merwe, R.** 2021. *Evaluering van opbrengs-verwante eienskappe in groente-soja onderworpe aan geïnduseerde droogtestremming*. Paper delivered at the 20<sup>ste</sup> Studentesimposium in die Natuurwetenskappe deur die Suid-Afrikaanse Akademie vir Wetenskap en Kuns (SAAWK), Noordwes Universiteit, SAAWK Studentesimposium (virtual). 28-29 October 2021.

**Gerrano, A.S., Majola, G.N. & Mbuma, N.W.** 2021. *Genotype  $\times$  Environment Interaction and stability of cowpea for leave nutritional values: A prerequisite for cowpea variety development under South African agro-ecological conditions*. Paper delivered at the 2<sup>nd</sup> African Plant Breeders Association (APBA) Conference. Kigali Convention Centre, Kigali, Rwanda (and virtual). 25-29 October 2021.

**Goredema-Matongera, N., Ndhlela, T., Magorokosho, C., Kamutando, C.N., Van Biljon A. & Labuschagne, M.** 2021. *Multi-nutrient biofortification of maize (*Zea mays* L) in Africa: Current status, opportunities and limitations*. Paper delivered at the 2<sup>nd</sup> African Plant Breeders Association (APBA) Conference. Kigali Convention Centre, Kigali, Rwanda (and virtual). 25-29 October 2021.

**Hlahla, J.M., Mafa, M.S., Van der Merwe, R. & Moloji, M.J.** 2021. *The photosynthetic efficiency and carbohydrates responses of six edamame (*Glycine max.* L. Merrill) cultivars under drought stress*. Paper delivered at the Annual post-graduate symposium of the Department of Botany and Plant Biotechnology at the University of Johannesburg (virtual). 9-12 November 2021.

**Hlahla, J.M., Mafa, M.S., Van der Merwe, R. & Moloji, M.J.** 2021. *The photosynthetic efficiency and sugar metabolites provide essential information on the drought responses of six edamame (*Glycine max.* L. Merrill) cultivars*. Paper delivered at Plant Science and Agriculture (PSA-2021) virtual conference, STEM international organization, Belgium. 25 March 2021.

**Istain, B., Mokgokong, P., Wu, R., Mia, J., Gokul, A., Mendoza-Cozatl, D., Du Plessis, M. & Keyster, M.** 2021. *Draft genome sequence of putative bacterium *Pantoea agglomerans* R6, associated with *Lactuca seriola* from South Africa*. Paper delivered at the 4<sup>th</sup> Tunisian-South Africa

Mini-symposium on “Biodiversity in Forage and Feed Crops for Sustainable Productivity under Environmental Constraints”, Biotechnology Centre of Borj Cedria, Tunisia. 18-19 March 2021.

**Labuschagne, M.T.** 2021. *Crop biofortification in sub-Saharan Africa. Where are we, and where are we going.* Paper delivered at the International Potato Center SweetGAINS program Annual Meeting (virtual). 1-3 December 2021.

**Labuschagne, M.T., Phakela, K., Wentzel, B., Guzman, C. & Van Biljon, A.** 2021. *Gluten protein response to heat and drought stress in durum wheat.* Paper delivered at the 16<sup>th</sup> International Association for Cereal Science and Technology (ICC) Cereal and Bread Congress (virtual). 29-31 March 2021.

**Labuschagne, M.T., Phakela, K., Wentzel, B., Guzman, C. & Van Biljon, A.** 2021. *Proteomic analysis of durum glutenin protein under heat and drought stress.* Poster presented at the 4<sup>th</sup> Conference of the International Plant Proteomics Organization (online conference). 9-11 March 2021.

**Labuschagne, M.T., Wessels, R. & Wentzel, B.,** 2021. *The relationship of grain and milling characteristics with solvent retention capacity and swelling index of glutenin.* Poster delivered at the 16<sup>th</sup> ICC Cereal and Bread Congress (online conference). 29-31 March 2021.

**Matova, P.M., Kamutando, C.N., Magorokosho, C., Kutwayo, D. & Labuschagne, M.** 2021. *Response of maize parental lines, experimental hybrids, and commercial cultivars to fall armyworm infestation in southern Africa.* Paper delivered at the 2<sup>nd</sup> African Plant Breeders Association (APBA) Conference. Kigali Convention Centre, Kigali, Rwanda (and virtual). 25-29 October 2021.

**Meyer, W.B., Boshoff, W.H.P., Minnaar-Ontong, A. & Visser, B.** 2021. *An overview of virulence and genotypic assessment of South African Puccinia helianthi isolates.* Paper delivered at the Annual post-graduate symposium of the Department of Botany and Plant Biotechnology at University of Johannesburg (virtual). 9-12 November 2021.

**Meyer, W.B., Boshoff, W.H.P. & Visser, B.** 2021. *Race diversity of Puccinia helianthi in South Africa* (presented in Afrikaans). Paper delivered at the 20<sup>ste</sup> Studentesimposium in die Natuurwetenskappe deur die Suid-Afrikaanse Akademie vir Wetenskap en Kuns (SAAWK), Noordwes Universiteit, SAAWK Studentesimposium (virtual). 28-29 October 2021.

**Nienaber, K., Van Aardt, A.C. & Van Tol, J.J.** 2021. *Phytosociological classification of wetland vegetation in the Golden Gate Highlands National Park, Free State Province, South Africa.* Paper delivered at the National Wetland Indaba (virtual). 20-21 October 2021.

**Rothmann, L.A.** 2021. *Jack and the (soy) beanstalk: slaying disease giants*. Soybean for Human Consumption Symposium 2021 (virtual). 16 September 2021.

**Rothmann, L.A.** 2021. The role of reproducible research tools in quantifying a decade-long survey of Sclerotinia disease prevalence in South Africa. Southern African Society for Plant Pathology. Pretoria (virtual) 20 January 2021. <https://osf.io/tq3wj/>

**Spelman, Z., Visser, B. & Boshoff, W.H.P.** 2021. *Phenotypic and genotypic variation of Puccinia hordej in South Africa*. Paper delivered at the Annual post-graduate symposium of the Department of Botany and Plant Biotechnology at the University of Johannesburg (virtual). 9-12 November 2021.

**Steyn, C. & Minnaar-Ontong, A.** 2021. *Sclerotinia Sclerotiorum Population dynamics: A South African perspective*. Paper delivered at the Grain SA research workshop, Grain SA, Pretoria, South Africa.

**Terefe, T.G., Visser, B. & Boshoff, W.H.P.** 2021. *Diversity in Puccinia triticina on wheat in South Africa from 2017 to 2020*. Poster presented at the 2021 Borlaug Global Rust Initiative (BGRI) Virtual Technical Workshop - Global Resilience: Science, Pandemics, and the Future of Wheat. 6-8 October 2021.

**Toth, B., Van Biljon, A., Ammar, K., Guzman, C., Lorant, S., Kovacs, B. & Labuschagne, M.T.,** 2021. *The impacts of reduced irrigation on Italian durum wheat cultivars' polymeric and monomeric protein distribution*. Paper delivered at the 18<sup>th</sup> Wellmann International Scientific Conference. University of Szeged, Hungary. 13 May 2021.

**Van der Merwe, R.** 2021. *Drought tolerance indices and their correlation with seed yield in vegetable-type soybean*. Paper delivered at the Meeting of the Working Group Seed Science and Certification (GPZ/GPW) & Section IV Seeds (VDLUFA). Topic of the Scientific Seed Symposium: "Seed Production in Times of Climate Change" (virtual). 9-11 March 2021.

**Vos, J., Van der Merwe, R. & Moloji, M.** 2021. *The impact of heat stress during flowering on the physiological and yield traits of vegetable-type soybean*. Paper delivered at the Annual post-graduate symposium of the Department of Botany and Plant Biotechnology at the University of Johannesburg (virtual). 9-12 November 2021.