



## Plant Sciences

### Conference contributions 2014

**Bender, C.M. & Pretorius, Z.A.** 2014. Failure of single genes explains the non-durability of stem rust resistance in South African triticale. 10<sup>th</sup> SAPBA Symposium, Thaba 'Nchu, 10-12 March 2014 (oral presentation).

**Bijzet, Z., Booyse, M. & Labuschagne, M.T.** 2014. Genotype, environment and genotype by environment values within a compound scion-rootstock genotype. 10<sup>th</sup> Southern African Plant Breeding Symposium. Black Mountain Hotel, Thaba'nchu, 10-12 March 2014 (oral presentation).

**Brown, L.R. & Du Preez, P.J.** 2014. Vegetation description in southern Africa: A new focus. XX<sup>th</sup> AETFAT Congress. University of Stellenbosch, Stellenbosch, 20-25 July 2014 (poster presentation).

**Castelyn, H.D., Visser, B., Bender, C.M. & Pretorius, Z.A.** 2014. Quantification of fungal colonization in wheat lines with adult plant stem rust resistance. 6<sup>th</sup> BGRI Technical Workshop, Cd Obregon, Mexico, 22-24 March 2014 (poster presentation).

**Cordova, C. & Scott, L.** 2014. Late Pleistocene and Holocene vegetation change around Lake Ngami, Botswana: a preliminary assessment of pollen, phytoliths and other plant microfossils. From Past to Present - Changing Climates, Ecosystems and Environments of Arid Southern Africa - A Tribute to Louis Scott conference. Bloemfontein, South Africa, 7-11 July 2014 (oral presentation).



**De Jager, L., Joubert, L. & Livshultz, T.** 2014. Pollen-ovule ratio as a measure of pollen transfer efficiency (PTE) in three species of Periplocoideae (Apocynaceae). XX<sup>th</sup> AETFAT Congress, University of Stellenbosch, South Africa, 13-17 January 2014 (poster presentation).

**Du Preez, P.J.** 2014. A new vegetation map for the Free State (South Africa) and its implications for threatened ecosystem identification. XX<sup>th</sup> AETFAT Congress. University of Stellenbosch, Stellenbosch, 20-25 July 2014 (poster presentation).

**Du Preez, P.J.** 2014. A new vegetation map for the Free State: A tool for better biodiversity management. 49<sup>th</sup> Annual Congress of the Grassland Society of Southern African. Philip Saunders Resort, Bloemfontein, 20-25 July 2014 (invited keynote address).

**Greyling, S.-M., Schoeman A., Flett, B.C., McLaren, N.W. & Janse van Rensburg B.** 2014. The role of abiotic factors on the *Fusarium graminearum* species complex in maize roots, crowns, stems and ears. ISM-2014 International Mycotoxin Conference, Beijing, China, 19-23 May 2014 (poster presentation).

**Greyling, S.-M., Schoeman, A., Flett, B., McLaren, N. & Janse van Rensburg, B.** 2014. Understanding the factors influencing *Fusarium graminearum* on maize. Combined congress, Grahamstown, 20-23 January 2014 (oral presentation).

**Greyling, S.-M., Schoeman, A., Flett, B., McLaren, N. & Janse van Rensburg, B.** 2014. Understanding the *Fusarium graminearum* species complex (FGSC) in maize roots, crowns, stems and ears, ARC post graduate symposium day, Hatfield, 27 June 2014 (oral presentation).



**Gryzenhout, M.** 2014. Public perception of fungi: experiences from the Mycorrhiza list server and publishing a pocket guide. XX<sup>th</sup> Congress of AETFAT, University of Stellenbosch, 13-17 January 2014 (oral presentation).

**Hlalele, M.A, Swart, V.R. & Marais, G.J.** 2013. *Busseola fusca* infestation and incidence of *Fusarium verticillioides* in maize (*Zea mays*). XVIII<sup>th</sup> Congress of the Entomological Society of Southern Africa, Potchefstroom, 30 June - 3 July 2013 (oral presentation).

**Jackson, M. & Joubert, L.** 2014. The systematics of *Garuleum*. XX<sup>th</sup> AETFAT Congress, University of Stellenbosch, South Africa, 13-17 January 2014 (oral presentation).

**Joubert, L., Venter, A.M., Venter, H.J.T., Bruyns, P.V. & Klack, C.** 2014. African centers of *Cryptolepis* species diversity: the result of refugia or species radiation? 20<sup>th</sup> AETFAT Congress, University of Stellenbosch, South Africa, 13-17 January 2014 (oral presentation).

**Keet, J-H., Cindi, D. & Du Preez, P.J.** 2014. An assessment of the invasive status of *Berberis aristata* and *B. julianae*. 42<sup>nd</sup> Annual Symposium of the Management of invasive alien Plants. Karridene Protea Hotel, KwaZulu-Natal. 18-20 June 2014 (oral presentation).

**Khooa, B., Landman, L. & Gryzenhout, M.** 2014. Comparisons of *Fusarium* spp. between pecan (*Carya illinoensis*) and camel thorn (*Acacia erioloba*) in South Africa. 10<sup>th</sup> International Mycological Congress, Bangkok, Thailand, 4-8 August 2014 (poster presentation).



**Koekemoer, F.P., De Groot, S., Lesch, D., Wessels, R., & Pretorius, Z.A.** 2014. Approaches to breeding for rust resistance at Sensako, South Africa. 10<sup>th</sup> SAPBA Symposium, Thaba 'Nchu, 10-12 March 2014 (oral presentation).

**Labuschagne, M.T.** 2014. Proteomics as a tool in crop quality breeding. 10<sup>th</sup> Southern African Plant Breeding Symposium. Black Mountain Hotel, Thaba'nchu, 10-12 March 2014 (oral presentation).

**Labuschagne, M.T. & Moloi, M.J.** 2014. The influence of abiotic stress conditions on Mixsmart characteristics of two commercial bread wheat cultivars. American Association for Cereal Chemists International Annual Conference. Providence, USA, 5-8 October 2014 (poster presentation).

**Labuschagne, M.T., Lindeque, R.C. & van Biljon, A.** 2014. Iron and zinc concentration in white flour of bread wheat cultivars grown in the three production regions of South Africa. American Association for Cereal Chemists International Annual Conference. Providence, USA, 5-8 October 2014 (poster presentation).

**Lan, C., Singh, R.P., Herrera-Foessel, S.A., Huerta-Espino, J., Rosewarne, G.M., Pretorius, Z.A., Basnet, B.R. & Calvo-Salazar, V.** 2014. *YrF*: a race-specific resistance gene to stripe rust in Francolin#1. XXII International Plant and Animal Genome Conference, San Diego, USA, 10-15 January 2014 (oral presentation).

**Laubscher, M., Marais, G.J., de Wet L. & Jacobs, K.** 2014. Fungal contamination of abalone feed in South Africa. XX<sup>th</sup> AETFAT Congress, University of Stellenbosch, 13-17 January 2014 (poster presentation).



**McLaren, N.W., Coetzee, L.A. & van Rooyen, D.** 2014. Effect of legume rotation systems on root rot and grain molds of sorghum. 24<sup>th</sup> Soil Borne Diseases Interest Group, Stellenbosch, 10-11 September, 2014 (oral presentation).

**Moloi, M.J., Labuschagne, M.T. & Potgieter, G.** 2014. Germination loss of silo stored barley is associated with membrane damage, not with the activities of antioxidative enzymes. American Association for Cereal Chemists International Annual Conference. Providence, USA, 5-8 October 2014 (poster presentation).

**Mtshali, L., Zhou, M., Labuschagne, M.T. & Albertyn, J.** 2014. Optimising flow cytometry for characterisation of sugarcane introgression crosses. Joint South African Genetics and Bioinformatics Societies Congress. Kwalata Game Ranch, Tshwane. 23-26 September 2014 (poster presentation).

**Mwenye, O.J., Van der Merwe, R., Van Rensburg, L. & Van Biljon, A.** 2014. Review on Selection for Drought Stress Tolerance in Soybeans: The Role of Proline and Root Traits. 10<sup>th</sup> SAPBA symposium, Thaba 'Nchu, 10-12 March 2014 (oral presentation).

**Neumann, F., Norstrom, E., Botha, G., Scott, L., Bamford, M., Humphries, M. & Smittenberg, R.** 2014. Vegetation and climate fluctuations in the eastern Drakensberg region since the Late Pleistocene. From Past to Present - Changing Climates, Ecosystems and Environments of Arid Southern Africa - A Tribute to Louis Scott conference. Bloemfontein, South Africa, 7-11 July 2014 (oral presentation).

**Pienaar, M., Visser B., Venter A. & Jackson, M.** 2014. The phylogeny of *Rhapiionacme* (Apocynaceae): A preliminary study. XX<sup>th</sup> AETFAT Congress, Stellenbosch University, 13-17 January 2014 (poster presentation).



**Pretorius, Z.A.** 2014. Conquering the wheat rusts: a moving target? Keynote presentation at 9<sup>th</sup> Regional Plant Biotechnology Forum, Pretoria, 22 May 2014 (oral presentation).

**Pretorius, Z.A., Lan, C.X., Bender, C.M., McLaren, N.W., Singh, R.P., Knight, V. & Kloppers, F.J.** 2014. Can crop sensing be used for mapping stripe rust resistance loci in wheat? 2<sup>nd</sup> International wheat strip rust symposium, Izmir, Turkey, 28 April - 1 May 2014 (oral presentation).

**Pretorius, Z.A., Steffenson, B.J. & Millet, E.** 2014. Field responses of wheat lines with resistance to African *Pgt* race PTKST introgressed from *Aegilops sharonensis*. 6<sup>th</sup> BGRI Technical Workshop, Cd Obregon, Mexico, 22-24 March 2014 (poster presentation).

**Pretorius, Z.A., Visser, B., Terefe, T. & Prins, R.** 2014. Discovery, mutation and spread of Ug99: a South African perspective. II Workshop on surveillance of race Ug99 in South America and breeding wheat for resistance. Porto Alegre, Brazil, 8-10 October 2014 (oral presentation).

**Prins, R., Agenbag, G.M., Wessels, E., Dreisigacker, S., Pretorius, Z.A. & Boyd, L.** 2014. The first KASP SNP platform in Africa: wheat research and application. 10<sup>th</sup> SAPBA Symposium, Thaba 'Nchu, 10-12 March 2014 (oral presentation).

**Rossouw, L & Scott, L.** 2014. Measuring multiplicity and redundancy in grass silica short cell production. From Past to Present - Changing Climates, Ecosystems and Environments of Arid Southern Africa - A Tribute to Louis Scott conference. Bloemfontein, South Africa, 7-11 July 2014 (poster presentation).



**Rossouw, L., Brink, J.S., Codron, D. & Scott, L.** 2014. C<sub>4</sub> grass phytoliths from the ~1 my old bone bed at Cornelia-Uitzoek, Free State Province, South Africa. From Past to Present - Changing Climates, Ecosystems and Environments of Arid Southern Africa - A Tribute to Louis Scott conference. Bloemfontein, South Africa, 7-11 July 2014 (poster presentation).

**Saaiman, J., Swart, V.R. & Marais, G.J.** 2013. Fungi associated with the powdery stinkbug in pecan orchards in South Africa. Abstracts of the 48<sup>th</sup> Congress of the Southern African Society for Plant Pathology, ATKV Klein Kariba, Bela Bela, 20-24 January 2013 (oral presentation).

**Saaiman, J., Swart, V.R. & Marais, G.J.** 2013. The interaction between stinkbugs and fungi in pecan orchards in South Africa. XVIII<sup>th</sup> Congress of the Entomological Society of Southern Africa, Potchefstroom, 30 June - 3 July 2013 (oral presentation).

**Scott, L., Avery, M., Bamford, M., Berna, F., Brink, J., Brook, G., Chazan M., Ecker, M., Fernandez-Jalvo, Y., Goldberg, P., Lee-Thorp, J., Rossouw, L., Thackeray, F. & Horwitz, L.** 2014. The Late Pleistocene and Holocene palaeoenvironmental context of Wonderwerk Cave in the southern Kalahari, South Africa. General Assembly 2014 of the European Geosciences Union, Vienna, Austria, 27 April - 2 May 2014 (oral presentation).

**Sieben, E.J.J., Mtshali, H. & Janks, M.** 2014. Wetlands in a largely arid land: distribution, ecological drivers and conservation importance of wetland vegetation types in South Africa. 57<sup>th</sup> Annual IAVS Symposium 2014, Perth, Western Australia, 1-5 September 2014 (oral presentation).





**Stöveken, J., Moerschbacher, B.M. & Van der Westhuizen, A.J.** 2014. Pectic oligogalacturonides suppress chitosan induced resistance reaction in wheat leaves. “Tagung der Arbeitskreise Mykologie und Wirt-Parasit- Beziehungen” Aachen, Germany, 20- 21 March 2014 (poster presentation).

**Swanepoel, J., Saaiman, J., Westcott, M. & Gryzenhout, M.** 2014. Karee (*Searsia lancea*) malformations represent a habitat rich in biodiversity. XX<sup>th</sup> AETFAT Congress, University of Stellenbosch, 13-17 January 2014 (poster presentation).

**Swanepoel, J., Saaiman, J., Westcott, M. & Gryzenhout, M.** 2014. Karee (*Searsia lancea*) malformations represent a habitat rich in biodiversity. 10<sup>th</sup> International Mycological Congress, Bangkok, Thailand, 4-8 August 2014 (poster presentation).

**Terefe, T., Tsilo, T.J., Le Roux, J., Visser, B. & Pretorius, Z.A.** 2014. Breeding for resistance to stem rust in South Africa. 6<sup>th</sup> BGRI Technical Workshop, Cd Obregon, Mexico, 22-24 March 2014 (poster presentation).

**Terefe, T.G., Tsilo, T.J., Le Roux, J., Visser, B. & Pretorius, Z.A.** 2014. Breeding for resistance to stem rust (*Puccinia graminis* f. sp. *tritici*) in South Africa. BGRI Technical Workshop, Obregon, Mexico, 22-25 March 2014 (poster presentation).

**Van Aardt, A.C., Scott, L., Bousman, C.B., Brink, J.S., Jacobs, Z. & du Preez, P.J.** 2014. Palynological analysis of the spring mound Baden-Baden in the western Free State, South Africa. From past to present: Changing Climates, Ecosystems and Environments of Arid Southern Africa (A tribute to Louis Scott). CR Swart Auditorium, UFS, Bloemfontein, 7-11 July 2014 (poster presentation).





**van Biljon, A., Phalafala, L.T., Osthoff, G. & Labuschagne, M.T.** 2014. Mineral composition of some South African quality protein maize genotypes. 10<sup>th</sup> Southern African Plant Breeding

Symposium. Black Mountain Hotel, Thaba'nchu, 10-12 March 2014 (oral presentation).

**Van der Merwe, N.C., Combrink, H.M.V.E., Oosthuizen, J., Moeti, P.J., Peter, N., Visser, B., Buccamazza, I., Schoeman, M., Apffelstaedt, J.P., Chen, W. & Foulkes, W.D.** 2014. A rainbow of genetic diversity in the South African population complicates *BRCA* testing. 5<sup>th</sup>

International Symposium of the HBOC, Montreal Canada (poster)

**Van der Merwe, R. & Smit, A.** 2014. Soybean - The golden gift of nature. 10<sup>th</sup> SAPBA symposium, Thaba 'Nchu, 10-12 March 2014 (poster presentation).

**Van der Nest, A., Steenkamp, E.T., Gryzenhout, M. & Marais, G.J.** 2014. Multilocus DNA analysis indicates that *Epicoccum sorghi* resides in a new genus consisting of several cryptic species. XX<sup>th</sup> AETFAT Congress, University of Stellenbosch, 13-17 January 2014 (oral presentation).

**Van Schalkwyk, H.J., Pretorius, Z.A., Boyd, L., Van der Walt, A., Slabbert, R., Van Heerden, C., Saunders, D.G.O., Uauy, C. & Prins, R.** 2014. Next generation sequencing of South African stripe rust pathotypes. 10<sup>th</sup> SAPBA Symposium, Thaba 'Nchu, 10-12 March 2014 (oral presentation).

**Vermeulen, M., Marais, G.J., Louw, S. v.d. Merwe, Swart, W.J. & Gryzenhout, M.** 2014.

Fungi associated with disease and damage caused by weevils on *Amaranthus cruentus* in South Africa. 10<sup>th</sup> International Mycological Congress, Bangkok, Thailand, 4-8 August 2014 (poster presentation).



**Vermeulen, M., Swart, W.J. & Gryzenhout, M.** 2014. Endophytic *Fusarium* species associated with *Amaranthus cruentus* in central South Africa. XX<sup>th</sup> ATAFU Congress, University of Stellenbosch, 13-17 January 2014 (poster presentation).

**Vermeulen, M., Swart, W.J. & Gryzenhout, M.** 2014. Species in the *Fusarium fujikuroi* species complex from decayed and healthy tissue of *Amaranthus cruentus* and three weevil species in South Africa. 10<sup>th</sup> International Mycological Congress, Bangkok, Thailand, 4-8 August 2014 (poster presentation).

**Visser, B., Szabo, L.J., Herselman, L. & Pretorius, Z.A.** 2014. Application of the Ug99 SNP assay on herbarium stem rust specimens. 6<sup>th</sup> BGRI Technical Workshop, Cd Obregon, Mexico, 22-24 March 2014 (poster presentation).

**Ward, R., Bowden, R.L., Chaves, M.S., Fetch, T., Hussain, M., Jin, Y., Park, R., Payne, T., Sharma, I., Pumphrey, M., Pretorius, Z.A., Rouse, M.R., Singh, R.P., Steffenson, B., Szabo, L.J. & Xu, S.S.** 2014. Harnessing genetic diversity to protect world wheat from stem rust. XXII International Plant and Animal Genome Conference, San Diego, USA (10-15 January 2014) (oral and poster presentations).