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UFS NATURAL AND AGRICULTURAL SCIENCES

Plant Sciences - Research outputs 2014

Research articles

Agenbag, G.M., Pretorius, Z.A., Boyd, L.A., Bender, C.M., MacCormack, R. & Prins, R. 2014. High-resolution mapping and new marker development for adult plant stripe rust resistance QTL in the wheat cultivar Kariega. *Molecular Breeding* 34: 2005-2020.

Backwell L.R., McCarthy, T.S., Wadley, L., Henderson, Z., Steininger, C.M., de Klerk, B., Barr, M., Lamothe, M., Chase, B.M, Woodborne, S., Susino, G.J., Bamford, M.K., Sievers, C., Brink, J.S., Rossouw, L., Pollarolo, L., Trower, G. Scott, L. & d'Errico, F. 2014. Multiproxy record of late Quaternary climate change and Middle Stone Age human occupation at Wonderkrater, South Africa. *Quaternary Science Reviews* 99: 42-59.

Figlan, S., le Roux, C., Terefe, T., Botes, W., Visser, B., Shimelis, H. & Tsilo, T.J. 2014. Wheat stem rust in South Africa: current status and future research directions. *African Journal of Biotechnology* 13: 4188-4199.

Gerrano, A.S., Labuschagne, M.T., van Biljon, A. & Shargie, N.G. 2014. Genetic diversity assessment in sorghum accessions using qualitative morphological and amplified fragment length polymorphism markers. *Scientia Agricola* 71: 394-401.

Gerrano, A.S., Labuschagne, M.T., van Biljon, A. & Shargie, N.G. 2014. Genetic variability among sorghum accessions for seed starch and stalk total sugar content. *Scientia Agricola* 71: 472-479.

Gil-Romera, G., Neumann, F.H., Scott, L., Sevilla-Callejo, M. & Fernández-Jalvo, Y. 2014. Pollen taphonomy from hyaena scats and coprolites: preservation and quantitative differences. *Journal of Archaeological Science* 46: 89-95.

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Labuschagne, M.T., Phalafala, L.T., Osthoff, G. & van Biljon, A. 2014. The influence of storage conditions on starch and amylose content of South African quality protein maize and normal maize hybrids. *Journal of Stored Products Research* 56: 16-20.

Metwally, A.A., Scott, L., Neumann, F.H., Bamford, M.K. & Oberhänsli, H. 2014. Holocene palynology and palaeoenvironments in the Savanna Biome at Tswaing Crater, central South Africa. *Palaogeography, Palaoclimatology, Palaeoecology* 402: 125-135.

Miles, C.W., van Biljon, A., Otto, W.M. & Labuschagne, M.T. 2014. The relationship between selected mixogram parameters and rheological and baking characteristics in hard red bread wheat. *Journal of Cereal Science* 59: 219-223. **Moloi, M.J. & van der**

Westhuizen, A.J. 2014. Involvement of nitric oxide in the Russian wheat aphid resistance response of wheat. *Cereal Research Communications* 42: 119-125.

Morojele, M.E. & Labuschagne, M.T. 2014. Prediction of bread-making quality using size exclusion high performance liquid chromatography. *African Crop Science Journal* 22: 31-43.

Ndhlela, T., Herselman, L., Magorokosho, C., Setimela, P., Mutimaamba, C. & Labuschagne, M.T. 2014. Genotype by environment interaction and stability analysis for grain yield of single cross hybrids using GGE biplots. *Crop Science* 54: 1992-1999.

Neumann F.H., Botha, G.A. & Scott, L. 2014. 18,000 years of grassland evolution in the summer rainfall region of South Africa – evidence from Mahwaqa Mountain, KwaZulu-Natal. *Vegetation history and Archaeobotany* 23: 665-681.

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Rouse, M., Nirmala, J., Jin, Y., Anderson, J.A., Chao, S., Fetch, T.G., Pretorius, Z.A. & Hiebert, C. 2014. Characterization of *Sr9h*, a wheat stem rust resistance allele effective to Ug99. *Theoretical and Applied Genetics* 127: 1681-1688. **Santchurn, D.,**

Ramdoyal, K., Badaloo, M.G.H. & Labuschagne, M.T. 2014. From sugar industry to cane industry: Evaluation and simultaneous selection of different types of high biomass canes. *Biomass and Bioenergy* 61: 82-92.

Schoch, C.L., Robbertse, B., Robert, V., Vu, D., Cardinali, G., Irinyi, L., Meyer, W., Nilsson, R.H., Hughes, K., Miller, A.N., Kirk, P.M., Abarenkov, K., Aime, M.C., Ariyawansa, H.A., Bidartondo, M., Boekhout, T., Buyck, B., Cai, Q., Chen, J., Crespo, A., Crous, P.W., Damm, U., De Beer, Z.W., Dentinger, B.T.M., Divakar, P.K., Duenas M., Feau, N., Fliegerova, K., Garcia, M.A., Ge, Z.W., Griffith, G.W., Groenewald, J.Z., Groenewald, M., Grube, M., Gryzenhout, M., Gueidan, C., Guo, L., Hambleton, S., Hamelin, R., Hansen, K., Hofstetter, V., Hong S., Houbraken, J., Hyde, K.D., Inderbitzin, P., Johnston, P.R., Karunarathna, S.C., Koljalg, U., Kovacs, G.M., Kraichak, E., Krizsan, K., Kurtzman, C.P., Larsson, K., Leavitt, S., Letcher, P.M., Liimatainen, K., Liu, J., Lodge, D.J., Luangsaard, J.J., Lumbsch, H.T., Maharachchikumbura, S.S.N., Manamgoda, D., Martin, M.P., Minnis, A.M., Moncalvo, J., Mule, G., Nakasone, K.K., Niskanen, T., Olariaga, I., Papp, T., Petkovits, T., Pino-Bodas, R., Powell, M.J., Raja, H.A., Redecker, D., Sarmiento-Ramirez, J.M., Seifert, K.A., Shrestha, B., Stenroos, S., Stielow, B., Suh, S., Tanaka, K., Tedersoo, L., Telleria, M.T., Udayanga, D., Untereiner, W.A., Uribeondo, J.D., Subbarao, K.V., Vágvölgyi, C., Visagie, C., Voigt, K., Walker, D.M., Weir, B.S., Weiß, M., Wijayawardene, N.N., Wingfield, M.J., Xu, J.P., Yang, Z.L., Zhang, N., Zhuang, W.Y. & Scott, F. 2014. Finding needles in haystacks: linking scientific names, reference specimens and molecular data for Fungi. *Data base* 2014: 1-21.

Slippers, B., Roux, J., Wingfield, M.J., Van der Walt, F.J.J., Jami, F., Mehl, J.W.M. & Marais, G.J. 2014. Confronting the constraints of morphological taxonomy in the *Botryosphaeriales*. *Persoonia* 33: 155-168.

Terefe, T., Visser, B., Herselman, L., Prins, R., Negussie, T., Kolmer, J.A. & Pretorius, Z.A. 2014. Diversity in *Puccinia triticina* detected on wheat from 2008 to 2010 and the impact of new races on South African wheat germplasm. *European Journal of Plant Pathology* 139: 95-105.

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Van Heerden, C.J., Burger, P., Vermeulen, A. & Prins, R. 2014. Detection of downy and powdery mildew resistance QTL in a 'Regent' X 'RedGlobe' population. *Euphytica Open Access* 200: 281-295.

Wegary, D., Labuschagne, M.T. & Vivek, B.S. 2014. Combining ability of quality protein maize inbred lines under stress and non-stress environments in eastern and southern Africa. *Crop Science* 54: 1004-1014.

Wolmarans, K. & Swart, W.J. 2014. Influence of glyphosate, other herbicides and genetically modified herbicide resistant crops on soil microbiota: a review. *South African Journal of Plant and Soil* 31: 177-186.

Book chapters

Brown, L.R. & du Preez, P.J. 2014. Threats of mining and urbanisation on a vulnerable ecosystem in the Free State, South Africa, Biodiversity. In: *The Dynamic Balance of the Planet*, edited by O. Grillo. ISBN: 978-953-51-1315-7, InTech, DOI: 10.5772/57589. Available from: http://www.intechopen.com/books/biodiversity-thedynamic-balance-of-the-planet/threats-of-mining-and-urbanisation-on-a-vulnerableecosystem-in-the-free-state-south-africa.

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Van der Merwe, R. & Labuschagne, M.T. 2014. Effects of temperature on oleic acid percentage during grain-filling in oil crops. In: *Oleic Acid: Production, Uses and Potential Health Effects*, edited by L. Whelan. Nova Publishers Inc. pp. 99-128. ISBN: 978-1-63117-576-3