



Plant Sciences - Research outputs 2010

Research articles

Ajith, A., Labuschagne, M.T., Malan, A.F., van Biljon, A. & Wentzel, B. 2010. Relationship between malting quality traits and hordeins as affected by timing of nitrogen fertilizer application. *Cereal Chemistry* 87(5): 393-397.

Akinbo, O., Labuschagne, M.T. & Fregene, M. 2010. Embryo rescue as a method to develop and multiply a backcross population of cassava (*Manihot esculenta* Crantz) from an interspecific cross of *Manihot esculenta* ssp. *flabellifolia*. *African Journal of Biotechnology* 9(42): 7059-7062.

Benesi, I.R.M., Labuschagne, M.T., Herselman, L. & Mahunga, N. 2010. Ethnobotany, morphology and genotyping of cassava germplasm in Malawi. *Journal of Biological Sciences* 10(7): 616-623.

Berner, J.M. & van der Westhuizen, A.J. 2010. The selective induction of the phenylalanine ammonia-lyase pathway in the resistance response of wheat to the Russian wheat aphid. *Cereal Research Communications* 38(4): 506-513.

Brand, R.F., Brown, L.R. & du Preez, P.J. 2010. A floristic analysis of the vegetation of Plantberg, Eastern Free State, South Africa. *Koedoe* 52(1): 1-11.

de Wit, M., Nel, P., Osthoff, G. & Labuschagne, M.T. 2010. The effect of variety and location on cactus pear (*Opuntia ficus-indica*) fruit quality. *Plant Foods and Human Nutrition* 65: 136-145.



Cawood, M.E., Pretorius, J.C., van der Westhuizen, A.J. & Pretorius, Z.A. 2010. Disease development and RP-protein activity in wheat (*Triticum aestivum*) seedlings treated with plant extracts prior to leaf rust (*Puccinia triticina*) infection. *Crop Protection* 29: 1311-1319.

Fehser, S., Beike, U., Stoveken, J., Pretorius, Z.A., Van der Westhuizen, A. & Moersbacher, B. 2010. Histological and initial molecular analysis of Ug99, the new Sr31-breaking race of the wheat stem rust fungus threatening global wheat production. *Journal of Plant Pathology* 92(3): 709-720.

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Klopper, R.R., Zietsman, P.C., du Preez, P.J. & Smith, G.F. 2010. A first record of a South African aloe, *Aloe spectabilis*, becoming naturalized elsewhere in the country. *Bradleya* 28: 37-38.

Labuschagne, M.T. & Hugo, A. 2010. Oil content and fatty acid composition of cactus pear seed compared to cotton and grape seed. *Journal of Food Biochemistry* 34:93-100.

Marais, G.F., Badenhorst, P.E., Eksteen, A. & Pretorius, Z.A. 2010. Reduction of *Aegilops sharonensis* chromatin associated with resistance genes *Lr56* and *Yr38* in wheat. *Euphytica* 171(1): 15-22.

Marais, G.F., Marais, A.S., Eksteen, A. & Pretorius, Z.A. 2010. Modification of the *Aegilops neglecta* – common wheat *Lr62/Yr42* translocation through allosyndetic pairing induction. *South African Journal of Plant and Soil* 27(2): 142-151.



Morojele, M.E. & Labuschagne, M.T. 2010. Characterization of wheat (*Triticum aestivum* L.) cultivars grown in Lesotho by storage proteins. *Cereal Research Communications* 38(4): 560-568.

Mutegi, E., Sagnard, F., Muraya, M., Kanyenji, B., Rono, B., Mwongera, C., Marangu, C., Kamau, J., Parzies, H., de Villiers, S., Semagn, K., Traoréf, P.S. & Labuschagne, M. 2010, Ecogeographical distribution of wild, weedy and cultivated *Sorghum bicolor* (L.) Moench in Kenya: Implications for conservation and crop-to-wild gene flow. *Genetic Resources and Crop Evolution* 57: 243-253.

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Mweta, D.E., Labuschagne, M.T., Bonnet, S., Swarts, J. & Saka, J.D.K. 2010. Isolation and physicochemical characterization of starch from cocoyam (*Colocasia esculenta*) grown in Malawi. *Journal of Science, Food and Agriculture* 90: 1886-1896.

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Ojulong, H.F., Labuschagne, M.T., Herselman, L. & Fregene, M. 2010. Yield traits as selection indices in seedling populations of cassava. *Crop Breeding and Applied Biotechnology* 10: 191-196.

Pretorius, Z.A. & Bender, C.M. 2010. First report of virulence for the wheat leaf rust (*Puccinia triticina*) resistance gene *Lr32* in South Africa. *Plant Disease* 94(3): 381.



Pretorius, Z.A., Bender, C.M. & Visser, B. 2010. First report of a *Puccinia graminis* f. sp. *tritici* race virulent to the *Sr24* and *Sr31* wheat stem rust resistance genes in South Africa. *Plant Disease* 96(6): 784.

Smit, H.A., Tolmay, V.L., Barnard, A., Jordaan, J.P., Koekemoer, F.P., Otto, W.M., Pretorius, Z.A., Purchase, J.L. & Tolmay, J.P.C. 2010. An overview of the context and scope of wheat (*Triticum aestivum*) research in South Africa from 1983 to 2008. *South African Journal of Plant and Soil* 27(1): 81-96.

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van Biljon, A., Labuschagne, M. & Koen, E. 2010. Microsatellite-based assessment of five *Solanum nigrum* complex species and their progeny. *Acta Agriculturae Scandinavica Section B - Soil and Plant Sciences* 60: 494-499.

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Zacarias, A.M. & Labuschagne, M.T. 2010. Diallel analysis of cassava brown streak disease, yield and yield related characteristics in Mozambique. *Euphytica* 176: 309-320.



Book chapters

Liebenberg, M.M. & Pretorius, Z.A. 2010. Common bean rust: pathology and control. Pages 1-99 in: Horticultural Reviews Vol 37, ed. J. Janik, Wiley-Blackwell.

Published proceedings

Elago, O., Labuschagne, M.T. & Van Biljon, A. 2010. The influence of low nitrogen on starch and minerals in quality protein maize. In: Proceedings of the CST-SA – ICC International Grains Symposium: Quality and safety of Grain Crops and Foods. M.T. Labuschagne and K.G. Duoduo (Eds.), ISBN 978 0 8688 6 797 7, pp.45-49.

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Shegro, A.G., Labuschagne, M.T. & Shargie, N.G. 2010. Protein and mineral content of sorghum [*Sorghum bicolor* (L.) Moench] accessions from Ethiopia and South Africa. In: Proceedings of the CST-SA – ICC International Grains Symposium: Quality and safety of Grain Crops and Foods. M.T. Labuschagne and K.G. Duoduo (Eds.), ISBN 978 0 8688 6 797 7, pp. 39-44.

Van Biljon, A., Gissa, D. & Labuschagne, M.T. 2010. Protein quality of quality protein maize grown under low and optimal nitrogen conditions. In: Proceedings of the CST-SA – ICC International Grains Symposium: Quality and safety of Grain Crops and Foods. M.T. Labuschagne and K.G. Duoduo (Eds.), ISBN 978 0 8688 6 797 7, pp.176-181.

Popular articles

Pretorius, Z. 2010. New wheat stem rust races should not pose a threat. *SA Grain* 12(9): 99.

Terefe, T. & Pretorius, Z. 2010. Update on wheat rust in South Africa. *SA Grain* 12(9): 96-98.