



Plant Sciences - Research outputs 2011

Research articles

Ashafa, A.O.T. 2011. Laxative potential of the ethanolic leaf extract of *Aloe vera* (L.) Burm.f. in Wistar rats with loperamide-induced constipation. *Journal of Natural Pharmaceuticals* 2(3): 158-162.

Ashafa, A.O.T. & Olunu, O. 2011. Toxicological evaluation of ethanolic root extract of *Morinda lucida* (L.) Benth. (Rubiaceae) in male Wistar rats. *Journal of Natural Pharmaceuticals* 2(210): 108-114.

Ashafa, A.O.T., Sunmonu, T. & Afolayan, A. 2011. Effects of leaf and berry extracts of *Phytolacca dioica* L. on haematological and weight parameters of Wistar rats. *African Journal of Pharmacy and Pharmacology* 5(2): 150-154.

Ashafa, A.O.T., Sunmonu, T., Abass, A. & Ogbe, A. 2011. Laxative potential of the ethanolic leaf extract of *Aloe vera* (L.) Burm. f. in Wistar rats with loperamide-induced constipation. *Journal of Natural Pharmaceuticals* 2(3): 158-162.

Brand, R., Brown, L. & Du Preez, P.J. 2011. The grassland vegetation of Platberg, eastern Free State, South Africa. *Koedoe: Research Journal of the South African National Parks* 53(1): 1-13.

Chase, B., Quick, L., Meadows, M., Scott, L., Thomas, D. & Reimer, P. 2011. Late Glacial interhemispheric climate dynamics revealed in Southern Africa. *Geology* 39: 19-22.



- Chen, S., Gryzenhout, M., Roux, J., Xie, Y., Wingfield, M. & Zhou, X.** 2011. Novel species of *Celoporthe* from Eucalyptus and Syzygium trees in China and Indonesia. *Mycologia* 103(6): 1384-1410.
- Fernandez-Jalvo, Y., Scott, L. & Andrews, P.** 2011. Taphonomy in palaeoecological interpretations. *Quaternary Science Reviews* 30: 1296-1302.
- Fischer, E., Venter, H.J.T., Killmann, D., Meve, U. & Venter, A.M.** 2011. Epistemma neuerburgii (*Apocynaceae*, *Periplocoideae*): A new epiphytic species from Nyungwe National Park, Rwanda, Africa. *South African Journal of Botany* 77: 680-684.
- Gissa, D.W., Labuschagne, M.T. & Vivek, B.** 2011. Protein quality and endosperm modification of quality protein maize (*Zea mays* L.) under two contrasting soil nitrogen environments. *Field Crops Research* 121: 408-415.
- Heyns, I., Pretorius, Z.A. & Marais, F.** 2011. Derivation and characterization of recombinants of the Lr54/Yr37 translocation in common wheat. *The Open Plant Science Journal* 5: 1-8.
- Janse van Rensburg, B., Flett, B., McLaren, N.W. & McDonald, A.** 2011. Sampling variation in the quantification of fumonisins in maize samples. *South African Journal of Plant and Soil* 28 (2): 90-98.
- Janse van Rensburg, B., McLaren, N.W., Viljoen, A. & Flett, B.** 2011. Aflatoxins and fumonisins on sorghum grain from commercial production areas of South Africa (Short Communications). *South African Journal of Plant and Soil* 28(4): 236-238



Kawuki, R., Ferguson, M., Labuschagne, M.T., Herselman, L., Orone, J., Ralimanana, I., Bidiaka, M., Lukombo, S., Kanyange, M., Gashaka, G., Mkamilo, G., Gethi, J. & Obiero, H. 2011. Variation in qualitative and quantitative traits of cassava germplasm from selected national breeding programmes in sub-Saharan Africa. *Field Crops Research* 122: 151-156.

Kawuki, R., Labuschagne, M.T., Nuamanya, E., Herselman, L. & Ferguson, M. 2011. Segregation of selected agronomic traits in six S1 cassava families. *Journal of Plant Breeding and Crop Science* 3(8): 154-160.

Kena, M. & Swart, W.J. 2011. Effects of plant extracts on in vitro suppression of fungal pathogens and control of damping-off of vegetable seedlings in the greenhouse. *Botswana Journal of Agriculture and Applied Science* 7(2): 36-44. **Liebenberg, M. &**

Pretorius, Z.A. 2011. Pathogenic diversity in and sources of resistance to *Uromyces appendiculatus* in Southern Africa. *Journal of Phytopathology* 159: 287-297.

Mago, R., Tabe, L., McIntosh, R., Pretorius, Z.A., Kota, R., Paux, E., Wicker, T., Breen, J., Lagudah, E., Ellis, J. & Spielmeier, W. 2011. A multiple resistance locus on chromosome arm 3BS in wheat confers resistance to stem rust (Sr2), leaf rust (Lr27) and powdery mildew. *Theoretical and Applied Genetics* 123: 615-623.

Mashope, B.K., Herselman, L. & Labuschagne, M.T. 2011. Genetic diversity among South African cactus pear gene bank accessions using AFLP markers. *Bradleya* 29: 103-114.

McIntosh, R. & Pretorius, Z.A. 2011. Borlaug global rust initiative provides momentum for wheat rust research (Introduction). *Euphytica* 179: 1-2.



Mohase, L., Van der Westhuizen, A.J. & Pretorius, Z.A. 2011. Involvement of reactive oxygen species generating enzymes and hydrogen peroxide in the rust resistance response of sunflower (*Helianthus annuus* L.). *South African Journal of Plant and Soil* 28(1): 64-68.

Muedi, H., Fourie, D. & McLaren, N.W. 2011. Characterization of bacterial brown spot pathogen from dry bean production areas of South Africa. *African Crop Science Journal* 19(4): 357-367.

Mukoyi, F., Soko, T., Mulima, E., Mutari, B., Hodson, D., Herselman, L., Visser, B. & Pretorius, Z.A. 2011. Detection of variants of wheat stem rust race Ug99 (*Puccinia graminis f.sp.tritici*) in Zimbabwe and Mozambique. *Plant Disease* 95(9): 1188-1188.

Mutegi, E., Sagnard, F., Semagn, K., Deu, M., Muraya, M., Kanyenji, B., De Villiers, S., Kiambi, D., Herselman, L. & Labuschagne, M.T. 2011. Genetic structure and relationships within and between cultivated and wild sorghum (*Sorghum bicolor* (L.) moench) in Kenya as revealed by microsatellite markers. *Theoretical and Applied Genetics* 122: 989-1004.

Mwenye, O., Labuschagne, M.T., Herselman, L. & Benesi, I. 2011. Mineral compositions of Malawian cocoyam genotypes. *Journal of Biological Sciences* 11(4): 331-335.

Mweta, D.E., Labuschagne, M.T., Bonnet, S.L., Swarts, J.C. & Saka, J. 2011. Effect of annealing, acid hydrolysis and acetylation on the physicochemical and thermal properties of Malawian cocoyam starches. *Trends in Carbohydrate Research* 3(2): 39-54.



Neumann, F., Scott, L. & Bamford, M. 2011. Climate change and human disturbance of fynbos vegetation during the late Holocene at Princess Vlei, Western Cape, South Africa. *Holocene* 21(7): 1137-1149.

Park, R., Fetch, T., Hodson, D., Jin, Y., Nazari, K., Prashar, M. & Pretorius, Z.A. 2011. International surveillance of wheat rust pathogens: progress and challenges. *Euphytica* 179:109-117.

Prins, R., Pretorius, Z.A., Bender, C.M. & Lehmensiek, A. 2011. QTL mapping of stripe, leaf and stem rust resistance genes in a Karioga 3 Avocet S doubled haploid wheat population. *Molecular Breeding* 27: 259-270.

Quick, L., Chase, B., Meadows, M., Scott, L. & Reimer, P. 2011. A 19.5 kyr vegetation history from the central Cederberg Mountains, South Africa: Palynological evidence from rock hyrax middens. *Palaeogeography, Palaeoclimatology, Palaeoecology* 309: 253-270.

Ramburan, S., Labuschagne, M.T. & Zhou, M. 2011. Interpretation of genotype x environment interactions of sugarcane: Identifying relevant environmental factors. *Field Crops Research* 124(3): 392-399.

Roberts, D., Matthews, T., Herries, A., Boulter, C., Scott, L., Dondo, C., Mtembi, P., Browning, C., Smith, R., Haarhoff, P. & Bateman, M. 2011. Regional and global context of the Late Cenozoic Langebaanweg (LBW) Palaeontological Site: West Coast of South Africa. *Earth-Science Reviews* 106: 191-214.

Sandersen, A., Scott, L., McLachlan, I. & Hancox, J. 2011. Cretaceous biozonation based on terrestrial palynomorphs from two wells in the offshore Orange basin of South Africa. *Palaeontologia Africana* 46: 21-41.



Sieben, E.J.J., Ellery, W., Kotze, D. & Rountree, M. 2011. Hierarchical spatial organization and prioritization of wetlands: a conceptual model for wetland rehabilitation in South Africa. *Wetlands Ecology and Management* 19: 209-222.

Steyn, C., McLaren, N.W. & Swart, W.J. 2011. The effect of temperature and period of high humidity on the development of *Sclerotinia* stem rot on soybeans in the greenhouse. *South African Journal of Plant and Soil* 28(3): 208-211.

Terefe, T., Pretorius, Z.A., Bender, C.M., Visser, B., Herselman, L. & Tadesse, N. 2011. First report of a new wheat leaf rust (*Puccinia triticina*) race with virulence for Lr12,13 and 37 in South Africa. *Plant Disease* 95(5): 611-611.

Tesfaendrias, M.T., McLaren, N.W. & Swart, W.J. 2011. Grain mold fungi and their effect on sorghum grain quality. *South African Journal of Plant and Soil* 28(3): 172-180.

Viljoen, C.D. & Chetty, L. 2011. A case study of GM maize gene flow in South Africa. *Environmental Sciences Europe* 23(8): 1-8.

Visser, B., Herselman, L., Park, R., Karaoglu, H., Bender, C.M. & Pretorius, Z.A. 2011. Characterization of two new *Puccinia graminis* f.sp. *tritici* races within the Ug99 lineage in South Africa. *Euphytica* 179: 119-127.

Wegary, D., Labuschagne, M.T. & Vivek, B. 2011. Effect of low soil nitrogen fertility on protein quality and endosperm modification of quality protein maize (*Zea mays* L.). *Field Crops Research* 121(3): 408-415.



Book chapters

Brand, R., Brown, L. & Du Preez, P.J. 2011. Biogeography of Platberg, Eastern Free State, South Africa: Links with Afromontane regions and South African Biomes. In *Biodiversity: Loss in a changing planet*, edited by O. Grillo & G. Venora. Croatia, Rijeka: Intech-Open Access Company. pp. 113-136.

Du Preez, P.J. & Brown, L. 2011. Impact of domestic animals on ecosystems' integrity of Lesotho high altitude peat lands. In *Biodiversity: Loss in a changing planet*, edited by O. Grillo & G. Venora. Croatia, Rijeka: Intech-Open Access Company. pp. 249-270.

Rossouw, L. & Scott, L. 2011. Phytoliths and pollen the microscopic plant remains in Pliocene volcanic sediments around Laetoli Tanzania. In: *Paleontology and Geology of Laetoli Tanzania: Human evolution in context*, edited by T. Harrison. New York: Springer. pp. 201-215.