



Plant Sciences

Conference contributions 2008

Akinbo, O., Labuschagne, M.T. & Fregene, M. 2008. *Quantitative trait loci (QTL) mapping of protein content in backcross derivatives of inter-specific hybrids from M. esculenta ssp flabellifolia and cassava (Manihot esculenta Crantz).* Poster presented at the XVI Plant and Animal Genome Conference, San Diego, California, USA. 12-16 January.

Akinbo, O., Labuschagne, M.T., Marin, J., Ospina, C., Gutierrez, J & Fregene, M. 2008. *Quantitative trait loci (QTL) mapping of protein content in backcross derivatives of inter-specific hybrids from Manihot esculenta ssp flabellifolia and cassava (Manihot esculenta Crantz).* Poster presented at the 1st Scientific Meeting of the Global Cassava Partnership (GCP-1): Cassava Meeting the Challenges of the New Millennium, Institute of Plant Biotechnology for Developing Countries (IPBO), Ghent, Belgium. 21-25 July.

Akinbo, O., Labuschagne, M.T., Ospina, C., Marin, J., Gutierrez, J. & Fregene, M. 2008. *Bringing wild alleles back into the primary gene pool: Introgression of high protein content from Manihot esculenta ssp flabellifolia into cassava (Manihot esculenta Crantz).* Poster presented at the 1st Scientific Meeting of the Global Cassava Partnership (GCP-1): Cassava Meeting the Challenges of the New Millennium, Institute of Plant Biotechnology for Developing Countries (IPBO), Ghent, Belgium. 21-25 July.



Appelgryn, J.J. & Visser, B. 2008. *Evidence for volatile signalling between leaf-rust infected and uninfected wheat.* Oral presentation delivered during the 34th Annual Conference of the South African Association of Botanists (SAAB) (joint conference with the Southern African Society for Systematic Biology), Drakensville Mountain Resort, Drakensberg, South Africa. 14-18 January.

Bender, C.M., Pretorius, Z.A. & Prins, R. 2008. *Inheritance of adult plant resistance in wheat to stripe rust.* Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.

Berner, J. & Van der Westhuizen, A.J. 2008. *A role for lipids and phenolics in the RWA resistance response.* Paper presented at the 23rd International Congress of Entomology (ICE2008): Celebrating Entomology – Contributing to Modern Science, International Convention Centre, Durban, South Africa. 6-12 July.

Brand, R.F., Du Preez, P.J. & Brown, L.R. 2008. *The phytosociology of afro-montane fynbos communities on Platberg, Eastern Free State, South Africa.* In *Frontiers of Vegetation Science – An Evolutionary Angle*, edited by L. Mucina (et al.). Somerset West: Keith Phillips Images. Proceedings of the 51st Annual Symposium of the International Association for Vegetation Science (IAVS), Stellenbosch University, Stellenbosch, South Africa. 7-12 September. p. 26.



De Waal, C., Venter, A.M. & Miller, J.S. 2008. *Breeding systems in African Lycium (Solanaceae)*. Oral presentation delivered during the 34th Annual Conference of the South African Association of Botanists (SAAB) (joint conference with the Southern African Society for Systematic Biology), Drakensville Mountain Resort, Drakensberg, South Africa. 14-18 January.

Grobbelaar, J.U. 2008. *Factors governing algal growth in photobioreactors: the “open” versus the “closed” debate*. Invited paper delivered during the 3rd Congress of the International Society for Applied Phycology and the 11th International Conference on Applied Phycology, National University of Ireland, Galway, Ireland. 21-27 June.

Grobbelaar, J.U. 2008. *From laboratory to commercial production*. Invited paper delivered during the 3rd Congress of the International Society for Applied Phycology and the 11th International Conference on Applied Phycology, National University of Ireland, Galway, Ireland. 21-27 June.

Grobbelaar, J.U. 2008. *The upper limits of photosynthesis and implications for algal biotechnology*. Invited paper delivered during the 3rd Congress of the International Society for Applied Phycology and the 11th International Conference on Applied Phycology, National University of Ireland, Galway, Ireland. 21-27 June.

Jin, Y., Szabo, L. & Pretorius, Z.A. 2008. *Virulence variation within the Ug99 lineage*. Proceedings of the 11th International Wheat Genetics Symposium (IWGS), Brisbane Convention Centre, Brisbane, Australia, edited by R. Appels, R. Eastwood, E. Lagudah, P. Langridge & M.M. Lynne. Sydney University Press, <http://ses/library.usyd.edu.au>. 24-29 August.



Joubert, L. & Venter, A.M. 2008. *Taxonomic value of floral morphology in the genus *Cryptolepis* (Apocynaceae, Periplocoideae) in southern Africa.* Oral presentation delivered during the 34th Annual Conference of the South African Association of Botanists (SAAB) (joint conference with the Southern African Society for Systematic Biology), Drakensville Mountain Resort, Drakensberg, South Africa. 14-18 January.

Kena, M. & Swart, W.J. 2008. *Effect of composted animal manure on damping-off of vegetable seedlings.* Proceedings of the 9th International Congress of Plant Pathology (ICPP2008): Healthy and Safe Food for Everybody, Lingotto Conference Centre, Turin, Piemonte Italy. 24-29 August. *Journal of Plant Pathology* 90(S2): 411.

Kgatisho, M.A., Mohase, L. & Van der Westhuizen, A.J. 2008. *Biochemical components of *Dn-1* and *Dn-5* resistance to a new Russian wheat aphid biotype.* Poster presented at the 34th Annual Conference of the South African Association of Botanists (SAAB) (joint conference with the Southern African Society for Systematic Biology), Drakensville Mountain Resort, Drakensberg, South Africa. 14-18 January.

Koen, E., Elago, O. & Labuschagne, M.T. 2008. *RP-HPLC analysis of protein composition of temperature stressed wheat.* Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.



Kriel, W.M. & Pretorius, Z.A. 2008. *The FHB challenge to irrigation wheat production in South Africa*. Proceedings of the 3rd International Symposium on Fusarium Head Blight (10th European *Fusarium* Seminar), Szeged, Hungary. 1-5 September. *Cereal Research Communications* 36(Suppl. B). pp 569-571.

Labuschagne, M.T., Elago, O. & Koen, E. 2008. *The influence of extreme temperatures on polymeric and monomeric proteins in bread, biscuit and durum wheat*. Invited paper delivered during the International Annual Meeting of the American Association of Cereal Chemists (AACC 2008): Get Connected, Hawaii Convention Centre, Honolulu, Hawaii. 21-24 September.

Labuschagne, M.T., Elago, O. & Koen, E. 2008. *The influence of heat and cold stress on gluten proteins and quality in biscuit, durum and bread wheat*. Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.

Lindeque, R.C., Tolmay, V.L. & Labuschagne, M.T. 2008. *The effect of vernalization on host plant resistance of wheat to Russian aphid, *Diuraphis noxia* biotype RWASA2*. Poster presented at the 23rd International Congress of Entomology (ICE2008): Celebrating Entomology – Contributing to Modern Science, International Convention Centre, Durban, South Africa. 6-12 July.



Lindeque, R.C., Tolmay, V.L. & Labuschagne, M.T. 2008. *The effect of rainfall and temperature on host plant resistance of wheat to Russian aphid *Diuraphis noxia* biotype RWASA2.* Poster presented at the 23rd International Congress of Entomology (ICE2008): Celebrating Entomology – Contributing to Modern Science, International Convention Centre, Durban, South Africa. 6-12 July.

Minnaar-Ontong, A., Herselman, L., Kriel, W.M. & Leslie, J.F. 2008. *Population dynamics of *Fusarium head blight* isolates in South Africa.* Proceedings of the 10th International *Fusarium* Workshop and *Fusarium* Genomics Workshop 2008, Hotel Carlos V, Alghero, Sardinia, Italy. 30 August-2 September. *Journal of Plant Pathology* 90:S3: 66.

Mohase, L. 2008. *Eliciting activity in wheat-aphid interaction.* Invited paper delivered during the Plant Induced Resistance for Pest and Disease Control (PIRAC) Workshop, Cape Town, South Africa. 26-29 October.

Moldenhauer, J., Van der Westhuizen, A.J., Prins, R., Pretorius, Z.A. & Moerschbacher, B.M. 2008. *Molecular biological investigation into adult plant resistance to stripe rust in wheat.* Poster presented at the “Deutsche Phytomedizinische Gesellschaft (DPG) e.V., Arbeitskreise Mykologie / Wirt-Parasit-Beziehungen”, Bonn, Germany. 13-14 March.

Moloi, M.J. & Van der Westhuizen, A.J. 2008. *Involvement of nitric oxide in the Russian wheat aphid resistance response.* Oral presentation delivered during the International Conference on Biotic Plant Interactions, Queensland Bioscience Precinct, Brisbane, Australia. 27-29 March.



Mweta, D.E., Labuschagne, M.T., Koen, E. & Saka, J.D.K. 2008. *Properties of starches from cocoyam (Colocasia esculenta) and cassava (Manihot esculenta Crantz) grown in Malawi.*

Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.

Neumann, F.H., Kagan, E.J. & Stein, M. 2008. *High resolution pollen studies at the Holocene profile of Ein Feskha (Dead Sea): Are vegetation changes connected to earthquakes?* Poster presented at the Joint 12th International Palynological Congress (IPC-XII 2008) and the 13th International Organisation of Palaeobotany Conference (IOPC-XIII 2008), Bonn, Germany. 30 August-5 September.

Neumann, F.H., Stager, J.C., Scott, L. & Venter H.J.T. 2008. *Holocene vegetation history at Lake Sibaya (KwaZulu-Natal, South Africa).* Oral presentation delivered during the Joint 12th International Palynological Congress (IPC-XII 2008) and the 13th International Organisation of Palaeobotany Conference (IOPC-XIII 2008), Bonn, Germany. 30 August-5 September.

Ojulong, H.F., Labuschagne, M.T., Herselman, L. & Fregene, M. 2008. *Introgression of genes for dry matter content from wild cassava species.* Poster presented at the 1st Scientific Meeting of the Global Cassava Partnership (GCP-1): Cassava Meeting the Challenges of the New Millennium, Institute of Plant Biotechnology for Developing Countries (IPBO), Ghent, Belgium. 21-25 July.



Phillipou, O.A., Herseman, L., Pretorius, Z.A. & Prins, R. 2008. *Targeting quantitative trait loci for adult plant stripe rust resistance in wheat.* Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.

Pretorius, Z.A. 2008. *Surveillance and sample analyses.* Oral presentation delivered during the Berlaug Global Rust Initiative (BGRI) Stem Rust Baseline Survey Workshop, Shimla, India. 3-4 November.

Pretorius, Z.A. & Park, R.F. 2008. *Origin, Evolution, Distribution and Virulence of Ug99 and the Global Stem Rust Monitoring System.* Proceedings of the International Conference on Wheat Stem Rust Race Ug99 – A Threat to Global Food Security, New Delhi, India. 6-8 November. pp 82-85.

Pretorius, Z.A., Jin, Y., Prins, R., Bender, C.M. & Herselman, L. 2008. *Stem rust resistance in South African wheat cultivars.* Proceedings of the 11th International Wheat Genetics Symposium, Brisbane, Australia. Ed. R. Appels, R. Eastwood, E. Lagudah, P. Langridge & M.M. Lynne. Sydney University Press, <http://ses/library.usyd.edu.au>. 24-29 August.

Pretorius, Z.A., Jin, Y., Prins, R., Bender, C.M. & Herselman, L. 2008. *The status of stem rust resistance in South African wheat cultivars.* Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.



Prins, R., Pretorius, Z.A., Lehmensiek, A. & Bender, C.M. 2008. *Genetic analysis of wheat rust resistance genes segregating in a Kariega x Avocet S population*. Proceedings of the 11th International Wheat Genetics Symposium (IWGS), Brisbane Convention Centre, Brisbane, Australia. 24-29 August. Edited by R. Appels, R. Eastwood, E. Lagudah, P. Langridge & M.M. Lynne. Sydney: Sydney University Press. Sydney University Press, <http://ses/library.usyd.edu.au>. 24-29 August.

Prins, R., Pretorius, Z.A., Lehmensiek, A. & Bender, C.M. 2008. *An improved Kariega X Avocet S linkage map for genetic analysis of wheat rust resistance*. Oral presentation delivered during the 20th Biennial Congress of the South African Genetics Society, Sanlam Auditorium, UP Conference Centre, University of Pretoria, South Africa. 27-29 March.

Quick, L., Chase, B.M., Meadows, M.E., Scott, L., Thomas, D.S.G. & Reimer, P. 2008. *Late quaternary vegetation history and palaeoenvironments of the Cederberg Mountains of South Africa: evidence from hyrax middens*. Poster presented at the 3rd Southern Deserts Conference - Kalahari 2008: Climate change and the peopling of the Southern deserts, Molopo Lodge, Kalahari, South Africa. 16-19 September.

Rossouw, J.D., Pretorius, Z.A., Lamkey, K. & Silva, H.D. 2008. *QTL mapping for resistance to Stenocarpella maydis in maize*. Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March. **Scott, L., Gil-**



Romera, G., Marais, E., Brook, G.A. & Chase, B.M. 2008. *Terrestrial pollen evidence for some phases of vegetation change in the Namib Desert since > 40 ka.* Oral presentation delivered during the 3rd Southern Deserts Conference - Kalahari 2008: Climate change and the peopling of the Southern deserts, Molopo Lodge, Kalahari, South Africa. 16-19 September.

Sieben, E.J.J., Morris, C.D., Kotze, D.C. & Muasya, A.M. 2008. *Changes in plant form and function across altitudinal and wetness gradients in wetlands of the Maloti-Drakensberg, South Africa.* In *Frontiers of vegetation science – an evolutionary angle*, edited by L. Mucina (et al.). Somerset West: Keith Phillips Images. Proceedings of the 51st Annual Symposium of the International Association for Vegetation Science (IAVS), Stellenbosch University, Stellenbosch, South Africa. 7-12 September. pp. 172-173.

Swart, W.J. 2008. *A systems approach to establishing scientific integrity in evidence based policy making.* Invited paper delivered during the International Conference on Evidence Based Policy Making: International Best Practices in Connecting Science and Policy, De Bazel, Amsterdam, The Netherlands. 19-20 June.

Swart, W.J. 2008. *Evidence based policy making in south african agriculture: a holistic perspective.* Invited paper delivered during the International Conference on Evidence Based Policy Making: International Best Practices in Connecting Science and Policy, De Bazel, Amsterdam, The Netherlands. 19-20 June.



Swart, W.J. 2008. *Soil Health: Issues pertaining to the cultivation of new crops in South Africa.* Oral presentation delivered during the 18th Soil-borne Diseases Interest Group Symposium, ARC Plant Protection Research Institute (ARC-PPRI), Stellenbosch, South Africa.

17-18 September.

Sydenham, S.L., Herselman, L., Prins, R. & Pretorius, Z.A. 2008. *Pyramiding wheat rust resistance genes using marker-assisted selection.* Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.

Van der Merwe, C.H.J., Visser, B., Pretorius, J.C. & Van der Westhuizen, A.J. 2008. *Evaluation of gene expression in wheat upon treatment with a novel plant activator.* Oral presentation delivered during the 34th Annual Conference of the South African Association of Botanists (SAAB) (joint conference with the Southern African Society for Systematic Biology), Drakensville Mountain Resort, Drakensberg, South Africa. 14-18 January.

Van der Westhuizen, A.J. 2008. *A review on the biochemical resistance response in wheat to the Russian wheat aphid.* Invited paper delivered during the Plant Induced Resistance for Pest and Disease Control (PIRAC) Workshop, Cape Town, South Africa. 26-29 October. **Van der**

Westhuizen, A.J. & Berner, J. 2008. *A role for lipid oxygenation in wheat during defense against the Russian wheat aphid?* Oral presentation delivered during International Conference on Biotic Plant Interactions, Brisbane, Australia. 27-29 March.

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Van Deventer, C.S. & Otto, W.M. 2008. *Assessment of the general and specific combining abilities and heritabilities for nitrogen use efficiency components in South African irrigated wheat genotypes.* Oral presentation delivered during the 7th South African Plant Breeders Symposium, Alpine Heath, Drakensberg, South Africa. 10-13 March.

Visser, B. 2008. *Characterization of some early defence responses of wheat infected with Puccinia spp.* Invited paper delivered during the Plant Induced Resistance for Pest and Disease Control (PIRAC) Workshop, Cape Town, South Africa. 26-29 October.

Visser, D.D., Caldwell, P. & McLaren, N.W. 2008. *Biological control of Sclerotinia sclerotiorum using Trichoderma harzianum and silicon.* Poster presented at the 9th International Congress of Plant Pathology (ICPP2008): Healthy and Safe Food for Everybody, Lingotto Conference Centre, Turin, Piemonte Italy. 24-29 August.