



Plant Sciences - Research outputs 2020

Research articles

Adejumobi, O.A., Omobowale, T.O., Oyagbemi, A.A., Adedapo, A.A., Yakubu, M.A. & Ashafa, A.O.T. 2020. *In vitro* antioxidant, anti-inflammatory and antihypertensive activities of methanol leaf extract of *Peasea americana*. *Federation of American Societies for Experimental Biology Journal*, 34(51): 1-1

Adeniran, L.A. & Ashafa, A.O.T. 2020. *In vitro* anti-Inflammation and selective cytotoxicity of Vero and HepG2 cells by phenolic extract from roots of *Hermannia geniculata* Eckl and Zehl. *Academic Journal of Life Sciences* 6(6): 61-66.

Adeniran, L.A., Ogundajo, A.L. & Ashafa, A.O.T. 2020. Pharmacological activities of Hermannol (9-(7-methyloctyl)-9H-xanthene-2,3-diol), a new Xanthene derivative isolated from the roots of *Hermannia geniculata* Eckl. & Zeyh. *South African Journal of Botany* 135: 330-335.

Adeniran, L.A., Uwazie, N.J. & Ashafa, A.O.T. 2020. *In-vitro* anti-inflammation, selective cytotoxicity and inhibition of iNO from LPS stimulated RAW 264.7 macrophages activities of flavonoids from *Hermannia geniculata* Eckl and Zeyh roots extract. *Pharmacognosy Magazine* 16(70): 345-349.

Adeyeoluwa, T.E., Balogun, F.O. & Ashafa, A.O.T. 2020. *In vitro* comparative assessment of the inhibitory effects of single and combined spices against glucose-synthesizing enzymes. *Tropical Journal of Pharmaceutical Research* 19(6): 1209-1214

Balogun, F.O. & Ashafa, A.O.T. 2020. Green-synthesized zinc oxide nanoparticles from aqueous root extract of *Dicoma anomala* (Sond.) mitigates free radicals and diabetes-linked enzymes. *Nanoscience & Nanotechnology-Asia* 10: 927-938.

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Boshoff, W.H.P., Visser, B., Lewis, C.M., Adams, T.M., Saunders, D.G.O., Terefe, T., Soko, T., Chiuraise, N. & Pretorius, Z.A. 2020. First report of *Puccinia striiformis* f. sp. *tritici*, causing stripe rust of wheat, in Zimbabwe. *Plant Disease* 104: 290. DOI: doi.org/10.1094/PDIS-07-19-1395-PDN.

Brown, L.R., Van Aardt, A.C. & Janecke, B.B. 2020. A tribute to Pieter Johannes (Johann) du Preez. *Koedoe* 62(2): a1640. DOI: 10.4102/koedoe.v62i2.1640.

Chari, L.D., Martin, G.D., Steenhuisen, S., Adams, L.D., & Clark, V.R. 2020. The biology of invasive plants. 1. *Pyracantha angustifolia* (Franch.) C.K. Schneid. *Invasive Plant Science and Management* 13: 120-142.

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Gerrano, A.S., van Rensburg, W.J., Mathew, I., Shayonawake, A.I.T., Bairu, M.W., Venter, S., Swart, W., Mofokeng, A., Mellem, J. & Labuschagne, M. 2020. Genotype and genotype × environment interaction effects on the grain yield performance of cowpea genotypes in dryland farming system in South Africa. *Euphytica* 216: 80.

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Goder-Goldberger, M., Crouvi, O., Caracuta, V., Horwitz, L. K., Neumann F. H., Porat, N., Scott L., Shavit, R., Jacoby-Glass, Y., Zilberman, T. & Boaretto, E. 2020. The Middle to Upper Paleolithic transition in the southern Levant: New insights from the late Middle Paleolithic site of Far'ah II, Israel. *Quaternary Science Reviews* 237 (106304): 1-13. DOI: https://doi.org/10.1016/j.quascirev.2020.106304.



Janecke, B.B., Van Tol, J.J., Smit, I.P.J., Van Aardt, A.C., Riddell, E.S., Seaman, M.T., Swart, W.J., Du Preez, J. & Le Roux, P.A.L. 2020. Biotic and abiotic connections on a granitic catena: Framework for multidisciplinary research. *Koedoe* 62(2): a1600. DOI 10.4102/koedoev62i1.1600.

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Mafa, M.S., Malgas, S., Bhattacharya, A., Rashamuse, K. & Pletschke, B.I. 2020. The effects of alkaline pre-treatment on agricultural biomasses (corn cob and sweet sorghum bagasse) and their hydrolysis by a termite-derived enzyme cocktail. *Agronomy* 10(8). DOI: doi.org/10.3390/agronomy10081211.

Mafa, M.S., Malgas, S., Rashamuse, K. & Pletschke, B.I. 2020. Delineating functional properties of a cello-oligosaccharide and β -glucan specific cellobiohydrolase (GH5_38): Its synergism with Cel6A and Cel7A for β -(1,3)-(1,4)-glucan degradation. *Carbohydrate Research* 495. DOI: doi.org/10.1016/j.carres.2020.108081.

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Mbuma, N.W., Gerrano, A.S., Lebaka, N., Mofokeng, A. & Labuschagne, M. 2020. The evaluation of a Southern African cowpea germplasm collection for seed yield and yield components. *Crop Science*. DOI: 10.1002/csc2.20336.

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Books

Moffett, R.O. 2020. *A Scientific Bibliography of the Drakensberg, Maloti & Adjacent Lowlands*. Bloemfontein, SUN MEDIA, SUN PRESS. 534 pages. ISBN 978-1-928424-44-4; ISBN 978-1-928424-45-1. (e-book); <https://doi.org/10.18820/9781928424451>.

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Branlard, G., Giraldo, P., He, Z., Igrejas, G., Ikeda, T.M., Janni, M., Labuschagne, M.T., Wang, D., Wentzel, B. & Zhang, K. 2020. Contribution of genetic resources to grain storage protein composition and wheat quality. In: *Wheat Quality for Improving Processing and Human Health*. Igrejas, G., Ikeda, T. & Guzman, C. (eds.). Springer, pp. 39-72.

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Tóth, B., Juhász, C., Huzsvai, L. & Moloi, M.J. 2020. Trends in crop quality under changing climates. In: *Advances in Scientific Research: Engineering and Architecture*. Christov, I., Krystev, V., Efe, R. & Gad, A.A. (eds.). St. Kliment Ohridski University Press- Sofia. ISBN: 978-954-07-5047-7; pp 467-493.

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Research Reports

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Smit, A. & Van der Merwe, R. 2020. *Evaluation of three commercially available soybean inoculants for use on Edamame production in South Africa*. Report delivered to Stimuplant PTY LTD.

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Visser, B. 2020. *Evaluating the potential of ComCat as a safener to protect grain sorghum against S-metolachlor herbicide damage*. Report delivered to Agraforum-SA, Bainsvlei, Bloemfontein.