



## **Dr Mcebisi Maphosa**

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### **Qualifications**

- PhD in Plant Breeding and Biotechnology, Makerere University
- Master of Science in Plant Breeding and Genetics, Makerere University
- BSc Hons Crop Science, University of Zimbabwe

### **Research Interests**

- Genetics
- Plant Breeding
- Plant Biotechnology
- Seed Sciences and Seed Systems for drought hardy neglected and under utilised, horticultural germplasm.
- Biofortification, germplasm and pathogen characterisation
- Climate smart agriculture.

### **Publications**

1. Ddamulira, G., Ramathani, I., Sebikejje, T., Naluyimba, R., Otim, A., Pariyo, A and **Maphosa, M.** 2019. Mango yield performance in Lake Victoria crescent region of Uganda. *American Journal of Plant Sciences* 10: 1142-1153.
2. Nyoni, N., Ndlovu, E and **Maphosa, M.** 2019. Enhancing use of seed priming for rapid germination of field crops. *South African Journal of Plant and Soil*. Accepted
3. Maibvisira, N.A., Gasura, E., **Maphosa, M** and Nyakurwa, C.S. 2018. Genetic basis and the current breeding efforts for quality protein maize in Southern Africa. *African Crop Science Journal* 26: 529-541.

4. Mlambo, A and **Maphosa, M.** 2018. "Ectomycorrhizal mushroom yield association with woody species and leaf litter in a miombo woodland, central Zimbabwe" African Journal of Ecology and Ecosystems Accepted
5. Ryman Shoko, Justen Manasa, **Mcebisi Maphosa**, Joshua Mbanga, Reagan Mudziwapasi, Vicky Nembaware, Walter T. Sanyika, Tawanda Tinago, Zedias Chikwambi, Cephaz Mawere, Alice Matimba, Grace Mugumbate, Jonathan Mufandaedza, Nicola Mulder, Hugh Patterton. 2018. Strategies and opportunities for Promoting Bioinformatics/Computational Biology in Zimbabwe. PLOS Computational Biology 14: 1-12. <https://doi.org/10.1371/journal.pcbi.1006480>.
6. Ndlovu, E., Dlamini, M and **Maphosa M.** 2018. Seed germination and seedling growth of tomato (*Lycopersicon esculentum*) on various media in a hot bed system. Zimbabwe Journal of Applied Research Accepted.
7. Mudziwapasi, R., Ndudzo, A., Nyamusamba, RP., Jomane, FN., Mutengwa, T and **Maphosa, Mcebisi.** 2018. Unlocking the potential of CRISPR technology for improving livelihoods in Africa. Journal of Biotechnology and Genetic Engineering Reviews 34 (2):198-215. DOI: 10.1080/02648725.2018.1482101
8. Sithole, F and **Maphosa, M.** 2018. Multivariate analyses in groundnut yield stability and adaptability recommendations for Zimbabwe. Zimbabwe Journal of Applied Research 1: 26-34
9. Ddamulira, G., Santos, CAF., Alanyo, M. Ramathani, I., **Maphosa, M.** 2017. Maturity, protein content and yield stability of cowpea in Uganda. South African Journal of Plant and Soil 34. 255-261. doi: 10.1080/02571862.2016.1274919
10. Mlambo, A and **Maphosa, M.** 2017. Miombo woodland mushrooms of commercial food value: A survey of central districts of Zimbabwe. Journal of Food Security 5: 51-57. doi:10.12691/jfs-5-2-5.
11. Ncube, O., Ndlovu, E and **Maphosa, M.** 2016. Physiology of legume grain in informal markets used as seed: Implications for food and nutrition security. Journal of Food Security 4: 126-130. doi:10.12691/jfs-4-61.

12. Moyo, R., Moyo, N., Ndlovu, E., Kudita, S and **Maphosa, M.** 2015. Physiological parameters of seed vigour in ex situ stored sorghum germplasm. *Journal of Cereals and Oilseeds* 6: 31-38. doi:10.5897/JCO15.0139
13. Gwenzi, U., Maluphaso, S and **Maphosa, M.** 2015. Response of selected groundnut genotypes to irrigated and non-irrigated conditions. *International Journal of Agriculture and Crop Sciences* 5: 692-696.
14. Ssendegge, G., Obua, T., Kawuki, R, **Maphosa, M** and Tukamuhabwa. 2015. Soybean genetic diversity and resistance to soybean rust disease in Uganda. *Journal of Agricultural Science* 10:17-23. doi: 10.3923/aj.2015.17.23
15. Dube, M and **Maphosa, M.** 2014. Prevalence of Aflatoxigenic *Aspergillus* spp and Groundnut resistance in Zimbabwe. *Journal of Agriculture and Veterinary Science* 7: 8-12. doi: 10.9790/2380-071120812
16. Okii D., Luseko A.C., Tukamuhabwa P and **Maphosa, M.** 2014. Application of Bioinformatics in Crop Improvement: Annotating the Putative Soybean Rust resistance gene *Rpp3* for Enhancing Marker Assisted Selection. *Journal of Proteomics & Bioinformatics* 7: 001-009. doi:10.4172/jpb.1000296
17. Obua, T., **Maphosa, M.**, Tusiime, G and Tukamuhabwa, P. 2013. Genotype main effects and genotype-by-environment biplot analysis for soybean yield in Uganda. *African Crop Science Proceedings*: 11. 537-541.
18. Nalukenge, A., Oballim, G., **Maphosa, M.**, Edema, E., Baguma, Y and Okori, P. 2013. Contribution of granule bound starch synthase in kernel modification of quality protein maize. *Uganda Journal of Agricultural Sciences* 14: 101-109.
19. Nyamandi, P. and **Maphosa, M.** 2013. Evaluating the effects of indigenous cowpea weevil *Callosobruchus rhodesianus* management methods on stored cowpea. *International Journal of Agriculture and Crop Sciences* 22: 2761-2767. DOI:IJACS/2013/5-22/2761-2767

20. **Maphosa, M.**, Talwana, H and Tukamuhabwa, P. 2013. Assessment of comparative virulence and resistance in soybean using field isolates of soybean rust. *Journal of Agricultural Science* 5: 249-257. DOI:10.5539/jas.v5n5p249
21. **Maphosa, M.**, Talwana, H., Gibson, P and Tukamuhabwa, P. 2012. Combining ability for resistance to soybean rust in F2 and F3 soybean populations. *Field Crops Research* 130: 1-7. doi:10.1016/j.fcr.2012.02.004
22. **Maphosa, M.**, Talwana, H and Tukamuhabwa, P. 2012. Enhancing soybean rust resistance through Rpp2, Rpp3 and Rpp4 pairwise gene pyramiding. *African Journal of Agricultural Research* 7: 4271-4277. DOI:10.5897/AJAR12.1123
23. Tukamuhabwa, P., Asimwe, M., Nabasirye, M and **Maphosa, M.** 2012. Genotype by environment interaction advanced generation soybean lines for grain yield in Uganda. *African Crop Science Journal* 20: 107-115.
24. **Maphosa, M.**, Oballim, G., Nalukenge, A and Okori, P. 2011. Feasibility of zein proteins, simple sequence repeats and phenotypic traits for background selection in quality protein maize breeding. *African Crop Science Journal* 19:65-78.
25. Tukamuhabwa, P., and **Maphosa, M.** 2011. State of Knowledge in Developing Durable Resistance to Soybean Rust in the Developing World: FAO Plant Production & Protection Paper 204. Food and Agriculture Organisation of the United Nations, Rome, Italy. pp46 ISBN 978-92-5-106425-2