

## **Refereed journal papers**

### *Under review or accepted*

- Nabahungu, N.L, A.R. Cyamweshi, J. Kayumba, C.J. Mirali, A. Mukuralinda, and C. Wortmann. Lowland rice yield and economic response to fertilizer application in Rwanda. *Nutr. Cycl. Agroecosyst.*
- Wortmann, C.S. K.C. Kaizzi, N. Maman, R.A. Cyamweshi, M. Dicko, M. Garba, M. Milner, C. Senkoro, B. Tarfa, C. Kibunja, M. Munthali, P. Nalivata, D. Nkonde, L. Nabahungu, K. Ouattara, I. Serme. 2018. Diagnosis of crop nutrient deficiencies in sub-Saharan Africa. *Nutr. Cycl. Agroecosyst.*

### *Published*

- Wortmann, C.S., M. Dicko, N. Maman, C. Senkoro, B. Tarfa. 2018. Fertilizer application effects on grain and storage root nutrient concentration. *Agron. J. First Look.*
- Wortmann, C., C. Senkoro, A.R. Cyamweshi, C. Kibunja, D. Nkonde, M. Munthali, P. Nalivata, L.N. Nabahungu, K. Kaizzi. 2018. Maize-nutrient response functions for Eastern and Southern Africa. *Agron. J.* 110:2070-2079. doi:10.2134/agronj2018.04.0268
- Garba, M., M. Dicko, N. Kamissoko, N. Maman and C. Wortmann. 2018. Fertilizer use efficiency and profitability of irrigated rice in Mali and Niger. *Agron. J.* 110:1951-1959. DOI: 10.2134/agronj2017.09.0512.
- Garba, M., I. Serme, and C.S. Wortmann. 2018. Crop yield response to fertilizer relative to soil properties in Sub-Saharan Africa. *Soil Sci. Soc. Amer. J.* 82:862-870. doi:10.2136/sssaj2018.02.0066
- Serme, I., M. Dicko, K. Ouattara, B. Sidibe and C. Wortmann. 2018. Rainfed rice response to fertilizer in the Sudan Savanna of West Africa. *Afr. J. Agric. Res.* 13:1033-1041. <https://doi.org/10.5897/AJAR2018.13160>
- Munthali, M.W, C. Senkoro, P. Nalivata, W.I. Makumba, J. Msaky, M. Mzimhiri and C. Wortmann. 2018. Cowpea nutrient response functions for eastern and southern Africa. *Afr. J. Agric. Res.* 13:1026-1032. <https://doi.org/10.5897/AJAR2018.13161>
- Serme, I., N. Maman, G. Maman, K. Ouattara, A. Gonda, and C. Wortmann. 2018. Cowpea response to applied nutrients in Burkina Faso and Niger. *Afr. J. Agric. Res.* 13:1508-1515. DOI: 10.5897/AJAR2018.13207
- Garba, M., I. Serme, N. Maman, K. Ouattara, A. Gonda, C.S. Wortmann, and S.C. Mason. 2018. Crop response to manure plus fertilizer in Burkina Faso and Niger. *Nutr. Cycl. Agroecosyst.* Doi.org/10.1007/s10705-018-9921-y
- Maman, G., I. Serme, N. Maman, K. Ouattara, A. Gonda, C.S. Wortmann, and S.C. Mason. 2018. Crop response to manure plus fertilizer in Burkina Faso and Niger. *Nutr. Cycl. Agroecosyst.* Doi.org/10.1007/s10705-018-9921-y
- Kaizzi, C.K., R.A. Cyamweshi, C.N. Kibunja, C. Senkoro, D. Nkonde, R. Maria, C.S. Wortmann. 2018. Bean response to fertilizer in eastern and southern Africa. *Nutr. Cycl. Agroecosyst.* 111:47-60. Doi: 10.1007/s10705-018-9915-9
- Daudu, C.K., E.M. Ugbaje., E.Y. Oyinlola, B.D. Tarfa, Y.A. Alhaji, I.Y. Amapu and C. Wortmann. 2018. Lowland rice nutrient response functions for Nigeria. *Agron J.* 110:1079-1088. doi: 10.2134/agronj2017.08.0469
- Senkoro, C.J., F.M. Tetteh, C.N. Kibunja, K.W. Ndungu-Magiroy, G.W. Quansah, A.E. Marandu, G.J. Ley, T.J. Mwangi, C.S. Wortmann. 2018. Cassava Yield and Economic

- Response to Fertiliser in Tanzania, Kenya and Ghana. *Agron. J.* doi: 10.2134/agronj2018.01.0019
- Cyamweshi, A.R., L.N. Nabahungu, C.J. Senkoro, C. Kibunja, A. Mukuralinda, K.C. Kaizzi, S.M. Mvuyekure, J. Kayumba, K.W. Ndungu-Magiroi, M.N. Koech, C.S. Wortmann. 2017. Wheat nutrient response functions for the East Africa highlands. *Nutr. Cycl. Agroecosyst.* Doi 10.1007/s10705-018-9912-z
- Serme, I., K. Ouattara, A.A. Bandaogo, and C. Wortmann. 2018. Pearl millet and sorghum yield response to fertilizer in the Sahel of Burkina Faso. *J. Agric. Studies* 6(1):176-188.
- Maman, N., L. Traoré, M. Garba; M.K. Dicko, A. Gonda, and C.S. Wortmann. 2017. Maize sole crop and intercrop response to fertilizer in Mali and Niger. *Agron. J.* 110:728-736. Doi:10.2134/agronj2017.06.0329.
- Tesfahunegn, G.B. and C.S. Wortmann. 2016. Maize [*Zea Mays* (L.)] crop-nutrient response functions extrapolation for Sub-Saharan Africa. *Nutr. Cycl. Agroecosyst.* 109:269-289. DOI 10.1007/s10705-017-9887-1
- Senkoro, C.J., A.E. Marandu, G.J. Ley, and C.S. Wortmann. 2017. Maize and pigeon pea sole crop and intercrop nutrient response functions for Tanzania. *Nutr. Cycl. Agroecosys.* 109:303–314. DOI 10.1007/s10705-017-9889-z
- Maman, N., M. Dicko, G. Abdou, G. and C. Wortmann. 2017. Sorghum and groundnut sole and intercrop nutrient response in semi-arid West Africa. *Agron. J.* 109: 2907-2917 doi:10.2134/agronj2017.02.0120
- Tarfa, B.D., N. Maman, K. Ouattara, and C. Wortmann. 2017. Groundnut and soybean response to nutrient application in West Africa. *Agron. J.* 109:2323-2332 doi:10.2134/agronj2017.03.0132
- Maman, N., MK Dicko, G. Abdou, Z. Kouyaté, and C. Wortmann. 2017. Pearl millet and cowpea intercrop response to applied nutrients in West Africa. *Agron. J.* 109:2333-2342. doi:10.2134/agronj2017.03.0139
- Ndungu-Magiroi, K.W., C.S. Wortmann, C. Kibunja, C. Senkoro, T.J.K. Mwangi, D. Wamae, M. Kifuko-Koech, and J. Msakyi. 2017. Maize bean intercrop response to nutrient application relative to maize sole crop response. *Nutr. Cycl. Agroecosys* 109:17-27. Doi: 10.1007/s10705-017-9862-x
- Ndungu-Magiroi, K.W., A. Kasozi, K.C. Kaizzi, T. Mwangi, M. Koech, C.N. Kibunja, D. Wamae and C.S. Wortmann. 2017. Finger millet response to nitrogen, phosphorus and potassium in Kenya and Uganda. *Nutr. Cycl. Agroecosys.* 108:297-308. Doi: 10.1007/s10705-017-9857-7
- Wortmann, C.S., M. Milner, K.C. Kaizzi, N. Maman, R.A. Cyamweshi, M.K. Dicko, C. Kibunja, M. Macharia, R. Maria, P. Nalivata, D. Negash, D. Nkonde, K. Ouattara, C.J. Senkoro, B.D. Tarfa, F.M. Tetteh. 2017. Maize-nutrient response information applied across Sub-Saharan Africa. *Nutr. Cycl. Agroecosyst.* 107:175-186. doi: 10.1007/s10705-017-9827-0.

### **Book chapters in addition to the book “Fertilizer Use Optimization in Sub-Saharan Africa”**

- Serme I., K. Ouattara, D. Ouattara, S. Ouedraogo, S. Youl, and C. Wortmann. 2017. Sorghum grain yield under different rates of mineral and organic fertilizer application in the South-Sudan Zone of Burkina Faso. In Bationo A., D. Ngaradoum, S. Youl, F. Lompo and J.O. Fening (eds). *Improving the profitability, sustainability and efficiency of nutrients through site*

specific fertilizers recommendation in West Africa Agro-Ecosystems. Vol. 2. Pp 235-248. DOI 10.1007/978-3-319-58792-9\_14

Serme I., K. Ouattara, I.O. Traore, S. Ouedraogo, S. Youl, B. Ouattara, F. Lompo, P.M. Sedogo, C. Wortmann, and A. Bationo. 2017. Maize response to fertilizer on Ferralsol and Luvisol in the South Sudan zone of Burkina Faso. In Bationo A., D. Ngaradoum, S. Youl, F. Lompo and J.O. Fening (eds). Improving the profitability, sustainability and efficiency of nutrients through site specific fertilizers recommendation in West Africa Agro-Ecosystems. Vol. 2. Pp 195-214. DOI 10.1007/978-3-319-58792-9\_12

Wortmann, C.S. and C.K. Kaizzi. 2015. Optimization of financially constrained fertilizer use. In A. Chatterjee and D. Clay (ed) *Soil Fertility Management in Agroecosystems*, ASA, CSSA, and SSSA, Madison, WI. doi:10.2134/soilfertility.2014.0088