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RESEARCH

Areas: Plant Science · Soil Science · Agronomy and Crop Science · Ecology, Evolution, Behavior and Systematics · Food Science · General Agricultural and Biological Sciences

RESEARCH SUMMARY

17	154	6	6	1.05	18%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 17 publications listed below, 2009–2026. Field-weighted impact is the mean over the 17 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 17 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 16

1. Faruk Kwansah Nyame, Livingstone Kobina Sam Amoah, **Joshua Danso Owusu-Sekyere**, Ransford Opoku Darko, Francis Kumi, Clement Nyamekye (2026). Effect of irrigation frequency on cocoa (Theobroma cacao L.) bean quality in Ghana's major production zone. *International Journal of Agricultural Research Innovation and Technology*. https://doi.org/10.3329/ijarit.v15i2.87895
2. Ransford Opoku Darko, Paul Peprah Nsonowah, **Joshua Danso Owusu-Sekyere**, Mark Nyameche (2025). Assessment of wastewater quality for irrigation use in the Central Region of Ghana. *Discover Environment*. https://doi.org/10.1007/s44274-025-00271-1
3. Faruk Kwansah Nyame, Livingstone Kobina Sam-Amoah, **Joshua Danso Owusu-Sekyere**, Ransford Opoku Darko, Francis Kumi, Clement Nyamekye (2025). Optimizing Irrigation and Tree Age for Enhanced Cherelle Retention in Cocoa (Theobroma cacao L.) Production in Ghana. *Applied Fruit Science*. https://doi.org/10.1007/s10341-025-01687-y
4. Gilbert Osei, Livingstone K. Sam-Amoah, **Joshua Owusu-Sekyere**, Harald Hansmann, Francis Kumi, Kezia Mensah (2025). Performance characteristics of self-regulating low energy clay-based irrigation system in different soil types. *Journal of the Ghana Institution of Engineering (JGhIE)*. https://doi.org/10.56049/jghie.v25i1.212
5. Ransford Opoku Darko, Flavio Odoi-Yorke, Agnes Abeley Abbey, Emmanuel Afutu, **Joshua Danso Owusu-Sekyere**, Livingstone Kobina Sam-Amoah, Lawerence Acheampong (2024). A Review of Climate Change Impacts on Irrigation Water Demand and Supply - A Detailed Analysis of Trends, Evolution, and Future Research Directions. *Water Resources Management*. https://doi.org/10.1007/s11269-024-03964-z
6. Gilbert Osei, **Joshua Owusu-Sekyere**, Livingstone Sam-Amoah, Francis Kumi, Harald Hansmann, Vincent Agyemang, Ransford Darko, Kezia Mensah, Delwyn Okhumai (2024). Bell pepper (Capsicum annuum) response to self-regulating low energy clay-based irrigation (SLECI) system, burying depth and fertilizer application dosage. *Journal of Central European Agriculture*. https://doi.org/10.5513/jcea01/25.4.4462
7. Babacar Faye, Heidi Webber, Mbaye Diop, Mamadou L. Mbaye, **Joshua D. Owusu-Sekyere**, Jesse B. Naab, Thomas Gaiser (2018). Potential impact of climate change on peanut yield in Senegal, West Africa. *Field Crops Research*. https://doi.org/10.1016/j.fcr.2018.01.034
8. Babacar Faye, Heidi Webber, Thomas Gaiser, Mbaye Diop, **Joshua D. Owusu-Sekyere**, Jesse B. Naab (2016). Effects of Fertilization Rate and Water Availability on Peanut Growth and Yield in Senegal (West

Africa). *Journal of Sustainable Development*. https://doi.org/10.5539/jsd.v9n6p111

9. R Agbemafle, **J. D. Owusu-Sekyere**, Ato Bart-Plange (2015). Effect of deficit irrigation and storage on the nutritional composition of tomato (Lycopersicon esculentum Mill. cv. Pectomech). *Hrvatski časopis za prehrambenu tehnologiju biotehnologiju i nutricionizam*.
10. L.K. Sam- Amoah, W.K.T. Willie, **J.D. Owusu- Sekyere** (2015). Effects of Deficit Irrigation and Chicken Manure Interactions on the Growth and Yield of Okra in a Pot Experiment. *Asian Journal of Agricultural Research*. https://doi.org/10.3923/ajar.2016.47.55
11. Robert Agbemafle, **Joshua D. Owusu-Sekyere**, Ato Bart-Plange, John K. Otchere (2014). Effect of Deficit Irrigation and Storage on Physicochemical Quality of Tomato (Lycopersicon esculentum Mill. Var. Pechtomech). *Food science and quality management*.
12. Xingyi Huang, Ernest Teye, **Joshua D. Owusu-Sekyere**, Jemmy Takrama, Livingstone K. Sam-Amoah, Liya Yao, Caleb K. Firempong (2014). Simultaneous Measurement of Titratable Acidity and Fermentation Index in Cocoa Beans by Electronic Tongue Together with Linear and Non-linear Multivariate Technique. *Food Analytical Methods*. https://doi.org/10.1007/s12161-014-9862-2
13. **J.D Owusu-Sekyere**, E Annan (2010). Effect of Deficit Irrigation on Growth and Yield of Okro (Abelmoscus Esculentus). *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v30i2.60548
14. **JD Owusu-Sekyere**, E Obeng Bekoe (2010). Nitrogen Uptake in Soils under Different Water Table Depths. *West African Journal of Applied Ecology*. https://doi.org/10.4314/wajae.v16i1.55872
15. **JD Owusu-Sekyere**, N Adu-Gyimah (2009). Effects of three watertable treatments on the growth of the Axucena rice variety. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v29i1.46429
16. **JD Owusu-Sekyere** (2009). Growing Rice Under Managed Water Table System:. *Journal of the Ghana Science Association*. https://doi.org/10.4314/jgsa.v10i2.18039

Book chapters 1

1. L. K. Sam-Amoah, R. O. Darko, **J. D. Owusu-Sekyere** (2024). Calibration and Validation of Aquacrop for Hot Pepper (Legon 18) Irrigation. *Research Advances and Challenges in Agricultural Sciences Vol. 1*. https://doi.org/10.9734/bpi/racas/v1/6631b