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RESEARCH

Areas Soil Science · Ecology, Evolution, Behavior and Systematics · Global and Planetary Change · Agronomy and Crop Science · Environmental Engineering · Plant Science

RESEARCH SUMMARY

33	488	10	10	1.52	15%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 33 publications listed below, 2005–2025. Field-weighted impact is the mean over the 33 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 33 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 25

1. Seidu Yussif, **Nicholas Kyei-Baffour**, Wilson Agyei Agyare, Amponsah William (2025). Assessment of Potential of Groundwater Yield for Domestic and Dry Season Irrigation in North-East Region of Ghana. *Ghana Journal of Science Technology and Development*. https://doi.org/10.47881/475.967x
2. Paul Alhassan Zaato, William Amponsah, **Nicholas Kyei-Baffour**, Ato Bart-Plange, Lukas Pawera, Ramasamy Srinivasan, Malick Niango Ba (2025). Black soldier fly compost enhances productivity and postharvest quality of tomato in Ghana. *Discover Sustainability*. https://doi.org/10.1007/s43621-025-01724-6
3. Paul Alhassan Zaato, William Amponsah, **Nicholas Kyei - Baffour**, Ato Bart - Plange, Lukas Pawera, Ramasamy Srinivasan, Malick Niango Ba (2025). Black soldier fly frass compost improves soil fertility and tomato productivity in Ghana. *Soil Advances*. https://doi.org/10.1016/j.soilad.2025.100089
4. Awouminassi M. Atakoun, Pierre G. Tovihoudji, Rodrigue V. C. Diogo, William Amponsah, Murilo dos Santos Vianna, Thomas Gaiser, **Nicholas Kyei-Baffour**, Boateng Kyereh (2025). Soil carbon dynamics, nutrient enhancement, and maize productivity under traditional cattle corralling practices in northern Benin. *Nutrient Cycling in Agroecosystems*. https://doi.org/10.1007/s10705-025-10441-5
5. Seidu Yussif, **Nicholas Kyei-baffour**, Wilson Agyei Agyare, William Amponsah (2024). Assessment of the Trends, Changes and Variations in Rainfall and its Economic Impact on North-East Region of Ghana for the 1990-2019 Period. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.18137591
6. Abdul Latif Husein Alhassan, **Nicholas Kyei-Baffour** (2023). Analysis of the Performance of Drip Irrigation System for Okra Production Using Wastewater at Zagyuri in Sagnerigu Municipal in the Northern Region of Ghana. *The International Journal of Science & Technoledge*. https://doi.org/10.24940/theijst/2023/v11/i10/st2310-006
7. P. Amankwaa-Yeboah, S. Yeboah, **N. Kyei-Baffour**, W. A. Agyare, E. Otoo (2022). The Design and Technical Performance of Two Aeroponic Systems in Ghana. *Journal of Agricultural Science*. https://doi.org/10.5539/jas.v14n5p104
8. Maxwell Budu, Thomas Atta-Darkwa, Harrison Amaglo, **Nicholas Kyei-Baffour**, Isaac Albert Aidoo, Samuel Kojo Ahorsu, Enoch Bessah (2022). The Impact of Tillage and Weed Control Methods on Physical Properties of Sandy Clay Loam Forest Ochrosol in Cassava Cultivation. *Applied and Environmental Soil*

Science. https://doi.org/10.1155/2022/6758284

9. Wilson Agyei Agyare, Eliasu Salifu, Gift Dumedah, **Nicholas Kyei-Baffour** (2021). An Implications of Soil Erosion on Prospects of Maize and Groundnut Yield in Selected Northern Regions of Ghana. *DOAJ (DOAJ: Directory of Open Access Journals)*.
10. Eliasu Salifu, Wilson Agyei Agyare, **Nicholas Kyei-Baffour**, Gift Dumedah (2021). Estimation of Soil Erosion in Three Northern Regions of Ghana Using RUSLE in GIS Environment. *International Journal of Applied Geospatial Research*. https://doi.org/10.4018/ijagr.2021040101
11. Sophie Thiam, Grace B. Villamor, Laurice C. Faye, Jean Henri Bienvenue Sène, Badabate Diwediga, **Nicholas Kyei-Baffour** (2021). Monitoring land use and soil salinity changes in coastal landscape: a case study from Senegal. *Environmental Monitoring and Assessment*. https://doi.org/10.1007/s10661-021-08958-7
12. Thomas A. Adongo, **Nicholas Kyei-Baffour**, Felix K. Abagale, Wilson A. Agyare (2019). Assessment of reservoir sedimentation of irrigation dams in northern Ghana. *Lake and Reservoir Management*. https://doi.org/10.1080/10402381.2019.1659461
13. Sophie Thiam, Grace B. Villamor, **Nicholas Kyei-Baffour**, François Matty (2019). Soil salinity assessment and coping strategies in the coastal agricultural landscape in Djilor district, Senegal. *Land Use Policy*. https://doi.org/10.1016/j.landusepol.2019.104191
14. T.A. Adongoa, W.A. Agyare, F.K. Abagalec, **N. Kyei-Baffour** (2019). Spatial soil loss estimation using an integrated GIS-based revised universal soil loss equation (RUSLE) in selected watersheds in northern Ghana. *International Journal of Engineering Science and Technology*. https://doi.org/10.4314/ijest.v11i4.6
15. Adéyèmi Chabi, Sven Lautenbach, Jérôme Ebagnerin Tondoh, Vincent Oladokoun Agnila Orekan, Stephen Adu-Bredu, **Nicholas Kyei-Baffour**, Vincent Joseph Mama, John Fonweban (2019). The relevance of using in situ carbon and nitrogen data and satellite images to assess aboveground carbon and nitrogen stocks for supporting national REDD + programmes in Africa. *Carbon Balance and Management*. https://doi.org/10.1186/s13021-019-0127-7
16. Halimatou A. Toure, Idriss Serme, Kalifa Traore, **Nicholas Kyei-Baffour** (2018). Assessment of the changes in the yields of millet crop under different scenarios of climate change using DSSAT model. *International Journal of Biological and Chemical Sciences*. https://doi.org/10.4314/ijbcs.v12i1.29
17. Mahamadou L. Amadou, Grace B. Villamor, **Nicholas Kyei-Baffour** (2018). Simulating agricultural land-use adaptation decisions to climate change: An empirical agent-based modelling in northern Ghana. *Agricultural Systems*. https://doi.org/10.1016/j.agsy.2017.10.015
18. A. Touré Halimatou, Traoré Kalifa, **N. Kyei-Baffour** (2017). Assessment of changing trends of daily precipitation and temperature extremes in Bamako and Ségou in Mali from 1961- 2014. *Weather and Climate Extremes*. https://doi.org/10.1016/j.wace.2017.09.002
19. Patricia Oteng-Darko, **Nicholas Kyei-Baffour**, Emmanuel Otoo, Wilson Agyei Agyare (2017). Growing Seed Yams in the Air: the Agronomic Performance of Two Aeroponics Systems Developed in Ghana. *Sustainable Agriculture Research*. https://doi.org/10.5539/sar.v6n3p106
20. Adéyèmi Chabi, Sven Lautenbach, Vincent Oladokoun Agnila Orekan, **Nicholas Kyei-Baffour** (2016). Allometric models and aboveground biomass stocks of a West African Sudan Savannah watershed in Benin. *Carbon Balance and Management*. https://doi.org/10.1186/s13021-016-0058-5
21. Kotei, Richard, Agyare, Wilson Agyei, **Kyei-Baffour, Nicholas**, Atta-Darkwa, Thomas, TakyiAtakora, Eric (2016). Estimation of Flow-Duration and Low-Flow Frequency Parameters for the Sumanpa Stream at Mampong-Ashanti in Ghana for the 1985-2009 Period. *American Scientific Research Journal for Engineering, Technology, and Sciences (Global Society of Scientific Research and Researchers)*.
22. Touré Halimatou, Zampaligre Nouhoun, Traoré Kalifa, **Kyei-Baffour Nicholas** (2016). Farmers' Perceptions on Climate Variability and Adaptation Strategies to Climate Change in Cinzana, Mali. *Journal of Agricultural Studies*. https://doi.org/10.5296/jas.v4i3.9331
23. FK Abagale, **N Kyei-Baffour** (2011). Environmentally-suspended sediment production of the Nasia River Basin, Northern Ghana. *Ghana Journal of Development Studies*. https://doi.org/10.4314/gjds.v7i2.66878

24. **N Kyei-Baffour**, E Ofori (2007). Irrigation development and management in Ghana: Prospects and challenges. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v26i2.32996

25. **Kyei-Baffour, Nicholas, Dr.** (2005). The Effect of Quality of Rising Capillary Water on Soil Surface Sodicity. *eCommons (Cornell University)*.

Book chapters 8

1. Awouminassi M. Atakoun, Pierre G. Tovihoudji, Rodrigue V. C. Diogo, William Amponsah, Murilo dos Santos Vianna, Thomas Gaiser, **Nicholas Kyei-Baffour**, Boateng Kyereh (2025). Characterizing Cattle Corralling Practices for Sustainable Soil Fertility Management in Northern Benin. https://doi.org/10.1007/978-3-031-71164-0_71-1

2. Shaibu Abdul-Ganiyu, **Nicholas Kyei-Baffour**, Wilson Agyei Agyare, Wilson Dogbe (2017). Evaluating the Effect of Irrigation on Paddy Rice Yield by Applying the AquaCrop Model in Northern Ghana. *Science for sustainable societies*. https://doi.org/10.1007/978-981-10-4796-1_6

3. Emmanuel Ofori, **Nicholas Kyei-Baffour**, Kees Stigter (2010). Designing and Selecting Weather Related Tactical Applications for Agricultural Management and Increasing their Efficiencies: Multiple Cropping. https://doi.org/10.1007/978-3-540-74698-0_41

4. Sue Walker, Emmanuel Ofori, **Nicholas Kyei-Baffour**, Kees Stigter (2010). Problems and Solutions in Using of and Coping with Weather Phenomena in Need of Tactical Decision Making and Challenges Remaining for the Use of Science to Contribute to Problem Analyses and Designing Viable Solutions in This Context: Multiple Cropping. https://doi.org/10.1007/978-3-540-74698-0_40

5. Emmanuel Ofori, **Nicholas Kyei-Baffour** (2010). Selection Processes of (Changes In) Land Use and Cropping Patterns: Multiple Cropping. https://doi.org/10.1007/978-3-540-74698-0_28

6. Emmanuel Ofori, **Nicholas Kyei-Baffour**, Kees Stigter (2010). The Selection of Actual Preparedness Strategies for Dealing with Climate as Adopted in Multiple Cropping. https://doi.org/10.1007/978-3-540-74698-0_29

7. Sue Walker, Emmanuel Ofori, **Nicholas Kyei-Baffour**, Kees Stigter (2010). The Sustainable Development and Use of Agro-Ecosystems: Multiple Cropping. https://doi.org/10.1007/978-3-540-74698-0_35

8. E. Mensah, **N. Kyei-Baffour**, E. Ofori, G. Obeng (2009). Influence of Human Activities and Land Use on Heavy Metal Concentrations in Irrigated Vegetables in Ghana and Their Health Implications. https://doi.org/10.1007/978-1-4020-9139-1_2