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RESEARCH

Interests	biomaterial properties · farm structures and environment · Post-Harvest Loss and Food Waste Reduction
Areas	Plant Science · Mechanical Engineering · Food Science · Nutrition and Dietetics · Soil Science · Agronomy and Crop Science

RESEARCH SUMMARY

56	707	14	18	1.18	16%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 56 publications listed below, 2003–2025. Field-weighted impact is the mean over the 32 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 32 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 56

1. 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
2. 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
3. Jerome Dela Lavie, Francis Kemausuor, Isaac Boye, Mathias Kwamena Anderson, Philip Yaro Laari, **Ato Bart-Plange**, Michael Kwesi Commeh (2025). Catalytic pyrolysis of refuse derived fuels with biomass-based and mineral catalysts. *Next Sustainability*. https://doi.org/10.1016/j.nxsust.2025.100177
4. Gilbert Ayine Akolgo, Francis Kemausuor, Eric Osei Essandoh, Thomas Atta-Darkwa, **Ato Bart-Plange**, Claudia Maria Branco de Freitas Maia (2024). Design, fabrication and performance evaluation of a multi-feed gasifier stove for low income earners in Ghana. *Cogent Engineering*. https://doi.org/10.1080/23311916.2024.2366079
5. Hayford Ofori, **Ato Bart-Plange**, Ahmad Addo, Komla Agbeko Dzisi (2023). Impact of Different Oil Extraction Techniques on the Physicochemical Properties of Adansonia digitata Seed. *International Journal of Food Science*. https://doi.org/10.1155/2023/6233461
6. Isaac Godfred Antwi, Ahmad Addo, **Ato Bart-Plange** (2023). Temperature and Variety Effects on Antioxidant Retention of Abotem, Aborohema, Omankwa, Abeleehi and Dorke SR. *The International Journal of Science & Technoledge*. https://doi.org/10.24940/theijst/2023/v11/i4/st2304-010
7. Benjamin Annang, Joseph O. Akowuah, **Ato Bart-Plange** (2023). Yieldwise model adoption on post-harvest loss reduction and livelihood of smallholder maize farmers in the Wa Municipality of Ghana. *Journal of the Ghana Institution of Engineering (JGhIE)*. https://doi.org/10.56049/jghie.v23i4.107
8. **Ato Bart-Plange**, RA Annan, C Apprey, R Aryeetey (2022). A review of Ghana's food system and its

implications on sustainability and the development of national food-based dietary guidelines. *African Journal of Food Agriculture Nutrition and Development*. https://doi.org/10.18697/ajfand.107.21800

9. Felicia Danso, Wilson Agyei Agyare, **Ato Bart-Plange** (2022). Benefits and costs of cultivating rice using biochar-inorganic fertilizer combinations. *Journal of Agriculture and Food Research*. https://doi.org/10.1016/j.jafr.2022.100491
10. Jonathan Ampah, Komla Agbeko Dzisi, Ahmad Addo, **Ato Bart-Plange** (2022). Drying Kinetics and Chemical Properties of Mango. *International Journal of Food Science*. https://doi.org/10.1155/2022/6243228
11. Isaac Godfred Antwi, Ahmad Addo, **Ato Bart-Plange** (2022). Effects of Temperature and Variety on Rehydration Parameters and Solute Loss during Soaking of Omakwa and Abrohemaa Maize Varieties. *Asian Food Science Journal*. https://doi.org/10.9734/afsj/2022/v21i330417
12. Hayford Ofori, Komla Agbeko Dzisi, **Ato Bart Plange**, Ahmad Addo (2022). Influence Of Moisture Content On Some Physical Properties Of Baobab Seeds (Adansonia Digitata) In Relation To Equipment Development For Postharvest Processing And Handling. *JOURNAL OF ADVANCES IN AGRICULTURE*. https://doi.org/10.24297/jaa.v13i.9316
13. Isaac Godfred Antwi, Ahmad Addo, **Ato Bart-Plange** (2022). The Hydration Kinetics of Selected Ghanaian Maize (Zea mays L.) Hybrids. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2022.121008
14. Joseph Oppong Akowuah, **Ato Bart-Plange**, Komla Agbeko Dzisi (2021). Financial and Economic Analysis of a 1-Tonne Capacity Mobile Solar-Biomass Hybrid Dryer for Maize Drying. *International Journal of Agricultural Economics*. https://doi.org/10.11648/j.ijae.20210603.11
15. Felicia Danso, Wilson Agyei Agyare, **Ato Bart-Plange** (2021). Modelling rice yield from biochar-inorganic fertilizer amended fields. *Journal of Agriculture and Food Research*. https://doi.org/10.1016/j.jafr.2021.100123
16. Joseph Oppong Akowuah, **Ato Bart-Plange**, Komla Agbeko Dzisi (2021). Thin layer mathematical modelling of white maize in a mobile solar-biomass hybrid dryer. *Research in Agricultural Engineering*. https://doi.org/10.17221/56/2020-rae
17. Isaac Godfred Antwi, Ahmad Addo, **Ato Bart-Plange** (2021). Water Diffusion Coefficients of Selected Legumes Grown in Ghana as Affected by Temperature and Variety. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2021.118063
18. Gilbert Ayine Akolgo, Francis Kemausuor, Edward Abingya Awafo, Emmanuel Amankwah, Thomas Atta-Darkwa, Eric Osei Essandoh, **Ato Bart-Plange**, Claudia Maria Branco de Freitas Maia (2020). Biochar as a Soil Amendment Tool: Effects on Soil Properties and Yield of Maize and Cabbage in Brong-Ahafo Region, Ghana. *Open Journal of Soil Science*. https://doi.org/10.4236/ojss.2020.103005
19. **Ato Bart-Plange** (2020). Dark red kidney bean (Phaseolus vulgaris L.) protein hydrolysates inhibit the growth of oxidizing substances in plain yogurt. *Journal of Agriculture and Food Research*. https://www.sciencedirect.com/science/article/pii/S2666154320300430
20. Nancy Nelly Idun-Acquah, Ahmad Addo, **Ato Bart-Plange** (2019). Effect of Soaking Temperature on Water Absorption Characteristics of Selected Ghanaian Cowpea Varieties. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2019.99060
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22. **A Bart-Plange** (2018). NUTRITIONAL AND INDUSTRIAL POTENTIALS OF ROSELLE (Hibiscus Sabdariffa L) AND BAOBAB (Adansonia Digitata). *UDS International Journal of Development*. https://www.udsijd.org/index.php/udsijd/article/view/289
23. **A Bart-Plange** (2016). Factors responsible for post-harvest losses and their effects on rice producing farmers: A case study of Afife and Aveyime rice projects in the Volta region of Ghana. *International Research Journal of Engineering and Technology (IRJET)*. https://www.academia.edu/download/54560747/

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28. 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*.
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