

Frank Kwekucher Ackah

Senior Lecturer · Crop Science
University of Cape Coast

ORCID [0000-0001-9188-7476](https://orcid.org/0000-0001-9188-7476) · Google Scholar scholar.google.com/citations?user=f9QdT4oAAAAJ&hl=en · Profile scholar.ucc.edu.gh/staff/20662615-f473-4db9-beda-30370c10c6fe

RESEARCH

Interests Plant Protection (plant pathology · mycology · IPM) · Crop Improvement · Home and Urban Agriculture

Areas Plant Science · Complementary and alternative medicine · Molecular Biology · Soil Science · Cell Biology · Pharmacology

RESEARCH SUMMARY

19	491	6	4	2.13	25%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 19 publications listed below, 2015–2026. Field-weighted impact is the mean over the 16 works scored for it; 1.00 is the world average for works of the same field, type and year. 4 of the 16 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer (Plant Protection (Plant Pathology/Mycology)) 2010–present
Crop Science, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 16

1. Andrews Danso Ofori, Zohreh Nasimi, Frank Kwekucher Ackah, Muhammad Irfan Ahmed, Yaoting Yan, Wang Li, Abdul Ghani Kandro, Kazunori Okada, Keiichi Mochida, Yoshiteru Noutoshi, Aiping Zheng (2026). Genomic Basis of Lifestyle Divergence in Rice-Associated Burkholderia: From Pathogenesis to Plant Growth Promotion. *International Journal of Molecular Sciences*. <https://doi.org/10.3390/ijms27114730>
2. Jianbin Li, Michael Ackah, Frank Kwarteng Amoako, Meina Zhu, Frank Kumi, Frank Kwekucher Ackah, Qiang Lin, Carlos Tettey, Changyu Qiu, Xueying Jin, Mengdi Zhao, Weiguo Zhao (2026). Jasmonic Acid-Induced Vacuolar Cation/Proton Exchanger 3 (CAX3) Expression Drives Tolerance to Manganese Toxicity in Mulberry (*Morus alba* L.). *Plant Cell & Environment*. <https://doi.org/10.1111/pce.70832>
3. Rurou Long, Xueying Jin, Michael Ackah, Frank Kwarteng Amoako, Frank Kwekucher Ackah, Frank Kumi, Jianbin Li, Hao Wei, John Nelson Buah, Mengdi Zhao, Weiguo Zhao (2026). Transcriptomics and functional characterization identify CYP73A16 as a key regulator of flavonoid biosynthesis in mulberry leaves. *BMC Plant Biology*. <https://doi.org/10.1186/s12870-026-08804-3>
4. Frank Ackah, Elijah Eduful, Emmanuel Afutu, Josiah Tachie-Menson, Ransford Darko (2026). Water stress and its synergistic effects on pest and disease dynamics in smallholder irrigated agriculture: Evidence from central region of Ghana. *Poljoprivredna tehnika*. <https://doi.org/10.5937/poljteh2601074k>
5. Josiah Wilson Tachie-Menson, Catherine Owusu, Frederick Kwame Yeboah, Flavio Odoi-Yorke, Agnes Abeley Abbey, Frank Kwekucher Ackah, Ransford Opoku Darko (2025). Environmental impact of pesticide runoff in irrigated agriculture: evidence from Gomoa West field, Ghana. *Discover Environment*. <https://doi.org/10.1007/s44274-025-00268-w>
6. Emmanuella Lekete-Lawson, Grace C. van der Puije, Enoch A. Osekere, Frank K. Ackah (2025). First

Report of *Ganoderma ryvardeenii* causing Basal Stem Rot (BSR) disease on oil palm (*Elaeis guineensis* Jacq.) in Ghana. *F1000Research*. <https://doi.org/10.12688/f1000research.161972.1>

7. Ransford O. Darko, Prince C. Wadie, Emmanuel Afutu, Nana A. Kissi, Frank K. Ackah, Emmanuel Hanyabui (2025). Impact of deficit irrigation on sweet pepper (*Capsicum annuum* var. Simbard) performance: Assessing growth, yield, and water use efficiency under a four-day interval irrigation. *Egyptian Journal of Agricultural Research*. <https://doi.org/10.21608/ejar.2025.360782.1642>
8. Frank Yeboah Adusei, Yaw Asamoah Akowuah, Frank Kwekucher Ackah, Loy Van Crowder, Edmond Yeboah Nyamah, Mary Michael Lipford Zahed (2025). Leveraging social media for eco-education: home gardening for climate resilience and food security. *Academia Environmental Sciences and Sustainability*. <https://doi.org/10.20935/acadenvsci7601>
9. A. Muntala, S. Kwadwo Gyasi, P. Mawuenyegan Norshie, S. Larbi-Koranteng, F. Kwekucher Ackah, D. Afreh Ntiamoah, M. Atef Mohamed (2021). Diseases and Insect Pests associated with Cashew (*Anacardium occidentale* L.) Orchards in Ghana. *European Journal of Agriculture and Food Sciences*. <https://doi.org/10.24018/ejfood.2021.3.5.357>
10. Michael O. Adu, Paul A. Asare, David O. Yawson, Mishael A. Nyarko, Ahmed Abdul Razak, Amoah K. Kusi, Josiah W. Tachie-Menson, Emmanuel Afutu, Dick A. Andoh, Frank K. Ackah, Grace C. Vanderpuije, Kingsley J. Taah, Elvis Asare-Bediako, Godwin Amenorpe (2020). The search for yield predictors for mature field-grown plants from juvenile pot-grown cassava (*Manihot esculenta* Crantz). *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0232595>
11. Rungtiwa Phookamsak, Kevin D. Hyde, Rajesh Jeewon, D. Jayarama Bhat, E. B. Gareth Jones, Sajeewa S. N. Maharachchikumbura, Olivier Raspé, Samantha C. Karunarathna, Dhanushka N. Wanasinghe, Sinang Hongsan, ... Frank Kwekucher Ackah and 89 others (2019). Fungal diversity notes 929–1035: taxonomic and phylogenetic contributions on genera and species of fungi. *Fungal Diversity*. <https://doi.org/10.1007/s13225-019-00421-w>
12. Michael Osei Adu, Paul Agu Asare, Elvis Asare-Bediako, Godwin Amenorpe, Frank Kwekucher Ackah, Emmanuel Afutu, Mishael Nyarko Amoah, David Oscar Yawson (2018). Characterising shoot and root system trait variability and contribution to genotypic variability in juvenile cassava (*Manihot esculenta* Crantz) plants. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2018.e00665>
13. FK Ackah (2018). Morphotaxonomic and phylogenetic analysis of *Saprolegnia ferax* from India. *Studies in Fungi*. https://studiesinfungi.org/pdf/SIF_3_1_7.pdf
14. Ernest Teye, Philip Fiifi Owusu, Ransford Opoku Darko, Frank K. Ackah (2017). Evaluation of composite tea made from roselle (*Hibiscus sabdarffa*), ginger (*Zingiber officinale*) and turkey berry (*Solanum torvum*). <https://doi.org/10.25218/ajfia.2017.01.001.06>
15. Michael O. Adu, Paul A. Asare, David O. Yawson, Frank K. Ackah, Kwadwo K. Amoah, Mishael A. Nyarko, Dick A. Andoh (2016). Quantifying variations in rhizosheath and root system phenotypes of landraces and improved varieties of juvenile maize. *Rhizosphere*. <https://doi.org/10.1016/j.rhisph.2016.12.004>
16. VAN DER PUIJE GRACE C., FK Ackah (2015). Prevalence of leaf blight disease caused by *Phytophthora colocasiae* in taro in the Aowin Suaman Districts of Ghana. *Hort Flora Research Spectrum*. https://www.researchgate.net/profile/Frank-Ackah/publication/301215740_Prevalence_of_Leaf_Blight_Disease_Caused_by_Phytophthora_colocasiae_in_Taro_in_the_Aowin_Suaman_District_of_Ghana/links/5991d577aca27289539baee4/Prevalence-of-Leaf-Blight-Disease-Caused-by-Phytophthora-colocasiae-in-Taro-in-the-Aowin-Suaman-District-of-Ghana.pdf

Book chapters 2

1. Frank Kwekucher Ackah, Carlos Kwesi Tettey (2025). Brief review of *Ganoderma* spp. occurring in Ghana and their bioactive compounds. *Elsevier eBooks*. <https://doi.org/10.1016/b978-0-443-13856-0.00010-5>
2. Frank Kwekucher Ackah, Grace Caselina van der Puije, Elvis Asare-Bediako, Kingsley Taah . (2025). Evaluation of Taro Germplasm for Resistance to Taro Leaf Blight disease caused by *Phytophthora colocasiae* and Corm Rot Disease caused by *Sclerotium rolfsii* in Ghana. *Agricultural Sciences: Techniques and Innovations Vol. 6*. <https://doi.org/10.9734/bpi/asti/v6/6558>

Theses 1

1. Frank Kwekucher Ackah (2019). Management of taro leaf blight disease caused by *Phytophthora colocasiae* in the eastern region of Ghana. *University of Cape Coast*. <https://ir.ucc.edu.gh/items/624b94ae-769f-429a-81d6-7d8e9caa44df>