



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

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*Borlaug Higher Education for
Agricultural Research and Development*

Final Scholar Report: Ghana

By

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Executive Summary

Michigan State University (MSU) is the implementing entity of the Borlaug Higher Education for Agricultural Research and Development (BHEARD) program. As part of the United States government's Feed the Future initiative, BHEARD is funded by the United States Agency for International Development (USAID), through the International Maize and Wheat Improvement Center (CIMMYT).

Honoring the legacy of Nobel Peace Prize Laureate Norman Borlaug, the program increases the number of agricultural scientists and strengthens scientific institutions in partner countries. BHEARD supports long-term training of agricultural researchers at the master's and doctoral levels, linking scientific and higher education communities in Feed the Future priority countries and the United States.



A BHEARD scholarship supports coursework at U.S. and regional universities in Africa, Brazil, Bangladesh, and India; providing funding for research and post completion research in the student's home country. In addition, the program provides a variety of allowances to cover training costs and laboratory fees. BHEARD also aims to develop, test and evaluate new models of small-scale institutional capacity development. This report documents BHEARD programmatic activities from October 1, 2018 through September 30, 2019. It includes a program overview, financial summaries, and students updates for Ghana.

Acknowledgement and thank you to all BHEARD staff who have worked for this program and contributed to this report.

- John Medendorp, Director
- Mathias Ndizihwe, Student Progress Coordinator
- Cait Goddard, Institutional Capacity Development Lead
- Jen Riebow, Fiscal Officer

Activity Summary

The Borlaug Higher Education for Agriculture and Development (BHEARD) program, supported by US Agency for International Development (USAID) develops agricultural scientists and increases agricultural research capacity in Feed the Future partner countries including Ghana. BHEARD has provided scholarships to students seeking masters and doctorate degrees at US and regional academic institutions and has provided funding for agricultural research in their home

countries. The program also developed, tested, and evaluated new models of small-scale institutional capacity development. BHEARD sponsored 42 scholars in Ghana and 37 successfully completed their programs and went back to their home institutions after completion of their degree programs or were available for hire. The Ghanaian cohorts were well selected and suffered a relatively low attrition rate.

Successes

By any measure, the BHEARD Ghana program was a success. The sheer number of scholars (37) as well as the prolific academic activity of these scholars (86 publications), many published in high-ranking journals, demonstrates the effectiveness of this investment. Two areas of study were particularly important for this group of scholars. The extensive publishing in the area of food and nutrition sciences has made a significant contribution to the field. In addition, the graduation of 16 masters' students in the area of seed science has made a significant contribution to the USAID country strategy as well as supported the national strategy of a strengthened seed sector.

Challenges

Out of 42 scholars, 5 were withdrawn from the program due to Personal health reason (1), Failed candidacy (2), declined scholarship (1) and violation of CoS contract (1). In addition, there were significant delays for students studying at Ghanaian institutions. Most of these delays were caused by bureaucratic processes, and many due to the restrictions of COVID.

Nevertheless, the lengthy process of getting theses reviewed and approved lent unnecessary delays to student progress and cost the BHEARD program significant sums in support costs for these students while they waited for their degree completion. Toward the end of the program, BHEARD began sending students home to await their thesis review rather than continuing to pay support costs for them to remain in country.

LIST OF ALL SCHOLARS

Below is a list of all Ghanaian scholars, together with their status, institution, subject area, degree, and year of graduation.

NAME (first and last)	SEX	COHORT	STUDENT STATUS	UNIVERSITY	SUBJECT AREA	ACADEMIC LEVEL	GRADUATION YEAR
1. Abogoom, Jennifer	F	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
2. Adjei-Baiden, Deborah	F	COHORT 6	COMPLETED	KNUST	Seed science and Technology,	MPhil	FY2021
3. Adu-Mensah, Jemima	F	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
4. Adu-Poku, Richard	M	COHORT 6	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2021
5. Mantey, Gerald	M	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021

6.	Nyam, Clement	M	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
7.	Ofori, Constance	F	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
8.	Penni, Fidelis	M	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
9.	Puzer, Raymond	M	COHORT 6	COMPLETED	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
10.	Yeboah-Manson, Clifford	M	COHORT 6	COMPLETED*	KNUST	Seed science and Technology, Seed business and Seed Systems	MPhil	FY2021
11.	Adaku, Abigail	M	COHORT 5	COMPLETED	Kansas State University	Agriculture Economics	PhD	FY2020
12.	Appiah, Francis	M	COHORT 5	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2020
13.	Coffie, Linda	F	COHORT 5	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2020
14.	Obeng-Boateng, Priscilla	F	COHORT 5	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2020
15.	Razak, Abdul Salam	M	COHORT 5	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2020
16.	Yeboah, Caleb	M	COHORT 5	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2020
17.	Ziyaaba, Jonah	M	COHORT 5	COMPLETED	KNUST	Seed science and Technology	MPhil	FY2020
18.	Kwarteng, Albert	M	COHORT 5	Declined scholarship	-	Seed science and Technology	MPhil	-
19.	Agbemafle, Isaac	M	COHORT 4	COMPLETED	IOWA STATE UNIVERSITY	NUTRITIONAL SCIENCES	PhD	FY2020
20.	Owusu Danquah, Eric	M	COHORT 4	COMPLETED	Michigan State University	Crop and Soil Sciences	PhD	FY2020
21.	Acheampong, Samuel	M	COHORT 4	FAILED CANDIDACY	North Carolina State University	Horticulture Sciences	PhD	-
22.	Dzandu, Bennett	M	COHORT 3	COMPLETED	Louisiana State University	Food Sciences	PhD	FY2019
23.	Yeboah, Simon	M	COHORT 3	COMPLETED	University of Florida	Entomology	PhD	FY2020
24.	Akley, Korbla Edwin	M	COHORT 3	COMPLETED	Kansas State University	Agronomy	PhD	FY2019
25.	Martey, Edward	M	COHORT 3	COMPLETED	University of Illinois, Urbana-Champaign	Agricultural and Applied Economics	PhD	FY2019
26.	Tandoh, Marina	F	COHORT 3	COMPLETED	University of Georgia	Foods and Nutrition	PhD	FY2019

27. Yahaya, Damba	M	COHORT 3	COMPLETED	Tennessee State University	Biological Sciences	PhD	FY2019
28. Lekete, Emmanuella	F	COHORT 3	WITHDRAWN	University of Georgia	Plant Pathology	PhD	-
29. Adjepong, Mary	F	COHORT 2	COMPLETED	Michigan State University	Human Nutrition	PhD	FY2018
30. Antwi, Kwaku Dei	M	COHORT 2	COMPLETED	Texas Tech University	Agricultural Economics	PhD	FY2018
31. Enninful, Regina	F	COHORT 2	COMPLETED	Kansas State University	Agronomy	PhD	FY2019
32. Kubuga, Clement	M	COHORT 2	COMPLETED	Michigan State University	Human Nutrition	PhD	FY2018
33. Kyereh, Emmanuel	M	COHORT 2	COMPLETED	Louisiana State University	Food Science	PhD	FY2018
34. Pepra-Ameyaw, Nana	M	COHORT 2	COMPLETED	Michigan State University	Food Science	PhD	FY2018
35. Sienso, Gifty	F	COHORT 2	COMPLETED	Texas Tech University	Agricultural and Applied Economics	PhD	FY2019
36. Tengey, Theophilus	M	COHORT 2	COMPLETED	Texas Tech University	Plant and Soil Science	PhD	FY2018
37. Akley, Korbla Edwin	M	COHORT 1	COMPLETED	Kansas State University	Agronomy	MSc	FY2019
38. Darko, Clara Bernice	F	COHORT 1	COMPLETED	Virginia Tech	Biological Systems Engineering	PhD	FY2017
39. Haruna, Bashiru	M	COHORT 1	COMPLETED	Ohio State University	Agricultural, Environmental, and Development Economics	MSc	FY2016
40. Hayford (Adjei-Frimpong), Princess	F	COHORT 1	COMPLETED	Michigan State University	Crop and Soil Sciences	PhD	FY2018
41. Dzikushi, Esther	F	COHORT 1	WITHDRAWN	Michigan State University	-	PhD	-
42. Karikari, Afia Serwaa	F	COHORT 1	WITHDRAWN	University of Georgia	Plant Breeding, Genetics and Genomics	PhD	-

PAPER PUBLICATIONS BY SCHOLARS

Ghanaian scholars were singular by virtue of their extensive publishing record. Although the number of scholars was high, the number of publications per scholar was also high compared to other country cohorts (2.3).

STUDENT NAME	TITLE	AUTHORS	PUBLISHED IN	PUBLICATION DATE
1. Regina Enniful	Water-deficit stress alters intra-panicle grain number in sorghum	"Regina Enniful Adotey Andres Patrignani Blake Bergkamp Gerard Kluitenberg P.V. Vara Prasad S. V. Krishna Jagadish"	Crop Science	06/12/21
2. Abogoom, Jennifer	Core Collection of Two Important Indigenous Vegetables; Gboma Eggplant (<i>Solanum Macrocarpon</i> L.) and Jute Mallow Exploitation of Existing Germplasm and Development of Improved Cultivars	Kwarteng, Albert Owusu; Amoah, Richard Adu; Nyadanu, Daniel; Nyam, Clement Kwarteng; Ziyaaba, Jonah Zubil; Abogoom, Jenniffer; Aziz, Aisha; Anokye, Kenneth Darko; Dufie, Mary; Boakye, Mercy Osei; Danso, Emmanuella Opoku	Australian Journal of Crop Science	09/01/18
3. Abogoom, Jennifer	Phenomic characterization of twenty-four accessions of spider plant (<i>Cleome gynandra</i> L.) the Upper East region of Ghana	A. O. Kwarteng, J. Abogoom, R. Adu Amoah, D. Nyadanu, C. K. Nyam, T. Ghunney, E. Awuah, J. Z. Ziyaaba, J. O. Ogunsanya, E. E. Orhin and D. D. Asiedu	Scientia Horticulturae	03/07/18
4. Abogoom, Jennifer	Current knowledge and breeding perspectives for the spider plant (<i>Cleome gynandra</i> L.): a potential for enhanced breeding of the plant in Africa	A. O. Kwarteng, J. Abogoom, R. Adu Amoah, D. Nyadanu, T. Ghunney, C. K. Nyam, J. Z. Ziyaaba, E. O. Danso, D. D. Asiedu and T. Whyte	Genetic Resources and Crop Evolution	03/22/18
5. Adjepong, Mary	Quantification of fatty acid and mineral levels of selected seeds, nuts, and oils in Northern Ghana	Adjepong, M., Jain, R., Pickens, C.A., Appaw, W., Fenton, J.I.	Journal of Food Science and Technology	11/01/18
6. Adjepong, Mary	Association of whole blood fatty acids and growth in southern Ghanaian children 2–6 years of age	Adjepong, M., Yakah, W., Harris, W.S., Colecraft, E., Marquis, G.S., Fenton, J.I.	Nutrients; Basel	08/01/18
7. Adjepong, Mary	Whole blood n-3 fatty acids are associated with executive function in 2–6-year-old Northern Ghanaian children	Adjepong, M., Yakah, W., Harris, W.S., Annan, R.A., Pontifex, M.B., Fenton, J.I.	Journal of Nutritional Biochemistry	04/04/18
8. Adjepong, Mary	Association of whole blood n-6 fatty acids with stunting in 2-to-6-year-old Northern	Adjepong, M., Austin Pickens, C., Jain, R., Harris, W.S., Annan, R.A., Fenton, J.I.	PLOS One	03/01/18

	Ghanaian children: A cross-sectional study			
9. Adjepong, Mary	Quantification of fatty acid and mineral levels of selected seeds, nuts, and oils in Ghana	Adjepong, M., Valentini, K., Pickens, C.A., Li, W., Appaw, W., Fenton, J.	Journal of Food Composition and Analysis	02/14/17
10. Adjepong, Mary	Evaluation of fatty acid and mineral content of Tanzanian seeds and oils	Jumbe, T.J., Pickens, C.A., Valentini, K., Adjepong, M., Li, W., Kinabo, J.L., Fenton, J.I.	Journal of Food Composition and Analysis	07/01/16
11. Adjepong, Mary	The Role of Antioxidant Micro nutrients in the Rate of Recovery of Burn Patients: A Systematic Review	Mary Adjepong, Pius Agbenorku, Patricia Brown, and Ibok Oduro	Burns & Trauma	08/03/16
12. Adjepong, Mary	The Effect of Dietary Intake of Antioxidant Micronutrients on Burn Wound Healing: A Study in a Tertiary Health Institution in a Developing Country	Mary Adjepong, Pius Agbenorku, Patricia Brown, and Ibok Oduro	Burns & Trauma	08/12/15
13. Adjepong, Mary	Whole Blood Saturated Fatty Acids are Negatively Associated with Executive Function in 2 to 6-Year-Old Ghanaian Children	William Yakah, Mary Adjepong, Reginald Annan, Mathew Pontifex, and Jenifer Fenton	The FASEB Journal	04/01/17
14. Adjepong, Mary	Characterization of Fatty Acid and Mineral Composition of Selected Seeds, Nuts and Oils in Northern Ghana	Raghav Jain, Mary Adjepong, William Appaw, Jenifer Fenton, and Charles Austin Pickens	The FASEB Journal	04/01/17
15. Adjepong, Mary	Fatty Acids and Desaturase Enzyme Estimates are Associated with Growth Stunting in 2-to-6-Year-Old Northern Ghanaian Children: A Cross-Sectional Study	Mary Adjepong, William Yakah, Raghav Jain, William Harris, Reginald Adjetey Annan, and Jenifer Fenton	The FASEB Journal	04/01/17
16. Adjepong, Mary	Characterization of Fatty Acid and Mineral Composition of Selected Seeds, Nuts and Oils in Tanzania	Kelly Valentini, Theresia Jumbe, Austin Pickens, Mary Adjepong, Wei Li, Joyce Kinabo, and Jenifer Fenton	The FASEB Journal	04/01/16
17. Agbemafle, Isaac	Nutritional Status of Children 0-59 months in Selected Intervention	Mary Glover-Amengor, Isaac Agbemafle, Lynda Larmkie Hagan, Frank Peget Mboom, Gladys Gamor,	Archives of Public Health	04/04/16

	Communities in Northern Ghana from the Africa Rising Project in 2012	Asamoah Larbi, and Armgard Hoeschle-Zeledon		
18. Agbemafle, Isaac	Effects of Parents Training on Parents' Knowledge and Attitudes about Adolescent Sexuality in Accra Metropolis, Ghana	Elizabeth Aku Baku, Isaac Agbemafle, and Richard M.K. Adanu	Biomed Central Ltd.	08/24/17
19. Agbemafle, Isaac	Anemia Prevalence and Nutrient Intake Among Women in Peri-Urban Settlements in Accra, Ghana	Agbemafle, I., Steiner-Asiedu, M., Saalia, F.K., Setorglo, J., Chen, J., and Philips, R.D.	African Journal of Food, Agriculture, Nutrition and Development	11/01/16
20. Agbemafle, Isaac	Assessing the Ownership, Usage, and Knowledge of Insecticide Treated Nets (ITNs) in Malaria Prevention in the Hohoe Municipality, Ghana	Nyavor, K.D., Kweku, M., Agbemafle, I., Takramah, W., Norman, I., Tarkang, E., Binka, F.	The Pan African Medical Journal	09/22/17
21. Agbemafle, Isaac	Risk Factors Associated with Hypertension among Adults in the Hohoe Municipality, Ghana	Sedoafia Amelor, Margaret Kweku, Eric Agboli, Isaac Agbemafle, Wisdom Takramah, Elvis Tarkang, Wisdom Kudzo Axame, Prince Kubi Appiah, and Fred Newton Binka	Journal of Advances in Medicine and Medical Research	10/18/16
22. Agbemafle, Isaac	Ownership and Utilization of Long Lasting Insecticide Treated Nets (LLIN) and Factors Associated to Non-Utilization Among Pregnant Women in the Ho Municipality of Ghana	Wisdom Kudzo Axame, Margaret Kweku, Sedoafia Amelor, Gideon Kye-Duodu, Eric Agboli, Isaac Agbemafle, Wisdom Takramah, Elvis Tarkang, Fred Newton Binka	Central African Journal of Public Health	10/14/16
23. Agbemafle, Isaac	"Urine Creatinine and Anthropometric Indices of Sportsmen and Women"	Matilda Steiner-Asiedu, Juliet Vickar, Frederick Vuvor, Isaac Agbemafle, Yusif M. Tahiru	Biomedical and Biotechnology Research Journal	10/01/17
24. Agbemafle, Isaac	Prevalence and Awareness of Hypertension and Pre-Hypertension Among Traders in Hohoe Municipality, Ghana	Fafali BANI, Peace NYAVOR, Isaac AGBEMAFLE, Wisdom TAKRAMAH, Eric AGBOLI, Elvis TARKANG, Mohammed TAKASE and Margaret KWEKU	Journal of Scientific Research and Studies	01/25/17

25. Akley, Korbla Edwin	Carbon saturation and translocation in a no-till soil under organic amendments	"Nicoloso, Rodrigo S. Rice, Charles W. Amado, Telmo J.C. Costa, Claudia N. Akley, Edwin K."	Agriculture, Ecosystems & Environment	09/01/18
26. Akley, Korbla Edwin	Impact of Direct Seeding Mulch-Based Cropping Systems on Soil Health in the Guinea Savanna Zone of Ghana	Edwin K. Akley, Charles W. Rice, Benjamin D.K. Ahiabor, Wilson Dogbe and Michael Mawunya	SSA-CSA-Ass International Meeting	11/16/15
27. Antwi, Kwaku Dei	Analysis of Food Security among Cocoa Producing Households in Ghana	Kwaku Dei Antwi, Conrad Power Lyford	Journal of Agriculture and Sustainability	05/01/18
28. Antwi, Kwaku Dei	Socioeconomic Determinants of Rain-fed Rice Production among Small-scale Farmers in the Shama-Ahanta East District of Ghana	Kwaku Dei Antwi	Asian Journal of Agricultural Extension, Economics & Sociology	
29. Antwi, Kwaku Dei	Optimal Resource Allocation Decision Among Women Farmers in the Northern Region of Ghana	Kwaku Dei Antwi	African Journal of Agriculture and Food Security	02/04/16
30. Dzandu, Bennett	Micro-encapsulation of Ginger (<i>Zingiber officinale</i>) Extract by Spray Drying Technology	Simon-Brown, K., Solval, K.M., Chotiko, A., Alfaro, L., Reyes, V., Liu, C., Dzandu, B., Kyereh, E., Goldson Barnaby, A., Thompson, I., Xu, Z., Sathivel, S.	LWT- Food Science and Technology	07/01/16
31. Dzandu, Bennett	Application of Water-Soluble Chitosan to Shrimp for Quality Retention	Chouljenko, A., Chotiko, A., Reyes, V., Alfaro, L., Liu, C., Dzandu, B., Sathivel, S.	LWT- Food Science and Technology	12/01/16
32. Dzandu, Bennett	Influence of Milling Intensity and Storage Temperature on the Quality of Catahoula Rice (<i>Oryza sativa</i> L.)	Ahmad, U., Alfaro, L., Yeboah-Awudzi, M., Kyereh, E., Dzandu, B., Bonilla, F., Chouljenko, A., Sathivel, S.	LWT- Food Science and Technology	01/01/17
33. Dzandu, Bennett	Viability of <i>Lactobacillus Plantarum</i> NCIMB 8826 in Fermented Apple Juice Under Simulated Gastric and Intestinal Conditions	Roberts, D., Reyes, V., Bonilla, F., Dzandu, B., Liu, C., Chouljenko, A., Sathivel, S.	LWT- Food Science and Technology	11/01/18

34. Enniful, Regina	An Efficient Modified method for Plant Leaf Lipid Extraction Results in Improved Recovery of Phosphatidic Acid	Shiva, S., Enniful, R., Roth, M.R., Tamura, P., Jagadish, K., Welti, R.	BioMed Central Ltd.	02/13/18
35. Enniful, Regina	Effects of growth medium, a hormone, and stem-cutting maturity and length on sprouting in <i>Moringa oleifera</i> Lam.	C. Antwi-Boasiako & R. Enniful	The Journal of Horticultural Science and Biotechnology	11/07/15
36. Haruna, Bashiru	EFFECTS OF WEATHER-INDEX INSURANCE: THE CASE OF SMALLHOLDER MAIZE FARMERS IN NORTHERN GHANA	Haruna, Bashiru; Sohngen, Brent; Yahaya, Iddrisu; Wiredu, Alexander Nimo	International Journal of Food and Agriculture Economics	07/01/18
37. Hayford, Princess	A Socioeconomic Study of Transition Zone Yam Farmers Addressing Constraints and Exploring Opportunities for Integrating Pigeonpea into Yam Cropping Systems	Patricia Pinamang Acheampong, Eric Owusu Danquah, Hashini Galhena Dissanayake, Princess Hayford and Cholani Weebadde	Sustainability	01/29/19
38. Kubuga, Clement	PREVALENCE, RISK FACTORS, KNOWLEDGE OF HYPERTENSION AND DIETARY INTAKE OF GHANIAN NURSES IN NORTHERN REGION	Clement Kubuga, Emmanuel Owusu, Jacob Zanu, Kyung Won Lee, and Won Song	The FASEB Journal	04/01/15
39. Kubuga, Clement	Contaminations of Iron and Aluminum through Food Processing in Tamale Metropolis of Northern Ghana	Clement Kubuga, Anthony Ofori, Chris Boateng, and Won Song	The FASEB Journal	04/01/15
40. Kubuga, Clement	The association between dietary diversity score and iron deficiency anemia among reproductive-aged women in Ghana	Clement Kubuga, Kyungwon Lee, Sujin Song, and Won O Song	The FASEB Journal	04/01/16
41. Kubuga, Clement	Container Gardening to Combat Micronutrients Deficiencies in Mothers and Young Children During	Clement Kubreziga Kubuga	Journal of Hunger & Environmental Nutrition	09/05/18

	Dry/Lean Season in Northern Ghana			
42. Kubuga, Clement	Hibiscus Sabdariffa Meal Improves Iron Status of Childbearing Age Women and Prevents Stunting in Their Toddlers in Northern Ghana	Clement Kubreziga Kubuga, Hyokyoung Grace Hong, and Won O. Song	nutrients	01/19/19
43. Kubuga, Clement	Iron Status of Reproductive Age Women in Northern Ghana is Improved by Indigenous Hibiscus Sabdariffa Meal	Clement Kubreziga Kubuga, SuJin Song, Gina Kennedy, Kyung Won Lee, and Won O. Song	The FASEB Journal	04/01/17
44. Kubuga, Clement	Container Gardens to Meet Vegetable Needs During Dry Season for Reproductive Age Women and their Children in Northern Ghana	Clement Kubreziga Kubuga, SuJin Song, Gina Kennedy, Kyung Won Lee, and Won O. Song	The FASEB Journal	04/01/17
45. Kubuga, Clement	Iodine Status of Reproductive Age Women and Their Toddlers in Northern Ghana Improved Through Household Supply of Iodized Salt and Weekly Indigenous Meal Consumption	Clement Kubreziga Kubuga, Abdul-Razak Abizari, and Won O. Song	PLoS One	05/31/19
46. Kyereh, Emmanuel	Microencapsulation of ginger (<i>Zingiber officinale</i>) extract by spray drying technology	Simon-Brown, K., Solval, K.M., Chotiko, A., Alfaro, L., Reyes, V., Liu, C., Dzandu, B., Kyereh, E., Goldson Barnaby, A., Thompson, I., Xu, Z., Sathivel, S.	LWT - Food Science and Technology	07/01/16
47. Kyereh, Emmanuel	Influence of milling intensity and storage temperature on the quality of Catahoula rice (<i>Oryza sativa</i> L.)	Ahmad, U., Alfaro, L., Yeboah-Awudzi, M., Kyereh, E., Dzandu, B., Bonilla, F., Chouljenko, A., Sathivel, S.	LWT - Food Science and Technology	01/01/17
48. Kyereh, Emmanuel	Development of a Combined Osmotic Dehydration and Cryogenic Freezing Process for Minimizing Quality Changes During Freezing with Application to Fruits and Vegetables	Li, J., Chotiko, A., Kyereh, E., Zhang, J., Liu, C., Ortega, V.V.R., Bankston, D., Sathivel, S.	Journal of Food Processing and Preservation	02/01/17

49. Kyereh, Emmanuel	Incorporating flaxseed (linum usitatissimum) oil into queso blanco at different stages of the cheese manufacturing process	Gurdian, C., Reyes, V., Kyereh, E., Bonilla, F., Galindo, C., Chouljenko, A., Solval, K.M., Boeneke, C., King, J.M., Sathivel, S.	Journal of Food Processing and Preservation	12/01/17
50. Kyereh, Emmanuel	Effect of bambara groundnut supplementation on the physicochemical properties of rice flour and crackers	Yeboah-Awudzi, M., Lutterodt, H.E., Kyereh, E., Reyes, V., Sathivel, S., Manful, J., King, J.M.	Journal of Food Science and Technology	09/01/18
51. Kyereh, Emmanuel	Obese Prone CD Rates Robustly Ferment Resistant Starch (RS) with No Increased Weight and Fat Accretion	Diana Obanda, Ryan Page, Justin Guice, Emmanuel Kyereh, Anne Raggio, Georgianna Tuuri, Claudia Husseneder, Roy Martin, Brian Marx, Diana Coulon, Rhett Stout, and Michael Keenan	The FASEB Journal	04/01/17
52. Martey, Edward	Establishing the link between market orientation and agricultural commercialization: Empirical evidence from Northern Ghana	Martey, E., Etwire, P.M., Wiredu, A.N., Ahiabor, B.D.K.	Food Security	06/24/17
53. Martey, Edward	Welfare effect of organic fertilizer use in Ghana	Martey, E.	Heliyon	10/03/18
54. Martey, Edward	An assessment of mobile phone-based dissemination of weather and market information in the Upper West Region of Ghana	Etwire, P.M., Buah, S., Ouédraogo, M., Zougmore, R., Partey, S.T., Martey, E., Dayamba, S.D., Bayala, J.	Agriculture & Food Security	04/10/17
55. Martey, Edward	Using the WEAI+ to explore gender equity and agricultural empowerment: Baseline evidence among men and women smallholder farmers in Ghana's Northern Region	Ragsdale, K., Read-Wahidi, M.R., Wei, T., Martey, E., Goldsmith, P.	Journal of Rural Studies	11/01/18
56. Martey, Edward	Impact of Farmer Mentorship Project on Farm Efficiency and Income in Rural Ghana	Martey, Edward; Dogbe, Wilson; Etwire, Prince M; Wiredu, Alexander N	Journal of Agricultural Science	10/01/15
57. Martey, Edward	Tenancy and Energy Choice for Lighting and Cooking: Evidence from Ghana	Edward Martey	Energy Economics	02/12/19

58. Martey, Edward	Assessment of Agro-input Dealers' Willingness to Invest in Legume Inoculants in Northern Ghana	Edward Martey, Benjamin D. K. Ahiabor, S. S. J. Buah, and Francis Kusi	Asian Journal of Agricultural Extension, Economics & Sociology	11/27/15
59. Martey, Edward	Estimating the Effect of Mineral Fertilizer Use on Land Productivity and Income: Evidence from Ghana	Edward Martey, John K.M. Kuwornu, and Joseph Adjebeng-Danquah	Land Use Policy	04/28/19
60. Martey, Edward	Impact of Farmer Mentorship Project on Farm Efficiency and Income in Rural Ghana	Martey, Edward; Dogbe, Wilson; Etwire, Prince M.; Wiredu, Alexander N	Journal of Agricultural Science	09/01/15
61. Martey, Edward	Heterogenous Demand for Quality Soybean in Northern Ghana	Martey, Edward; Goldsmith, Peter D.		06/01/18
62. Martey, Edward	Assessing the Effectiveness of Inter-Regional Trade in Ghana's Soybean Markets	Martey, Edward; Gatti, Nicholas; Goldsmith, Peter D.		06/20/18
63. Nyam, Clement	Core collection of two important indigenous vegetables; Gboma eggplant (<i>Solanum macrocarpon</i> L.) and Jute mallow (<i>Corchorus olerius</i> L.) in Africa: An important step for exploitation of existing germplasm and development of improved cultivars	Kwarteng, Albert Owusu; Amoah, Richard Adu; Nyadanu, Daniel; Nyam, Clement Kwarteng; Ziyaaba, Jonah Zubil; Abogoom, Jennifer; Aziz, Aisha; Anokye, Kenneth Darko; Dufie, Mary; Boakye, Mercy Osei; Danso, Emmanuella Opoku	Australian Journal of Crop Science	09/01/18
64. Owusu Danquah, Eric	A Socioeconomic Study of Transition Zone Yam Farmers Addressing Constraints and Exploring Opportunities for Integrating Pigeonpea into Yam Cropping Systems	Patricia Pinamang Acheampong, Eric Owusu Danquah, Hashini Galhena Dissanayake, Princess Hayford, and Cholani Weebadde	Sustainability	01/29/19
65. Owusu Danquah, Eric	Rubber and Plantain Intercropping: Effects of Different Planting Densities on Soil Characteristics	Erasmus Narteh Tetteh, Akwasi Adutwum Abunyewa, Henry Oppong Tuffour, Joseph Nketiah Berchie, Patricia Pinamang Acheampong,	PLoS One	01/09/19

		Kwame Twum-Ampofo, Evans Dawoe, Vincent Logah, Olivia Agbenyega, Stella Ama Ennin, Isaac Nunoo, Caleb Melenya, Eric Owusu-Danquah, Victor Rex Barnes, Samuel Tetteh Partey		
66. Owusu Danquah, Eric	Assessment of Aquaponics-Based Food Production System Effluents on the Performance of Maize	Frimpong, F.; Amponsah, S.K.; Owusu Danquah, E.; Agyeman, K.; Oteng-Darko, P.; Oppong, C.P.; Berdjour, A.; and Bessah, E.	CSIRSpace	04/27/17
67. Owusu Danquah, Eric	Integrated Soil Nutrient Management Option for Sustainable Yam Production	E.D. Owusu, S.A. Ennin, P.P. Acheampong	Agronomie Africaine	
68. Owusu Danquah, Eric	Sustaining Yam Yields Amidst Climate Threat in the Forest-Savannah Transition Zone of Ghana	Frimpong F., Owusu Danquah E., Ennin S.A., Asumadu H., Aidoo A.K., Maroya N.	BioRxiv	11/19/18
69. Owusu Danquah, Eric	Performance of an Improved Manual Cassava Harvesting Tool as Influenced by Planting Position and Cassava Variety	Shadrack Kwadwo Amponsah, Joseph Nketiah Berchie, Joseph Manu-Aduening, Eric Owusu Danquah, Jonas Osei Adu, Adeline Agyeman, and Enoch Bessah	African Journal of Agricultural Research	01/03/17
70. Pepra-Ameyah, Nana Baah	Effect of Blanching on the Proximate and Sensory Qualities of the Aerial Yam Composite Cookies	Rita Elsie Sanful, Edward Ken Essuman, and Nana Baah Pepra-Ameyah	Caribbean Journal of Food Science and Technology	01/01/2016
71. Sienso, Gifty	Assessing the Factors Affecting Malnutrition in Northern Ghana	Gifty Sienso and Conrad Lyford	Journal of Nutritional Disorders & Therapy	07/05/18
72. Tandoh, Marina	Assessment of the levels of cadmium and lead in soil and vegetable samples from selected dumpsites in the Kumasi Metropolis of Ghana	Twumasi, Peter ; Tandoh, Marina A. ; Borbi, Makafui A. ; Ajoke, Adigun R. ; Owusu-Tenkorang, Emmanuel ; Okoro, Rosaline ; Dumevi, Rexford M.	African Journal of Agricultural Research	05/05/16
73. Tandoh, Marina	Anti-diabetic effect of aqueous fruit extract of <i>Borassus aethiopum</i> (Mart.) in alloxan-induced diabetic rats	Issaka, J., Larbie, C., Tandoh, M.A.	International Journal of Phyto-medicine	
74. Tandoh, Marina	Relation of unsupported and unsupervised exercise with anthropometric and	Chikwere, P., Nsiah, K., Tandoh, M.	Turkish Journal of	07/05/16

	biochemical indices among type 2 diabetic patients		Medical Sciences	
75. Tandoh, Marina	Early Infant Feeding and Body Composition in Pre-School Children	Alex K. Anderson, Christina Whitworth and Marina A. Tandoh	International Journal of Pediatrics and Child Health	07/15/16
76. Tandoh, Marina	Prevalence, Risk Factors, and Predictors of Diabetes Related Sexual Dysfunction	Atosona, Ambrose; Larbie, Christopher; Tandoh, Marina A.; Nsiah, Kwabena	British Journal of Medicine and Medical Research	09/18/16
77. Tandoh, Marina	Hyperuricaemia and Other Cardiometabolic Risks among Type 2 Diabetes Patients	Prince Chikwere, Kwabena Nsiah, Marina A. Tandoh	Trends Journal of Sciences Research	12/22/15
78. Tandoh, Marina	The Effect of Dandelion Leaves and Roots on Blood Glucose in Type 2 Diabetic Patients	Iddrisu, Ishawu; Oduro, Ibok; Tandoh, Marina A.	Journal of Nutritional Ecology and Food Research	12/01/16
79. Tandoh, Marina	Borassus Aethiopum Fruit Pulp Extract has Antimicrobial Activity on Selected Clinical Microbial Strains	E. Ayertey, M.A. Tandoh, F.C. Mills-Robertson, D.B. Kumah, C. Larbie, N.P. Aninkorah	Journal of Complementary and Alternative Medical Research	10/27/18
80. Tandoh, Marina	Helminthiasis Burden and Nutritional Status of Non-Enrolled School-Aged Children in Irrigated Farming Communities in Bongo District, Ghana	Marina A. Tandoh, Matilda Steiner-Asiedu, Joseph Otchere, Linda A. Daisie, Maxwell A. Appawu, and Michael D. Wilson	European Journal of Experimental Biology	5/1/2015
81. Tengey, Theophilus	Employing Peanut Seed Coat Cell Wall Mediated Resistance Against Aspergillus Flavus Infection and Aflatoxin Contamination	Christopher Joseph Cobos, Theophilus K. Tengey, Vimal Kumar Balasubramanian, Lindsay Williams, Hari Kishan Sudini, Rajeev K. Varshney, Hamidou Falalou, Mark D. Burow, and Venugopal Mendu	Plant Gene	08/16/18
82. Yahaya, Damba	Effects of Moisture Deficit on the Yield of Cowpea Genotypes in the Guinea Savannah of Northern Ghana	Damba Yahaya, Nicholas Denwar, and Matthew W. Blair	Agricultural Sciences	04/26/19

83. Yahaya, Damba	Screening Cowpea (<i>Vigna unguiculata</i> (L.) Walp.) Genotypes for Enhanced N ₂ Fixation and Water Use Efficiency under Field Conditions in Ghana	Damba Yahaya, Nicholas Denwar, Mustapha Mohammed, Matthew Blair	American Journal of Plant Sciences	04/26/19
84. Yeboah, Simon	Evaluation of the efficacy of a commercial formulation of <i>beauveria bassiana</i> for the control of the invasive fruit fly <i>bactrocera dorsalis</i> (Diptera: Tephritidae)	Marri, D., Gomez, D.A.M.A., Wilson, D.D., Billah, M., Yeboah, S., Osa, M.	Biopesticides International	09/18/16
85. Ziyaaba, Jonah	Core Collection of Two Important Indigenous Vegetables; Gboma Eggplant (<i>Solanum Macrocarpon</i> L.) and Jute Mallow Exploitation of Existing Germplasm and Development of Improved Cultivars	Kwarteng, Albert Owusu; Amoah, Richard Adu; Nyadanu, Daniel; Nyam, Clement Kwarteng; Ziyaaba, Jonah Zubil; Abogoom, Jenniffer; Aziz, Aisha; Anokye, Kenneth Darko; Dufie, Mary; Boakye, Mercy Osei; Danso, Emmanuella Opoku	Australian Journal of Plant Sciences	09/01/18
86. Agbemafle, Isaac	Nutritional, Microbial, and Sensory Evaluation of Complementary Foods Made from Blends of Orange-Fleshed Sweet Potato and Edible Insects	Isaac Agbemafle, Doris Hadzi, Francis K. Amagloh, Francis B. Zotor, Manju B. Reddy	Foods	09/02/20