

CURRICULUM VITAE

May 23, 2024

NAME

Vodjo Nicodème FASSINOU HOTEgni (PhD), Agronomy, Crop Physiology, Post-Harvest Physiology
Nationality: Beninese

TITLE, RESPONSIBILITY, ACADEMIC AFFILIATION

Lecturer-Researcher
Laboratory of Plant Production, Physiology and Plant Breeding (PAGEV)/GBioS Unit
Crop Sciences Department
Faculty of Agricultural Sciences (FSA), University of Abomey Calavi (UAC)
Elect-President of the African Association of Precision Agriculture (AAPA)
Associate Editor of Agrosystems, Geosciences & Environment (AGE) journal (Willey Journal) (IF=1.4)

CONTACT DETAILS

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URL <http://gbios-uac.org/>

EDUCATION / QUALIFICATION

2008-2014: PhD in Crop Physiology– Centre for Crop Systems Analysis (CSA) & Operations Research and Logistics Group – Wageningen University (the Netherlands)

Thesis title: Using Agronomic tools to improve **pineapple quality and its uniformity** in Benin (Thesis available on <https://library.wur.nl/WebQuery/wda/2065528>) (Main activities: designing and implementing field-based experiments and produced pineapple meeting export criteria)

2002-2007: Agricultural Engineer Degree (Equivalent to MSc) – School of Crop Sciences – Faculty of Agricultural Sciences, University of Abomey-Calavi (Benin Republic)

2002-2006: General Agronomy Diploma – Faculty of Agricultural Sciences, University of Abomey-Calavi (Benin Republic)

MOST RECENT TRAININGS ATTENDED

10 April-06 May 2023: Edx (Online): Project Management for Development course offered by the Inter-American Development Bank (IDBx)

Knowledge acquired: Project Charter, Work Break Down structure, Time management, Cost Management Tool, Procurement Management Tool; Risks Management Tool; Communication tool; Human Resources Management.

Verified certificate with valid certificate ID

June-August 2022: Edx (Online): Drones for Agriculture, prepare and design your drone (UAV) mission, Wageningen University and Research Centre

Knowledge acquired: Remote Sensing, UAV's and Applications, Planning a mission and acquiring data, overview what international legislation and regulations are concerning drones, Perform the required flight preparations and create- and execute a safe mission setup, Define a mission planning with the available open source and commercial tools, Discuss the potential of image product delivery for different purposes, Examine drone data and derive information from it.

Verified certificate with valid certificate ID

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June 2020-August 2020 : Edx (Online) course Sustainable Food Security: Crop Production, Wageningen University and Research Centre

Knowledge refreshed: Food security pillars, Food access and utilization, process of photosynthesis, principles of production ecology, CO₂ assimilation, maintenance respiration, Growth respiration, Growth and development, Harvest index, Transpiration and assimilation, water balance and soil type, Nutrient uptake and yield, **Nutrient balance and losses**, yield reducing factors (weeds, pest and diseases), LINTUL model

Verified certificate with valid certificate ID

June 2019 (23-28): Summer School International Summer School on “Methodological Approaches to System Experiments, Volterra, Italy

Knowledge acquired: Typology of system experiments, Experimental designs, Decision rules, What is Scheme of Hypothesis, Inferential statistics, Graphical analysis, Multivariate analysis, Data mining approaches and application, longitudinal analysis, Use of R for statistical analysis

CONSULTANCIES JOBS/TRAINING CONDUCTED

March-April 2024: Trained professionals and students on Precision Agriculture Applied to crops (Remote sensing, use of Satellite for data collection, Drones, Data processing) from March 26 to April 8, 2024

Role: Principal Trainer

Client: Certified training (costs covered by participants and donors)

Tasks completed: organized the training with AgroSfer and AUF, trained participants on Precision Agriculture Applied to crops (Status of precision agriculture, Water management, Pest management, Nutrient management, Use of Drones, Data collection using Satellite Sentinel, Simulation etc.)

Dec 2022-April 2023: Assessment of the sustainability of vegetable agri-food system in Benin and propose strategies that could help key actors (governments, extension agents, private sectors, technicians and non-governmental organizations) in improving sustainability aspects of the vegetable sector in Benin

Role: Principal consultant

Client: CIMMYT, Mexico

Tasks completed: Complete literature review, interviews with key informants, conduct sustainability assessment of vegetables farms in Benin

March 2021– July 2022: Developing a Country Report to be incorporated as the Benin Chapter of an Investment Profile on the Cassava Sector in ECOWAS

Country: Benin Republic

Role: Principal consultant

Client: International Trade Center (ITC) through the West Africa Competitiveness (WACOMP) programme

Tasks completed: Identified most relevant stakeholders to interview; conducted interviews; Map Cassava value chains in Benin; Mapped business opportunities along cassava value chains in Benin, Wrote report.

Sept -Nov 2020: Diagnosis of agroecological practices in vegetables and rice production in Southern part of Benin

Country: Benin Republic

Role: Principal consultant

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Client: Enabel-Benin

Tasks completed: conducted study on agroecological practices in South Benin, questionnaire

Feb (27-28) 2019: Trained partners (ANADER) in Côte d'Ivoire on market information systems, contract elaboration, business development around maize value chains

Country: Côte d'Ivoire

Role: Main trainer

Client: AMAFINE Project, INRAB, Benin Republic

Topics developed: Marketing strategies, contracts, types of prices, market information systems implementation and tips

WORK EXPERIENCE

2019 - now: Maître-Assistant (Lecturer-Researcher), Faculty of Agricultural Sciences, University of Abomey-Calavi, Benin Republic.

Tasks: Lectures, Practical activities with students, supervision of undergraduate students, Development and implementation of research projects, Field experimentations and surveys,

Teaching: Horticulture, Crop Physiology, Post-harvest biology, Scientific English, Scientific writing including tips for a good oral presentation (in French and English), Project writing

Other activities: Coordinator of Plant Sciences Seminars

Research advisor: Prof. Enoch Achigan-Dako

2024 - now: Regional coordinator of PATH project "Capacity Building of African Young Scientists in Precision Agriculture Through Cross-Regional Academic Mobility for Enhanced Climate-Smart Agri-Food System" involving Higher Education Institutions (HEI) Benin, Ghana, Eswatini and Rwanda

Tasks: Coordinate the project implementation which aims at (i) training 32 MSc and 12 PhD African scholars in precision agriculture applied to crops to upgrade the continent's capability (ii) building the capacity of 10 young African trainees and 10 staff in precision agriculture and entrepreneurship (iii) improving PAAC and ICT4Ag curricula and research at the participating African Higher Education Institutions (HEIs) to address more efficiently the current challenges of agriculture and climate change; and (iv) Developing a network of HEIs in Africa involved in PAAC research and training.

Senior advisor: Prof. Enoch Achigan-Dako

2024 - now: Regional coordinator of GENES II project "Mobility for Plant Genomics Scholars to Accelerate Climate-Smart Adaptation Options and Food Security in Africa II" involving Higher Education Institutions from Nigeria, Ethiopia, Kenya, South Africa, Zimbabwe.

Tasks: Coordinate the project implementation which aims at (i) training 12 PhDs, 32 masters, 10 trainees and 10 staff in genomics, **digital and advanced technologies** such as measuring photosynthesis, to accelerate crop improvement for climate change adaptation and mitigation.

Senior advisor: Prof. Enoch Achigan-Dako

Jan 2023 - now: Elect President of the African Association of Precision Agriculture (AAPA)

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Tasks: Coordinate AAPA activities with the President; Responsible for publishing the quarterly AAPA e-newsletter for members and other subscribers; Responsible for periodic updates to the AAPA website.

Contact person: Prof. Vincent Aduramigba, President of AAPA

2016 - 2019: Assistant (Lecturer-Researcher), Faculty of Agricultural Sciences, University of Abomey-Calavi, Benin Republic.

Tasks: Lectures, Practical activities with students, supervision of undergraduate students, Development and implementation of research projects, Field experimentations and surveys,

Teaching: Horticulture, Crop Physiology, Post-harvest biology, Scientific English, Scientific writing including tips for a good oral presentation (in French and English), Project writing

Other activities: Coordinator of Plant Sciences Seminars

Research advisor: Prof. Enoch Achigan-Dako

2021-2023: Co Principal Investigator of the Project "**Cowpea Atlas Platform**" development in Benin funded by LegumesLab (USAID)

2020 - 2023: **Executive secretary of the African Association of Precision Agriculture (AAPA)**

Tasks: Organize meetings, write meetings minutes conducted by the board, Maintain membership database, Communicate with association members as needed and directed by the President.

Contact person: Prof. Kwame Frimpong, Past President of AAPA

2019 – 2022: Manager of the Scholars Entrepreneurship Funds (SEF) for business development (100,000 USD through the MasterCard Program at the University Abomey-Calavi (UAC), Benin Republic

Tasks: Supervision of the activities of 19 start-ups (involving about 100 people) led by MasterCard Foundation Scholars, Part-time

Contact person: Prof. Enoch Achigan-Dako, Coordinator of the MasterCard Program at UAC

KEY RECENT MEETINGS AND CONFERENCES

December 08th, 2022: Presentation on "**Engaging Stakeholders in Precision Agriculture toolbox conception: Case of Cowpea Atlas Platform establishment in Benin Republic**" invited as key speaker during the second African Conference on Precision Agriculture AfCPA in Kenya (5-8 December 2022)

February 12th, 2020: Presentation on '**Current state of Precision agriculture in Benin: opportunities and challenges**', invited as key speaker

Contact person: Dr Steve Phillips, Principal Scientist, African Plant Nutrition Institute, Morocco

MANUSCRIPT AND PROPOSAL REVIEW

Manuscript review for Journal of Food Science (1)

Manuscript review for Scientific African journal (1)

Research proposal review for the National Research Foundation (South Africa) (1)

Manuscript review for International Food and Agribusiness Management Review (1)

Manuscript review for Scientific Reports (1)

Manuscript review for Crop and Pasture Science Journal (1)

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Manuscript review for Field Crop Research (11)
Manuscript review for Precision Agriculture Journal (1)
Manuscript review for Frontiers in Plant Science (1)
Manuscript review for Helyon (1)
Manuscript review for African Journal of Food, Agriculture, Nutrition and Development (1)

PROFESSIONAL MEMBERSHIP

Member of West African Research Association (WARA)
<http://www.bu.edu/wara/member/indivmember/individtmembere-h/>
Member of International Society for Horticultural Science (www.ishs.org)
Member of the African Technology Policy Studies (<http://www.atpsnet.org/>)
Member of West African Scientists Platform for Precision Agriculture
Member of African Association of Precision Agriculture (AAPA)
Member of Holland association Alumni, Benin
Member of International Society of Precision Agriculture (ISPA)

FINANCIAL RESOURCE MOBILIZATION CAPACITY

Sept 2023: Mobilisation of 1 796 820 EUR for the EU project on “Capacity Building of African Young Scientists in Precision Agriculture Through Cross-Regional Academic Mobility for Enhanced Climate-Smart Agri-Food System” involving Benin, Ghana, Eswatini and Rwanda

July 2021: Mobilisation of 2 780 000 Euros for BIOVALOR project, Renforcement de la démarche compétences et de la culture entrepreneuriale dans la formation supérieure agronomique: leviers pour l’insertion professionnelle et le développement de la bioéconomie au Bénin, UAC

June 2021: Mobilisation of USD \$391,633 for the project Cowpea Atlas Phase 1. Mapping cowpea data sources and gaps in West Africa funded by Feed the Future Innovation Lab

Nov 2018: Mobilisation of USD 989,260 for the project “Improved Orange Fleshed Sweet Potato value chains for food and Nutrition security in Benin” funded by Africa Union in Ethiopia.

Dec 2017: Mobilisation of USD 120,000 from Seeding Labs for GBioS / Faculty of Agricultural Sciences, University of Abomey Calavi, Benin.

Jan 2017: Mobilisation of USD 5,981,167.27 for the UAC for the project entitled ‘Empowering Young Academics Leadership and Entrepreneurial Abilities in Benin’ –funded by the MasterCard Foundation.

PUBLICATIONS

Thesis

Fassinou Hotegni, V. N. 2014. Using agronomic tools to improve pineapple quality and its uniformity in Benin. PhD thesis, Wageningen University, The Netherlands, with summaries in English, Dutch and French. 302 pages.

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1. Christel Ferréol Azon, Vodjo Nicodème Fassinou Hotegni, Dêédi Eurydice Olga Sogbohossou, Lewis Spencer Gnanglè, Guillaume Bodjrenou, Charlotte O. Adjé, Komivi Dossa, Clément Agbangla, Florent J.B. Quenum, Enoch G. Achigan-Dako (2023), Genotype × environment interaction and stability analysis for seed yield and yield components in sesame (*Sesamum indicum* L.) in Benin Republic using AMMI, GGE biplot and MTSI, *Heliyon*, (9),11.
2. Azon, C., Fassinou Hotegni, N., Adjé, C., Agossou, C., Sogbohossou, O., Nouletope, H., Akotchayé, O-P., Kékpè, P., Aisso, C., Guirguisou, M.A., DOssa, K., Agbangla, C., Quenum, F., and Achigan-Dako, E. (2023). Socio-demographic factors and ethnobotanical knowledge associated with sesame management practices across agroecological zones in Benin. *Experimental Agriculture*, 59, E10. doi:10.1017/S0014479723000078
3. Fassinou Hotegni, V. N.; Godonou, L. Y.; and Salaou, M. 2022. Fruit and Vegetable Value Chains in Benin: Identification of Intervention Entry Points. Washington, DC: International Food Policy Research Institute (IFPRI).
4. Adigoun RFR, Houdegbe AC, Fassinou Hotegni NV, Segnon AC, N'Danikou S, Adjé CAO, Adadja RPM and Achigan-Dako EG (2022) Enabling effective maize seed system in low-income countries of West Africa: Insights from Benin. *Front. Sustain. Food Syst.* 6:1045629. doi: 10.3389/fsufs.2022.1045629
5. Sohindji FS, Adje O. A. C, Fassinou Hotegni V. N., Fanou Fogny N, Akponikpe T, Quenum F, & Achigan-dako, E. G. (2022). Orange-fleshed sweetpotato production: Progress and perspectives for value chain development in West Africa. *JSFA Reports*. 2022. <https://doi.org/10.1002/jsf2.42>
6. Imorou, L., Goudou, H. G., Fassinou Hotegni, N. V., Togbe, E. C., Bello, D. O., Adoukonou-Sagbadja, H., & Ahoton, L. E. (2022). Morphological variability of *Euphorbia sepium* NE Br. across the Sudanian and Sudano-Guinean zones of Benin Republic (West Africa): Implications for conservation. *Journal of Applied Research on Medicinal and Aromatic Plants*, 31, 100424
7. Imorou, L., Fassinou Hotegni, V. N., Togbe, E. C., Goudou, H. G., Achigan-dako, E. G., Adoukonou-Sagbadja, H., & Ahoton, L. E. (2022). Morphological diversity of *Bobgunnia madagascariensis* (Desv.) JH Kirkbr. & Wiersema, across the Sudanian and Sudano-Guinean zones of Benin Republic. *South African Journal of Botany*, 147, 731-740
8. Achigan-Dako, E. G., Sogbohossou, D. E., Houdegbe, C. A., Salaou, M. A., Sohindji, F. S., Blalogue, J., Chataika, B.Y., Zohoungbogbo, H. F., Adje, C.O., Fassinou Hotegni, V.N., Francisco, R., Abukutsa-Onyango, M.O. Schranz, M.E. (2021). Ten Years of Gynandropsis gynandra Research for Improvement of Nutrient-Rich Leaf Consumption: Lessons Learnt and Way Forwards. *Annual Plant Reviews online*, 767-812.
9. Tchokponhoué, D. A., N'Danikou, S., Fassinou Hotegni, N. V., Nyadanu, D., Kahane, R., Odindo, A. O., ... & Sibiya, J. (2021). Use Patterns, Knowledge Diversity and Drivers for the Cultivation of the Miracle Plant [*Synsepalum dulcificum* (Schumach & Thonn.) Daniell] in Benin and Ghana. *Plants*, 10(11), 2253.
10. Djido U, Fassinou Hotegni NV, Lommen WJM, Hounhouigan JD, Achigan-Dako EG and Struik PC (2021) Effect of Planting Density and K₂O:N Ratio on the Yield, External Quality, and Traders' Perceived Shelf Life of Pineapple Fruits in Benin. *Front. Plant Sci.* 12:627808. doi: 10.3389/fpls.2021.627808
11. Tchokponhoué, D.A., Achigan-Dako, E.G., N'Danikou, S., Nyadanu, D., Kahane, R., Houéto, J., Fassinou Hotegni, V.N., Odindo, A.O. and Sibiya, J. (2020). Phenotypic variation, functional traits repeatability and core collection inference in *Synsepalum dulcificum* (Schumach & Thonn.) Daniell reveals the Dahomey Gap as a centre of diversity. *Scientific reports*, 10(1),1-17.

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12. Imorou, L., Togbé, E. C., Fassinou Hotegni, V.N., Bello, D. O., Biaou, B. O., Nuer, A. T., Adoukonou-Sagbadja, H & Ahoton, L. E. (2020). Galactogenic plant diversity, phenology and local in situ conservation practices in agro-ecological zones of Benin Republic. *Genetic Resources and Crop Evolution*, 1-20.
13. Sanya, C. A., Chadare, F. J., Hounhouigan, M. H., Fassinou Hotegni, V. N., Gbaguidi, M. A., Dekpemadoha, J. E., Linnemann, A. & Hounhouigan, D. J. (2020). Effects of plant density and fertilizer formula on physicochemical and sensorial characteristics of pasteurized juice from Perolera sugarloaf pineapples grown in the long rainy season. *NJAS-Wageningen Journal of Life Sciences*, 92, 100320.
14. Arinloye, D.D., Degrande, A., Fassinou Hotegni, V.N., Assah, E., Bockarie, R., Binam, J., Bayala, J., Kalinganire, A. 2017. Value chain development for mango (*Mangifera indica*) around Outamba Kilimi National Park in Sierra Leone: constraints and opportunities for smallholders. *Agriculture & Food security journal*, 6: 1-13. DOI 10.1186/s40066-017-0092-x
15. Fassinou Hotegni, V.N., Lommen, W.J.M., Agbossou, E.K. and Struik, P.C. 2016. Understanding the effects of slip pruning on pineapple fruit quality. *Acta Hort.* 1111, 231-240. DOI:10.17660/ActaHortic.2016.1111.34.
16. Fassinou Hotegni, V.N., Lommen, W.J.M., Agbossou, E.K. and Struik, P.C. 2015. Trade-offs of flowering and maturity synchronisation for pineapple quality. *PLoS ONE* 10(11): e0143290. Doi: 10.1371/journal.pone.014329
17. Fassinou Hotegni, V.N., Lommen, W.J.M., Agbossou, E.K. and Struik, P.C. 2015. Selective plants pruning as a means to reduce heterogeneity in pineapple fruit quality. *SpringerPlus*, 4:129 Doi 10.1186/s40064-015-0907-9.
18. Fassinou Hotegni, V.N., Lommen, W.J.M., Agbossou, E.K. and Struik, P.C. 2015. Influence of weight and type of planting material on fruit quality and its heterogeneity in pineapple [*Ananas comosus* (L.) Merrill]. *Frontiers in Plant Science*, 5:798. doi: 10.3389/fpls.2014.00798.
19. Fassinou Hotegni, V.N., Lommen, W.J.M., Agbossou, E.K. and Struik, P.C. 2014. Heterogeneity in pineapple fruit quality results from plant heterogeneity at flowering induction. *Frontiers in Plant Science*, 5:670. doi:10.3389/fpls.2014.00670.
20. Fassinou Hotegni, V.N., Lommen, W.J.M., van der Vorst, J.G.A.J., Agbossou, E.K. and Struik, P.C. 2014. Bottlenecks and opportunities for quality improvement in fresh pineapple supply chains in Benin. *International Food and Agribusiness Management Review Journal*, 17 (3): 139-170.
21. Achigan-Dako, E. G, Abike A. C., N'Danikou, S., Fassinou Hotegni, V.N., Agbangla, C. and Ahanchédé, A. 2014. Drivers of conservation and utilization of pineapple genetic resources in Benin. *Springerplus*, 3: 1-11.
22. Fassinou Hotegni, V.N., Lommen, W.J.M., van der Vorst, J.G.A.J., Agbossou, E.K. and Struik, P.C. 2012. Analysis of pineapple production systems in Benin. *Acta Horticulturae*, 928: 47-58.

LANGUAGE

Languages	Reading			Listening			Speaking			Writing		
	Low	Good	Very Good	Low	Good	Very Good	Low	Good	Very Good	Low	Good	Very Good
French			x			x			x			x
English			x			x			x			x

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REFEREES

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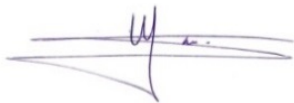
Prof. Dr. ir. Achigan-Dako Enoch

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I do hereby confirm that the information provided above is correct to my knowledge.



Fassinou Hotegni Nicodème