

DESIRE DJIDONOU

Assistant Professor of Urban & Sustainable Agriculture

College of Agricultural Sciences and Natural Resources | Texas A&M University Commerce

P.O. Box 3011 | Commerce, TX 75429-3011 | Office: AG/ET 248

Email: Desire.Djidonou@tamuc.edu | Tel. 903.886.5679

EDUCATION

Ph.D. - Horticultural Sciences Department, University of Florida, Gainesville, USA	2012
M.S. – Agronomy Department, University of Florida, Gainesville, USA	2008
B.S. – Crop Production, University of Abomey-Calavi, Benin Republic	2000

POSITIONS & EMPLOYMENT

2019 – Present	Assitant Professor (Tenure-track), College of Agricultural Sciences and Natural Resources, Texas A&M University Commerce
2016 – 2019	Research Associate Texas A&M AgriLife Research and Extension Center, Uvalde, TX
2013 – 2016	Associate Scientist – Plant Physiologist, RICETEC, INC., Alvin, TX

GRANTS RECEIVED

2019 – Present (Texas A&M University – Commerce)

- Djidonou, D. (PI), “Advancing Urban Agriculture in Texas through Optimization of Vegetable Crop Production Systems”. Agency: National Institute of Food and Agriculture/USDA. Amount: \$291,653 (Funded). Period: 2022 – 2025.
- Djidonou, D. (PI), G. Niu (coPI). “Enhancing Research and Education Capacity in Controlled Environment Production Systems for a Sustainable Urban Agriculture”. Agency: USDA Capacity Building for Non-Land Grant Colleges of Agriculture (NLGCA). Amount: \$299,958. Period: 2022 – 2025.

RESEARCH PUBLICATIONS

Refereed Journals

- Leskovar, D.I., **Djidonou, D.**, Bhattarai, S., Lee, C., Alves, F.M., Harvey, J.T. and Crosby, K., 2023. Screening morpho-physiological and yield traits for improving grafted tomato transplant performance under stresses. *Acta Hortic.* 1365: 101-108.
- Bakhtavoryan, R., C. Suchini, J.A. Lopez, and **D. Djidonou**. 2023. Analysis of Factors Influencing USA Households’ Choice of Ethnic Restaurants. *Journal of Agribusiness in Developing and Emerging Economies*.
- Bakhtavoryan, R., Hovhannisyan, V., & **Djidonou, D.** 2023. A censored regression analysis of household-level demand for pastured eggs in the United States. *Journal of Agribusiness in Developing and Emerging Economies*.
- Alves, F.M., Joshi, M., **Djidonou, D.**, Joshi, V., Gomes, C.N. and Leskovar, D.I., 2021. Physiological and Biochemical Responses of Tomato Plants Grafted onto *Solanum pennellii* and *Solanum peruvianum* under Water-deficit Conditions. *Plants*, 10(11), p.2236.
- Joshi, M., Leskovar, D., **Djidonou, D.**, Jifon, J., Avila, C., Masabni, J. and Crosby, K., 2021. Production Systems and Growing Environments Had Stronger Effects than Grafting on the Nutritional Quality of Tomato. *ACS Food Science & Technology*, 1(8), pp.1399-1411.
- Bhattarai, S., Harvey, J.T., **Djidonou, D.** and Leskovar, D.I., 2021. Exploring morpho-physiological variation for heat stress tolerance in tomato. *Plants*, 10(2), p.347.
- Djidonou, D., Leskovar, D.I., Joshi, M., Jifon, J., Avila, C.A., Masabni, J., Wallace, R.W. and Crosby, K., 2020. Stability of yield and its components in grafted tomato tested across multiple environments in Texas. *Scientific Reports*, 10: 1-14.

- Djidonou, D. and D. I. Leskovar. 2020. Pretransplant-N concentration of the nutrient solution influences growth and yield of hydroponic lettuce cultivars. *Acta Horticulturae* 1273:395 - 400.
- Djidonou D, Zhao X, Koch K, Zotarelli L. 2019. Biomass, nitrogen accumulation, and root distribution of grafted tomato as affected by nitrogen fertilization. *HortScience* 54: 1907–1914.
- Djidonou, D., and D. Leskovar. 2019. Seasonal changes in growth, nitrogen nutrition, and yield of hydroponic lettuce *HortScience* 54: 76-85.
- Djidonou, D., X. Zhao, J. K. Brecht, and K. M. Cordasco. 2017. Influence of interspecific hybrid rootstocks on tomato growth, nutrient accumulation, yield, and fruit composition under greenhouse conditions. *HortTechnology* 27: 868-877.
- Djidonou, D., A. H. Simonne, K. E. Koch, J K. Brecht and X. Zhao. 2016. Nutritional quality of field-grown tomato fruit as affected by grafting with interspecific hybrid rootstocks. *HortScience* 51: 1618-1624
- Djidonou D., K. Lopiano, X. Zhao, E. H. Simonne, J. E. Erickson, K. E. Koch. 2015. Estimating nitrogen nutritional crop requirements of grafted tomatoes under field conditions. *Scientia Horticulturae* 182 18–26.
- Djidonou, D. X. Zhao, E. H. Simonne, K. E. Koch, and J. E. Erickson. 2013. Yield, water-, and nitrogen-use efficiency in field-grown, grafted tomatoes”. *HortScience* 48:485–492.
- Djidonou, D. Z. Gao, and X. Zhao. 2013. “Economic analysis of grafted tomato production in sandy soils in northern Florida”. *HortTechnology* 23: 613-621.

Published Meeting Abstracts

- Lansford, O., and **Djidonou, D.** 2023. A Comparative Analysis of the Performance of Twenty Lettuce Cultivars Grown in a Controlled Environment at Three Different Photoperiod Treatments. *HortScience* 58(9) S114. 2023 ASHS Annual Conference. Orlando, FL 31 July – 4 August 2023.
- K C, Y., and **Djidonou, D.** 2023. Screening Lettuce Cultivars for Growth, Yield and Tipburn Incidence in Hydroponic System Under Greenhouse Condition. *HortScience* 58(9) S115. 2023 ASHS Annual Conference. Orlando, FL 31 July – 4 August 2023.
- Bakhtavoryan, R., C. Suchini, J.A. Lopez, and **D. Djidonou**. “An Empirical Analysis of the Effects of Households’ Demographic and Socioeconomic Factors on their choice of Ethnic Restaurants in the United States.” Paper submitted for presentation at the Southern Agricultural Economics Association Annual (SAEA) Meeting in Oklahoma City, Oklahoma, February 5-7, 2023.
- Kacou, Y., J.A. Lopez, D. Eborn, and **D. Djidonou**. “The Implementation of a Financial Software into an Educational Farm.” Poster presented at the Southern Agricultural Economics Association (SAEA) Annual Meeting in Oklahoma City, Oklahoma, February 5-7, 2023.
- Daniel Leskovar, **Desire Djidonou**, Samikshya Bhattarai, Chungkeun Lee , Josh Harvey, Kevin Crosby. Screening morpho-physiological and yield traits for improving grafted tomato transplant performance under abiotic stresses. International Horticultural Congress (IHC) Angers (France) August 14-20, 2022.
- **Djidonou, D.** and D. I. Leskovar. 2021. Early Growth and Photosynthetic Responses of Pepper to Changing Temperature Treatments. *HortScience* 56(9) S110.
- **Djidonou, D.**; D. I. Leskovar; M. Joshi; J. Jifon; C. A. Avila; J. G. Masabni; R. W. Wallace and K. Crosby. 2019. Stability of Yield and Yield Components of Grafted Tomato in Multiple Environments in Texas *HortScience* 54(9): S169
- Joshi, M.; D. I Leskovar; **D. Djidonou**; J. Jifon; C. A. Avila; J. G. Masabni and K. Crosby 2019. Effect of Grafting on Fruit Quality Traits of Tomato Grown Under High Tunnel and Open-Field Conditions *HortScience* 54(9): S168
- Masabni, G. J., G. Niu, J. Jifon, D. I. Leskovar, and **D. Djidonou**. 2019. Productivity of Asian Vegetables in South and Northeast Texas. *HortScience* 54(9) S334

- **Djidonou, D.** and D. I. Leskovar. 2018. Seasonal Changes in Growth Dynamics, Nitrogen Nutrition, and Yield of Hydroponic Lettuce in Response to Nitrogen Fertilization. *HortScience* 53(9) S47.
- Leskovar, D., **D. Djidonou** , J. Jifon , C. Avila, J. Masabni, and K. Crosby. 2018. High Tunnel and Field Production System Comparison of Grafted Tomato in Texas. *HortScience* 53(9) S99.
- Masabni, J., D. Leskovar, **D. Djidonou**, and K. Crosby. 2018. Effects of Grafting with Estamino and Multifort on Yield and Plant Growth Parameters of Tycoon and Tamu Hot Tomato under Field. *HortScience* 53(9) S291.
- **Djidonou, D.** and D. I. Leskovar. 2018. Pretransplant-N concentration of the nutrient solution influences growth and yield of hydroponic lettuce cultivars Proceedings of the VIII International Symposium on Seed, Transplant, and Stand Establishment of Horticultural Crops – ISHS Istanbul (Turkey) August 12-16, 2018.
- Leskovar, D., Y. Othman, and **D. Djidonou**. 2017. Efficacy of 1-MCP in Growth Modulation of Tomato and Pepper Transplants Exposed to Heat Stress. Proceedings of the 44th Annual Meeting of the Plant Growth Regulation Society of America (PGRSA) August 6 – 10, 2017 Anchorage, Alaska.
- **Djidonou, D.**, K. Lopiano, X. Zhao, and E. H. Simonne. 2012. Estimating Nitrogen Fertilization Requirement for Grafted Tomato Grown in the Field. *HortScience* 47(9) S138.
- **Djidonou, D.** and X. Zhao. 2011. Optimizing Field Grown Tomato Yield: Effects of Grafting, Irrigation, and Nitrogen Inputs. *HortScience* 46(9): S225.
- **Djidonou, D.** and X. Zhao. 2011. Rootstock Effects on Nitrogen Assimilation in Tomato Plants under Greenhouse Conditions *HortScience* 46(9): S236.
- **Djidonou, D.** and X. Zhao. 2010. Rootstock Effects on Tomato Yield and Nutrient Uptake under Greenhouse Conditions *HortScience* 46(9): S130.

TEACHING EXPERIENCE

Courses Taught 2019 – Present (Texas A&M University – Commerce)

PLS 1115	Introduction to Horticulture Lab [Years Taught: 4]
PLS 1107	Introduction to Plant Science Lab [Years Taught: 3]
PLS 306 (Lec / Lab)	Plant Propagation [Years Taught: 3]
PLS 325	Herbs and Vegetables [Years Taught: 2]
PLS 327	Hydroponic Crop Production (Lec / Lab) [Years Taught: 2]
PLS 320	Soil Fertility and Plant Nutrition [Years Taught: 2]
PLS 381	Crop Physiology [Years Taught: 2]
PLS 502	Ecological Plant Physiology [Years Taught: 2]
PLS 503	Plant Nutrition [Years Taught: 2]
PLS 504	Adv. Hydroponic Crop Production [Years Taught: 3]

Teaching Publication

- Mueller, J. W., Aide, T. M., **Djidonou, D.** and Nakasagga, S. 2023. *Plant Science Lab Manual*. 3rd Edition LINUS Learning (Ronkonkoma, NY).

PROFESSIONAL SERVICES

- Proposal Review Panelist for USDA NIFA competitive grant program (2023).
- Associate Editor for Technology in Horticulture (2022 – present).
- Manuscript Reviewer for *HortScience*, *HortTechnology*, *Scientia Horticulturae*, *BMC Plant Biology*, *Renewable Agriculture and Food Systems*, *plant*, *horticulturae*, etc.
- Moderator and Judge for American Society for Horticultural Science (ASHS) Undergraduate students Oral and Poster presentation contest – August 2023.

HONORS AND AWARDS

- 2021 — Presidential GAR Award Notification FY2022, TAMUC-Office of Sponsored Research.
- 2021 — Runner-up for Researcher of the Year for FY 2022, TAMUC-Office of Sponsored Research).
- 2021 Recipient of Certificate in Effective College Instruction through the Association of the College and University Educators (ACUE).