## AMJAD ABDULLAH AHMAD

College of Tropical Agriculture and Human Resources
Tropical Plant and Soil Sciences
Sustainable and Organic Agriculture Program
FTE Distribution: 100%Extension

#### **Education**

<u>Degree</u>	<u>University</u>	<u>Major</u>
Bachelor of Science	Mosul University	Agronomy-Field Crops
Master of Science	Mosul University	Field Crops-Legume Production
Philosophy of Doctorate	University of Hawaii at Manoa	Natural Resources and
		Environmental Management

## **Professional Appointments**

<u>Title</u>	<b>Employer</b>	<b>Dates Employed</b>
Assistant Extension Agent	University of Hawaii Manoa	2/1/2019-Present
Junior Researcher	University of Hawaii Manoa	2/1/2012-1/31/2019

#### **Awards**

- 2022 CTAHR Dean's Award for Excellence in Extension. Ahmad, A., Wang, K-H., Uyeda, J., Wages, S., Kirk, E., Gutierrez-Coarite, R., Silva, J., Hawkins, J., Radovich, T., Galanti, R., Tavares, K., and Sugano, J. Revitalizing the Declining Hawaii Banana Industry via Statewide Extension Program and Technology Transfer to Local Growers. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72005&dt=3&g=12.
- 2020 CTAHR Dean's Award for Excellence in Extension. Wang, K-H., Sugano, J., Uyeda, J., Tavares, K., Radovich, T., Silva, J., and Ahmad, A. Evolution of Screenhouses in Hawaii Agriculture Using EcoSystem Enhancement to Manage a Broad Spectrum of Crop Pests for Sustainable Farming Operations.https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67124&dt=2&g=12.

#### **Publications**

## Refereed Journal Publications

- Klair, D., Dobhal, S., Ahmad, A., U. Hassan, Z., Uyeda, J., Silva, J., Wang, K-H., Kim, S., Alvarez, A.m., and Arif, M. 2023. Exploring Taxonomic and Functional Microbiome of Hawaiian Stream and Spring Irrigation Water Systems Using Illumina and Oxford Nanopore Sequencing Platforms. *Frontiers in Microbiology*. https://doi.org/10.1101/2022.07.01.498518.
- Tavares, K., Kirk, E., Motomura-Wages, S., Calpito, J., Bingham, J-P., Ahmad, A.A., Flanagan, K., Uyeda, J., Kantar, M.B., and Radovich, T.J.K. 2022. Genotypic and Environmental Influence on Fresh Rhizome Yield of Turmeric (*Curcuma longa* L.). Agronomy. https://www.mdpi.com/2073-4395/12/11/2703.
- 3. Paudel, R., Bartlett, B., Zamora, C.M., Keach, J.E., Gutierrez-Coarite, R., Hawkins, J., **Ahmad, A.**, Motomura-Wages. S., Kirk, E.R., Kantar, M.B., Lamour, K.H., Bernabe, C., Shintaku, M., and Miyasaka, S.C. 2022. Breeding and selection of Taro (*Colocasia esculenta*) for improved disease-resistance in Hawai'i. *Plants*, *People, Planet* (In Print). <a href="https://nph.onlinelibrary.wiley.com/doi/10.1002/ppp3.10335">https://nph.onlinelibrary.wiley.com/doi/10.1002/ppp3.10335</a>.
- Silvasy, T., Ahmad, A., Wang, K-H., and Radovich, T.J.K. 2021. Rate and Timing of Meat and Bone Meal Applications Influence Growth, Yield, and Soil Water Nitrate Concentrations in Sweet Corn Production. *Agronomy*, 11(10): 1945-12. <a href="http://doi.org/10.3390/agronomy11101945">http://doi.org/10.3390/agronomy11101945</a>
- 5. Cox, J. Hue, N.V., Ahmad, A., and Kobayashi. K.D. 2021. Surface-applied or incorporated biochar and compost combination improves soil fertility, Chinese cabbage and papaya biomass. Biochar, 3: 213-223. https://link.springer.com/content/pdf/10.1007/s42773-020-00081-z.pdf

- 6. Klair, D., Silva, J., Arizala, E.D., Boluk, G., Dobhal, S., Ahmad, A.A., Uyeda, J., Alvarez, A.M., and Arif, M. 2020. First Report of *Pectobacteriumbrasiliense* causing soft rot on mizuna (*Brassica rapa* var. japonica) in the United States. Plant Disease 104(10), https://apsjournals.apsnet.org/doi/pdf/10.1094/PDIS-03-21-0644-PDN
- 7. Hammad, H.M., Nauman, H.M.F., Abbas, F., Ahmad, A., Bakhat, H.F., Saeed, S., Shah, G.M., Ahmad, A., and Cerda, A. 2020. Carbon Sequestration Potential and Soil Characteristics of Various Land Use Systems in Arid Region. Journal of Environmental Management, 264(15). https://doi.org/10.1016/j.jenvman.2020.110254
- 8. Arizala, E.D., Dobhal, S., Paudel, S., Boluk, G., Silva, J., Ahmad, A., Uyeda, J., Sugano, J., Alvarez, A.M., and Arif, M. 2020. First report of *Pectobacteriumbrasiliense* causing Bacterial Soft Rot and Blackleg diseases of potato in Hawaii. Plant Disease 104(3): https://doi.org/10.1094/PDIS-02-20-0395-PDN
- 9. Galanti, R, Cho, A., Ahmad, A., and Mollinedo, J. 2019. Use of a Chlorophyll Meter for Nondestructive and Rapid Estimation of Leaf Tissue Nitrogen in Macadamia. HortTechnology 29(3): 308-313.
- 10. Awal, R., Safeeq, M., Abbas, F., Fares, S., Deb, S.K., Ahmad, A., and Fares, A. 2019. Soil Physical Properties Spatial Variability under Long-Term No-Tillage Corn. *Agronomy* 9(11): 750-13; https://doi.org/10.3390/agronomy9110750.
- 11. Galanti, R., Cho, A, Ahmad, A., and Radovich, T. 2019. Soil Amendments and Soil Profiling Impact on Macadamia Growth and Yield Performance. HortScience. 54(3), 519-527.
- 12. Gangaiah, C., Ahmad, A.A., Smith, C.M., and Radovich, T.J.K. 2019. Potassium Release Kinetics from Three Invasive Algae Mixed with Different Media in Leachate Column Studies. Journal of Applied Phycology (JAPH): 31(2): 1505-1514.
- 13. Gangaiah, C, Ahmad, A.A., and Radovich, T.J.K. 2019. A Comparison of the Accuracy and Efficiency of Two Ionic Strength Adjustment Buffers in Measuring Potassium Using an Ion-Selective Electrode. Commun. Soil Sci. Plant Anal. 50(5): 586-593.
- 14. Berek, A.K., Hue, N.V., Radovich, T.J.K., and Ahmad, A.A. 2018. Biochars Improve Nutrient Regulation of Highly Weathered Soils. Agronomy 8(10): 203-18.
- 15. Hue, N.V. and Ahmad, A.A. 2017. Arsenic Reactions and Brake Fern (*Pteris vittata* L.) Uptake in Tropical Soils. Journal of Plant, Soil and Environment 63(2): 11-17.
- 16. Gangaiah, C., Ahmad, A.A., Hue, N.V., Wang, K.H., and Radovich, T.J.K. 2017. Evaluating Three Invasive Algal Species as Local Organic Sources of Potassium (K) for Pak Choi (*Brassica rapa*, Chinensis group) Growth. HortScience. 52(3): 1-5.
- 17. Ahmad, A.A., T.J.K. Radovich, H.V. Nguyen, J. Uyeda, A. Arakaki, J. Cadby, R. Paull, J. Sugano and G. Teves. 2016. Use of Organic Fertilizers to Enhance Soil Fertility, Plant Growth, and Yield in a Tropical Environment. In: M.L. Larramendy and S. Soloneski, (eds.), Organic Fertilizers-From Basic Concepts to Applied Outcomes. Chapter 4, p: 85-108. <a href="http://www.intechopen.com/books/organic-fertilizers-from-basic-concepts-to-applied-outcomes.">http://www.intechopen.com/books/organic-fertilizers-from-basic-concepts-to-applied-outcomes.</a>
- 18. ChandrappaGangaiah, Amjad A. Ahmad, Hue V. Nguyen, and Theodore J.K. Radovich. 2016. A correlation of rapid Cardy meter sap test and ICP spectrometry of dry tissue for measuring potassium (K+) concentrations in pak choi (*Brassica rapa* Chinensis group). Commun. Soil Sci. Plant Anal., 47(17): 2046-2052.
- 19. Amjad, A. Ahmad; Theodore J.K. Radovich, and Nguyen V. Hue. 2015. Effects of intercropping different legumes on growth of sweet corn (*Zea mays*). Journal of Crop Improvement, 29(3): 370-378.
- 20. Amjad Ahmad; Nguyen Hue, and Theodore Radovich. 2014. Nitrogen release patterns of some locally made composts and their effects on the growth of Chinese cabbage (*Brassica rapa*, Chinensis group) when used as soil amendments. Compost Sci. & Utilization 22(4): 199-206.
- 21. Amjad A. Ahmad; A. Fares, N. V. Hue, M. Safeeq, T. Radovich, F. Abbas, and M. Ibrahim. 2014. Root Distribution of Sweet Corn (*Zea mays*) as affected by Manure Types, Rates and Frequency of Applications. J. Animal & Plant Sci. (JAPS), 24(2): 592-599.
- 22. Radovich, T., A. Pant, A. Ahmad, C. Elevitch, and N. Hue. 2014. Enhancing soil function and plant health with locally available resources. Book Chapter In: *Food-Producing Agroforestry Landscapes of the Pacific* (Series). Hawaii, USA. http://agroforestry.org/food-producing-agroforestry-landscapes.

## Peer-reviewed Extension Publications

- 1. Kirk, E., Tavares, K., Radovich, T., Wages, S., **Ahmad, A**., Uyeda, J., Paull, R.E., Silva, J., Bryant, G., Collier, E., Flanagan, K., Bingham, J-P., Ellinwood, J., and Sugano, J. 2023. Hawai'i Turmeric Production Guidelines. <a href="https://www.ctahr.hawaii.edu/oc/freepubs/pdf/VC-9.pdf">https://www.ctahr.hawaii.edu/oc/freepubs/pdf/VC-9.pdf</a>.
- Le, T., Ahmad, A., Brown, E.L., Crum, J.A., Wong, A.K., Sand, S., Oshiro, M., and Kirk, E. 2022. Rates of Stress, Depression, and Suicide Among Hawai'i Agricultural Producers & Allied Professionals. <a href="https://www.ctahr.hawaii.edu/oc/freepubs/pdf/MHI-1.pdf">https://www.ctahr.hawaii.edu/oc/freepubs/pdf/MHI-1.pdf</a>.
- 3. Le, T., Greenwood, H., Brown, E., Wong, A., Crum, J., **Ahmad, A.**, Oshiro, M., and Sand, S. 2022. Reported Stressors and Desired Resources Expressed by Hawai'i Farmers and Ranchers. <a href="https://www.ctahr.hawaii.edu/oc/freepubs/pdf/MHI-2.pdf">https://www.ctahr.hawaii.edu/oc/freepubs/pdf/MHI-2.pdf</a>.
- Wang, K.H., Uyeda, J. and Ahmad, A. 2022. Evaluation of Conventional and Organic Insecticides Against Avocado Lace Bug in Hawai'i. CTAHR Extension Publication. https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-51.pdf.

## **Extension Publications**

- Wang, K-H., Sipes, B.S., Ahmad, A., and Uyeda, J. 2023. Integrated Pest Management against Chinese Rose Beetles for Cacao. HanaiAiNewsletter. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72062&dt=3&g=12.
- Chung, P., Silva, J., Ahmad, A., Uyeda, J., Hanakawa, C., Lau, T., and Sugano, J. 2023. Non Chemical Weed Management in Small Gardens. HanaiAiNewsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72063&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72063&dt=3&g=12</a>.
- 3. Chung, P., Silva, J., **Ahmad**, **A**., and Sugano, J. 2022. Increasing Success Rate in Backyard Cilantro. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71757&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71757&dt=3&g=12</a>.
- Hanakawa, C., Uyeda, J., Ahmad, A., Sugano, J., Ooki, N., and Wang, K-H. 2022. A Visual Recipe to Simple Hydroponics.HanaiAi Newsletter.https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71485&dt=3&g=12.
- Chung, P., Hanakawa, C., Lau, T., Uyeda, J., Ahmad, A., and Sugano, J. 2022. Hydroponic Solutions for Backyard or Classroom Systems. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71486&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71486&dt=3&g=12</a>.
- 6. **Ahmad, A.** 2022. A Short Guide to the Diagnosis, Control & Prevention of Banana Bunchy Top Virus (BBTV). Hawaii Landscape Magazine. July/August 2022. <a href="https://hawaiiscape.com/Landscape">https://hawaiiscape.com/Landscape</a> Hawaii Magazine.
- 7. **Ahmad, A.**, Hanakawa, C., Lau, T., and Sugano, J. 2022. SUNFLOWER: A MUTL-PURPOSE CROP: Edible, Oil Production, Livestock Feed, and as Ornamental Crop. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71192&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71192&dt=3&g=12</a>.
- 8. Hanakawa, C., **Ahmad, A.**, Lau, T., and Sugano, J. 2022. Increasing Youth Engagement with Flowers. HanaiAi Newsletter. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71195&dt=3&g=12.
- 9. **Ahmad, A.,** Radovich, T.J.K., Uyeda, J., Motomura, S., Kirk, E., Silva, J., Tavares, K., Gutierrez-Coarite, R., Hawkins, J., and Sugano, J. 2022. Intercropping: A Sustainable Strategy for Hawaii's Small Farm Holders. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71116&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71116&dt=3&g=12</a>.
- Tavares, K., Kirk, E., Calpito, J., Bingham, J-P., Wages, S., Ahmad, A., Uyeda, J., Collier, E., and Radovich, T. 2022. Yield and Quality of Turmeric Grown on Maui. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71121&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=71121&dt=3&g=12</a>.
- 11. Kirk, E., Tavares, K., Calpito, J., Wages, S., Bingham, J-P., **Ahmad, A.**, Uyeda, J., Collier, E., and Radovich, T. 2022. Assessing Yield and Curcuminoid Content for 6 Varieties of Turmeric (*Curcuma longa*) Grown on Kauai. HanaiAi Newsletter.
- 12. Ahmad, A., Wang, K.H., Radovich, T.J.K., Uyeda, J., Wages, S.M., Kirk, E., Silva, J., Gutierrez-Coarite, R., Tavares, K., and Sugan, J. 2021. Transitioning Tissue Culture Banana Seedlings from Lab to Field. HanaiAi Newsletter. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=69436&dt=3&g=12
- 13. Radovich, T., Teves, G., Arakaki, A., Crosby, K., Collier, E., and Ahmad, A. 2021. Relationship Between Pepper Size, Harvest Time and Labor Costs in Hawai'i's Grown Hot Peppers (*Capsicum sp*). HanaiAi Newsletter. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=69152&dt=3&g=12.

- 14. Kirk, E., Isele, E, and Ahmad, A. 2021. Cacao Living Cages: A Proof-of-Concept Trial for Alternative Cacao Establishment. HanaiAi Newsletter.
- 15. Ahmad, A., Uyeda, J., Radovich, T., Wages, S., Silva, J., Kirk, E., Tavares, K., and Sugano, J. 2020. Guava Fruit Bagging for Bird and Fruit Fly Damage Control. HanaiAi Newsletter. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67440&dt=3&g=12.
- Taniguchi, A., Silva, J., Spinelli, G., Uyeda, J., Ahmad, A., Wang, K-H., and Sugano, J. 2020. Making Irrigation Decisions Using Tensiometers. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67257&dt=3&g=12.">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67257&dt=3&g=12.</a>
- 17. Ahmad, A., Uyeda, J., Radovich, T., Sugano, J., Motomura, S., Tavares, K., Silva, J., and Kirk, E. 2020. Evaluating the Quality of Locally Produced Liquid Organic Fertilizer for Seedling Quality and Crop Yield. HanaiAiNewsletter. Summer 2020. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67113&dt=3&g=12
- 18. Wang, K-H., Sugano, J., Uyeda, J., Tavares, K., Radovich, T., Silva, J., and Ahmad, A. 2020. Evolution of Screenhouses in Hawaii Agriculture. HanaiAiNewsletter. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67124&dt=3&g=12.
- 19. Uyeda, J., Tamamoto, L., Sugano, J., Silva, J., Ahmad, A., and Tavares, K. 2020. Evaluation of Chinese Cabbage Varieties for Commercial Production in Hawaii. HanaiAi

  Newsletter.https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66887&dt=3&g=12.
- 20. Ahmad, A. 2020. What's Easy to Grow, Healthy, and Tasty? Beans!. CTAHR Notes, April, 2020. <a href="https://cms.ctahr.hawaii.edu/NewsLetter/whats-easy-to-grow-healthy-and-tasty-beans">https://cms.ctahr.hawaii.edu/NewsLetter/whats-easy-to-grow-healthy-and-tasty-beans</a>.
- 21. Ahmad, A. 2020. Hydroponic vs. Aquaponics. CTAHR Notes, April, 2020. https://cms.ctahr.hawaii.edu/NewsLetter/hydroponics-vs-aquaponics.
- 22. Ahmad, A. 2019. Soybean Poster. Get Local Initiative. UH Cooperative Extension. <a href="http://manoa.hawaii.edu/ctahr/getlocal/wp-content/uploads/2019/08/2019\_soybean.pdf">http://manoa.hawaii.edu/ctahr/getlocal/wp-content/uploads/2019/08/2019\_soybean.pdf</a>.
- 23. Ahmad, A., Nguyen, H.V., Silva, J., Uyeda, J., Sugano, J., Radovich, T., Nakamura-Tengan, L., Motomura, S, and Tavares, K. 2019. Evaluating Different Varieties and Biochar Application Rates on the Yield of Soybean. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66301&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66301&dt=3&g=12</a>.
- 24. Ahmad, A., Tavares, K., and Nguyen, H.V. 2019. Biochar Application to Leafy Green Varieties on Maui. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66301&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66301&dt=3&g=12</a>.
- 25. Bryant, G., Radovich, T., Sugano, J., Ahmad, A., Uyeda, J., Silva, J., and Wang, K-H. 2019. Organic Screenhouse Trial of TYLC Resistant Tomatoes: Preliminary Results. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66039&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66039&dt=3&g=12</a>.
- Sugano, J., Spinelli, G., Silva, J., Taniguchi, A., Okumura, L., Teves, G., Bost, J., Ahmad, A., and Uyeda, J. 2019. Field Screening of Various Lettuce Cultivars for Tip Burn Tolerance in Hawaii. https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=65882&dt=3&g=12.
- 27. Jensen Uyeda, Joshua Silva, Jari Sugano, Lynn Nakamura-Tengan, Julia Zee, Nancy Ooki, Sharon Wages, Kylie Wong, Koon-Hui Wang, Theodore Radovich, and Amjad Ahmad. 2018. Evaluation of Multi-colored Carrot Varieties. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=30242&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=30242&dt=3&g=12</a>.
- 29. Ahmad A. A., T.J.K. Radovich, H.V. Nguyen, J. Uyeda, A. Arakaki, C. Nazario-Leary, J. Sugano, S. Motomura, and J. Silva. 2016. Evaluating the Suitability of Chickpea (*Cicer arietinum* L.) as a New Legume Crop to the Tropical Condition of Hawaii. HanaiAi Newsletter. <a href="https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=2334&dt=3&g=12">https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=2334&dt=3&g=12</a>.
- 30. Radovich, T., A. Ahmad, A. Arakaki, J. Sugano, J. Uyeda, and N. Hue. 2015. Tankage: A Locally Produced Nitrogen Input for Sustainable Agriculture. HanaiAi Newsletter. <a href="http://files.ctctcdn.com/44b779cb001/6bf8d0df-88dc-45ab-9001-28a419d0b718.pdf">http://files.ctctcdn.com/44b779cb001/6bf8d0df-88dc-45ab-9001-28a419d0b718.pdf</a>.

- 31. Ahmad, A., Radovich, T., and Hue, N.V. 2014. Effect of Intercropping Three Legume Species on Early Growth of Sweet Corn (*Zea mays*). HanaiAi Newsletter. <a href="http://www.ctahr.hawaii.edu/sustainag/news/articles/V19-Ahmad-Nfertigation.pdf">http://www.ctahr.hawaii.edu/sustainag/news/articles/V19-Ahmad-Nfertigation.pdf</a>.
- 32. Ahmad, A., Radovich, T.J.K., Hue, N.V., and Arakaki, A. 2014. Producing High Nitrogen Liquid Fertilizer for Fertigation Purposes. HanaiAi newsletter. <a href="http://www.ctahr.hawaii.edu/sustainag/news/articles/V19-Ahmad-Nfertigation.pdf">http://www.ctahr.hawaii.edu/sustainag/news/articles/V19-Ahmad-Nfertigation.pdf</a>.

#### Creative Works

- 1. Benefits of Variety Trials and BBTV Control and Prevention Strategies. Podcast for the Farm and Ranch Stress Assistance Network (FRSAN) Project.2022. Ahmad, A. https://manoa.hawaii.edu/sow-well/media/podcasts/.
- 2. An educational video on how to take care of banana seedlings produced using the tissue culture technique and steps prior to distribution/planting. 2022. Ahmad, A. and Galanti,

  R.https://www.youtube.com/watch?v=wksaKPSkjIM&ab\_channel=HawaiiOrnamentalExtensionProgram
- 3. Overview of Okra varieties trials and results. 2021. Ahmad, A. and Sugano, J. https://www.youtube.com/watch?v=243EA5OP2nI.
- 4. Growing Together: Hanakawa, C., Ahmad, A., and Sugano, J. 2021. https://cms.ctahr.hawaii.edu/NewsLetter/ArtMID/52574/ArticleID/2164/Growing-Together
- How to Prepare Your Own Liquid Organic Fertilizer Using Local Amendments. 2020. Ahmad, A. and Uyeda, J. <a href="https://vimeo.com/245473495">https://vimeo.com/245473495</a>. The Video was developed in 2018, based on feedback from local growers, it was improved and republished in 2020.
- DIY: Establishing a Portable Screenhouse for Pest Control. 2020. Ahmad, A., Colier, E., and Sugano, J. https://vimeo.com/460804811.
- 7. Sugano, J. and Ahmad, A. 2020. Xanthosoma Scale Up Trial. https://youtu.be/4zf8h4AHXtA.
- 8. Sugano, J. and Ahmad, A. 2020. Hybridizing UH Eggplant. https://youtu.be/EmPeOQpOoLk.
- 9. Sam Choy's in the Kitchen. Locally Grown Beans. August, 19, 2019. Available online: <a href="https://www.khon2.com/sam-choys-in-the-kitchen/sam-choys-in-the-kitchen-spectrum/">https://www.khon2.com/sam-choys-in-the-kitchen-spectrum/</a>

# Leadership Roles

- Hawaii State Representative and Regional Vice-Chair. Western Region-W6 of the National Plant Germplasm System (NPGS). July 2023-Present.
- Advisory Committee member for Hawaii's Representatives of the Western Sustainable Agriculture Research and Education (WSARE). 2021-Present.
- CTAHR Taro Advisory Committee. Sept. 2022-Present.
- Garden Advisory Committee for the 4-H program on Oahu. Jun. 2022-Present.
- Extension Representative at the State Technical Advisory Committee (STAC) for the Pacific Island Area (PIA) of the NRCS. December 2020-Present.
- CTAHR Strategic Visioning Planning Committee for Extension. Jul. -Oct. 2021.
- Hawaii State Representative and Regional Secretary. Western Region-W6 of the National Plant Germplasm System (NPGS). June 2020 to July 2023.
- Member of the National Association of County Agricultural Extension Agents (NACAA). 2019-Present.
- Member of the Hawaii Association of County Agricultural Extension Agents (HACAA). 2019-Present.
- Hawaii Association of County Agricultural Extension Agents, Sustainable and Organic Agriculture representative.

## **Graduate Students**

<u>Category</u>

Chair of Master's Committees

Chair of PhD Committees

Current Number of Students

Number Graduated (Career)

Member of Master's Committees	3	5
Member of PhD Committees	0	1

# **Grant Support**

- 1. PI: Revitalizing Soil Health and Crop Productivity with Biochar Produced from Invasive Species. Funded by NRCS-CIG-PIA. Sept. 2023-Aug. 2026 (\$149,961).
- 2. PI: Improving Banana and Taro Local Production with Plantlets/Hulis and Education Program. Funded by the SCBGP-HDOA, Feb. 2024 to Jan. 2026. (\$50,000).
- 3. PI: Estimating the Application Rate of Locally Produced Liquid Organic Fertilizer to Meet Crop N Requirement. Funded by the Western Sustainable Agriculture Research and Education (Western SARE). Professional + Producer grant (Project # OW23-378). Sept. 2023 to Aug. 2026 (\$74,547).
- 4. PI: Evaluating the growth and yield of Celery and Cilantro Varieties Statewide to Increase Local production. Funded by the SCBGP-HDOA, Apr. 2023 to Mar. 2025. (\$55,000).
- 5. PI: Expanding Reach to Hawaii's Rural Farmers to Help Reduce Production/Financial Stress. Funded by the Western Region Agricultural Stress Assistance Program (WRASAP), Mar.-Aug 2023. (\$10,000).
- 6. PI: Increasing Specialty-Crop-Seed-Security through Training on Sustainable Practices in Seed Saving Techniques. Funded by the SCBGP-HDPOA, Apr. 2023 to Mar. 2025. (\$40,000).
- 7. PI: Effect of Manda Harvest on Growth, Yield, and Quality of Mamaki and Tomato Under Climatic Conditions in Hawaii. Funded by Manda Fermentation Co., May 2022 to May 2023 (\$11,500).
- 8. Co-PI: GoFarm Hawaii: Enhancing Hawaii's Agricultural Workforce. Funded by USDA-NIFA (2023-38470-40866), Sept. 2023 to Sept. 2027 (\$475,000)
- 9. Co-PI: Hawaii Integrated Pest Management Program for Diamondback Moth and other Lepidopteran Pests on Crucifers. Funded by the SCBGP-HDOA. Mar. 2024-Dec. 31, 2026 (\$50,000).
- 10. Co-PI: Increasing the Number of Sweet Potato Storage Roots to Increase the Yield of Sweet Potato Crops in Hawaii. Funded by the SCBGP-HDOA, Mar. 2023 to Fed. 2025 (\$40,000).
- 11. Co-PI: GoFarm Hawaii (GFH): Growing Hawaii's Agricultural Workforce and Industry. Funded by USDA-NIFA, Sept. 2022 to Aug. 2025 (\$440,989).
- 12. Co-PI: Limited-English and Immigrant Farmer Education (LIFE): Improving Access to Support Services for Hawaii's Agricultural Population with Limited English Proficiency. (\$743,667). Funded by USDA-2501. Oct. 2022 to Sept. 2025.
- 13. Co-PI: CleanSEED: A Project to Ensure the Sustainability of U.S. Sweetpotato Seed Programs. (Hawaii team budget of \$355,940). A subcontract with Mississippi State University (PI: Mark Shankle) of total budget (\$5,500,000) Funded by USDA-SCRI. Oct. 2022-Sept. 2026.
- 14. PI: Expanding Availability of High Yielding Mamaki Varieties for better Selection by Hawaii Growers. Funded by the SCBGP-HDOA, Mar. 2022 to Fed. 2024 (\$55,000)
- 15. PI: 2021-2023: Establishing an Avocado Orchard as Model for a Year-Round Harvest in Hawaii. Funded by the SCBGP-HDOA(\$50,000).
- 16. PI: 2020-2022: Revitalizing the Banana Industry in Hawaii with Disease Free and Resistant Varieties. Funded by the SCBGP-HDOA(\$25,000).
- 17. PI: 2021-2022: Evaluating Fish-waste derived liquid and solid fertilizer effect on growth and yield of Taro in Hawaii. Funded by NOAA, \$16,000.
- 18. Co-PI: 2021-2022: Engaging Asian American and Pacific Islander (AAPI) Grower Educational Needs for Safe Fruit & Vegetable Production in HI & CA. Funded by USDA-NIFA. 2021-2025 (\$550,000).
- 19. Co-PI: Farm and Ranch Stress Assistance Network (FRSAN). Funded by Hawaii State Plan through NIFA (\$494,835).
- 20. Co-PI: 2021-2022: Training New Farmers and Growing Agribusiness in Hawaii. Funded by USDA-NIFA (\$450,000).
- 21. Co-PI: 2021-2022: Supporting Hawaii's Organic Agriculture. Funded by the HDOA(\$99,294).
- 22. Co-PI: 2021-2023: Promoting cacao (*Theobroma cacao*) production in Hawaii through Ecosystem Sustainable and Integrated Pest Management (ES-IPM) Approaches. Funded by SCBGP-HDOA(\$35,000).

- 23. Co-PI: 2021-2022: A Unified Proposal for National Clean Plant Network-Sweet-Potato Tissue Culture. National Clean Plant Network (NCPN) USDA-APHIS(40,000).
- 24. PI: 2020-2022: Expanding the Market for Organically Produced Hawaiian Ginger with High Gingerol Content Varieties. SCBGP- Hawaii Department of Agriculture, \$40,000.
- 25. PI: 2019-2020: Evaluating the Release of Nitrogen and Sweet Corn Yield Responses to the Application of a Biosolid-derived Fertilizer. Synagro Co., \$7,000.
- 26. Co-PI: 2019-2020: Disinfecting Hawaii's banana industry from Panama wilt and the banana bunch top virus through tissue culture and evaluation of new soil decontamination strategies. SCBGP Hawaii Department of Agriculture, \$15,000.
- Co-PI: Jul. -Dec. 2019: Hands-on Integrated Pest Management Education Statewide Program. USDA-NIFA, CTAHR Statewide IPM. \$6,000.
- 28. PI: 2019-2021: Testing the Effect of Six Different Seaweeds Extracts on Growth, Yield, and Quality of Three Vegetable Crops. AfriKelp-USA, \$15,000.
- 29. Co-PI: 2020-2021: Evaluate sorghum and sorghum-sudangrass hybrids as soil builders and microbial enhancer crops in the tropic. Western-SARE. \$25,000.
- Co-PI: 2019-2021: Enhancing Hawaii's Organic Agriculture through Research and Extension. HDOA. \$130,000.
- 31. PI: 2019-2021: Selecting Green Bean and Pigeon Pea Varieties for Market Preference, Value-added Products, and Other Benefits. SCBGP-HDOA. \$40,000.
- 32. Co-PI: 2020-2022: Promotion of Off-Season Mango Production to Meet Increased Market Demand for Local Produce. SCBGP-HDOA. \$40,000.
- 33. Co-PI: 2019-2021: Expanding the Market for Hawaiian Turmeric with High Yielding and High Curcumin Varieties. SCBGP-HDOA. \$40,000.
- 34. PI: 2018-2020:Evaluating Mechanical Harvest and Agronomical Treatments to Improve Legume Crops Growth and Yield in Hawaii. SCBGP-HDOA. \$40,000.
- 35. Co-PI: 2019-2020: Disinfecting Hawaii's banana industry from Panama wilt and the banana bunch top virus through tissue culture and evaluation of new soil decontamination strategies. SCBGP-HDOA. \$15,000.
- 36. Co-PI: 2016-2019. Improving Nitrogen Synchronization of Local Fertilizer, Soil Fertility, and Crop Quality with Biochar Application. Western Sustainable Agriculture Research & Education. \$259,816.
- 37. Co-PI: 2019-2021:Planting Techniques for Increasing Locally Produced Corm and Bulb Spices in the Pacific. SCBGP-HDOA. \$40,000.
- 38. Co-PI: March-December 2018: Waimanalo Learning Center Programs (Pono Research, Ola Kino, and Umu Hou, and OLA Waimanalo). Kamehameha School. \$61,438.
- 39. Co-PI: 2018-2020: Evaluating quality of locally produced organic fertilizers and variety selection under organic systems in the tropics. Hawaii Department of Agriculture. \$245,000.
- 40. Co-PI: 2017-2018: Hot Shot Hawaii v.2.0: Expanding Hawaii's Agricultural Professionals Capacity to Advance Sustainable and Organic Agriculture Practices. Western-SARE. \$24,895.
- 41. Co-PI: 2016-2018: Opportunities to Produce Moringa with Soilless Production Technologies. Horimasa C. Ltd. Japan. \$99,050.
- 42. Co-PI: 2016-2018: Improvement of Fruit Quality and Insect Tolerance in Pumpkin Varieties for Hawaiian Markets. USDA-ARS Cooperative Agreement 58-5320-4-020. \$78,494.
- 43. Co-PI: 2016-2018: Expanding Research, Extension, and Education Activities to Improve Sustainable and Organic Farming in Hawaii. HDOA. \$200,000.
- 44. Co-PI: 2016-2017: Germplasm Selection and Management to Optimize Vegetable Quality and Yield in Tropical Organic Production Systems. SCBGP-Hawaii Department of Agriculture. \$37,450.
- 45. PI: 2015-2017: Evaluating the suitability of Chickpea (*Cicer arietinum* L.) as a new legume crop to the tropical condition of Hawaii. SCBGP-Hawaii Department of Agriculture. \$50,000.

- 46. Co-PI: 2016-2017: Enhancing Hawaii's Organic Agriculture through Research and Extension Activities. HDOA. \$140,000.
- 47. PI: 2014-2016: High Nutrient Solution Fertilizers Derived from Local Organic Inputs for Field and Greenhouse Application in the Tropics. Western-SARE. \$170,466.
- 48. Co-PI: 2014-2015: Enhancing Hawaii's Organic Agriculture through Research and Extension Activities. HDOA. \$200,000.

## **Presentations at Conferences**

- \*Ahmad, A., Wang, K-H., Uyeda, J. Wages, S., Kirk, E., Gutierrez-Coarite, R., Silva, J., Hawkins, J., Radovich, T., Galanti, R., Tavares, K, and Sugano, J. 2023. Revitalizing the Declining Hawaii Banana Industry with Clean, Virus-Free Planting Materials and a Statewide Extension Outreach Program. ASHS Conference, Jul. 31-Aug 4, Orlando, FL. USA.
- 2. \*Kirk, E.R., Isele, E., and Ahmad, A. 2023. Cacao Living Cages: A Proof-of-Concept Trial for Alternative Cacao Establishment. ASHS Conference, Jul. 31-Aug 4, Orlando, FL. USA.
- 3. \*Tello, N., Pearson, B.J., Gomez, C., Fisher, P.R., Langenhoven, P., Kirk, E., Ahmad, A., Collier, E., Radovich, T., Niu, G., and Masabni, J.G. 2023. Multi-Site Characterization of Ginger and Turmeric Rhizome Yield. ASHS Conference, Jul. 31-Aug 4, Orlando, FL. USA.
- 4. \*Ahmad, A. 2022. Sustainable and IPM Strategies for BBTV Control and Prevention. Oral Presentation. Hawaii Tropical Fruit Growers (HTFG) Conference. Nov. 4-6. Kona, HI.
- 5. \*Ahmad, A. 2022. Benefits and Recipe for Locally Produced Liquid Organic Fertilizer. Oral Presentation. Hawaii Tropical Fruit Growers (HTFG) Conference. Nov. 4-6. Kona, HI.
- 6. \*Tavares, K., Kirk, E.R., Calpito, J., Wages, S.A., Bingham, J.P., Ahmad, A.A., Silva, J., Uyeda, J.Y., Sugano, J., Collier, E., and Radovich, T. 2022. Evaluating diverse turmeric (*Curcuma longa*) cultivars for commercial production in Hawaii. [Poster Presentation]. Hawaii Agriculture Conference, September 27-28. Honolulu, HI.
- 7. \*Kirk, E.R., Tavares, K.L.T., Calpito, J., Wages, S.A.M., Bingham, J-P., Ahmad, A.A., Uyeda, J.Y., Collier, E., and Radovich, T. 2022. Evaluating diverse turmeric (*Curcuma longa*) cultivars for commercial production in Hawaii. ASHS Conference, Jul. 30-Aug 3, Chicago, IL. USA.
- 8. \*Ahmad, A., Radovich, T., Uyeda, J., Wages, S.A.M., Tavares, K.L.T., Kirk, E.R., and Silva, J. 2021. Root:Shoot Ratio in Sweet Corn and Soybean Under Different Applications of Organic Amendments. ASHS Conference, Aug 4-9, Denver, CO. USA.
- 9. \*Kirk, E., Tavares, K., Calpito, J., Wages, S.M., Bingham, JP., Teves, G., Ahmad, A., Silva, J., Uyeda, J., Sugano, J., Collier, E., and Radovich, T. 2021. Assessing Yield and Curcuminoid Content for 6 Varieties of Turmeric (*Curcuma longa*) Grown in Kauai. ASHS Conference, Aug 4-9, Denver, CO. USA.
- 10. \*Klair, D., Dobhal, S., Ahmad, A., Uyeda, J., Silva, J., Alvarez, A., and Arif, M. 2021. Investigating microbial communities associated with source irrigation and wet taro field water using amplicon Oxford Nanopore MinIon sequencing. American Phytopathological Society Annual Meeting, Aug 2-6, 2021. Virtual Meeting.
- \*Ahmad, A., Sugano, J., Wang, K-H., Radovich, T., Uyeda, J., Motomura, W., Kirk, E., Tavares, K., and Silva, J. 2020. Improving Soil health with Nitrogen Fixing Crops. Soil Health Mini Conference. Aug. 4, 2020, Honolulu Hawaii. Online Presentation.
- 12. \*Waisen, P., Wang, K-H., Budhathoki, S., Paudel, R., Ahmad, A., Silva, J., and Uyeda, J. 2020. Improving Soil Health to Reduce Soil-borne Disease Pressure. Soil Health Mini Conference. Aug. 4, 2020. Honolulu, Hawaii. Online Presentation.
- 13. \*Ahmad, A., Nguyen, H., Radovich, T., Wang, K., Sugano, J., Uyeda, J., Motomura, S., Silva, J., Tavares, K. The Effect of Biochar Application on Soil Health and Legume Crop's Growth and Yield in Hawaii. (Oral Presentation) The American Society for Horticultural Science Annual Conference. Las Vegas, NV. July 2019.
- 14. \*Uyeda, J., Radovich, T., Sugano, J., Motomura, S., Ahmad, A. Effect of Automated Soil Moisture Based Irrigation on Yield of Three Cultivars of Taro (*Colocasia esculenta*). (Poster Presentation) The American Society for Horticultural Science Annual Conference. Las Vegas, NV. July 2019

- 15. \*Silva, J., Uyeda, J., Wang, K-H., Sugano, J., and Ahmad, A. Pre-Emergent Herbicides and Hand-Weeding for Perennial and Annual Weed Management in Hawaii Green Onion Field System. (Poster Presentation) The American Society for Horticultural Science Annual Conference. Las Vegas, NV. July 2019.
- \*Tavares, K.L.T., Radovich, T.J.K., Pingham, J-P., Calpito, J., Ahmad, A., Kirk, E., Teves, G., Motomura, S., Silva, J., Uyeda, J., Sugano, J., Nakamura-Tengan, L.Yield and Quality of Turmeric and Related Germplasm on Maui. (Poster Presentation) The American Society for Horticultural Science Annual Conference. Las Vegas, NV. July 2019.
- 17. \*Uyeda, J., Ahmad, A., Motomura, S., Sugano, J., Miyasaka, S. Evaluating Manganese Toxicity of Lettuce Grown in Oxisol Soils with Low pH.(Poster Presentation) The American Society for Horticultural Science Annual Conference. Las Vegas, NV. July 2019.
- 18. Ahmad, A.A., Berek, A.K., Radovich, T.J.K., and \*Nguyen, H.V. Biochar as a Soil Amendment and Nutrient Regulator. (Oral Presentation) The American Society for Horticultural Science Annual Conference. Washington, DC. August 2018.
- 19. \*Ahmad, A.A., Radovich, T.J.K., Nguyen, H.V., Sugano, J., Uyeda, J., Silvasy, T., Gangaiah, C, and Berek, A. Innovative Waste Management Strategies: Utilizing Locally Produced By-Products as Organic Amendments for Crop Production in Hawaii. SARE-ATTRA Our Farms, Our Future Conference. Missouri, St. Louis, April 2018.
- \*Ahmad, A.A., Radovich, T.J.K., Nguyen, H.V., Sugano, J., Uyeda, J.Utilizing locally produced rendered meat to produce high nitrogen content liquid fertilizer. (Oral Presentation). Organic Faring Research Conference, New Jersey, Rutgers University, January 2018.
- 21. Radovich, T.J.K., \*Ahmad, A.A., Sugano, J., Uyeda, J. From trash to treasure: developing organic compliant fertilizers from local by-products for crop production in Hawaii. (Oral Presentation). Organic Faring Research Conference, New Jersey, Rutgers University, January 2018.
- 22. \*Ahmad, A.A., Radovich, T.J.K., Nguyen, H.V., Uyeda, J., and Silvasy, T. Improving Seedling Quality with Locally Produced Liquid Organic Fertilizer Derived from Solid Local Meat and Bone Meal. (Oral Presentation) The American Society for Horticultural Science Annual Conference. Hawaii, Waikoloa, September 2017.
- 23. \*Radovich, T.J.K., Ahmad, A.A., Nguyen, H.V., Wang, K-H., Silvasy, T., Uyeda, J., Sugano, J., Gurr, I., Gangiah, C., and Paul, R. Optimizing local, organic compliant fertilizers for vegetable production in a crowded island environment. The American Society for Horticultural Science Annual Conference. Hawaii, Waikoloa, September 2017.
- 24. \*Theodore J.K. Radovich, Bradley "Kai" Fox, Jensen Uyeda, Tiare Silvasy, Sarah Moore, Archana Pant, and AmjadA. Ahmad. Genotypic and Environmental Influences on Yield and Total Glucosinolate Concentrations of Aquaponic-grown Pak Choi (*Brassica rapa*, Chinensis Group). The American Society for Horticultural Science Annual Conference. Hawaii, Waikoloa, September 2017.
- 25. \*Tiare Silvasy, Amjad A. Ahmad, Koon-Hui Wang, and Theodore J.K. Radovich. 2017. Rate and Timing of Meat and Bone Meal (Tankage) Applications Influence Growth and Yield of Sweet Corn (Zea mays var. saccharata) and Soil Water Nitrate Concentrations. The American Society for Horticultural Science Annual Conference. Hawaii, Waikoloa, September 2017.
- 26. \*Chandrappa Gangaiah, Amjad A. Ahmad, Celia M. Smith, Hue Nguyen, and Theodore J.K. Radovich. 2017. Potassium Release Pattern and Mechanics from Three Invasive Algae with Different Media in Leachate Column Studies. The American Society for Horticultural Science Annual Conference. Hawaii, Waikoloa, September 2017.
- 27. \*Jensen Uyeda, Jari Sugano, Steve Fukuda, Theodore Radovich, and Amjad Ahmad. Effect of irrigation regime on yield of three cultivars of Taro (*Colocasia esculenta*). Poster presentation at the Hawaii Association of County Agricultural Agents (HACAA) conference. Hawaii, Kona October 2016.
- 28. \*Silvasy, T., A.A. Ahmad, K. Wang, T.J.K. Radovich. Effect of Application Rate and Timing of Organic Fertilizer on Growth and Yield of Sweet Corn. The American Society for Horticultural Science Annual Conference. Georgia, Atlanta, August 2016.

- 29. \*Amjad A. Ahmad, Theodore Radovich, Jensen Uyeda, Jari Sugano, Alton Arakaki. Soil Health and Locally Produced Fertilizer Inputs. Edible Crops Conference. Hawaii, Kahuku May 2016.
- 30. \*Theodore Radovich, Russell Nagata, John McHugh, Glenn Teves, Amjad A. Ahmad, Robert Paull. Germplasm evaluation and selection of *Moringa oleifera* in Hawaii. *Moringa oleifera*: A Decade of Advances in Research and Development Conference. Nov. 15-18, Philippines, Manila, November 2015.
- 31. \*Amjad A. Ahmad, Hue V. Nguyen, Theodore J.K. Radovich. Enhancing Nitrogen Availability in Liquid Fertilizers Derived from Solid Organic Sources for Fertigation. The American Society for Horticultural Science Annual Conference. Louisian, New Orleans, August 2015.
- 32. \*Chadrappa Gangaiah, Amjad A. Ahmad, Hue V. Nguyen, Theodore J.K. Radovich. Use of Invasive Algae as a Potassium (K) Source Affects Growth and K Content in Pak Choi (*Brassica rapa* cv. Bonsai, Chinensis Group) under Greenhouse Conditions. The American Society for Horticultural Science Annual Conference. Louisian, New Orleans, August 2015.
- 33. \*Arnoldus K. Berek, Hue V. Nguyen, Amjad A. Ahmad. Use of Biochar and Compost Improves the Productivity of Nutrient-poor Tropical Soils. The American Society for Horticultural Science Annual Conference. Louisian, New Orleans, August 2015.

<sup>\*</sup>indicates presenter