# Jonathan L. Deenik College of Tropical Agriculture and Human Resources Tropical Plant and Soil Sciences

FTE Distribution: 25% I; 25% R; 50% E

#### Education

Lucuton			
<u>Degree</u>	<u>University</u>	<u>Major</u>	
Bachelors	College of Wooster	Art History/History	
Masters	University of Hawaii	Soil Science	
PhD	University of Hawaii	Soil Science	

#### **Professional Appointments**

<u>Title</u>	<b>Employer</b>	<b>Dates Employed</b>
Department Chair	University of Hawaii at Mānoa	2019-present
Specialist	University of Hawaii at Mānoa	2014-present
Associate Specialist	University of Hawaii at Mānoa	2008-2014
Assistant Specialist	University of Hawaii at Mānoa	2003-2008

### **Courses Taught**

Course Number and Title (credits)

TPSS 304 Fundamentals of Soil Science (4)

TPSS/NREM 450 Nutrient Management in agroecosystems (4), co-taught (2020 & 2021)

#### **Publications (reverse chronological order)**

## Conference Proceedings

Deenik, J.L. 2019. Soil diversity and agricultural adapation across Micronesia. Proceedings of the Western Region Nutrient Management Conference, Vol. 13, Reno, NV, March 7–8, 2019.

### Refereed Journal Publications

- Beckstrom, Tanner B., Tai M. Maaz, Jonathan L. Deenik, Hayley Peter-Contesse, Amy Koch, Christine Tallamy Glazer, Johanie Rivera-Zayas, and Susan E. Crow. "From Volcanic Ash to Abundant Earth: Understanding Andisol Organic Matter Dynamics in Relation to Soil Health on Hawai'i Island." *BIOGEOCHEMISTRY* 168, no. 2 (February 20, 2025). <a href="https://doi.org/10.1007/s10533-025-01216-9">https://doi.org/10.1007/s10533-025-01216-9</a>.
- Seale, LA, AB Yamanaka, K Hammond, E Lim, LR Wilkens, P Mcfall, TF Aflague, P Coleman, T Fleming, L Shallcross, J Deenik, RNovotny. "Dietary Micronutrient Intake and the Prevalence of Metabolic Conditions among Children from the United States-Affiliated Pacific Region in the Children's Healthy Living Program." CURRENT DEVELOPMENTS IN NUTRITION 9, no. 1 (January 2025). https://doi.org/10.1016/j.cdnut.2024.104531.
- Hodges, Ryan C., Janis L. Boettinger, and Jonathan L. Deenik. "Elemental Trends and Weathering Indices to Assess Volcanic Ash Deposition on Soil Weathering Status along Maui Climosequences." *GEODERMA REGIONAL* 39 (December 2024). https://doi.org/10.1016/j.geodrs.2024.e00872.
- Lee, Jinwook, Sayed M. Bateni, Changhyun Jun, Essam Heggy, Mehdi Jamei, Dongkyun Kim, Hamid Reza Ghafouri, and Jonathan L. Deenik. "Hybrid Machine Learning System Based on Multivariate Data Decomposition and Feature Selection for Improved Multitemporal Evapotranspiration Forecasting." 
  ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE 135 (September 2024). 
  https://doi.org/10.1016/j.engappai.2024.108744.
- Ryan, Sarah T., Anthony D. Okely, Kar Hau Chong, Rebecca M. Stanley, Melanie Randle, Gade Waqa, Ashley B. Yamanaka, Rachael Leon Guerrero, Patricia Coleman, Leslie Shallcross, Lynne R. Wilkins, Jonathan L Deenik, Rachel Novotny. "Proportion and Correlates of Children in the US-Affiliated Pacific Region Meeting Sleep, Screen Time, and Physical Activity Guidelines." *JOURNAL OF PHYSICAL ACTIVITY & HEALTH* 21, no. 6 (June 2024): 567–77. https://doi.org/10.1123/jpah.2023-0463.
- Autufuga, D; Quintus, S; Yoo, K; Day, S; Huebert, J; Deenik, J; Lincoln, NK. 2023. Distribution of Soil Nutrients and Ancient Agriculture on Young Volcanic Soils of Ta'u, American Samoa. Soil Systems 7(2) 10.3390/soilsystems7020052

- Dela Cruz, R, Novotny, R, Wilkens, L, Shvetsov, YB, Yamanaka, A, Butel, J, Alague, T, Coleman, P, Shallcross, L, Deenik, J, Mapa, VLR, Boushey, C, Fleming, T. 2023. Diet Quality of Young Children in the US-Affiliated Pacific's Children's Healthy Living (CHL) Program. Journal of the Academy of Nutrition and Dietetics, https://doi-org.eres.library.manoa.hawaii.edu/10.1016/j.jand.2023.08.003
- Hingle, M; Short, E; Aflague, T; Boushey, C; Butel, J; Coleman, P; Deenik, J; Fleming, T; Olfert, M; Shallcross, L; Wilkens, LR; Novotny, R. 2023. Food Security is Associated with Higher Diet Quality Among Children of the US-Affiliated Pacific Region. Journal of Nutrition 153(3)848-856 DOI 10.1016/j.tjnut.2023.01.015.
- Yamanaka, AB; Strasburger, S; Chow, C; Butel, J; Wilkens, L; Davis, JD; Deenik, J; Shallcross, L; Novotny, R. 2023. Food and Physical Activity Environment in the US-Affiliated Pacific Region: The Children's Healthy Living Program. Journal of Nutrition Education and Behavior. 55(2)96-104 DOI 10.1016/j.jneb.2022.08.009
- Maaz, T.M., R H. Heck, C T Glazer, M K. Loo, J Rivera Zayas, A Krenz, T Beckstrom, S E. Crow, J L. Deenik. 2023 Measuring the immeasurable: A structural equation modeling approach to assessing soil health, Science of The Total Environment, Volume 870, <u>DOI 10.1016/j.scitotenv.2023.161900</u>
- Crow, S., Hubanks, H., Deenik, J., Maaz, T., Glazer, C.T., Vizka, E., Rivera-Zayas, J., 2023. Legacy of Intensive Agricultural History in the Health of (Sub)Tropical Landscapes. Fronteirs in Environmental Science 10:991262.doi: 10.3389/fenvs.2022.991262.
- Wells, JM; Crow, SE; Sierra, CA; Deenik, JL; Carlson, KM; Meki, MN; Kiniry, J. 2022. Edaphic controls of soil organic carbon in tropical agricultural landscapes. SCIENTIFIC REPORTS 12(1) 10.1038/s41598-022-24655-y
- Novotny, R; Yamanaka, AB; Dela Cruz, R; Strasburger, S; Boushey, CJ; Butel, J; Esquivel, M Aflague, TF; Fleming, T; Coleman, P; Deenik, J; Shallcross, L; Wilkens, LR. 2022. Food Group, Macronutrient Intake, and Metabolic Status in the US-Affiliated Pacific's Children's Healthy Living (CHL) Program. Journal of Nutrition 152(12):2898-2912 DOI 10.1093/jn/nxac173
- Dela Cruz, Rica, Wolfe, Eric, Yonemori, Kim M., Fialkowski, Marie K., Wilkens, Lynne R., Coleman, Patricia, Lameko-Mua, Sunema, Johnson, Emihner, Gilmatam, Daisy, Sigrah, Cecilia, Shomour, Moria, Remengesau, Shelley, Alfred, Julia, Acosta, Mark, Ettienne, Reynolette, Deenik, Jonathan, Aflague, Tanisha F., Nelson, Randall, Salazar, Kristina Abello, Novotny, Rachel, Boushey, Carol J. 2022. Consumption of Traditional Fruits and Vegetables among Children in the US-Affiliated Pacific Region. Current Developments in Nutrition, 6(7):1-7 https://doiorg.eres.library.manoa.hawaii.edu/10.1093/cdn/nzac101
- Dela Cruz, R., Eric Wolfe, KM Yonemori, MK Fialkowski, LR Wilkens, P Coleman, S Lameko-Mua, E Johnson, D Gilmatam, C Sigrah, M Shomour, S Remengesau, J Alfred, M Acosta, R Ettienne, J Deenik, TF Aflague, R Nelson, K Abello Salazar, R Novotny, and CJ Boushey. 2022. Consumption of Traditional Fruits and Vegetables among Children in the US-Affiliated Pacific Region, *Current Developments in Nutrition*, Volume 6, Issue 7, July 2022, nzac101, <a href="https://doi.org/10.1093/cdn/nzac101">https://doi.org/10.1093/cdn/nzac101</a>.
- Yamanaka, A.B., Davis, J.D., Wilkens, L.R., Hurwitz, E.L., Fialkowski, M.K., Deenik, J., Guerrero, R.T., Novotny, R. 2021. "Determination of Child Waist Circumference Cut Points for Metabolic Risk Based on Acanthosis Nigricans, the Children's Healthy Living Program" Preventing Chronic Disease 18

  DOI:10.5888/pcd18.210021
- Reppun, F., Deenik, J., Martin, J., Hoy, C. 2021. "Effects of fresh and anaerobically digested algae (G. salicornia) as soil amendments on yield and nutrient concentrations of Pak Choy" Agroecology and Sustainable Food Systems. 45(9):1270-1299 **DOI**:10.1080/21683565.2021.1917470
- Jamison, J., Khanal, S.K., Nguyen, N. H. Deenik, J.L. 2021. "Assessing the Effects of Digestates and Combinations of Digestates and Fertilizer on Yield and Nutrient Use of *Brassica juncea* (Kai Choy)" *Agronomy* 11, no. 3:509. https://doi.org/10.3390/agronomy11030509
- Maaz, T.M., W.C. Hockaday, J.L. Deenik. 2021. Biochar Volatile Matter and Feedstock Effects on Soil Nitrogen Mineralization and Soil Fungal Colonization. Sustainability *13*, 2018. https://doi.org/10.3390/su13042018
- Yu, J., Pavia, M.J., Deem, L.M., Crow, S.E., Deenik, J.L., and Penton, C. 2020. DNA-Stable Isotope Probing Shotgun Metagenomics Reveals the Resilience of Active Microbial Communities to Biochar Amendment in Oxisol Soil. Frontiers in Microbiology, 11:587972, doi: 10.3389/fmicb.2020.587972
- Reppun, F, Syvertsen, J., Martin, J., Deenik, J, and Hoy, C. 2020. Soil management practices of farmers in the Kaneohe Bay watershed and potential for implementing algae-based soil amendments. Agroecology and Sustainable Food Systems, **DOI:** 10.1080/21683565.2020.1813233
- Winter, K. B., Y. M. Rii, F. A. W. L. Reppun, K. DeLaforgue Hintzen, R. A. Alegado, B. W. Bowen, L. L. Bremer,

M. Coffman, J. L. Deenik, M. J. Donahue, K. A. Falinski, K. Frank, E. C. Franklin, N. Kurashima, N. Kekuewa Lincoln, E. M. P. Madin, M. A. McManus, C. E. Nelson, R. Okano, A. Olegario, P. Pascua, K. L. L. Oleson, M. R. Price, M. J. Rivera, K. S. Rodgers, T. Ticktin, C. L. Sabine, C. M. Smith, A. Hewett, R. Kaluhiwa, M. Cypher, B. Thomas, J.-A. Leong, K. Kekuewa, J. Tanimoto, K. Kukea-Shultz, A. Kawelo, K. Kotubetey, B. J. Neilson, T. S. Lee and R. J. Toonen. 2020. Collaborative research to inform adaptive comanagement: a framework for the He'eia National Estuarine Research Reserve. Ecology and Society 25 (4):15. [online] URL: <a href="https://www.ecologyandsociety.org/vol25/iss4/art15/">https://www.ecologyandsociety.org/vol25/iss4/art15/</a>

Winter, K, N Lincoln, F Berkes, R Alegado, N Kurashima, K Frank, P Pascua, Y Rii, F Reppun, I Knapp, W McClatchey, T Ticktin, C Smith, EFranklin, K Oleson, M Price, M McManus, M Donahue, K Rodgers, B Bowen, C Nelson, B Thomas, J Leong, E Madin, MA Rivera, K Falinski, L Bremer, JL Deenik, S Gon III, B Neilson, R Okano, A Olegario, b Nyberg, AH Kawelo, K Kotubetey, JK Kukea-Shultz, R Toonen. 2020. Ecomimicry in Indigenous Resource Management: Optimizing ecosystem services to achieve resource abundance with examples from Hawai'i. Ecology and Society 25(2):26 https://doi.org/10.5751/ES-11539-250226

Yu, J., L.M. Deem, S.E. Crow, J.L. Deenik, and C.R Penton. 2019. Comparative metagenomics reveals enhanced nutrient cycling potential after 2 years of biochar amendment in a tropical Oxisol. Appl Environ Microbial 85:e02957-18. https://doi.org/10.1128/AEM.02957-18.

Creative Works (i.e., Extension Videos, Websites, Blogs, Creative Designs and Exhibitions, etc.)

## **Graduate Students**

Category	Current Number of Students	Number Graduated (Career)
Chair of Master's Committees		10
Chair of PhD Committees	2	2
Member of Master's Committees	3	15
Member of PhD Committees	3	8
Undergraduate mentees		26

# **Grant Support**

Title of Grant: "Farmer-Driven Evaluation and Adoption of an Artificial Intelligence-Enhanced Weather-Based

Irrigation Scheduling Tool inHawaii via Intensive On-Farm Trials"

Source of Grant: USDA-NRCS Dollar Value: \$2,425,773

Dates of Grant: 9/3/2024 - 8/30/2029

Role: Co-PI

Title of Grant: "Tinian Beef Cattle Industry Technical Assistance"

Source of Grant: Commonwealth of Northern Marianas Community Development Authority

Dollar Value: \$400,000

Dates of Grant: 4/25/2024 – 9/30/2026

Role: PI

Title of Grant: "To Evaluate the Use of the University of Hawaii Soil Health Tool for Tropical Soils and Expand on

Initial Assessments of DynamicSoil Properties of Tropical Soils"

Source of Grant: USDA-NRCS

Dollar Value: \$96,000

Dates of Grant: 1/15/2024 - 3/31/2025

Role: Co-PI

Title of Grant: "Microbial Indicators of Soil Health and Plant Productivity for Hawaii Agroecosystems"

Source of Grant: USDA-ARS NACA

Dollar Value: \$347,290

Dates of Grant: 8/1/2023 - 7/31/2025

Role: PI

Title of Grant: "Investigating Short Range Order Material as a DSP and Its Capacity to Stabilize SOC, SRO/SOC

Dynamics in a Warming Ecosystem" Source of Grant: USDA-NRCS Dollar Value: \$499.553

Dates of Grant: 10/1/2023 - 12/31/2027

Role: PI

Title of Grant: "Soil Health Fingerprinting: Rapidly Predicting Soil Health in a Diversity of Soils Using Machine

Learning"

Source of Grant: USDA-NIFA Dollar Value: \$649,570

Dates of Grant: 9/15/2023 - 9/14/2028

Role: Co-PI

Title of Grant: "Hawai'i climate smart commodities: A portfolio approach to equitably scaling the agriculture

sector"

Source of Grant: USDA-NRCS Dollar Value: \$10,647,990 Dates of Grant: 1/2023 – 12/2028

Role: Co-PI

Title of Grant: "Developing a Web-Based Mapping Platform for Cropland Rating and Optimum Crop Selection"

Source of Grant: HDOA Dollar Value: \$199,218

Dates of Grant: 10/1/2022 - 9/30/2024

Role: Co-PI

Title of Grant: "Science of Soil Health"

Source of Grant: USDA-NRCS

Dollar Value: \$140,973

Dates of Grant: 10/1/2020 - 9/30/2023

Role: Co-PI

Title of Grant: "Fungal-Bacterial Interactions: Bridging soil niches in regulating carbon and nitrogen processes"

Source of Grant: US Department of Energy

Dollar Value: \$3,400,000

Dates of Grant: 10/1/2022 - 9/30/2025

Role: Co-PI

Title of Grant: Producer-driven implementation of Soil Health Management Systems adapted to diverse cropping

systems in tropical and subtropical island regions

Source of Grant: USDA-NRCS Dollar Value: \$1,961,218

Dates of Grant: 5/1/2021-4/30/2026

Role: PI

Title of Grant: An emergent soil health framework for agroecosystems in underrepresented tropical/subtropical

islands or regions

Source of Grant: USDA-NIFA

Dollar Value: \$499,000

Dates of Grant: 1/2020-12/2023

Role: Co-PI

Title of Grant: Forecasting daily reference evapotranspiration for water resources conservation and sustainable

agriculture.

Source of Grant: USDA-NRCS CIG

Dollar Value: \$900,000

Dates of Grant: 1/2020-12/2023

Role: Co-PI

Title of Grant: A Hawaii Soil Health Index to Guide Farmer Adoption of Sustainable Management Practices

Source of Grant: WSARE Dollar Value: \$25,000

Dates of Grant: 12/2019 - 12/2021

Role: Co-PI

Title of Grant: Implementing Soil Management Strategies and Soil Testing Technologies to Reduce Nutrient

Loading for Intensive Farms on Oahu

Source of Grant: Hawaii State Department of Health

Dollar Value: \$349,518

Dates of Grant: 8/2019 - 7/2022

Role: PI

Title of Grant: Putting the farmer in the driver's seat: integrated web tool for improved soil health and carbon

assessment monitoring and planning

Source of Grant: USDA-NIFA Dollar Value: \$449.968

Dates of Grant: 1/2018 – 1/2022

Role: Co-PI

Title of Grant: Capacity Building for Cooperative Extension in Micronesia to Reduce Pacific Island Food System

Vulnerability to Climate Variability

Source of Grant: WSARE Dollar Value: \$74,858

Dates of Grant: 6/2018 - 6/2020

Role: Co-PI

Title of Grant: Crop-Specific Fertilizer Schedules to Improve Nitrogen Fertilizer Management for High-Value,

Short-Season Vegetables and Herbs on Oahu

Source of Grant: USDA-HATCH

Dollar Value: \$78,112

Dates of Grant: 10/2018 - 10/2020

Role: Co-PI

Title of Grant: Anaerobically-digested slurry (digestate) and digestate-derived biochar applications as fertilizers for

organic farming

Source of Grant: USDA-HATCH

Dollar Value: \$79,723

Dates of Grant: 10/2017 - 10/2019

Role: PI

Title of Grant: Land Suitability Analysis for Crop Growth in Hawaii

Source of Grant: USDA-HATCH

Dollar Value: \$70,000

Dates of Grant: 10/2017 - 10/2019

Role: Co-PI

Title of Grant: Building climate knowledge in the cooperative extension service to increase capacity for climate

change adaptation and mitigation among Pacific Island agricultural systems

Source of Grant: OIA Technical Assistance Program

Dollar Value: \$121,371

Dates of Grant: 4/2017 - 4/2019

Role: Co-PI

Title of Grant: Real-time Optimization of Irrigation Scheduling for Farmlands in Hawaii, Guam, and American

Samoa

Source of Grant: USDA-NRCS CIG

Dollar Value: \$979,927

Dates of Grant: 10/2016 - 9/2020

Role: Co-PI

#### **Presentations at Conferences**

<u>Title</u>: Characterizing Hawai'i's Poorly and Non-Crystalline Soils: Overcoming Methodological Challenges in Density Fractionation

Authors: Christine J. Tallamy Glazer, Susan E. Crow, Hannah L. Hubanks, Hayley Peter-Contesse, Jonathan L. Deenik, Tanner B. Beckstrom, Michelle Haddix and M. Francesca Cotrufo

Name of Conference: International annual meeting SSSA

Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

<u>Title</u>: Assessing (sub)Tropical Soil Health Along a Disturbance Gradient in Hawai'i, Puerto Rico, and Pohnpei Authors: Tanner B. Beckstrom, Kristina Estrada, Tai McClellan Maaz, Jonathan L. Deenik, Nohely Reyes, Saimon Mix, Mitchell K Loo, David Sotomayor, Drake Lawrence, Christine J. Tallamy Glazer, and Susan E. Crow

Name of Conference: International annual meeting SSSA Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

<u>Title</u>: Understanding Wildfire Effects on Soil Organic Carbon across a Climate Gradient

Authors: Yewon Lee, Geology, Oliver A. Chadwick, Peter M Vitousek, Jonathan L. Deenik, Todd Ellsworth, Ann Tan, and Mengqiang Zhu

Name of Conference: International annual meeting SSSA

Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

Title: Connecting Fungal-Bacterial Interactions and Soil Health in Tropical Soils

Authors: Giovana Slanzon, Tai McClellan Maaz, Susan E. Crow, Jonathan L. Deenik, Michael Kantar and Nhu Nguyen

Name of Conference: International annual meeting SSSA Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

Title: A microbial proxy for mineralizable nitrogen

Authors: Kenneth D Kiehl, Christian Fullmer, Nhu Nguyen, Tai McClellan Maaz, Susan E. Crow and Jonathan L. Deenik

Name of Conference: International annual meeting SSSA Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

<u>Title</u>: Unearthing Trends: Optimizing Tropical Soil Health Scoring Methods

Authors: Hannah Shor, Tanner B. Beckstrom, Kristina Estrada, Tai McClellan Maaz, Jonathan L. Deenik, Nohely Reyes, Saimon Mix, Mitchell K Loo, David Sotomayor, Drake Lawrence, Christine J. Tallamy Glazer and Susan E. Crow

Name of Conference: International annual meeting SSSA Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

<u>Title</u>: The Dirt on Disturbance: Creating an Anthropogenic Disturbance Index to Objectively Capture Overlap across and within Land Use Types for Tropical and Subtropical Agroecosystems

<u>Authors:</u> Kristina Estrada, Tai McClellan Maaz, Tanner B. Beckstrom, Jonathan L. Deenik, Nohely Reyes, Saimon Mix, Mitchell K Loo, Christine J. Tallamy Glazer, Manichanh Satdichanh, Drake Lawrence, Johanie Rivera Zayas, Tamara Ticktin, David Sotomayor and Susan E. Crow

Name of Conference: International annual meeting SSSA

Location:, San Antonio, TX, Oct 29-Nov10-13, 2024

<u>Title</u>: Soil health in tropical agroecosystems

Authors: Jonathan L. Deenik (Invited Keynote Speaker)

Name of Conference: XXI Colombian Soil Science Conference

Location:, Medellin, Colombia, Oct 1 – 4, 2024

<u>Title</u>: Soil protein: a replacement for PMN?

<u>Authors:</u> Kenneth D Kiehl\*, Mitchell K Loo, Christine J. Tallamy-Glazer, Tai McClellan Maaz, Susan E. Crow and

Jonathan L. Deenik

Name of Conference: International annual meeting SSSA

Location:, St. Louis MI Oct 29-Nov1, 2023

<u>Title</u>: A Mixed Methods Approach to Understanding Soil Genesis: The Pu'u 'ōhi'a Soil in Mānoa, Hawai'i <u>Authors:</u> Kristy Izumi Lam, Susan E. Crow, Kekuhi Keali'ikanaka'ole, Manaiakalani Kalua, Pauline K. K. Navales,

Nicholas John Navales, Jonathan L. Deenik, John W Creswell, Michael Kantar, Tai McClellan Maaz, Kamuela Enos, Kūhaʻo Zane, Jason Edward Lewis, Daniel Richardson and Tanner B. Beckstrom

Name of Conference: International annual meeting SSSA

Location:, St. Louis MI Oct 29-Nov1, 2023

<u>Title</u>: Insights from Machine Learning with Mid-Infrared Spectroscopy in Hawaii Soil Health Modeling and Assessment

<u>Authors (put an asterisk on the presenter):</u> Tanner B. Beckstrom\*, Tai McClellan Maaz, Michael Benjamin Kantar, Jonathan L. Deenik, Christine J. Tallamy-Glazer, Qi Chen and Susan E. Crow

Name of Conference: International annual meeting SSSA

Location:, St. Louis MI Oct 29-Nov1, 2023

<u>Title</u>: Farmer-driven implementation of soil health management systems (SHMS) adapted to diverse cropping systems in tropical and subtropical island environments

<u>Authors (put an asterisk on the presenter):</u> Kenji Loo\*, Tai Maaz, Susan Crow, Johannie Rivera-Zayas, Christine Tallamy-Glazer, Aleric Krenz, Sebastian Church, Kristina Estrada, Ken Kiehl, and Jonathan Deenik,

Name of Conference: 78th SWCS International Annual Conference

Location:, Des Moines IA, August 6-9, 2023.

<u>Title</u>: Farmer-driven implementation of soil health management systems (SHMS) adapted to diverse cropping systems in tropical and subtropical island environments

<u>Authors (put an asterisk on the presenter):</u> Sebastian Church\*, Susan Crow, Tai Maaz, Johannie Rivera-Zayas, Andrea Kawabata, Joshua Silva, Jensen Uyeda, David Sotamayor-Ramirez, and Jonathan Deenik,

Name of Conference: 77th SWCS International Annual Conference

Location:, Denver CO, July 31-August 3, 2022.

Title: Climate-wise Management: Soil Mineralogy's Primary Influence on Soil Health in Hawai'i

Authors (put an asterisk on the presenter): Vizka, E.\*, Deenik, Jl, Hubanks, H, Crow, SE

Name of Conference: American Geophysical Union, Fall Meeting

Location:, San Francisco, CA December 2020.

<u>Title</u>: Characterizing soil-water relations to improve irrigation practices in Hawai'i's agricultural systems

Authors (put an asterisk on the presenter): Lam, K\*., J.L. Deenik, S. Bateni, and Y.P. Tsang

<u>Name of Conference</u>: Student Research Symposium, College of Tropical Agriculture and Human Resources and College of Engineering

Location: University of Hawaii at Manoa

Date of Presentation: April 15, 2019

Title: Turning waste into resources: Anaerobic digestate's potential as a biofertilizer in Hawaii

Authors (put an asterisk on the presenter): Pitts, J.\*, J. L. Deenik, N. Nguyen, and S. Khanal

Name of Conference: Student Research Symposium, College of Tropical Agriculture and Human Resources and

College of Engineering

<u>Location</u>: University of Hawaii at Manoa <u>Date of Presentation</u>: April 15, 2019

<u>Title</u>: Towards a Hawai'i Soil Health Index: Identifying Sensitive and Practical Indicators of Change Across Land Use and Soil Diversity

Authors (put an asterisk on the presenter): Hubanks, H.\* S Crow, J Deenik

Name of Conference: Student Research Symposium, College of Tropical Agriculture and Human Resources and

College of Engineering

Location: University of Hawaii at Manoa Date of Presentation: April 15, 2019

Title: Soil diversity and agricultural adaptaion across Micronesia,

Authors (put an asterisk on the presenter): Deenik, J.L.\*

Name of Conference: Western Region Nutrient Management Conference

Location: Reno, NV

Date of Presentation: March 7-8, 2019