

**Koon-Hui Wang, Ph.D.****College of Tropical Agriculture and Human Resources**

Plant and Environmental Protection Sciences

FTE Distribution: 25% I; 15% R; 10 % E (50% admin)

**Education**

<u>Degree</u>	<u>University</u>	<u>Major</u>
BS	National Taiwan University	Horticulture
MS	University of Hawaii at Manoa	Horticulture
PhD	University of Hawaii at Manoa	Plant Pathology

**Lifetime and Fellow Achievement Awards**

2020	CTAHR Excellent in Extension Team Award
2018	CTAHR Excellent in Teaching Award
2012	Syngenta Best Scientist Award, Society of Nematologists
2006	William Boright Hewitt and Maybelle Ellen Ball Hewitt Award for young scientists American Phytopathological Society

**Professional Appointments**

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
PEPS Department Chair	University of Hawaii at Manoa	2017-present
Professor	University of Hawaii at Manoa	2021-present
Associate Professor	University of Hawaii at Manoa	2016-2021
Assistant Professor	University of Hawaii at Manoa	2011-2016
Assistant Researcher (non-tenure)	University of Hawaii at Manoa	2007-2011
Assistant Researcher (non-tenure)	University of Florida	2005-2007
Post doctorate	University of Florida	2001-2005

**Courses Taught****Course Number and Title (credits)**

- PEPS/TPSS 481 Weed Sciences (3 credits) 2011- present
- PEPS/TPSS 410 Sustainable Plant and Soil Health Management (2 credits) – 2013-present
- PEPS 495 PEPS Capstone (4 credits) 2017-present
- PEPS 660 Plant Pathology Seminar (1 credit) – rotating with TRPP Faculty

**Publications (reverse chronological order)****Book Chapters**

1. Waisen, P. and K.-H. Wang. 2022. Perspective Chapter: Capitalizing on the host suitability of brassica biofumigant crops to root-knot nematodes (*Meloidogyne* spp.) in agroecosystems - A review on the factors affecting biofumigation. In: Brassica - Recent Advances. InTechOpen DOI: 10.5772/intechopen.107314 (<https://www.intechopen.com/online-first/83914>).
2. Sipes, B.S., and K.-H. Wang. 2017. Pests, diseases and weeds. In: M.G. Lobo and R.E. Paull (eds). Handbook of Pineapple Technology: Production, Postharvest Science, Processing and Nutrition. Wiley-Blackwell, New York, NY. 272 pp. (ISBN: 978-1-118-96738-6)

**Refereed Journal Publications**

1. Pitiki, M., R. Paudel, J. Mew, and K.-H. Wang. Examining susceptibility of white clover, buckwheat, black oat and forage radish as a long-term cover crop mix to *Meloidogyne incognita*. *Nematropica* (accepted pending on revision, Dec 2023).
2. Kong, A.T., Olmedo-Velarde, A., Borth, W., Wang, K.-H., Hu, J.S., and Melzer, M.J. 2023. Molecular and biological characterization of a novel tobamovirus infecting sunn hemp (*Crotalaria juncea* L.) in Hawaii. *Plant Disease* 107: 3106-3112 <https://doi.org/10.1094/PDIS-09-22-2148-RE>
3. Álvarez-Ortega, S., Subbotin, S. A., Wang, K.-H., Stanley, J. D., Vau, S., Crow, W. & Inerra, R. N. (2023). Morphological and molecular diversity among pin nematodes of the genus *Paratylenchus* (Nematoda: Paratylenchidae) from Florida and other localities and molecular phylogeny of the genus. *Plants*, 12(15): 2770. <https://doi.org/10.3390/plants12152770>
4. Klair D, Dobhal S, Ahmad A, Hassan ZU, Uyeda J, Silva J, Wang KH, Kim S, Alvarez AM, \*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*. doi: <https://doi.org/10.3389/fmicb.2023.1039292>
5. Budhathoki, S., B. Sipes, I. Shikano, R. Myers and K.-H. Wang. 2022. Integrating trap cropping and entomopathogenic nematode foliar sprays to manage diamondback moth and imported cabbage worm. *Horticulturae*, 8(11): 1073 (<https://doi.org/10.3390/horticulturae8111073>).

6. Wang, K.-H. P. Waisen, R. Paudel, G. Chen, S.L.F. Meyer and C.R.R. Hooks. 2022. Effects of plasticulture and conservation tillage on nematode assemblage and their relationships with nitrous oxide emission following a winter cover cropping and vegetable production system. *Horticulturae* 8: 728. (<https://doi.org/10.3390/horticulturae8080728>).
7. Olmedo-Velarde, A., P. Waisen, A.T. Kong, K.-H. Wang, J. S. Hu, and M.J. Melzer. 2022. Examination of the virome of taro plants affected by a lethal disease, the alomae-bobone virus complex, in Papua New Guinea. *Viruses* 2022, 14: 1410; <https://doi.org/10.3390/v14071410>.
8. Marquez, J., R. Paudel, B. S. Sipes, and Koon-Hui Wang. 2022. Successional effects of no-till cover cropping with black oat (*Avena olariza*) vs. soil solarization on soil health in a tropical Oxisol. *Horticulturae* 8: 527 (<https://doi.org/10.3390/horticulturae8060527>).
9. Pugh, M., N, Kihata, J. Uyeda, K.-H. Wang, and I. Shikano. 2022. The effects of a naturalized weed, *Lepidium virginicum*, on the development and behaviors of the diamondback moth and its natural enemies in Hawaii. *Biological Control* 173: 104994 (<https://doi.org/10.1016/j.biocontrol.2022.104994>).
10. Wang, K.-H., P. Waisen, A. W. Leslie, R. Paudel, S.L.F. Meyer and C.R.R. Hooks. 2022. Relationships between soil tillage systems, nematode communities and weed seed predation. *Horticulturae* 8: 425. <https://doi.org/10.3390/horticulturae8050425>.
11. Honsberger, D., J. Matsunaga, K.-H. Wang, and I. Shikano. 2022. *Oomyzus sokolowskii* (Hymenoptera: Eulophidae) joins the small complex of parasitoids known to attack the diamondback moth on Kauai. *Hawaiian Entomological Society* 54: (<http://hdl.handle.net/10125/81469>).
12. Silvasy, T., A.A. Ahmad, K.-H. Wang, T.J.K. Radovich. 2021. Rate and timing of meat and bone meal applications influence growth, yield and soil water nitrate concentrations in sweet corn production. *MDPI-Agronomy* 11: 2945 (<https://www.mdpi.com/2073-4395/11/10/1945/pdf>).
13. Paudel, R., P. Waisen, and K.-H. Wang. 2021. Exploiting the innate potential of sorghum/sorghum–sudangrass cover crops to improve soil microbial profile that can lead to suppression of plant-parasitic nematodes. *MDPI-Microorganisms* 9:1831 <https://doi.org/10.3390/microorganisms9091831>
14. Olmedo Velarde, A., P. Waisen, Kong, A., K.-H. Wang, J. Hu, and M. Melzer. 2021. Characterization of taro reovirus and its status in taro (*Colocasia esculenta*) germplasm from the Pacific. *Archives of Virology* 166: 2563-2567 (<https://link.springer.com/article/10.1007/s00705-021-05108-9>).
15. Waisen, P., Z. Cheng, B. S. Sipes, and K.-H. Wang. 2021. Biofumigation effects of brassicaceous cover crops on soil health in cucurbit agroecosystems. *Pedosphere* (accepted 6/5/2021; Manuscript ID pedos202010638; 30%).
16. Waisen\*, P., K.-H. Wang, J. Uyeda, and R.Y. Myers. 2021. Effects of fluopyram and azadirachtin on plant-parasitic and free-living nematodes on zucchini, tomato and sweet potato. *Journal of Nematology* 53:1-15 (10.21307/jofnem-2021-030).
17. Myers, R., B. Bushe, C. Mello, J. Lichty, A. Hara, B. Sipes, and K.-H. Wang. 2020. Yield Increases in burrowing nematode infested anthurium with fluopyram and trifloxystrobin applications. *HortTech* 30: 603-607 (<doi.org/10.21273/HORTTECH04648-2>).
18. Waisen, P., Z. Cheng, B.S. Sipes, J. DeFrank, S.P. Marahatta and K.-H. Wang. 2020. Effects of biofumigant crop termination methods on suppression of plant-parasitic nematodes. *Applied Soil Ecology* 154: (<https://doi.org/10.1016/j.apsoil.2020.103595>).
19. Waisen, P., B.S. Sipes, and K.-H. Wang. 2019. Examine potential of biofumigant cover crops as open-end trap crops against plant-parasitic nematodes. *Nematropica* 49: 254-264.
20. Waisen, P., K.-H. Wang and B. S. Sipes. 2019. Effect of spirotetramat (Movento®) on hatch, penetration and reproduction of *Rotylenchulus reniformis*. *Nematropica* 49: 194-199.
21. You, X., M. Tojo, S. Ching, and K.-H. Wang. 2018. Effects of vermicompost water extract prepared from bamboo and kudzu against *Meloidogyne incognita* and *Rotylenchulus reniformis*. *Journal of Nematology* 50: ISSN (Online), DOI: 10.21307.
22. Mishra, S., K.-H. Wang, B. S. Sipes, M. Tian. 2018. Induction of host-plant resistance in cucumber by vermicompost tea against root-knot nematode. *Nematropica* 48: 164-171.
23. Lau, J.-W., Marahatta, S. P., Ragone, D., Wang, K.-H., and Sipes, B. S. 2018. Plant-parasitic nematodes associated with breadfruit, *Artocarpus altilis* Parkinson (Fosberg), in Hawaii. *Nematropica* 48: 172-178.

#### Conference paper (Presentation and Abstract)

1. Wang, K.-H., R. Paudel, J. Marquez, and P. Waisen. 2023. Nematode linkage to regenerative agriculture in the tropics/subtropics. Symposium “How Will Regenerative Agricultural Practices Affect Parasitic Nematode Populations?” Society of Nematologists 62nd Annual Conference, July 9-14, 2023, Columbus, Ohio.
2. Paudel, R. and K.-H. Wang. 2023. How long does it take for a low-till sorghum/sorghum-sudangrass cover cropping to improve soil health in a degraded tropical Oxisol. Society of Nematologists 62nd Annual Conference, July 9-14, 2023, Columbus, Ohio.
3. Silvester, N. P. and B. S. Sipes. 2023. Survival and infectivity of entomopathogenic nematodes from desiccated living bombs. Society of Nematologists 62nd Annual Conference, July 9-14, 2023, Columbus, Ohio.
4. Wong, L., K. -H. Wang, and B. S. Sipes. 2023. Mortality of the sweet potato weevil (*Cylas formicarius*) larvae caused by *Steinernema feltiae*. Society of Nematologists 62nd Annual Conference, July 9-14, 2023, Columbus, Ohio.
5. Pitiki, M., B. Wiseman, and K. -H. Wang. 2023. Evaluating soil health benefits of four tropical cover crops in the tropic for sweet potato production. Society of Nematologists 62nd Annual Conference, July 9-14, 2023, Columbus, Ohio.

6. Schloemer, C., K. S. Lawrence, S. H. Graham, K.-H. Wang, and B. S. Sipes. 2023. Winter cover crops and biological products to manage *Meloidogyne incognita* and promote soil health in sweetpotato. Society of Nematologists 62nd Annual Conference, July 9-14, 2023, Columbus, Ohio.
7. Wang, K.-H. 2023. Prescription of soil health by cover cropping. Mini Conference for Organic, Transition to Organic and Sustainable Agriculture (June 19-20, 2023, organized by A. Ahmad through Zoom, 54 participants).
8. Wong, L., K.-H. Wang, and B. S. Sipes. 2022. Infection and mortality of sweetpotato weevil (*Cylas formicarius*) by Hawaiian isolates of entomopathogenic nematodes, *Steinernema feltiae* and *Oscheius* sp. Society of Nematologists 61th Annual Conference, September 26-29, 2022, Anchorage, Alaska.
2. Braley, L.E. and K.-H. Wang. Papaya ground seed as a biofumigant against soil-borne pathogens in hawai'i. Society of Nematologists 61th Annual Conference, September 26-29, 2022, Anchorage, Alaska.
3. Mew, J., R. Paudel, and K.-H. Wang. Benefits of white clover as a long-term cover crop on soil health and water infiltration. Society of Nematologists 61th Annual Conference, September 26-29, 2022, Anchorage, Alaska.
4. Paudel, R. and K.-H. Wang. Expediting soil health improvement effects of sorghum/sorghum-sudangrass hybrids through low-till practice in a *Rotylenchulus reniformis* infested soil. Society of Nematologists 61th Annual Conference, September 26-29, 2022, Anchorage, Alaska. Wang, K.-H. 2022. Establishing long-term ground cover vs mulching with long-lasting cover crop residues. NRCS STAC Partner Sharing Session, PIA. Nov 8, 2022.
5. Uyeda, J. and K.-H. Wang. 2022. Avocado Lacebug Management in Hawaii. 0126 Virtual Invasive Pest Mini-Conference. <https://vimeo.com/670939003/64c3463fea>.
6. Wang, K.-H. 2022. Soil health management approaches to help farmers reduce soil-borne disease problem in agroecosystems. NRCS STAC Partner Sharing Session, PIA. Jan 11, 2022 Wang, K.-H., Waisen, P., R. Paudel, S. Budhathoki and J. Uyeda. 2021. Relationships between nematode community and incidence of asparagus crown and root rot. Society of Nematologists Annual Conference, Sep 12-15, 2021.
7. Budhathoki, S., and K.-H. Wang. 2021. Strategies to enhance the efficacy of entomopathogenic nematodes for the management of diamondback moth and imported cabbageworm. Society of Nematologists Annual Conference, Sep 12-15, 2021.
8. Paudel, R. and K.-H. Wang, Screening sorghum/sorghum-sudangrass hybrids for allelopathic effects against root-knot nematodes and their potential for soil health management in a no-till agroecosystem. Society of Nematologists Annual Conference, Sep 12-15, 2021.
9. Wang, K.-H., Waisen, P., A.W. Leslie, S.L.F. Meyer and C.R.R. Hooks. 2020. Relationships between weed seed predation, soil tillage practices and nematode soil health indicators. Society of Nematologists Virtual Conference, Dec 14-18, 2020.
10. Waisen, P., S. Budhathoki, R. Paudel, J. Uyeda and K.-H. Wang. 2020. Pre-plant and in-season soil treatment with chitin rich crustacean meal suppressed *Meloidogyne* spp. and improved soil health and asparagus growth. Society of Nematologists Virtual Conference, Dec 14-18, 2020.
11. Paudel, R., K.-H. Wang, and P. Waisen. Management of plant-parasitic nematodes and soil health using sorghum/sorghum-sudangrass hybrids as a cover crop. Society of Nematologists Virtual Conference, Dec 14-18, 2020.
12. Budhathoki, S. and K.-H. Wang. 2020. Can the efficacy of entomopathogenic nematode against diamondback moth and imported cabbage worm be improved by cultural practices? Society of Nematologists Virtual Conference, Dec 14-18, 2020.
13. Wang, K.-H. 2020. Which Sorghum/Sorghum-sudangrass hybrids have higher allelopathic toxicity against soil-borne pests? Multi-state (NE1640) Project: Plant-Parasitic Nematode Management as a Component of Sustainable Soil Health Programs in Horticultural and Field Crop Production Systems. Oct 21-22, 2020 (Online; 17 participants).
14. Wang, K.-H. and Waisen, P. 2019. Velum report from Hawaii. Mini-Conference on fluopyrym with Bayer in Hawaii. UH Manoa, Honolulu, HI. November 19, 2019 (12 participants).
15. Silva, J., J. Uyeda, K.-H. Wang, J. Sugano, and A. Ahmad. 2019. Pre-emergent herbicides and hand-weeding for perennial and annual weed management in Hawaii green onion field systems. ASHS 2019 Annual Conference, Las Vegas, NV. July 21-25, 2019.
16. Ahmad, A., H. Nguyen, T.J.K. Radovich, K.-H. Wang, J. Sugano, J. Uyeda, S. Motomura, J. Silva, and K. Tavares. 2019. The effect of biochar application on soil health and legume crop's growth and yield in Hawaii. ASHS 2019 Annual Conference, HortScience 54: S51.
17. Waisen, P. and K.-H. Wang. 2019. Biofumigation and soil health and plant disease management. Multi-state (NE1640) Project: Plant-Parasitic Nematode Management as a Component of Sustainable Soil Health Programs in Horticultural and Field Crop Production Systems. Honolulu, HI. Oct 17-19, 2019 (10 participants).
18. Wang, K.-H. 2019. Soil health friendly biofumigation using brown mustard and oil radish cover crops for soil-borne disease management. Multi-state (NE1640) Project: Plant-Parasitic Nematode Management as a Component of Sustainable Soil Health Programs in Horticultural and Field Crop Production Systems. Honolulu, HI. Oct 17-19, 2019.
19. Waisen, P., K.-H. Wang, and Brent Sipes. 2019. Will enhancement of the biofumigation effect compromise the soil health benefits of brassica cover crops? Society of Nematologists 58th annual meeting, Raleigh, NC. July 7-10, 2019. *J. Nematol.* 51: 43.
20. Wang, K.-H., P. Waisen, and J. Silva. 2019. The relationship between soil-borne disease pressure and soil health indicators as affected by biofumigation. Society of Nematologists 58th annual meeting, Raleigh, NC. July 7-10, 2019. *J. Nematol.* 51: 44.
21. Kerr, N., G. Spinelli, and K.-H. Wang. 2019. Saving 'Pisang Awak' banana from Panama wilt using anaerobic soil disinfection. 31st Annual CTAHR Student Research Symposium, University of Hawaii at Manoa, Honolulu, HI. April 15, 2019 (Abstract 19).

22. Samis, F., K.-H. Wang, B. Sipes, and C. Chan. 2019. Enhanced ecosystem screenhouses: a comprehensive approach to cucumber crop protection in Hawaii. 31st Annual CTAHR Student Research Symposium, University of Hawaii at Manoa, Honolulu, HI. April 15, 2019 (Abstract 8).
23. Waisen, P., K.-H. Wang, Zhiqiang Cheng, and Brent Sipes. 2019. Below ground battle: Does biofumigation have non-target impacts on soil health promoting free-living nematodes? 31st Annual CTAHR Student Research Symposium, University of Hawaii at Manoa, Honolulu, HI. April 15, 2019 (Abstract 32).
24. Murphy, K. and K.-H. Wang. 2019. Intermicrobial interaction among marine bacteria with Hawaiian bobtail squid: a model to study complex microbe. 31st Annual CTAHR Student Research Symposium, University of Hawaii at Manoa, Honolulu, HI. April 15, 2019 (Abstract 20).
25. Sugano, J., K.-H. Wang, J. Uyeda, J. Silva, K. Tavares, T. Radovich, and G. Spinelli. 2019. Screenhouse systems in the tropics: Organic integrated pest management. Pacific Branch Meeting of the Entomological Society of America, March 31- April 3, 2019. San Diego, CA.
26. Wang, K.-H. 2018. Use of brassica cover crops for plant and soil health management. Multi-state (NE1640) Project: Plant-Parasitic Nematode Management as a Component of Sustainable Soil Health Programs in Horticultural and Field Crop Production Systems. Northampton, MA. October 24-25, 2018.
27. Waisen, P., K.-H. Wang, Z. Cheng, and B.S. Sipes. 2018. Managing plant-parasitic nematodes and soil health through ecological based biofumigation using brown mustard and oil radish. Society of Nematologists 57th annual meeting, Albuquerque, NM. July 21-25, 2018. *J. Nematol.* 50: 661-662.
28. \*Waisen, P., S. Ching, and K.-H. Wang. 2018. Effects of fluopyram on beneficial and plant-parasitic nematodes in comparison to azadiractin and sunn hemp cover cropping. Society of Nematologists 57th annual meeting, Albuquerque, NM. July 21-25, 2018. *J. Nematol.* 50: 661.
29. \*Martiney, C. and K.-H. Wang. 2018. Conservation biological control of coffee berry borer in Hawai'i by applying nitrogen fixing tree mulch to enhance efficacy of entomopathogenic nematodes. Society of Nematologists 57th annual meeting, Albuquerque, NM. July 21-25, 2018.
30. \*Alhussaini, A., B. S. Sipes, K.-H. Wang, and Z. Cheng. Identification of the bacterial symbiont from entomopathogenic nematode (*Oscheius*) and its biological control potential. Society of Nematologists 57th annual meeting, Albuquerque, NM. July 21-25, 2018. *J. Nematol.* 50, 625.

#### Extension Publications

1. Wang, K.-H., R. Paudel, J. Mew, and J. Silva. 2023. Akamai Cover Crop Mix (White clover, buckwheat, black oat): Does it benefit soil health? *Hānai' Ai* 52: December, 2023.
2. Pitiki, M., B. Wiseman, L. Wong, B. Sipes, J. Silva, J. Uyeda, R. Mandhar and K.-H. Wang. 2023. Sustainable Pest and Soil Health Management for Sweet Potato Production. *Hānai' Ai* 51: September 2023. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72226&dt=3&g=12>
3. Tay, J.-W., R. Manandhar, and K.-H. Wang. 2023. Hydrogel baits for ant control and the combined use of hydrogel baits and tanglefoot for citrus sooty mold control. *Hānai' Ai* 51: September 2023. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-55.pdf>
4. Wang, K.-H., and B. S. Sipes. 2023. Prescription for soil health by cover cropping in Hawaii: for annual cropping systems. *Hānai' Ai* 50: June 2023.
5. Wang, K.-H., J. Mew and J. Silva. 2023. Akamai cover crop mix: How to establish? Partial cost analysis and its benefits. *Hānai' Ai* 49: March 2023. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72076&dt=3&g=12>
6. Wang, K.-H., B. S. Sipes, A. Ahmad and J. Uyeda. Integrated pest management against Chinese rose beetles for cacao. *Hānai' Ai* 49: March 2023. 4 pp. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=72062&dt=3&g=12>
7. Tay, J.-W., R. Manandhar, and K.-H. Wang. 2023. Hydrogel baits for ant control and the combined use of hydrogel baits and tanglefoot for citrus sooty mold control. CTAHR Cooperative Extension Publication IP-55. 5 pp. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-55.pdf>.
8. Paudel, R., L. Braley, Joshua Silva and K.-H. Wang. 2022. Subbing sunn hemp with sorghum in Fusarium soils. *Hānai' Ai* Newsletter December 2022.
9. Wang, K.-H. 2022. Shelterbelt trees and cacao pollinators. *Hānai' Ai* Newsletter December 2022.
10. Braley, L., K.-H. Wang, J. Silva, T. Yan, S. Nakamoto, and W. W. Su. 2022. Repurposing papaya: Examining the potential of instant biofumigation using papaya seed waste for soil-borne disease management on leafy greens. CTAHR Cooperative Extension Publication PD-123. 7 pp. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/PD-123.pdf>
11. Wang, K.-H. 2022. Evaluation of conventional and organic insecticides against avocado lace bug in Hawai'i. CTAHR Cooperative Extension Publication IP 51. 6pp. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-51.pdf>
12. Keliikuli, A., K.-H. Wang, Y. Li, and C. N. Lee. 2021. Natural Farming: Comparison of phosphorus-solubilizing and nitrogen-fixing bacteria among Korean Natural Farming (KNF), organic (ORG), and conventional (CON) farming methods. CTAHR Cooperative Extension Publication SA-19. 16 pp. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/SA-21.pdf>.
13. Paudel, R., S. Budhathoki, and K.-H. Wang. Revitalized degraded soil in the tropic with energy sorghum. [https://myemail.constantcontact.com/The-Latest-H-nai-Ai-News---April---May---June-2021-Volume-42.html?soid=1102675671876&aid=F9Y1OK\\_qJKk](https://myemail.constantcontact.com/The-Latest-H-nai-Ai-News---April---May---June-2021-Volume-42.html?soid=1102675671876&aid=F9Y1OK_qJKk).

14. Catherman, H., K.-H. Wang, R. Paudel, S. Budhathoki, and C. Mogren. 2021. Pigeon pea: A multipurpose N-fixing border crop. [https://myemail.constantcontact.com/The-Latest-H-nai-Ai-News---April---May---June-2021-Volume-42.html?soid=1102675671876&aid=F9Y1OK\\_qJKk](https://myemail.constantcontact.com/The-Latest-H-nai-Ai-News---April---May---June-2021-Volume-42.html?soid=1102675671876&aid=F9Y1OK_qJKk)
15. Wang, K.-H., S. Budhathoki, M. Pugh, I. Shikano, J. Silva, J. Uyeda and R. Manandhar. 2021. Insecticide resistance management for diamondback moth in organic farms: Integration of trap cropping, intermittent sprinkler irrigation and biological control. Hānai‘Ai Newsletter Jan-Mar, 2021. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67939&dt=3&g=12>
16. Waisen, P., R. Paudel, and K.-H. Wang. 2020. Soil health management and asparagus Fusarium crown and root rot. Hānai‘Ai Newsletter June-August, 2020. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67093&dt=3&g=12>
17. Budhathoki, S., K.-H. Wang, P. Waisen, M. Meada, R. Paudel, J. Silva, R. Manandhar, J. Uyeda and B. Sipes. 2020. Using trap crops and entomopathogenic nematodes to manage caterpillar pests on head cabbage. Hānai‘Ai Newsletter June-Aug 2020. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67098&dt=3&g=12>
18. Wang, K.-H. and P. Waisen, 2020. Summer home school: Sustainable Ag Version. Hānai‘Ai Newsletter June-Aug 2020. <https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=67099&dt=3&g=12>
19. Waisen, P., R. Paudel, and K.-H. Wang. 2020. [An Update on Biofumigation Research in Hawaii: The equipment matters!](#) Hānai‘Ai Newsletter March-May, 2020.
20. Wang, K.-H., P. Waisen, and J. Sugano. 2019. Ecosystem enhanced greenhouse cucumber production. Hānai‘Ai Newsletter December-February, 2019. [https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66411&dt=3&g=12&utm\\_source=Hanai+Ai+Winter+2020&utm\\_campaign=WINTER+2020+Hanai%27Ai&utm\\_medium=email](https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66411&dt=3&g=12&utm_source=Hanai+Ai+Winter+2020&utm_campaign=WINTER+2020+Hanai%27Ai&utm_medium=email)
21. Wang, K.-H., P. Waisen, N. Kerr and J. Sugano. 2019. Exploring biological management methods against Fusarium wilt of banana in Hawai‘i. Hānai‘Ai Newsletter September-December, 2019. [https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66186&dt=3&g=12&utm\\_source=Fall+2019&utm\\_campaign=Fall+2019+Hanai%27Ai&utm\\_medium=email](https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66186&dt=3&g=12&utm_source=Fall+2019&utm_campaign=Fall+2019+Hanai%27Ai&utm_medium=email)
22. Waisen, P. and Wang, K.-H. 2019. What plastic mulch can help biofumigation to better manage nematodes? Hānai‘Ai Newsletter September-December, 2019. [https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66208&dt=3&g=12&utm\\_source=Fall+2019&utm\\_campaign=Fall+2019+Hanai%27Ai&utm\\_medium=email](https://gms.ctahr.hawaii.edu/gs/handler/getmedia.ashx?moid=66208&dt=3&g=12&utm_source=Fall+2019&utm_campaign=Fall+2019+Hanai%27Ai&utm_medium=email)
23. Spinelli, G., N. Kerr, and K.-H. Wang. 2019. Innovative sustainable technique to manage Fusarium wilt disease on banana. Oahu Cooperative Extension Monthly Newsletter. Jan 24, 2019.
24. Sugano, J., G. Spinelli, K. Wong, E. Perez, J. Silva, J. Uyeda, K.-H. Wang, P. Shingaki. 2019. Evaluation of organic insecticides for aphid control on Chinese cabbage. Hānai‘Ai Newsletter, November – January, 2019.

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

<https://www.ctahr.hawaii.edu/sustainag/leaders/wang.html>

#### App:

Cover Crop Plant-Available Nitrogen App (<https://oahured.org/cover-crop-calculator/>) or at <https://cccpan.aaronfujimoto.com/>

#### Videos:

1. Cytryn, Q. 2023. Vermicompost worm harvester. <https://www.youtube.com/watch?v=sXdPYnUuZwc&t=18s>
2. Paudel, R. and K.-H. Wang. 2023. Soil health improvement effects of sorghum/sorghum-sudangrass hybrids through low-till practice. <https://youtu.be/iCb9xFQjY2Y>.
3. Budhathoki, S., K.-H. Wang, Paudel, R., J. Mew. 2021. [Papaya air layering](#).
4. Paudel, R., S. Budhathoki and K.-H. Wang. 2021. Revitalized degraded soil in the tropic with energy sorghum ([https://www.youtube.com/watch?v=hbCSWttx8\\_A&t=16s](https://www.youtube.com/watch?v=hbCSWttx8_A&t=16s)).
5. Catherman, H., K.-H. Wang, R. Paudel, S. Budhathoki, and C. Mogren. 2021. Pigeon pea: a multipurpose N-fixing border crop.
6. Autufuga, D., W. Honda, R. Paudel, S. Pennington, J. Sugano and K.-H. Wang. 2020. Soil health demo video for International Year of Plant Health. <https://www.youtube.com/watch?v=XrdYbhQnVAc&t=5s>
7. Meada, M., S. Budhathoki, and K.-H. Wang. 2020. Diamondback moth video for International Year of Plant Health. [https://www.youtube.com/watch?v=8kX17FeFM\\_E](https://www.youtube.com/watch?v=8kX17FeFM_E)
8. Waisen, P., K.-H., Wang, L. Okumura, D. Meyer, and J. Sugano. 2019. Ecosystem Enhanced Greenhouse for cucumber production in Hawaii. <https://youtu.be/79NOK-1Yjhs>
9. Wang, K.-H., Jari Sugano, Christ Kadaoka. 2019. Tackling Fusarium on banana. <https://www.youtube.com/watch?v=kkZ8wgeZTGk&feature=youtu.be>

#### Public Media

1. Wang, K.-H. Oct 19, 2022. Use of cover crops for management of plant-parasitic nematodes. ‘In The Garden, On The Farm’ show. Wednesdays 12-1pm HST Kaua‘i Community Radio KKCR, Hanalei KAQA Kilauea K284AL, Haleiwa. Broadcast on 91.9 FM Kaua‘i Island-wide, 90.9 FM Hanalei/Princeville, 92.7 FM Anahola/Moloa‘a, 104.7 FM Haleiwa, O‘ahu, 95.1 cable. (Interviewed by Paul Massey).



- Portia Stewart. America's Conservation Ag Movement: Screenhouses boost marketable yields for farmers. *Agweb*, Farm Journal Jun 17, 2020. <https://www.agweb.com/article/screenhouses-boost-marketable-yields-farmers>.

Leadership Roles (Committees, Boards, Advisory, etc.)

Society of Nematologists President Elect 2023  
 Society of Nematologists Vice President 2022  
 PEPS Department Chair 2017-present  
 Oahu County Administrator search committee 2019  
 Local Arrangement Host for NE1640 Multistate Annual Meeting Oct 17-20, 2019  
 Hawaii State Science Fair Judge for Gamma Sigma Delta Award 2019  
 Editor for Journal of Nematology (2016-present)  
 CTAHR Faculty Senate Executive Council Secretary 2016-2017  
 Society of Nematologists Executive Board Secretary 2015-2018  
 Gamma Sigma Delta secretary 2017- 2018  
 Sustainable Agriculture and Organic Program Extension Agent Search Committee 2018  
 TPSS Maui Sustainable Organic Edible Crop Jr. Extension Agent Search Committee. 2016.  
 CTAHR Faculty Senate (2011-2012 Instruction Committee; 2013-2014 Instruction Committee; 2015-2016 Senate Executive Council as liaison for the Research Committee)

**Graduate Students**

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
<i>Chair</i> of Master's Committees	0	8
<i>Chair</i> of PhD Committees	3	3
Member of Master's Committees	7	24
Member of PhD Committees	4	4

**Grant Support**

Extra-mural Grants (last 5 years)

- Wang, K.-H., J. Silva, J. Uyeda, H. Lutgen, J. Bloese, R. Manandhar, and R. Gutierrez-Coarite. 2023-2027. Regenerating soil health through shelterbelt planting, sheet mulching and tree mulch plant-available nitrogen calculator. NRCS On-Farm Trial (waiting for execution). \$771,442.
- Wang, K.-H., J. Silva, J. Uyeda, T. Radovich, d. Elliot. 2022. Western Cover Crop Council Outreach Grant. U.S. USDA NIFA 2018-38640-28418 through Western SARE (WESP 19-01). \$10,000.
- Wang, K.-H. and L. Braley. 2022-2024. Examining the biofumigation and innate potential of ground papaya seeds to induce host plant resistance against soil-borne pathogens in Hawaii. WSARE Graduate Student Grant GW22-233 (\$29,348).
- Sipes, B.S., K.-H. Wang, and R. Manandhar. 2022. Entomopathogenic bombs — sweet potato weevils be gone. WSARE R&E 2022-2025, \$350,000.
- Silva, J., K.-H. Wang, Melzer, M. 2022. Protecting Hawaii's Chinese cabbage, mustard greens and Brassica industry from new soil-borne bacterial, fungal, and viral diseases. Jan 2022-Aug 2023. SCBGP-HDOA \$38,386.
- Ahmad, A. and K.-H. Wang. 2020. Revitalizing the Banana Industry in Hawaii with Disease Free and Resistant Varieties. Dec. 2020-Dec. 2021. SCBGP-HDOA \$25,000.
- Yamamoto, J. Wang, et al. 2020-2022. ANNH GoFarm Hawaii: Training new farmers and growing agribusiness in Hawaii, FY2020. USDA NIFA Beginning Farmer and Rancher Development Program. \$450,000.
- Wang, K.-H, R. Paudel, J. Silva, A. Ahmad. 2020-2022. Evaluate sorghum and sorghum-sudangrass hybrids as soil builders and microbial enhancer crops in the tropic. WSARE (GW20-212) \$25,000.
- Yamamoto, J., Wang, K.-H. et al. 2020-2023. BFRDP GoFarm Hawaii: Growing Beginning Farmers in Hawaii. USDA NIFA Beginning Farmer and Rancher Development Program. \$600,000.
- Wang, K.-H., B.S. Sipes, J. Sugano, J. Uyeda, A. Ahmad. 2020-2022. Promoting cacao (*Theobroma cacao*) production in Hawaii through Ecosystem Sustainable and Integrated Pest Management (ES-IPM) approaches. HDOA SCBG. \$35,000.
- Shikano, I., Wang, K.-H., Gutierrez-Coarite, R., Silva, J. & Manandhar, R. 2021-2022. Assessing dead-end trap crops for the management of Diamondback Moths in Hawaii, Hawaii Department of Agriculture, Specialty Crop Block Grant Program (HDOA SCBGP). \$35,000.
- Su, W., K.-H. Wang et al. 2020-2023. Instant biofumigation using natural products from papaya seed waste for sustainable management of soil-borne plant pathogens. WSARE \$349,995 (my share of budget \$142,482).
- Wang, K.-H., J. Sugano, and A. Ahmad. 2019-2021. Safe guard Hawaii papaya industry by promoting clean vegetative propagative materials and root shield techniques. HDOA SCBGP \$40,000.
- Wang, K.-H., J. Silva, and J. Hawkins. 2019-2021. Finding new friends for sunn hemp to revitalized degraded soil in the tropic. NRCS CIG PIA \$75,000.

15. Wang, K.-H., E. Rohrig, J. Stark, T. Smith, R. Mau. 2019-2020. Alternatives to Control Melon Fly Due to Resistance to Spinosad (GF-120). APHIS-PPQ-CPHST \$213,975.
16. Sugano, J., M. Gorham, J. Silva, and K.-H. Wang. 2019-2021. Building competencies in Hawaii's agricultural professionals and stakeholders in under-represented agricultural communities through collaborative partnerships. State of Hawaii. WSARE (WPDP19-21). \$75,000. (Co-PI = \$0).
17. Wang, K.-H., M. Tian, J. Sugano, J. Silva, J. Uyeda, and A. Ahmad. 2018-2021. Soil health friendly biofumigation using brown mustard and oil radish cover crops for soil-borne disease management. NRCS CIG PIA \$74,449.
18. Sipes, B.S., K.-H. Wang, C. Martiney. 2018-2020. Conservation biological control of coffee berry borer by applying nitrogen fixing tree mulch to enhance indigenous entomopathogenic nematodes. WSARE (GW18-104) \$24,948. (Co-PI = \$24,948)
19. Sugano, J., Wang, K.-H., J. Silva, J. Uyeda, S. Motomura, and K. Wong. 2017. WIPM. Jump starting a natural biocontrol system to manage thrips in commercial eggplant production systems. WIPM \$5,000. (Co-PI = \$0).
20. Wang, K.-H. 2017. Insectary Plants Distribution for Crops Supported in the FY14 Hawaii State Plan. HDOA SCBGP \$24,990.
21. Waisen, P. and K.-H. Wang. 2017-2019. "Cover Crop 5-in 1 Approach" for nematode management using mustard and oil radish. WSARE \$25,000. (Co-PI = \$25,000)
22. Wang, K.-H., B. Sipes, J. Sugano, J. Uyeda and S. Ching. 2017- 2019. Specialty organic cucumber production in Hawaii using screenhouse and multipurpose companion plants. HDOA SCBGP \$40,000.

Google Scholar: <https://scholar.google.com/citations?user=icIwkooAAAAJ&hl=en&oi=ao>