Curriculum Vitae of Brent Steven Sipes

BioBib
BRENT STEVEN SIPES
College of Tropical Agriculture and Human Resources
Department of Plant and Environmental Protection Sciences
FTE Distribution: 15%I; 70%R; 30%E

EDUCATION

Degree	University	Major
BS	Purdue University	Agriculture, Plant Protection option
MS	North Carolina State University	Plant Pathology
PhD	North Carolina State University	Plant Pathology

LIFETIME AND FELLOW ACHIEVEMENT AWARDS

Keynote Speaker, 2024. Sustainable Agriculture Conference, University of Hawaii at Hilo.
Invited Moderator, 2024. Breaking Barriers through Diversity and Inclusivity. USAID. Islamabad Pakistan
Fellow, 2018. Society of Nematologists.
Ka Pouhana (Mentor) Award, 2005. College of Tropical Agriculture and Human Resources.
Novartis Recognition Award for Excellence, 1998. Society of Nematologists.

PROFESSIONAL APPOINTMENTS

Professor	University of Hawaii at Mānoa	2003 to Present
Graduate Chair	Tropical Plant Pathology	2004 to Present
Chair	Plant and Environmental Protection Sciences	2010 to 2012
Associate Professor	University of Hawaii at Mānoa	1998 to 2003
Assistant Professor	University of Hawaii at Mānoa	1993 to 1998
Junior Researcher	University of Hawaii at Mānoa	1991 to 1992
Lecturer	University of Hawaii at Mānoa	1991

COURSES TAUGHT

Course Number and Title (credits)
PEPS/NREM/SUST 210 Introduction to Environmental Science (3 credits)
PPTH 405 Introduction to Plant Pathology (4 credits)
PEPS 451 Environmental Law (3 credits)
PEPS 499 Undergraduate Directed Research (variable credits)
PEPS 605 Biology of Plant Pathogens: Fungi & Nematodes (4 credits)
PPTH 616 Plant Nematology (3 credits)
PEPS 660 Tropical Plant Pathology Seminar (1 credit)
PEPS 691 Special Topics (Nematode Discussion) (1 credit)
PEPS 699 Directed Research (variable credits)
PEPS 700 Thesis Research (variable credits)
PEPS 716 Advanced Nematology (4 credits)
PEPS 799 Proposal/Defense Seminar (variable credits)
PEPS 800 Dissertation Research (variable credits)

PUBLICATIONS

Books Edited

C. Chan, **B. Sipes**, and T. Lee. 2017. Enabling Agri-entrepreneurship and Innovation: Empirical Evidence and Solutions for Conflict Regions and Transitioning Economies. 214 pages. CAB International. Oxfordshire, UK.

Book Chapters

B.S. Sipes and B. Chinnasri. 2018. Nematode parasites of pineapple. in Plant-parasitic nematodes in subtropical and tropical agriculture. 3rd edition. R.A. Sikora and J. Bridge, eds. CAB International, Oxfordshire, UK.

B. Sipes and A. Pires de Matos. 2018. Pests, Diseases and Weeds. in 2018. The Pineapple, 2nd Edition: Botany, Production and Uses. G.M. Sanewsk et al., eds. CAB International.

B. Sipes and R. Myers. 2018. Plant-parasitic nematodes in Hawaiian agriculture. In Plant parasitic nematodes in sustainable agriculture of North America. Vol. 1 - Canada, Mexico and Western USA. S.A. Subbotin and J.J. Chitambar, eds. Springer. ISBN:978-3-319-99584-7

Refereed Journal Publications

C.M. Schloemer, S.H. Graham, K.-H. Wang, **B.S. Sipes**, B. Lawaju, and K.S. Lawrence. 2025. Evaluation of cover crops and biopesticides to manage *Meloidogyne incognita* on sweetpotatoes in greenhouse and microplot settings. Journal of Nematology 57 DOI: https://doi.org/10.2478/jofnem-2025-0015

N. Silvester and B. Sipes. 2025. Viability and infectivity of entomopathogenic nematodes from desiccated insect cadavers. Journal of Pest Science (submitted January 2025).

L.G.-K. Wong, K.-H. Wang, and **B.S. Sipes**. 2025. Nontarget effects of entomopathogenic nematodes and entomopathogenic fungi on soil-surface arthropods. Journal of Nematology (submitted April 2025).

L.G.K. Wong, K.-H. Wang, R. Myers, and **B.S. Sipes**. 2025. Control of *Cylas formicarius* using entomopathogenic nematodes isolated from Hawaii. Nematropica 55:1-9.

L. Wong and **B. Sipes**. 2024. Host status of indigenous and endemic Hawaiian landscape plants to the plant-parasitic nematodes *Rotylenchulus reniformis* and *Meloidogyne javanica*. Native Plants Journal (in review).

L.G.-K. Wong, K.-H. Wang, and **B.S. Sipes**. 2024. Emergence patterns and behavior of *Steinernema feltiae* from *Tenebrio molitor*. Journal of Comparative Parasitology (in review).

R. Myers, C. Mello, C. Nagai, **B. Sipes**, and T. Matsumoto. 2023. Evaluation of *Coffea arabica* cultivars for resistance to *Meloidogyne konaensis.* Agriculture 13:1168 DOI: 10.3390/agriculture13061168

I. Acar and **B. Sipes**. 2022. Enhancing the biological control potential of entomopathogenic nematodes - Protection from desiccation and UV radiation. Biological Control: 10.1016/j.biocontrol.2022.104874.

A. Alhussaini, J. Bisel, R. Myers, and **B. Sipes**. 2022. Diversity of entomopathogenic *Oscheius* spp. and bacteria associated with them in the Hawaiian Islands. Annals of Applied Biology: Accepted 5 July 2021.

S. Budhathoki, **B.S. Sipes**, I. Shikano, R.Y. Myers, R. Manandhar, and K.-H. Wang. 2022. Integrating trap cropping and entomopathogenic nematode foliar sprays to manage diamondback moth and imported cabbage worm. Horticulturae 1073, https://doi.org/10.3390/horticulturae8111073.

J. Marquez, R. Paudel, **B.S. Sipes**, and K.-H. Wang. 2022. Successional effects of no-till cover cropping with black oat (*Avena strigosa*) vs. soil solarization on soil health in a tropical Oxisol. Horticulturae 8: 527. https://doi.org/10.3390/horticulturae8060527

P. Waisen, Z. Cheng, **B.S. Sipes**, and K.-H. Wang. 2022. Biofumigation effects of brassicaceous cover crops on soil health in cucurbit agroecosystems. Pedosphere 32:521-531. https://doi.org/10.1016/S1002-0160(21)60054-1.

R. Widanage, C. Chan, Y.-P. Tsang, **B. Sipes**, H. Melakeberhan, A. Sanchez-Perez, and A. Mejía-Coroy. 2022. Enhancing Technical Efficiency and Economic Welfare: A Case Study of Smallholder Potato Farming in the Western Highlands of Guatemala. Economia Agro-alimentare/Food Economy – Open Access. https://doi.org/10.3280/ecag2022oa13227

R. Myers, B. Bushe, C. Mello, J. Lichty, A. Hara, K.-H. Wang, and **B. Sipes**. 2020. Yield increases in burrowing nematode-infested anthurium with fluopyram and trifloxystrobin applications. HortTechnology 30:603-607. https://doi.org/10.21273/HORTTECH04648-20

P. Waisen, 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 154:103595. https://doi.org/10.1016/j.apsoil.2020.103595

LEADERSHIP ROLES (COMMITTEES, BOARDS, ADVISORY, ETC.)

Manoa Faculty Senate – multiple terms including Executive Committee and Chair
College of Tropical Agriculture Senate – multiple terms including Executive Committee and Chair
University of Hawaii Ethics Committee – co-Chair (2019-2021, 2023-Current)
Gamma Sigma Delta, Honor Society of Agriculture - President
American Phytopathological Society - Office of International Programs
Hawaii Academy of Science - State Science and Engineering Fair Judge 1998-present
Nematropica - Editor (2017-2019)
Society of Nematologists - served as President, Treasurer and Secretary

MENTORING ACTIVITIES

	Current number	Number Graduated
MS Committee Chair	3	18
PhD Committee Chair	3	9
MS Committee Member	1	20
PhD Committee Member	1	23

EXTRAMURAL GRANTS

B. Sipes and R. Myers. 2025. Biological control of Two-lined Spittlebug using Hawaiian strains of entomopathogenic nematodes. HDOA Pesticide Branch ($105,000).

B. Sipes and K.H. Wang. 2025. Training to observe. USDA APHIS ($105,000).

B. Sipes. 2024. Resistance to *Meloidogyne konaensis* in coffee – a transcriptome approach. USDA ARS ($63,000).

B. Sipes and J. Marquez. 2024-2025. Vegetable Survey for Viruses, Bacteria, and Nematodes in Hawaii. USDA APHIS CAPS ($62,876).

M. Kermah, N. Sulemana, and **B. Sipes**. 2022. Nature-based Pathway to Sustainable Production of Amaranths using a One Health Approach. Conservation, Food & Health Foundation ($28,960).

B. Sipes and C. Chan. 2022. Cochran Fellowship - Albania Fruits and Vegetables. USDA Foreign Agricultural Service ($80,000).

B. Sipes, K.-H. Wang and R. Mandahar. 2022-2025. Entomopathogenic bombs – Sweet potato weevils be gone. WSARE ($336,848).

K.-H. Wang, K. Lawrence, **B. S. Sipes**, E. Sikora, Z. Cheng, R. Myers, R. Manandhar, J. Uyeda, S. Marahatta. 2021-2024. Organic sweetpotato IPM and soil health management for small- and mid-size farms. NIFA OREI ($740,876).

B. Sipes and K.H. Wang. 2020-2021. A novel approach to rapid detection of *Meloidogyne enterolobii* and *Meloidogyne floridensis* in Hawaii. USDA, APHIS ($80,945).

K.-H. Wang and **B. Sipes**. 2020-2021. Promoting cacao (*Theobroma cacao*) production in Hawaii through Ecosystem Sustainable and Integrated Pest Management (ES-IPM) approaches. Hawaii Department of Agriculture SCBGP-FB ($35,000).

T. Idol, T. Radovich and **B. Sipes**. 2024-2025. Hui Ko'e ʻĀina: Transforming Food Waste into Sustainable Student Learning Outcomes and Community Values. Provost Strategic Initiative IV ($87,150).

T. Radovich, I. Ho-Lastimosa, J. Sugano, J. Yamamoto, L. Ediger, T. Maaz, J. Chung-Do, T. Idol, **B. Sipes**, N. Lincoln, J. Uyeda, A. Ahmad, J. Silva, N. Nguyen, and M. Kantar. 2024-2025. The Waimānalo Learning Center: Land-Grant Experiment Stations as a Space to Heighten Community Engagement and Advancement. CARES Competitive Proposal ($53,465).

B. Sipes, K.-. Wang, C. Hanakawa, J.-W. Tay, Z. Cheng, and M. Luis. 2024-2027. Aʻo E Nānā: Training to Observe – Pest Surveillance Skills for the Community. CARES Competitive Proposal ($155,824).

K.-H. Wang, **B. Sipes**, I. Shikano, J. Sugano, R. Manandhar, J. Uyeda, J. Silva, K. Tavares, R. Gutierrez-Coarite, and E. Kirk. 2020. Insecticide resistance management for diamondback moth in organic farms: Integrating push-pull cropping, insect behavior and microbial biocontrol. CTAHR Team Science ($80,000).

PRESENTATIONS AT CONFERENCES

C. Schloemer, K.S. Lawrence, S.H. Graham, **B.S. Sipes**, and K-H. Wang. 2024. Effects of winter cover crops on soil health and sweetpotato yield in southern U.S. Society of Nematologists Annual Conference, Park City, Utah.

N.P. Silvester and **B.S. Sipes**. 2024. Precision EPN applications – infected cadavers as an optimized tool for integrated pest management. Society of Nematologists Annual Conference, Park City, Utah.

L. Wong, K.-H Wang, and **B. Sipes**. 2024. Organic approaches to manage sweet potato weevil (Cylas formicarius) using entomopathogenic nematodes and entomopathogenic fungi in Hawaii. Society of Nematologists Annual Conference, Park City, Utah.

L. Wong, K.-H. Wang, R. Myers, and **B. Sipes**. 2024. Effects of entomopathogenic nematodes and entomopathogenic fungi on nontarget soil surface arthropods and nematodes. Organization of Nematologist of Tropical America Annual Conference, Iguna, Brazil.

L.G.K. Wong, K.-H. Wang, R. Myers, and B.S. Sipes. 2024. Management of *Cylas formicarius* using entomopathogenic nematodes. Organization of Nematologist of Tropical America Annual Conference, Iguna, Brazil.

N.P. Silvester and **B.S. Sipes**. 2023. Survival and infectivity of entomopathogenic nematodes from desiccated living bombs. Society of Nematologists Annual Conference, Columbus, Ohio.

L. Wong, K.-H. Wang, and **B.S. Sipes**. 2023. Mortality of the sweet potato weevil (*Cylas formicarius*) larvae caused by *Steinernema feltiae*. Society of Nematologists Annual Conference, Columbus, Ohio.

C. Schloemer, 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 Annual Conference, Columbus, Ohio.

D. Chellemi, K. Barber, and **B. Sipes**. 2022. Evaluation of allyl isothiocyanate (Dominus™) and crustacean meal (CrabLife Flake™) on soil microbiome and plant-parasitic nematodes on pineapple. Society of Nematologists Annual Conference, Anchorage, Alaska.

S. Kakaire, A. Sanchez, A. Sacbaja, C. Chan, **B.S. Sipes**, and H. Melakeberhan. 2022. Adopting integrated nematode-soil health management in smallholder potato farmers in the Highlands of Guatemala. 7th International Congress of Nematology. Antibes, France.

L. Wong, K.-H. Wang, and **B. S. Sipes**. 2022. Infection and mortality of *Cylas formicarius* by Hawaiian isolates of *Steinernema feltiae* and *Oscheius* sp. Journal of Nematology 54: in press.

B. Sipes, K.-H. Wang, and L. Wong. 2021. Emergence of *Steinernema feltiae* infective juveniles from "living bombs" of *Tenebrio molitori*. Journal of Nematology 53:33. https://sciendo.com/article/10.21307/jofnem-2021-095

C. Chan, J. Chan-Dentoni, P. LaPorte, B. Sipes, A. Sanchez, A. Mejia, and H. Melakeberhan. 2020. Discovering the economic and spatial factors to enhance farm technical efficiency: A case study of smallholder potato farming in the Western Highlands of Guatemala. 175th EAAE. Gargnano, Garda Lake, Italy.

L. Wong and **B. Sipes**. 2020. Host status of the Hawaiian native plants *Vitex rotundifolia*, *Sida fallax*, *Ipomea pes-caprae brasiliensis*, and *Prichartidiata* sp. to *Rotylenchulus reniformis* and *Meloidogyne javanica*. Journal of Nematology 52:A-44.

L. Wong and **B. Sipes**. 2020. Host status of the plant-parasitic nematodes *Rotylenchulus reniformis* and *Meloidogyne javanica* on six Hawaiian native plants species. Phytopathology https://apsnet.confex.com/apsnet/2020/meetingapp.cgi/Paper/16742