Michael Melzer

**College of Tropical Agriculture and Human Resources**

Plant & Environmental Protection Sciences

FTE Distribution: 25% I; 60% R; 15% E

**Education**

**Degree University Major**

Bachelors Trent University Biology & Environmental Sciences

Masters University of Hawaii Botany (Plant Pathology)

PhD University of Hawaii Plant Pathology

**Professional Appointments**

**Title Employer Dates Employed**

Student Researcher University of Guelph 1997-1998

Research Assistant University of Hawaii 1998-2000

Junior Researcher University of Hawaii 2000-2012

Assistant Researcher University of Hawaii 2012-2019

Associate Researcher University of Hawaii 2019-

**Current Courses Taught**

Course Number and Title (credits)

PEPS 601 Agrosecurity and Food Safety (2)

PEPS 615 Diagnosis and Management of Tropical Plant Diseases, Pests, and Disorders (3)

PEPS 660 Seminar: New, Emerging, and Re-Emerging Technologies in Plant Sciences (1)

**Publications (reverse chronological order)**

Book Chapters

Dey, K., Melzer, M., and Hu, J. 2017. Virus Induced Gene Silencing *in* Plant Biotechnology Vol. 2: Transgenics, Stress Management, and Biosafety Issues, Sahni, S., Deo Prasad, B., and Kumar, P. (*eds*.). Apple Academic Press ISBN 9781771885812

Refereed Journal Publications

Watanabe, S., Adams, B.-L., Kong, A., Masang, N., Vowell, T., and Melzer, M. 201X. Identification of genes that result in high mortality of coconut rhinoceros beetle (Scarabaeidae: Coleoptera) when targeted using an RNA interference approach: implications for large invasive insects. Annals of the Entomological Society of America (*invited paper; in press*)

Wang, D., Hamim, I., Borth, W.B., Melzer, M.J., Suzuki, J.Y., Wall, M.M., Matsumoto, T., Sun, G.F., and Hu, J.S. 2019. First report of apple of Peru (*Nicandra physalodes*) infected with pepper mottle virus in Hawaii. Plant Disease <https://doi.org/10.1094/PDIS-06-18-1061-PDN>

Wang, D., Ocenar, J., Hamim, I., Borth, W.B., Fukuda, M.T., Melzer, M.J., Suzuki, J.Y., Wall, M.M., Matsumoto, T., Sun, G.F., Ko, M., and Hu, J.S. 2019. First report of *Bean yellow mosaic virus* infecting nasturtium (*Tropaeolum majus*) in Hawaii. Plant Disease (*in press*) [doi.org/10.1094/PDIS-06-18-1082-PDN](https://doi.org/10.1094/PDIS-06-18-1082-PDN)

Wang, D., Boluk, G., Quinto, E.A., Hamim, I., Borth, W.B., Melzer, M.J., Green, J., Suzuki, J.Y., Wall, M.M., Matsumoto, T., Sun, G.F., and Hu, J.S. 2019. First report of Zucchini tigre mosaic virus infecting bitter melon (*Momordica charantia*) in Hawaii. Plant Disease <https://doi.org/10.1094/PDIS-08-18-1391-PDN>

Olmedo-Velarde, A., Roy, A., Belanger, C.A., Watanabe, S., Hamasaki, R.T., Mavrodieva, V.A., Nakhla, M.K., and Melzer, M.J. 2019. First report of tomato chlorotic dwarf viroid infecting greenhouse tomato in Hawaii. Plant Disease <https://doi.org/10.1094/PDIS-08-18-1401-PDN>

Olmedo-Velarde, A., Park, A.C., Sugano, J., Uchida, J.Y., Kawate, M., Borth, W.B., Hu, J.S., and Melzer, M.J. 2019. Characterization of ti ringspot-associated virus, a novel emaravirus associated with an emerging ringspot disease of *Cordyline fruticosa* (L.). Plant Disease <https://doi.org/10.1094/PDIS-09-18-1513-RE>

Hamim, I., Borth, W.B., Melzer, M.J., Suzuki, J.Y., Wall, M.M., and Hu, J.S. 2019. Occurrence of tomato leaf curl Bangladesh virus and associated subviral DNA molecules in papaya in Bangladesh: molecular detection and characterization. Archives of Virology 164:1661-1665

Feng, X., Orellana, G., Green, J., Melzer, M.J., Hu, J.S., and Karasev, A.V. 2019. A new strain of *Bean common mosaic virus* from lima bean (*Phaseolus lunatus*): biological and molecular characterization. Plant Disease <https://doi.org/10.1094/PDIS-08-18-1307-RE>

Manley, M, Melzer, M., and Spafford, H. 2018. Oviposition preferences and behaviors of wild caught and lab reared coconut rhinoceros beetle, *Oryctes rhinoceros* (Coleoptera:Scarabaeidae), in relation to substrate particle size. Insects doi: 10.3390/insects9040141

Dey, K.K., Sugikawa, J., Kerr, C., and Melzer, M. J. 2019. Air potato (*Dioscorea bulbifera*) plants displaying virus-lilke symptoms are co-infected with a novel potyvirus and a novel ampelovirus. Virus Genes 55:117-121

Miyasaka, S.C., Motomura-Wages, S., Pulakkatu-Thodi, I., Melzer, M.J., Clark, C.A., LaBonte, D.R., and Villordon, A.Q. 2018. Field performance of tissue-cultured, virus-tested ‘Okinawan’ sweetpotato and comparison with some promising cultivars in Hawai’i. HortTechnology (*in press*)

Wang, D, Hamim, I., Borth, W.B., Melzer, M., Sun, G., Hu, J. 2018. First report of *Dasheen mosaic virus* infecting taro (*Colocasia esculenta*) in Bangladesh. Plant Disease (*in press*) [doi.org/10.1094/PDIS-03-18-0442-PDN](https://doi.org/10.1094/PDIS-03-18-0442-PDN)

Kong, A., Long, M., Arakaki, A., Melzer, M. 2018. First report of Tobacco streak virus infecting sunn hemp (*Crotalaria juncea*) in Hawaii. Plant Disease (*in press*) [doi.org/10.1094/PDIS-04-18-0697-PDN](https://doi.org/10.1094/PDIS-04-18-0697-PDN)

Atibalentja, N., Fiafia, S.T., Gosai, R.C., and Melzer, M.J. 2018. First report of taro vein chlorosis virus on taro (*Colocasia esculenta*) in the U.S. Territory of American Samoa. Plant Disease 102:828

Roy, A, Stone, A. L., Melzer, M. J., Hartung, J. S., Mavrodieva, V., Nakhla, M. K., Brlansky, R. H., and Schneider, W. L. 2018. First report of Cilevirus associated with green ringspot on senescent hibiscus leaves in Tampa, Florida. Plant Disease 102:1181

Dey, K.K., Melzer, M.J., Xiaoan, S., and Adkins, S. 2018. First report of *Tuberose mild mottle virus* infecting tuberose (*Polianthes tuberosa*) in the USA. Plant Disease 102:461

Dey, K., Melzer, M., Sun, X., and Adkins, S. 2017. *Tomato chlorotic spot virus* identified in *Marsdenia floribunda* in Florida. Plant Health Progress 18:144-145

Dey, K.K., Leite, M., Hu, J.S., Jordan, R., and Melzer, M.J. 2018. Detection of Jasmine virus H and characterization of a second pelarspovirus infecting star jasmine (*Jasminum multiflorum*) and angelwing jasmine (*J. nitidum*) plants displaying virus-like symptoms. Archives of Virology (*in press*) DOI :10.1007/s00705-018-3947-y

Roy, A, Stone, A. L., Melzer, M. J., Shao, J., Hartung, J. S., Mavrodieva, V., Nakhla, M. K., Brlansky, R. H., and Schneider, W. L. 2018. Complete nucleotide sequence of a hibiscus infecting cilevirus Florida isolate and its relationship with closely associated cileviruses. Genome Announcements doi: 10.1128/genomeA.01521-17

Wang, Y., Borth, W., Green, J., Hamim, I., Cao, K., Hu, J., and Melzer, M. 2017. Genome characterization and distribution of Taro bacilliform CH virus on taro in Hawaii, USA. European Journal of Plant Pathology https://doi.org/10.1007/s10658-017-1353-z

Wang, Y., Wu, B., Borth, W., Hamim, I., Green, J., Melzer, M., Hu, J. 2017. Molecular characterization and distribution of two strains of Dasheen mosaic virus on taro in Hawaii, USA. Plant Disease 1980-1989

Hamim, I., Green, J.C., Borth, W.B., Melzer, M.J. Wang, Y.N., and Hu, J.S. 2017. First report of *Banana bunchy top virus* in *Heliconia* spp. on Hawaii. Plant Disease 101:2153

Wang, Y.N., Hu, J.S., Borth, W.B., Hamim, I., Green, J.C., and Melzer, M.J. 2017. First report of taro bacilliform CH virus (TaBCHV) on taro (*Colocasia esculenta*) in Hawaii, USA. Plant Disease 101:1334

Green, K.J., Chikh-Ali, M., Hamasaki, R, Melzer, M.J., and Karasev, A.V. 2017. *Potato virus Y* (PVY) isolates from *Physalis peruviana* are unable to systemically infect potato or pepper and form a distinct new lineage within the PVYC strain group. Phytopathology [1433-1439](https://doi.org/10.1094/PHYTO-04-17-0147-R)

Watanabe, S., and Melzer, M.J. 2017. A multiplex PCR assay for differentiating coconut rhinoceros beetle (*Oryctes rhinoceros*) from oriental flower beetle (*Protaetia orientalis*) in early life stages and excrement. Journal of Economic Entomology 110:678-682

Zhang, J., Dey, K., Lin, B., Borth, W.B., Melzer, M.J., Sether, D., Wang, Y., Wang, I.-C., Shen, H., Pu, X., Sun, D, and Hu, J.S. 2017. Characterization of *Canna yellow mottle virus* in a new host, *Alpinia purpurata*, in Hawaii. Phytopathology 107:791

Moore, A., Quitugua, R., Iriarte, A., Melzer, M., Watanabe, S., Cheng, Z., and Barnes, J.M. 2016. Movement of packaged soil products as a dispersal pathway for coconut rhinoceros beetle, *Oryctes rhinoceros* (Coleoptera:Scarabaeidae) and other invasive species. Proceedings of the Hawaiian Entomological Society 48:21

Chikh-Ali, M., Vander Pol, D., Nikolaeva, O.V., Melzer, M.J., and Karasev, A.V. 2016. Biological and molecular characterization of a tomato isolate of Potato virus Y (PVY) from the PVYC lineage. Archives of Virology 161:3561-3566

Watanabe, S., Ruschel, R., Marrero, G., Sether, D., Borth, W., Hu, J., and Melzer, M. 2016. A distinct lineage of *Watermelon mosaic virus* naturally infects honohono orchid (*Dendrobium anosmum*) and passionfruit (*Passiflora edulis*) in Hawaii. New Disease Reports 34:13

Zhang, J., Borth, W.B., Lin, B., Dey, K.K., Melzer, M.J., Shen, H., Pu, X., Sun, D., and Hu, J.S. 2016. Deep sequencing of banana bract mosaic virus from flowering ginger (*Alpinia purpurata*) and development of an immunocapture RT-LAMP detection assay. Archives of Virology 161:1783-1795

Roy, A, Hartung, JS, Schneider, WL, Shao, J, Leon, MG, Melzer, MJ, Beard, JJ, Otero-Colina, G, Bauchan, GR, Ochoa, R, Brlansky, RH. 2015. Role bending: complex relationships between viruses, hosts and vectors related to citrus leprosis, an emerging disease. Phytopathology 1013-1025

Dey, KK, Borth, WB, Melzer, MJ, Hu, JS. 2015. Application of circular polymerase extension cloning to generate infectious clones of a plant virus. Journal of Applied Biotechnology 3:34-44

Dey, K, Borth, W, Melzer, M, Wang, ML, Hu JS. 2015. Analysis of Pineapple mealybug wilt associated virus -1 and -2 for potential RNA silencing suppressors and pathogenicity factors. Viruses 7:969-995

Long, MH, Ayin, C, Li, R, Hu, JS, Melzer, MJ. 2014. First report of taro vein chlorosis virus infecting taro [Colocasia esculenta (L.) Schott] in the United States of America. Plant Disease 98:1160

Melzer, MJ, Shimabukuro, J, Long, M, Nelson, SC, Alvarez, AM, Borth, WB, Hu, JS. 2014. First report of Capsicum chlorosis virus infecting waxflower (*Hoya* sp.) in the United States of America. Plant Disease 98:571

Melzer, MJ, Simbajon, N, Carillo, J, Borth, WB, Freitas-Astua, J, Kitajima, EW, Neupane, KR, Hu, JS. 2013. A cilevirus infects ornamental hibiscus in Hawaii. Archives of Virology 158:2421-2424

Melzer, M, Ayin, C, Sugano, J, Uchida, J, Kawate, M, Borth, W, Hu, J. 2013. Differentiation and distribution of Cordyline viruses 1-4 in Hawaiian ti plants (*Cordyline fruticosa* L.). Viruses 5:1655-1663

Melzer, MJ, Sugano, JS, Uchida, JY, Kawate, MK, Borth, WB, Sether, DM, Hu, JS. 2013. Molecular characterization of closteroviruses infecting *Cordyline fruticosa* (L.) in Hawaii. Frontiers in Microbiology 4:39 (doi: 10.3389/fmicb.2013.00039)

Sether, DM, Melzer, MJ, Borth, WB, and Hu, JS. 2012. Pineapple bacilliform CO virus: diversity, detection, distribution, and transmission. Plant Disease 96:1798-1804

Melzer, MJ, Sether, DM, Borth, WB, Hu, JS. 2012. Characterization of a new virus infecting *Citrus volkameriana* (Ten. & Pasq.) with citrus leprosis-like symptoms. Phytopathology 102:122-127

Dey, KK, Lin, H, Borth, WB, Melzer, MJ, Hu, JS. 2012. A highly sensitive single-tube nested PCR assay for the detection of Pineapple mealybug wilt associated virus-2 (PMWaV-2). Journal of Virological Methods 183:215-218

Melzer. MJ, Sugano, JS, Cabanas, D, Dey, K, Kandouh, B, Mauro, D, Rushanaedy, I, Srivastava, S, Watanabe, S, Borth, WB, Tripathi, S, Matsumoto, T, Keith, L, Gonsalves, D, Hu, JS. 2012. First report of *Pepper mottle virus* infecting tomato in Hawaii. Plant Disease 96:917

Martelli, GP, Abou Ghanem-Sabanadzovic, N, Agranovsky, AA, Al Rwahnih, M, Dolja, VV, Dovas, CI, Fuchs, M, Gugerli, P, Hu, JS, Jelkmann, W, Katis, NI, Maliogka, VI, Melzer, MJ, Menzel, W, Rott, ME, Rowhani, A, Sabanadzovic, S, Saldarelli, P. 2012. Taxonomic revision of the family *Closteroviridae* with special reference to the grapevine leafroll associated members of the genus *Ampelovirus* and the putative species unassigned to the family. Journal of Plant Pathology doi:10.4454/jpp.fa.2012.022

Melzer, MJ, Sether, DM, Borth, WB, Mersino, EF, Hu, JS. 2011. An assemblage of closteroviruses infects Hawaiian ti (*Cordyline fruticosa* L.). Virus Genes 42:254-260

Ma, H, Song, C, Borth, W, Sether, D, Melzer, M, Hu, J. 2011. Modified expression of alternative oxidase in transgenic tomato and petunia affects the level of tomato spotted wilt virus resistance. BMC Biotechnology 11:96

Melzer, MJ, Borth, WB, Sether, DM, Ferreira, S, Gonsalves, D, Hu, JS. 2010. Genetic diversity and evidence for recent modular recombination in Hawaiian *Citrus tristeza virus*. Virus Genes 40:111-118

Melzer, MJ, Ogata, D, Fukuda, SK, Shimabuku, R, Borth, WB, Sether, DM, Hu, JS. 2010. First report of *Tomato yellow leaf curl virus* infecting tomato in Hawaii. Plant Disease 94:641

Wang, I-C, Sether, DM, Melzer, MJ, Borth, WB, Hu, JS. 2010. First report of *Banana bract mosaic virus* in flowering ginger in Hawaii. Plant Disease 94:921

Sether, DM, Borth, WB, Shimabuku, RS, Pappu, HR, Melzer, MJ, Hu, JS. 2010. First report of Iris yellow spot virus in onion in Hawaii. Plant Disease 94:1508

Sether, DM, Borth, WB, Melzer, MJ, Hu, JS. 2010. Spatial and temporal incidences of Pineapple mealybug wilt associated viruses in pineapple planting blocks. Plant Disease 94:196-200

Hu, JS, Sether, DM, Melzer, MJ, Subere, CV, Cheah, K, Chen, Y, Qi L, Borth, W, Wang, I.C, Nagai, C, and Wang, ML. 2009. Characterization and management of pineapple mealybug wilt associated viruses. Acta Horticulturae 822:185-190

Sether, DM, Melzer, MJ, Borth, WB, and Hu, JS. 2009. Genome organization and phylogenetic relationship of Pineapple mealybug wilt associated virus-3 with family *Closteroviridae* members. Virus Genes 38:414-420

Melzer, MJ, Sether, DM, Karasev, AV, Borth, W, and Hu, JS. 2008. Complete nucleotide sequence and genome organization of Pineapple mealybug wilt-associated virus-1. Archives of Virology 153:707-714

Perez, EP, Sether, DM, Melzer, MJ, Busto, JL, Nagai, C, and Hu, JS. 2006. Characterization and control of pineapple mealybug wilt associated *Ampeloviruses*. Acta Horticulturae 702:23-27

Melzer, MJ, Borth, WB, Zee, F, Hilf, ME, Garnsey, SM, and Hu, JS. 2005. Incidence, distribution, and diversity of *Citrus tristeza virus* in the Hawaiian Islands. Pages 179-186 in: Proceedings of the 16th IOCV Conference, Hilf, M.E.,

Duran-Vila, N., and Rocha-Peña (eds.). IOCV/University of California, USA

Sether, DM, Melzer, MJ, Busto, J, Zee, F, and Hu, JS. 2005. Diversity and mealybug transmissibility of ampeloviruses in pineapple. Plant Disease 89:450-456

Mauch, H, Melzer, M, Hu, JS. 2003. Genetic algorithm approach for the closest string problem. Proceedings of the 2003 IEEE. DOI: 10.1109/CSB.2003.1227407

Melzer, MJ, Karasev, AV, Sether, DM, and Hu, JS. 2001. Nucleotide sequence, genome organization, and phylogenetic analysis of pineapple mealybug wilt-associated virus-2. Journal of General Virology 82:1-7

Bidochka, MJ, and Melzer, MJ. 2000. Genetic polymorphisms in three subtilisin-like protease isoforms (Pr1A, Pr1B, and Pr1C) from *Metarhizium* strains. Canadian Journal of Microbiology 46:1138-1144

Bidochka, MJ, Melzer, MJ, Lavender, TM, and Kamp, AM. 2000. Genetically related isolates of the entomopathogenic fungus *Metarhizium anisopliae* harbour homologous dsRNA viruses. Mycological Research 1094-1097

Melzer, MJ, and Bidochka, MJ. 1998. Diversity of double-stranded RNA viruses within populations of entomopathogenic fungi and potential implications for fungal growth and virulence. Mycologia 90:586-594

Melzer, MJ, and Boland, GJ. 1998. Evaluation of *Trichoderma harzianum* treatments for dollar spot suppression. Biological and Cultural Tests for Control of Plant Diseases 13:141

Extension Publications

Olmedo-Velarde, A., Hamasaki, R.T., Bushe, B., and Melzer, M.J. 2017. Tomato chlorotic dwarf viroid. College of Tropical Agriculture and Human Resources PD-113

Melzer, M.J., Sether, D.M., Hu, J.S., and Alvarez, A.M. 2017. Citrus huanglongbing. College of Tropical Agriculture and Human Resources PD-112

Long, M.H, Gosai, R. C., and Melzer, M. J. 2016. Taro vein chlorosis. College of Tropical Agriculture and Human Resources PD-111

Hamasaki, R.T., Motomura, S.A., Melzer, M.J., and Bushe, B.C. 2015. Potato virus Y: A pathogen associated with an emerging disease of poha in Hawaii. College of Tropical Agriculture and Human Resources PD-109

Komata, J, Melzer, M, and Nelson, S. 2014. Zucchini yellow mosaic. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-104

Dragich, M, Melzer, M., and Nelson, S. 2014. Cucumber mosaic virus in Hawaii. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-101

Uyeda, J, Sugano, J, Chou, MY, Fukuda, S, Uchida, J, Melzer, M, Tsuda, D, Wang, KH, Kawate, M. 2012. Major basil pests in Hawaii: three economically important basil pests as of 2012. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-92

Melzer, MJ, Tripathi, S, Matsumoto, T, Keith, L, Sugano, J, Borth, WB, Wieczorek, A, Gonsalves, D, Hu, JS. 2012. Tomato spotted wilt. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-81

Nelson, SC, Melzer, MJ, and Hu, JS. 2011. Citrus tristeza virus in Hawaii. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-77

Sugano, J, Melzer, M, Pant, A, Radovich, T, Fukuda, S, Migita, S, Uyeda, J. 2011. Field evaluations of tomato yellow leaf curl virus-resistant varieties for commercial production. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-78

Melzer, MJ, Ogata, DY, Fukuda, SK, Shimabuku, R, Borth, WB, Sether, DM, Hu, JS. 2009. Tomato yellow leaf curl. College of Tropical Agriculture and Human Resources Cooperative Extension Services publication PD-70

Vidalakis, G, da Graca, JV, Dixon, WN, Ferrin, D, Kesinger, M, Krueger, RR, Lee, RF, Melzer, MJ, Olive, J, Polek, M, Sieburth, PJ, Williams, LL, Wright, GC. 2010. Citrus quarantine, sanitary, and certification programs in the USA. California Citrograph 1(4):27-39

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

Melzer, M., Freitas-Astua, J., Kitajima, E., Verle Rodrigues, J.C., Roy, A., and Wei, G. 2018. Taxonomic proposal 2018.002P: Creation of *Kitaviridae*, a new RNA virus family. International Committee on the Taxonomy of Viruses

Fuchs, M., Agranovsky, A.A., Bar-Joseph, M., Candresse, T., Dolja, V., Livieratos, I., Martelli, G.P., Maree, H., Melzer, M.J., Menzel, W., Minafra, A., and Sabanadzovic, S. 2017. Taxonomic proposal 2017.018P: One new species in the family *Closteroviridae*. International Committee on the Taxonomy of Viruses

Fuchs, M., Agranovsky, A.A., Bar-Joseph, M., Candresse, T., Dolja, V., Livieratos, I., Martelli, G.P., Maree, H., Melzer, M.J., Menzel, W., Minafra, A., and Sabanadzovic, S. 2017. Taxonomic proposal 2017.016-P: Adoption of non-Latinized binomial format for naming recognized species in the four genera of the family *Closteroviridae*. International Committee on the Taxonomy of Viruses

Melzer, M., Freitas-Astua, J., Kitajima, E., Verle Rodrigues, J.C., Roy, A., and Wei, G. 2016. Taxonomic proposal 2016.011a-dP: 1 new species in the new genus Blunervirus. International Committee on the Taxonomy of Viruses

Melzer, M., Freitas-Astua, J., Kitajima, E., Verle Rodrigues, J.C., Roy, A., and Wei, G. 2016. Taxonomic proposal 2016.010aP: 1 new species in the genus *Cilevirus.* International Committee on the Taxonomy of Viruses

Fuchs, M., Agranovsky, A.A., Bar-Joseph, M., Candresse, T., Dolja, V., Livieratos, I., Martelli, G.P., Maree, H., Melzer, M.J., Menzel, W., Minafra, A., and Sabanadzovic, S. Taxonomic proposal 2016.009a-dP: 5 new species in the family *Closteroviridae*. International Committee on the Taxonomy of Viruses

Fuchs, M., Agranovsky, A.A., Bar-Joseph, M., Candresse, T., Dolja, V., Livieratos, I., Martelli, G.P., Maree, H., Melzer, M.J., Menzel, W., Minafra, A., and Sabanadzovic, S. Taxonomic proposal 2015.024a-cP: 5 new species in the family *Closteroviridae*. International Committee on the Taxonomy of Viruses

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

Chair, Genus *Cilevirus* Study Group, International Committee on Taxonomy of Viruses

Chair, Science and Technology Working Group, Hawaii Invasive Species Council

Editor, Journal of Citrus Pathology

Member, Institutional Biosafety Committee, University of Hawaii

Member, International Organization of Citrus Virologists

Reviewer for: Plant Disease (55 manuscripts), Journal of Citrus Pathology (5 manuscripts), Archives of Virology (4 manuscripts), European Journal of Plant Pathology (3 manuscripts), Journal of Phytopathology (3 manuscripts), Phytopathology (2 manuscripts), Journal of Virological Methods (2 manuscripts), Australasian Plant Disease Notes (1 manuscript), Journal of Economic Entomology (1 manuscript), Journal for Plant Diseases and Plant Protection (1 manuscript), Journal of Plant Pathology (1 manuscript), Plant Pathology (1 manuscript), and Virology (1 manuscript)

Senator, College of Tropical Agriculture and Human Resources, University of Hawaii

Steering Committee Member, Coordinating Group on Alien Pest Species

Treasurer, Gamma Sigma Delta, The Honor Society of Agriculture

**Graduate Students**

Category Current Number of Students Number Graduated (Career)

*Chair* of Master’s Committees 3 7

*Chair* of PhD Committees 1 0

Member of Master’s Committees 0 8

Member of PhD Committees 3 3

**Grant Support (PI Listed First)**

Melzer, M.J. 2019-2020. Statewide corn pest and pathogen survey in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $55,963

Melzer, M.J. 2019-2020. University of Hawaii’s Huanglongbing Diagnostic Lab and survey. USDA-APHIS-PPQ Citrus Health, $29,118

Melzer, M.J. and Cheng, Z. 2019-2020. Monitoring coconut rhinoceros beetle (CRB) at Joint Base Pearl Harbor-Hickham (JBPHH). USDOD-ACoE-CW $268,456

Melzer M.J., Friday, J.B., and Martin, C. 2019. Rapid `Ōhi`a Death (ROD) Supplemental Request: Addressing ROD Movement. Hauoli Mau Loa Foundation, $100,000

Melzer, M.J. and Martin, C. 2019. Core support for the Rapid `Ōhi`a Death (ROD) Statewide Outreach Specialist/Coordinator & Statewide Initiatives. Hawaii Department of Land and Natural Resources, $110,200

Melzer, M.J. 2019. Suitcase lab for detection of *Ceratocystis* species in *Metrosideros polymorpha.* Hawaii Department of Land and Natural Resources, $25,998

Melzer, M.J. 2019-2020. Hawaii’s Clean Plant Network – Sweetpotato and Citrus. USDA-APHIS-PPQ-National Clean Plant Network, $56,749

Melzer, M.J., Oishi, D., and Cheng, Z. 2019-2020. Response to coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $1,300,000

Melzer, M.J., and Cheng, Z. 2019-2020. Canine detection of coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $242,385

Melzer, M.J., Jenkins, D., and Cheng, Z. 2019-2020. Development and implementation of genetic and physical management approaches for coconut rhinoceros beetle. USDA-APHIS-PPQ Farm Bill, $260,815

Melzer, M.J. 2018-2019. Western Plant Diagnostic Network. USDA-NIFA (subaward from UC-Davis), $35,805

Melzer, M.J., Jenkins, D.M., and Cheng, Z. 2018-2019. Detection and response to coconut rhinoceros beetle. Hawaii Invasive Species Council, $100,000

Melzer, MJ. 2018-2019. University of Hawaii’s Huanglongbing Diagnostic Lab and survey. USDA-APHIS-PPQ Citrus Health, $75,868

Melzer, M. 2018-2019. Survey for *Candidatus* Phytoplasma australiense and other papaya pathogens in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey $34,489

Melzer, MJ, Cheng, Z., Watanabe, S, and Kitalong, C. 2018-2019. Management approaches for coconut rhinoceros beetle. USDA-APHIS-PPQ Farm Bill, $75,000

Melzer, M.J. 2018-2019. Hawaii sweetpotato clean plant program. USDA-APHIS-PPQ National Clean Plant Network, $43,967

Melzer, MJ, Cheng, Z, and Oishi, D. 2018-2019. Response to coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $1,682,513

Cheng, Z., and Melzer, M. 2018-2020. Biological and chemical control of oriental flower beetle, *Protaetia orientalis*. CTAHR Supplemental Funding, $80,000

Cheng, Z, and Melzer, M. 2018-2019. Biological and chemical control of coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $46,312

Arif, M, and Melzer, M. 2018-2019. Survey of Solanaceous vegetable crops for *Ralstonia solanacearum* r3 b2, *Candidatus* Phytoplasma australiense in Hawaii. USDA-APHIS-PPQ Farm Bill, $53,000

Melzer, M., and Martin, C. 2018-2019. Core support for the rapid ohia death (ROD) statewide outreach specialist/coordinator. Hawaii Department of Land and Natural Resources, $100,000

Melzer, M.J., Cheng, Z., and Jenkins, D. 2018-2019. Management of coconut rhinoceros beetle in Hawaii. Hawaii Invasive Species Council, $100,000

Cheng, Z., and Melzer, M.J. 2018. Integrated pest management of coconut rhinoceros beetle in Hawaii. Hawaii Invasive Species Council, $17,771

Melzer, MJ. 2017-2018. Western Plant Diagnostic Network. USDA-NIFA (subaward from UC-Davis), $30,800

Melzer, M.J. 2017-2018. The clean plant network in Hawaii. USDA-APHIS-PPQ National Clean Plant Network, $37,780

Melzer, M., Hu, J, and Amore, T. 2017-2019. Development, maintenance, and evaluation of pathogen-free tropical crop germplasm. CTAHR Supplemental Funding, $60,000

Melzer, M.J. 2017-2018. University of Hawaii’s Huanglongbing Diagnostic Lab and survey. USDA-APHIS-PPQ Citrus Health, $29,118

Melzer, M.J. 2017-2019. CGAPS Biosecurity Graduate Research. Hauoli Mau Loa Foundation, $56,000 (assumed PI duties from Dr. James Leary in 2019)

Melzer, M.J. 2017-2018. Surveillance of citrus pests and pathogens in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $35,441

Amore, T., Baldos, O., Manshardt, R., Melzer, M., Miyasaka, S., Nazario-Leary, C., Sewake, K., and Uchida, J. 2017-2020. Increasing Hawaii’s Agriculture Production through Research, Importation, Evaluation, Propagation, and Distribution of New Germplasm. Hawaii Department of Agriculture $493,489

Melzer, M.J., and Cheng, Z. 2017-2018. Response to coconut rhinoceros beetle and other palm pests in Hawaii. Hawaii Invasive Species Council, $258,200

Cheng, Z, and Melzer. M. 2017-2018. Chemical and biological control of coconut rhinoceros beetle in Hawaii. Hawaii Invasive Species Council, $41,800

Melzer, M.J., Cheng, Z., Oishi, D.E., Blas, A., Atibalentja, N., and Gurr, I. 2017-2018. Palm health survey in the American Pacific. USDA-APHIS-PPQ Farm Bill, $148,000

Melzer, M.J., and Cheng, Z. 2017-2018. Response to coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $1,225,000

Melzer, M.J. 2016-2017. Western Plant Diagnostic Network. USDA-NIFA (subaward from UC-Davis), $28,105

Melzer, M.J. 2016-2017. The sweet potato clean plant network in Hawaii. USDA-APHIS-PPQ National Clean Plant Network, $38,269

Melzer, M.J., and Cheng, Z. 2016-2017. Survey and detection for *Metamasius hemipterus* in Hawaii. USDA-APHIS-PPQ Farm Bill, $130,107

Melzer, M.J., and Cheng, Z. 2016-2017. Mobilizing against coconut rhinoceros beetle and other invasive species in Hawaii. Hawaii Invasive Species Council, $331,557

Melzer, M.J., and Martin, C. 2016-2017. Rapid Ohia Death Response Plan. Dorrance Family Foundation, $10,000

Melzer, M.J. 2016-2017. University of Hawaii’s Huanglongbing Diagnostic Laboratory and Hawaii Survey. USDA-APHIS-PPQ Citrus Health, $32,353

Melzer, M., Hu, J., and Martin, C. 2016. Research support for rapid ohia death, an emerging disease of Metrosideros. Marisla Foundation, $35,000

Melzer, M., and Martin, C. 2016. Support for rapid ohia death response plan. Hawaii Community Foundation – Koaniani Fund, $35,000

Melzer, M., Cheng, Z., and Wright, M. 2016-2017. Response to coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $1,225,000

Melzer, M., and Uchida, J. 2016-2017. Statewide survey for exotic banana pathogens. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $37,848

Cheng, Z., and Melzer, M.J. 2016-2017. Developing an Integrated Pest Management Program to Control Coconut Rhinoceros Beetle on Oahu in Hawaii. USDA-APHIS-PPQ Farm Bill, $75,000

Melzer, M.J., Sandlin, M., and Hu, J.S. 2016. Rapid Ohia Death Public Outreach. Hauoli Mau Loa Foundation, $75,000

Bennett, G.M., and Melzer, M.J. 2016. Rapid Ohia Death Researcher in PEPS. Hauoli Mau Loa Foundation, $40,000

Melzer, M.J., and Spafford, H. 2016. Agrosecurity Laboratory. Hauoli Mau Loa Foundation, $30,000

Melzer, M.J., Cheng, Z., and Wright, M.G. 2015-2016. Safety training for coconut rhinoceros beetle response personnel and facility improvements at the University of Hawaii’s invasive insect containment laboratory. Hawaii Invasive Species Council, $67,650

Melzer, M.J., Kawabata, A., and Uchida, J.Y. 2015-2016. Survey for coffee rust and other coffee pathogens in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $53,995

Melzer, MJ, Hu, JS, and Sugii, N. 2015-2017. Safeguarding Hawaii’s Taro and Banana Germplasm: Pathogen Discovery. CTAHR Supplemental Funding, $68,000

Melzer, M.J., Cheng, Z., and Wright, M. 2015-2016. Survey, rearing, and management of Coconut rhinoceros beetle on Oahu, Hawaii. USDA-APHIS-PPQ Farm Bill, $1,901,014

Melzer, M.J., and Hu, J.S. 2015-2016. The sweet potato clean plant network in Hawaii. USDA-APHIS-PPQ National Clean Plant Network, $38,051

Melzer, M.J., Hara, A., and Cheng, Z. 2015-2016. Survey for coconut rhinoceros beetle on Oahu. Hawaii Department of Agriculture, $872,323

Cheng, Z., Melzer, M., and Hara, A. 2015-2016. Chemical, biological and cultural control of coconut rhinoceros beetle in Hawaii. USDA-APHIS-PPQ Farm Bill, $134,750

Uchida, J.Y., and Melzer, M.J. 2015-2016. Survey for basil viruses in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $29,653

Melzer, M., Hara, A., and Cheng, Z. 2014-2015. Multi-agency proposal for coconut rhinoceros beetle response, training, and research. Hawaii Department of Land and Natural Resources, $389,253

Melzer, M.J. 2014-2015. The citrus clean plant network in Hawaii. USDA-APHIS-PPQ National Clean Plant Network, $14,000

Melzer, M.J., and Hu. J.S. 2014-2015. National survey of solanaceous crop pests. USDA-APHIS-PPQ Farm Bill, $14,500

Melzer, M.J., and Hu, J.S. 2014-2015. Survey of edible fig viruses in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $29,946

Melzer, M.J., and Hu, J.S. 2014-2015. Survey of exotic cacao viruses in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $29,242

Melzer, M.J. 2014-2016. Detection of huanglongbing (citrus greening). USDA-APHIS-PPQ Citrus Health, $53,850

Melzer, M.J. 2014-2016. University of Hawaii’s Huanglongbing Diagnostic Lab. USDA-APHIS-PPQ Citrus Health, $10,832

Melzer, M.J., Hu, J.S., Alvarez, A., and Borth, W. 2013-2014. Survey of phytoplasmas and viroids of palms in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $20,844

Melzer, M., Hu, J.S., and Miyasaka, S. 2013-2014. Survey of sweet potato viruses in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $18,501

Melzer, M.J. 2013-2015. University of Hawaii’s Huanglongbing Diagnostic Lab. USDA-APHIS-PPQ Citrus Health, $10,856

Melzer, M.J. 2013-2014. Pathogen persistence in Hawaii’s fresh produce. FDA/UC Davis Western Center for Food Safety, $125,741

Melzer, M.J. and Hu, J.S. 2012-2013. Survey of taro (*Colocasia esculenta*) viruses in Hawaii. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $23,453

Melzer, M.J. and Hu, J.S. 2012-2013. Survey of *Watermelon mosaic virus* and other potyviruses in Hawaii’s orchid industry. USDA-APHIS-PPQ Cooperative Agricultural Pest Survey, $17,069

Wright, M., Kaufman, L., and Melzer, M. 2011-2015. Low-Input Integrated Management of Tomato Viruses in Hawaii. Western SARE, $297,296

Melzer, M.J. and Hu, J.S. 2011-2015. The Citrus Clean Plant Network in Hawaii. USDA-APHIS-PPQ National Clean Plant Network, $100,152

Melzer, M.J., Alvarez, A., and Hu, J.S. 2011-2013. Establishment of a huanglongbing detection and wide-area monitoring program in Hawaii, 2011-2013, USDA-NIFA, $150,000 (assumed PI duties from Dr. Diane Sether in 2012)

Sugano, J., Kawate, M., Uchida, J., and Melzer. M. 2010-2012. Leaf spotting and its affect on ti leaf (Cordyline terminalis or fruticosa): for laulau operations. Hawaii Deparment of Agriculture, $74,000

Hu, J.S., and Melzer, M.J. 2010-2011. Management of the emerging tomato yellow leaf curl and potyviral diseases of tomato in Hawaii. USDA-T/STAR, $40,000

Hu, J.S., and Melzer, M.J. 2009-2010. Identification and characterization of a new viral disease in Hawaii’s anthurium and production of virus-free plants. USDA-CSREES Federal Floriculture, $20,000

Hu, J.S., and Melzer, M.J. 2008-2011. Management of citrus blight in Hawaii. USDA-ARS Minor Crop Grants, $120,000 (Co-PI)

Hu, J.S., Gonsalves, D., Ferreira, S., and Melzer, M.J. 2008-2011. Evaluation of transgenic citrus plants for resistance to Citrus tristeza virus. USDA-ARS Special Grants, $60,000

Hu, J.S., Gonsalves, D., Ferreira, S., and Melzer, M.J. 2008-2011. Development of Mexican lime plants for resistance to Citrus tristeza virus. USDA-ARS Special Grants, $60,000

Hu, J.S., Gonsalves, D., Ferreira, S., and Melzer, M.J. 2004-2006. Transgenic citrus plants with broad and durable resistance to CTV. USDA-ARS Special Grants, $165,000

**Presentations at Conferences**

Melzer, M.\*, Atwood, J.\*, Cheng, Z.\*, and Starke, M.\* 2019. Invasive Species in Hawaii: Impact to Agriculture and Producers. The 2019 Hawaii Agriculture Conference, Honolulu, HI.

Olmedo-Velarde, A.\*, and Melzer, M.J. 2018. Viroid diseases in Hawaii. International Congress of Plant Pathology, Boston, MA.

Olmedo-Velarde, A.\*, Watanabe, S., Hamasaki, R.T., and Melzer, M.J. 2018. First report of Tomato chlorotic dwarf viroid and Southern tomato virus infecting greenhouse tomato in Hawaii. International Congress of Plant Pathology, Boston, MA.

Feng, X., Orellana, G., Green, J., Melzer, M.J., and Karasev, A.V.\* 2018. Characterization of a *Bean common mosaic virus* isolate from lima bean (*Phaseolus lunatus*). International Congress of Plant Pathology, Boston, MA.

Fatdal. L.\*, Sipes, B., and Melzer, M. 2017. Bioforensic studies in *Rotylenchulus reniformis* – sources and origin. Society of Nematologists Annual Meeting, Colonial Williamsburg, VA.

Dey, K.K.\*, Melzer, M.J., Kerr, C., Xiaoan, S., and Adkins, S. 2017. A new potyvirus found in *Dioscorea bulbifera* in Florida. Annual Meeting of the American Phytopathological Society, San Antonio, TX.

Roy, A.\*, Stone, A.L., Martinez, G.L., Otero-Colina, G., Melzer, M.J., Hartung, J.S., Wei, G., Mavrodieva, V.A, Brlansky, R.H., Schneider, W., and Nakhla, M.K. 2017. Development of two multiplex RT-PCRs for simultaneous detection of five cytoplasmic and three nuclear viruses associated with citrus leprosis complex. Annual Meeting of the American Phytopathological Society, San Antonio, TX.

Watanabe, S.\*, and Melzer, M. 2016. Development of a multiplex PCR assay for the identification of coconut rhinoceros beetle (*Oryctes rhinoceros* L.). Entomological Society of America Annual Meeting, Ft. Lauderdale, FL.

Marrero, G.\*, Yasuhara-Bell, J., Melzer, M, and Alvarez, A. 2016. Loop-mediated isothermal amplification for the detection of soft rot causing *Dickeya* spp. Annual Meeting of the American Phytopathological Society, Tampa, FL.

Park, A.\* and Melzer, M. 2016. Molecular detection of Ti ringspot associated virus, a novel emaravirus associated with ti ringspot disease of *Cordyline fruticosa* (L.) in Hawai’i. Annual Meeting of the American Phytopathological Society, Tampa, FL.

Melzer, M.\*, Dey, K., Chan Borges, A., Long, M., Borth, W., Wichitrnithed, N., Hu, J., and Li, R. 2016. First report and characterization of *Taro bacilliform virus* in the USA. Annual Meeting of the American Phytopathological Society, Tampa, FL.

Watanabe, S.\*, and Melzer, M. 2016. Survey for *Oryctes rhinoceros nudivirus* (OrNV) in a Hawaiian coconut rhinoceros beetle (*Oryctes rhinoceros*) population, and genetic diversity of Pacific isolates of OrNV. International Congress on Invertebrate Pathology and Microbial Control and the 49th Annual Meeting of the Society for Invertebrate Pathology, Tours, France.

Melzer, M.J.\* 2015. Metagenomics applied to virology. 48th Brazilian Congress of Phytopathology, São Pedro, Brazil (Invited Speaker)

Leite de Oliviera, M., Borth, W., Carrillo, J., Hu, J., Neupane, K., Stubblefield, S., and Melzer, M.\* 2015. Star jasmine (*Jasminum multiflorum*) plants in Hawaii are infected with multiple tombusviruses. Annual Meeting of the American Phytopathological Society, Pasadena, CA.

Chikh-Ali, M., Vander Pol, D., Nikolaeva, O.V., Melzer, M.J., and Karasev, A.V.\* 2015. A novel strain of *Potato virus Y* from tomato. Annual Meeting of the American Phytopathological Society, Pasadena, CA.

Zhang, J., Borth, W.B., Lin, B., Melzer, M.J., Shen, H., Pu, X, and Hu, J.\* 2015. Multiple detection of four banana viruses by reverse transcription loop-mediated isothermal amplication. Annual Meeting of the American Phytopathological Society, Pasadena, CA.

Roy, A\*, Hartung, J.S., Shao, J., Leon, G., Melzer, M.J., Beard, J.J., Otera-Colina, G., Bauchan, G.R., Ochoa, R., Brlansky, R.H., and Schneider, W.L. 2015. Identification of *Brevipalpus yothersi* Baker as a vector and possible primary host of cytoplasmic citrus leprosis viruses. Annual Meeting of the American Phytopathological Society, Pasadena, CA.

Melzer, M.\*, Sugano, J., Uchida, J, Kawate, M, Borth, W., and Hu, J. 2014. Partial characterization of a novel emara-like virus from *Cordyline fruticosa* (L.) with ti ringspot disease. Annual Meeting of the American Phytopathological Society, Minneapolis, MN.

Dey, K.K.\*, Borth, W., Melzer, M., Hu, J., and Wang, M.L. 2014. Screening of pineapple mealybug wilt associated virus (PMWaV) genome for suppressors of gene silencing. Annual Meeting of the American Phytopathological Society, Minneapolis, MN.

Melzer, M\*, Moyne, A.-L., Blessington, T., Alvarez, A., Jay-Russell, M., and Harris, L. 2014. Persistence of *Escherichia coli* on basil in tropical environments. International Association for Food Protection Annual Meeting, Indianapolis, IN.

Long, M., Alvarez, A., Hu, J., and Melzer, M.\* 2013. Cytopathology of a novel virus-like disease of citrus. 19th Conference of the International Organization of Citrus Virologists, Mpumalanga, South Africa.

Melzer, M.\*, Sether, D., Karasev, A., Borth, W., and Hu, J. 2011. Diversity and Evolution in the Family Closteroviridae. XXII Encontro Nacional de Virologia, VI Encontro de Virologia do Mercosul, Atibaia, Brazil (Invited Speaker).

Melzer, M.\*, Kitajima, E., Sether, D., Borth, W., and Hu. J. 2011. Characterization of a novel virus infecting a *Citrus volkameriana* tree with leprosis-like symptoms. XXII Encontro Nacional de Virologia, VI Encontro de Virologia do Mercosul, Atibaia, Brazil.

Melzer, M.\*, Sugano, J. Sether, D., Borth, W., and Hu, J. 2011. Detection, diversity, and molecular characterization of closteroviruses infecting Hawaiian ti (*Cordyline fruticosa* L.). Joint Meeting of the American Phytopathological Society and the International Association for Plant Protection Sciences, Honolulu, USA.

Melzer, M.\*, Mauch, H., Borth, W., Ferreira, S., Sether, D., Gonsalves, D., Peña, L., and Hu, J. 2008. Development of transgenic Mexican lime plants for resistance to Citrus tristeza virus using post-transcriptional gene silencing. Biotechfruit 2008 – First International Symposium on Biotechnology of Fruit Species, Dresden, Germany.

Melzer, M.\*, Mauch, H., Gonsalves, D., Peña, L., Ferreira, S., and Hu, J. 2007. Development of transgenic Mexican lime plants for resistance to *Citrus tristeza virus* through post-transcriptional gene silencing. 17th Conference of the International Organization of Citrus Virologists, Adana, Turkey.

Melzer, M.\*, Borth, W., Zee, F., Garnsey, S., Hilf, M., and Hu, J. 2006. Incidence and diversity of *Citrus tristeza virus* in Hawaii. Joint Meeting of the American Phytopathological Society, the Canadian Phytopathological Society, and the Mycological Society of America, Quebec City, Canada.

Melzer, M.\*, Borth, W., Zee, F., Garnsey, S., Hilf, M., and Hu, J. 2004. Incidence and diversity of *Citrus tristeza virus* in Hawaii. 16th Conference of the International Organization of Citrus Virologists, Monterrey, Mexico.

Melzer, M.\*, Karasev, A., Sether, D., Dawson, W., and Hu, J. 2000. Nucleotide sequence and genome organization of pineapple mealybug wilt-associated virus 2. Annual Meeting of the American Phytopathological Society, New Orleans, LA.

**Other Presentations**

Melzer, M.\* 2019. New pathogen detection technologies for Pacific biosecurity. CTAHR Cooperative Extension Service Invasive Species Conference, Hilo, HI

Melzer, M.\* 2019. Agrosecurity in Hawaii and the Pacific. Master Gardener Program, Pearl City, HI

Melzer, M.\* 2019. Agrosecurity in Hawaii and the Pacific. Vanuatu Agricultural Research and Technical Center, Santo, Vanuatu

Melzer, M.\* 2018. The National Clean Plant Network & The Clean Plant Network in Hawaii. CE90 4-H100 Celebrations of UH Community Education, Honolulu, HI

Melzer, M.\* 2018. The Clean Plant Network in Hawaii. 28th Annual Hawaii Tropical Fruit Growers Conference, Pearl City, HI (Invited Speaker)

Melzer, M.\* 2018. The Sweetpotato (‘Uala) Clean Plant Program in Hawaii. National Clean Plant Network – Sweetpotato: Special Meeting, Baton Rouge, LA (Invited Speaker)

Manley, M.\*, Melzer, M., and Spafford, H. 2017. Oviposition preferences of coconut rhinoceros beetle (*Oryctes rhinoceros*). Pacific Entomology Conference, Honolulu, HI

Vowell, T., Watanabe, S., Lohiya, P., Manley, M., and Melzer, M.\* 2017. Approaches for coconut rhinoceros beetle control in Hawaii. Pacific Entomology Conference, Honolulu, HI (Invited Speaker)

Melzer, M.J.\* 2017. Coconut rhinoceros beetle in Hawaii. Sub-Regional Workshop on Coconut Rhinoceros Beetle Guam Biotype, Suva, Fiji (Invited Speaker).

Melzer, M.\* 2017. Agrosecurity Laboratory: Safeguarding Agriculture in Hawaii and the Pacific. Board Meeting of the Research Corporation of the University of Hawaii, Hilo, HI (Invited Speaker).

Melzer, M.\* 2017. Agrosecurity in Hawaii. 1st Annual Hawaii Invasive Pest Symposium, Kapaa, HI (Invited Speaker).

Spafford, H.\*, Melzer, M.\*, Atwood, J.P.\*, and Kaniaupio-Crozier, P.\* 2016. Biosecurity: Nurturing Health & Quality of Life. Hawaii Public Health Conference, Honolulu, HI (Invited Panelist)

Melzer, M.J.\* 2016. Update on two new ginger diseases. East Oahu County Farm Bureau General Membership meeting. Kaneohe, HI

Melzer, M.J.\* 2016. Agrosecurity Laboratory. National Plant Diagnostic Network - National Meeting. Washington, DC.

Melzer, M\*, Shimabuku, R, and Hu, J. 2015. New hosts for Hibiscus green spot virus 2. WERA-20 Annual Meeting 2015, Greenbelt, MD

Melzer, M.\* 2015. The Clean Plant Network in Hawaii. Kauai Fruit Conference, Lihue, HI.

Melzer, M.\* 2014. Sweet potato (‘Uala) in Hawaii. National Clean Plant Network – Sweet Potato Stakeholders Meeting, Raleigh, NC.

Melzer, M.\* 2014. Agrosecurity in the Pacific: Start Clean, Stay Clean. East-West Center Wednesday Evening Seminar Series, Honolulu, HI.

Melzer, M.J.\*, Borth, W.B., and Hu, J.S. 2014. Detection and discovery of viruses in edible fig (*Ficus carica* L.). WERA-20 Annual Meeting 2014. Hilo, HI.

Melzer, M.J.\* 2014. Persistence of *Escherichia coli* on basil in tropical environments. Survival of Foodborne Pathogens in Pre-harvest and Post-harvest Produce Environments, Newport Beach, CA (Invited Speaker).

Harris, L\*, Gorny, J\*, Assar, S\*, and Melzer, M\*. 2014. How to utilize alternatives and variances in the proposed Produce Safety Rule to comply with irrigation water quality criteria. 2014 Western US Irrigation Water Conference, Davis, CA. (Invited Panelist)