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Department of Plant Pathology and Crop Physiology
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Education:

Ph.D., 2018, Biology, University of British Columbia - Okanagan Campus

B.Sc. (Hons.), 2013, Microbiology, University of British Columbia - Okanagan Campus

Professional Experience:

Assistant Professor	Louisiana State University	2020-present
Postdoctoral Associate	University of Florida - GCREC	2018-2020
Research Affiliate	Agriculture and Agri-Food Canada - SuRDC	2013-2018

Teaching:

Professor, Phytonematology PLHL 7000, Louisiana State University, 2021-present (odd years)

Guest Lecturer, Plant Pathology PLHL 4000, Louisiana State University, October 29, 2020

Guest Lecturer, Plant Disease Practicum PLHL 8800, Louisiana State University, June 16 and 19, 2020

Teaching Assistant, Introductory Biology BIOL 116, University of British Columbia, 2015

Teaching Assistant, Biochemistry Lab BIOC 393, University of British Columbia, 2014

Teaching Assistant, Introductory Microbiology BIOL 228, University of British Columbia, 2013

Extramural Funding:

Louisiana Sweet Potato Commission, Distribution of the invasive guava root-knot nematode in Louisiana sweetpotato production. **Watson, T.T.**, Rezende, J. (\$4,000), 2020-2021

United Soybean Board, SCN Coalition: reinforcing and maintaining local efforts and sustainable yields. Watson, T.T., Price, P. (\$17,000), 2021-2022

LDAF – Specialty Crop Block Grant Program, Soil health benefits of non-fumigant nematicides in sweetpotato production in Louisiana. Watson, T.T. (\$39,990), 2021-2022

*Louisiana Soybean and Grain Research and Promotion Board, Screening grain crops for potential Guava root-knot nematode resistance and use of LAMP as a fast molecular tool for *Meloidogyne enterolobii* identification. Watson, T.T., Rezende, J. (\$29,000), 2020-2021*

*Louisiana Soybean and Grain Research and Promotion Board, The threat of guava root-knot nematode (*Meloidogyne enterolobii*) to soybean in Louisiana. Watson, T.T., Rezende, J. (\$20,000), 2020-2021*

*Cotton Incorporated – Louisiana State Support Committee, The threat of guava root-knot nematode (*Meloidogyne enterolobii*) to cotton in Louisiana. Watson, T.T., Rezende, J. (\$5,000), 2020-2021*

American Sugarcane League, Nematode survey and evaluation of sugarcane varieties for resistance to the guava root-knot nematode. Watson, T.T., Rezende, J. (\$5,000), 2020-2021

*Florida Tomato Research Committee, Prevalence of root-knot nematode species (*Meloidogyne* spp.) in Florida tomato production and host status on commonly used cover crops. Desaegeer, J.A., Watson, T.T. (\$28,664), 2020-2021*

USDA-NIFA Methyl Bromide Transition Program, In the home stretch: implementation and grower adoption of non-fumigant nematicides in plasticulture. Desaegeer, J.A., Guan, Z.H., Diaz, J.O., Watson, T.T. (\$234,495), 2020-2022

Florida Strawberry Research Education Foundation Inc., Summer cover crops as an integrated pest management strategy in Florida strawberry production: relationship between weeds and nematodes. Desaegeer, J.A., Watson, T.T. (\$33,144), 2019-2020

Florida Strawberry Research Education Foundation Inc., Evaluation of summer cover crops for suppression of sting, lesion, and northern root-knot nematodes on strawberry in Florida. Desaegeer, J.A., Watson, T.T. (\$35,394), 2018-2019

Professional Affiliations:

Organization of Nematologists of Tropical America	2018-present
Society of Nematologists	2018-present

Publications:

Refereed Publications:

Watson, T.T., Strauss, S.L., Desaegeer, J.A. (2020) Identification and characterization of Javanese root-knot nematode (*Meloidogyne javanica*) suppressive soils in Florida. *Applied Soil Ecology* 154C: (TBD)

Watson, T.T., Suarez, M., Deng, Z., Desaegeer, J.A. (2020) Plant-parasitic nematodes associated with the root zone of hop cultivars planted in a Florida field soil. *Journal of Nematology* 52: (TBD)

Watson, T.T., Noling, J.W., Desaegeer, J.A. (2020) Fluopyram as a rescue nematicide for managing sting nematode (*Belonolaimus longicaudatus*) on commercial strawberry in Florida. *Crop Protection* 132C: 105-108

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (2019) Pre-plant incorporation of compost as a non-fumigant alternative to promote the establishment of fruit trees at old orchard sites. *Acta Horticulturae* 1266: 331-335

Forge, T.A., Neilsen, D., Neilsen, G.H., Munro, P., **Watson, T.T.**, Nelson, L.M., Jones, M. (2019) Utility of compost and wood mill waste amendments to mitigate severe replant stress of sweet cherry. *Acta Horticulturae* 1266: 421-427

Desaegeer, J.A., **Watson, T.T.** (2019) Evaluation of new chemical and biological nematicides for tomato production and associated double-crops in Florida. *Pest Management Science* 75: 3363-3370

Watson, T.T., Nelson, L.M., Forge, T.A. (2019) Preplant soil incorporation of compost to mitigate replant disease: soil biological factors associated with plant growth promotion in orchard soil. *Compost Science and Utilization* 26: 286-296

Watson, T.T., Desaegeer, J.A. (2019) Evaluation of non-fumigant chemical and biological nematicides for strawberry production in Florida. *Crop Protection* 107C: 100-107

Watson, T.T., Forge, T.A., Nelson, L.M. (2018) Pseudomonads contribute to regulation of *Pratylenchus penetrans* (Nematoda) populations on apple. *Canadian Journal of Microbiology* 64: 1-11

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (2018) Low-volume irrigation systems influence *Pratylenchus penetrans* populations, root colonization by arbuscular mycorrhizal fungi, and replant establishment of sweet cherry. *Scientia Horticulturae* 239: 50-56

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (2017) Soil amendments influence *Pratylenchus penetrans* populations, beneficial rhizosphere microorganisms, and growth of newly planted sweet cherry. *Applied Soil Ecology* 117-118: 212-220

Forge, T.A., Neilsen, D., Neilsen, G.H., **Watson, T.T.** (2016) Using compost amendments to enhance soil health and replant establishment of tree-fruit crops. *Acta Horticulturae* 1146: 103-108

Proceedings and Abstracts:

Desaeger J., Bui, H., Hansen, K., Skukla, S., Noling, J., **Watson, T.T.** (2020) The final push for grower adoption of non-fumigant nematicides in Florida strawberry and vegetables. *Methyl Bromide Alternatives Outreach* (in press)

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (2016) Soil amendments and irrigation type influence *Pratylenchus penetrans* populations and growth of newly planted sweet cherry. *Canadian Journal of Plant Pathology* 38: 539

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., O'Gorman, D., Forge, T.A. (2016) Control of *Pratylenchus penetrans* on sweet cherry using organic soil amendments. *Canadian Journal of Plant Pathology* 38: 137

Forge, T.A., **Watson, T.T.**, Neilsen, D., Neilsen, G.H., Nelson, L.M., Munro, P., Randall, P. (2016) Using compost soil amendments in an integrated replant management program for perennial fruit crops: effects on plant-parasitic nematodes. *Journal of Nematology* 48: 320

Watson, T.T., Nelson, L.M., Forge, T.A. (2015) Alternative management of root-lesion nematodes (*Pratylenchus penetrans*) and *Cylindrocarpon/Ilyonectria* spp. impacting apple and sweet cherry during replant establishment. *Canadian Journal of Plant Pathology* 37: 4

Forge, T.A., Munro, P., **Watson, T.T.**, Kuchta, S. (XXXX) Irrigation and soil organic matter management practices affect population development of the ring nematode, *Mesocriconema xenoplax* on sweet cherry. *Canadian Journal of Plant Pathology* (in press)

Technical Reports:

Watson, T.T., Desaeger, J.A. (2020) Evaluation of new chemical nematicides for controlling *Belonolaimus longicaudatus* on strawberry in Florida, 2018-2019. *Plant Disease Management Reports* 14

Watson, T.T., Desaeger, J.A. (2020) Evaluation of nematicide cocktails for controlling *Belonolaimus longicaudatus* on strawberry in Florida, 2018-2019. *Plant Disease Management Reports* 14

Watson, T.T., Desaeger, J.A. (2020) Evaluation of new chemical nematicides for controlling *Meloidogyne javanica* on cucumber in Florida, 2018. *Plant Disease Management Reports* 14

Watson, T.T., Desaeger, J.A. (2020) Evaluation of new chemical nematicides for controlling *Meloidogyne javanica* on tomato in Florida, 2018. *Plant Disease Management Reports* 14

Watson, T.T., Desaegeer, J.A. (2020) Evaluation of biological and chemical nematicides for controlling *Meloidogyne javanica* on tomato in Florida, 2019. *Plant Disease Management Reports* 14

Watson, T.T., Desaegeer, J.A. (2019) Non-fumigant nematicides registered for vegetable crop use. *Institute of Food and Agricultural Science* ENY-033, 1-9, University of Florida, Gainesville, FL

Watson, T.T., Desaegeer, J.A. (under review) Cover crops for nematode management on strawberry. *Institute of Food and Agricultural Science* ENY-XXX, 1-10, University of Florida, Gainesville, FL

Newsletters:

Watson, T.T., Rezende, J. (August 2020) Update on the current status of the guava root-knot nematode in Louisiana. *LA Crops Newsletter*, Baton Rouge, LA

Presentations:

Invited Speaker:

Watson, T.T. (November 2019) Non-fumigant nematicides for fruit and vegetable production in Florida. Louisiana State University Department of Plant Pathology and Crop Physiology, Baton Rouge, Louisiana

Watson, T.T. (November 2019) Integrated nematode management: from discovery to grower adoption. Louisiana State University Department of Plant Pathology and Crop Physiology, Baton Rouge, Louisiana

Watson, T.T. (October 2019) Role of soil health in nematode management. Gulf Coast Research and Education Center Postdoctoral Research Seminar, Wimauma, Florida

Watson, T.T. (December 2018) Nematode management during a soil health paradigm: examples from high-value horticulture. North Carolina State University Department of Plant Pathology, Raleigh, North Carolina

Watson, T.T. (March 2018) Alternatives to fumigants for mitigating replant disease of fruit trees in British Columbia. Gulf Coast Research and Education Center Postdoctoral Research Seminar, Wimauma, Florida

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (December 2017) Low-volume irrigation systems influence *Pratylenchus penetrans* populations, root colonization by arbuscular mycorrhizal fungi, and replant establishment of sweet cherry. Okanagan Valley Mycorrhizae Workshop, Kelowna, British Columbia

Watson, T.T. (March 2016) Influence of organic soil amendments on beneficial microorganisms in the cherry rhizosphere: prospects for improved plant growth. BC Tree Fruit Industry Meeting, Kelowna, British Columbia

Forge, T.A., **Watson, T.T.** (February 2016) Overview of compost application in horticulture: opportunities for enhanced utilization. Compost Council of Canada, Summerland, British Columbia

Watson, T.T. (November 2015) Plant-parasitic nematodes of the Okanagan Valley: diagnosis and management. UBC Okanagan Biology Brown Bag Seminar Series, Kelowna, British Columbia

Watson, T.T. (February 2015) Management of replant disease. BC Tree Fruit Replant Meeting for Growers, Kelowna, British Columbia

Watson, T.T. (January 2015) Management of replant disease. BC Tree Fruit Replant Meeting for Growers, Penticton, British Columbia

Watson, T.T. (January 2015) Replant disease: etiology and management. Tree Fruit Pathology Short Course, Summerland, British Columbia

Watson, T.T., and Bach, S.J. (October 2014) Microorganisms and agriculture: the good, the bad, and the ugly. Agriculture and Agri-Food Canada - Pacific Agri-Food Research Centre Centennial Speaker Series, Summerland, British Columbia

Professional Conferences:

Watson, T.T., Noling, J.W., Desaegeer, J.A. (July 2019) Evaluation of fluopyram as a rescue nematicide for managing sting nematode (*Belonolaimus longicaudatus*) on strawberry in Florida. Organization of Nematologists of Tropical America Annual Meeting, San Jose, Costa Rica

Watson, T.T., Desaegeer, J.A. (November 2018) Non-fumigant nematicides for strawberry production in Florida. Methyl Bromide Alternatives Outreach, Orlando, Florida

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (August 2018) Organic amendments induce soil suppressiveness to *Pratylenchus penetrans* on newly planted sweet cherry. Organization of Nematologists of Tropical America Annual Meeting, Arequipa, Peru

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (July 2018) Low-volume irrigation systems influence *Pratylenchus penetrans* populations in a newly established sweet cherry orchard in British Columbia. Society of Nematologists Annual Meeting, Albuquerque, New Mexico

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (August 2017) Pre-plant incorporation of compost as a non-fumigant alternative to promote the establishment of fruit

trees at old orchard sites. International Symposium on Growing Media, Soilless Cultivation, and Compost Utilization, Portland, Oregon

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (November 2016) Soil amendments and irrigation type influence *Pratylenchus penetrans* populations and growth of newly planted sweet cherry. Canadian Phytopathological Society BC Regional Meeting, Summerland, British Columbia

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (May 2016) Manipulating beneficial rhizosphere microorganisms for enhanced plant growth in newly planted sweet cherry orchards. Canadian Soil Science Society Annual General Meeting, Kamloops, British Columbia

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., O'Gorman, D., Forge, T.A. (November 2015) Control of *Pratylenchus penetrans* on sweet cherry using organic soil amendments. Canadian Phytopathological Society BC Regional Meeting, Abbotsford, British Columbia

Watson, T.T., Nelson, L.M., Forge, T.A. (June 2015) Managing replant disease of apple and sweet cherry with composted agricultural wastes. Rhizosphere 4, Maastricht, Netherlands

Watson, T.T., Nelson, L.M. (April 2013) Evaluation of rhizobacteria for biological control of fungal pathogens associated with apple replant disease. Irving K. Barber School of Arts and Sciences 8th Annual Undergraduate Research Conference, Kelowna, British Columbia

Posters:

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (September 2016) Compost amendment and bark chip mulch influence *Pratylenchus penetrans* populations, beneficial rhizosphere microorganisms, and growth of newly planted sweet cherry. UBC Okanagan Biology Graduate Symposium, Kelowna, British Columbia

Watson, T.T., Nelson, L.M., Neilsen, D., Neilsen, G.H., Forge, T.A. (September 2015) Engineering suppressive soils: compost mediated control of *Pratylenchus penetrans* on sweet cherry (*Prunus avium*) in a greenhouse and field experiment. UBC Okanagan Biology Graduate Symposium, Kelowna, British Columbia

Watson, T.T., Nelson, L.M., Forge, T.A. (November 2014) Alternative management of root-lesion nematodes (*Pratylenchus penetrans*) and *Cylindrocarpon/Ilyonectria* spp. impacting apple and sweet cherry during replant establishment. Canadian Phytopathological Society BC Regional Meeting, Surrey, British Columbia

Watson, T.T., Nelson, L.M. (June 2014) Evaluation of rhizobacteria for biological control of replant disease pathogens. International Union of Microbiological Societies Congresses, Montreal, Quebec

Academic Services:

Graduate Admissions Committee, Department of Plant Pathology and Crop Physiology, Louisiana State University, since 2020

Graduate Awards and Publicity Committee, Department of Plant Pathology and Crop Physiology, Louisiana State University, since 2020

Professional Services:

Associate Editor, *Nematropica*, since 2020

Judge, Rodriguez-Kabana Student Poster Competition, Organization of Nematologists of Tropical American Annual General Meeting, San Jose, Costa Rica, 2019

Scientific Committee, *Acta Horticulturae* 1266, International Symposium of Growing Media, Soilless Cultivation, and Compost Utilization in Horticulture, 2017

Session Moderator, International Symposium of Growing Media, Soilless Cultivation, and Compost Utilization in Horticulture, 2017

Manuscript Peer-Reviewer:

Acta Horticulturae

Frontiers in Plant Science

Scientia Horticulturae

Information Processing in Agriculture

Nematropica

Plant Disease

Environmental Technology

Journal of Agriculture and Food Chemistry

Journal of Phytopathology

Crop Protection

Scientific Reports

Journal of Nematology