

Chaminda De Silva Weeraddana

Curriculum vitae

Correspondence language: English

Sex: Male

Canadian Residency Status: Permanent Resident

CONTACT INFORMATION

Primary Affiliation

Postdoctoral Research Fellow

Department of Entomology

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WEBSITE (SOCIAL MEDIA)

Google Scholar: <https://scholar.google.ca/citations?user=RMpX5rwAAAAJ&hl=en>

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Linkedin: <https://www.linkedin.com/in/chaminda-de-silva-weeraddana-40b88ab0/?originalSubdomain=ca>

Researchgate: https://www.researchgate.net/profile/Chaminda_De_Silva_Weeraddana

DEGREES

2012/9 - 2018/11 Doctorate, Ecology, University of Alberta

Degree Status: Completed

Thesis Title: Abiotic and biotic factors influencing host-plant use of a generalist herbivore through plant-mediated interactions: oviposition and larval performance by the bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae) on canola

Advisor: Dr. Maya Evenden

Field of Specialization: Ecology

Areas of Research: Crop protection, Plant-insect-plant interactions, Plant stress physiology, Integrated pest management

2010/1 - 2012/9 Master's Thesis, M.Sc, Agriculture, Dalhousie University

Degree Status: Completed

Thesis Title: Extracts of the brown seaweed, *Ascophyllum nodosum*, effect *Arabidopsis thaliana* - *Myzus persicae* interaction

Advisor: Dr. Balakrishnan Prithiviraj

Field of Specialization: Agriculture

Areas of Research: Crop protection, Plant-insect interactions, Plant stress physiology, Molecular biology

2006/9 - 2008/9 Master's non-Thesis, Molecular biology and biotechnology, University of Ruhuna, Sri Lanka

Degree Status: Completed

M.Sc. Coordinator: Dr. Pushpa Abeysinghe

Field of specialization: Molecular Biology and biotechnology

2001/7 - 2006/9 Bachelor's Honours, B.Sc. (4 years), University of Ruhuna, Sri Lanka

Degree Status: Completed

RECOGNITIONS

2017/3 McAfee Estate Scholarship in Botany - 8,997 (Canadian dollar)

University of Alberta

The scholarship was awarded to a top graduate student with academic and research accomplishments in studying botany in the province of Alberta

2016/11 Faculty of Graduate Studies and Research Travel award - 2,500 (Canadian dollar)

University of Alberta

To attend XXV International Congress of Entomology in Florida, USA

2016/9 University of Alberta Academic Travel Award

University of Alberta

To attend XXV International Congress of Entomology in Florida, USA

2016/9 First place winner- Graduate student poster competition (Insect Chemical Ecology)

Received a certificate, cash prize, and a one-year free membership to the Entomological Society of America at the 2016 International Congress of Entomology (25th-30th September 2016 in Orlando, Florida, USA).

Poster title: "Effect of canola infection with clubroot disease on oviposition by the bertha armyworm"

2015/3 McAfee Estate Scholarship in Botany - 8,997 (Canadian dollar)

University of Alberta

The scholarship was awarded to a top graduate student with academic and research accomplishments in studying botany in the province of Alberta

2011/11 Faculty of Graduate Studies and Research Travel award

Dalhousie University

To attend Annual joint meeting of Entomological Society of Canada and Acadian Entomological Society, Halifax, Canada

- 2011/11 Selected as a speaker at the Graduate Student Showcase, Entomological Society of Canada
 Selected as one of six speakers presenting at Graduate Student Showcase at the Annual joint meeting of Entomological Society of Canada and Acadian Entomological Society
- 2010/12 Acadian Seaplants Limited Scholarship - 1,000 (Canadian dollar)
 Dalhousie University
 The scholarship was presented to a top graduate or undergraduate student with top academic and research accomplishments in marine bioproducts or the plant sciences subject area in Dalhousie University
- 2007/12 Best player in field hockey
 Award was presented to the best player in field hockey at the Annual Sports Banquet in the University of Ruhuna, Sri Lanka

EMPLOYMENT

2018/12 – Present Postdoctoral Research Fellow

Department of Entomology, Agricultural and Food Sciences, University of Manitoba

Advisor: Dr. Alejandro C. Costamagna

Research summary:

The orange wheat blossom midge (wheat midge), *Sitodiplosis mosellana* (Géhin) is a serious insect pest of wheat-growing regions in Canada. The only resistance gene against wheat midge, *Sm1*, has been successfully incorporated into wheat. Extensive use of *Sm1* in resistant wheat varieties increases selection pressure on natural wheat midge populations. Oviposition deterrence (OD) against wheat midge has been identified as a potential source of wheat midge resistance to overcome selection pressure. I analyzed wheat deterrent volatiles emitted and conducted insect behavioral assays. These deterrent VOCs will be used as molecular markers for wheat breeding programs and help to provide a sustainable control option for wheat midge.

Instrumentation: GC-MS, TD-GC/MS, GC-FID, Thermal desorption tube conditioner

2018/9 – 2018/11 Temporary Employee

Full time

Corteva Agriscience, Agriculture Division of Dow DuPont, Edmonton Research Station, Alberta, Canada

Supported large-scale canola breeding programs and collected large-scale canola seed samples, crossed wheat genotypes, assessed Sclerotinia stem rot disease, and analyzed fatty acids using near-infrared reflectance (NIR) spectroscopy.

2012/9 - 2018/10 Graduate Research and Teaching Assistant

Department of Biology, University of Alberta, Edmonton, AB

Advisor: Dr. Maya Evenden

Research summary:

The bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae), is a polyphagous insect that feeds on various host plant families. Canola, *Brassica napus*

(Brassicaceae), is one of the more favored host plants making bertha armyworm a significant pest. Canola plants are exposed to different biotic and abiotic factors, influencing the performance of insect herbivores that feed on them. In this study, canola physiology is altered by three factors: 1. host plant nutrition and crop cultivar; 2. root pathogen infection; 3. plant defenses induced by specialist herbivores.

Instrumentation: GC-MS, GC x GC-TOFMS, EAG, Microtome, SEM.

2010/1 - 2012/8 Graduate Research Assistant

Dalhousie University, Halifax, NS

Advisor: Dr. Balakrishnan Prithiviraj

Research summary:

Extracts of brown macroalgae, *Ascophyllum nodosum* (L.) (ANE) increases crop growth and yield in agricultural ecosystems. Due to biological elicitors, ANE-applied plants impart resistance/tolerance against biotic and abiotic stresses. However, little information is currently available on the effect of ANE on insect pests of crops. The green peach aphid, *Myzus persicae* (Homoptera: Aphididae), is an economically important pest of a many crops. In this study, I used a popular plant model, *Arabidopsis thaliana* (L.), to determine whether the application of ANE confers protection from aphid infestation.

Instrumentation: PCR, Real-time PCR, gel electrophoresis system, NanoDrop®

**2007/9 - 2009/12 Research Assistant (Grade I and II) in Natural Products Division,
National Institute of Fundamental Studies, Sri Lanka**

Project Leader: Dr. Lalith Jayasinghe

Full-time

Conducted research on isolating and characterizing of bioactive compounds from plants, fruits, and fungi in Sri Lanka. Bioactivity of these natural compounds was screened using phytotoxic, cytotoxic, antibacterial, and antifungal assays. Maintained and cultured different plant pathogens isolated from diseased crops in Sri Lanka for extracting bioactive compounds.

Instrumentation: HPLC, IR, FTIR, UV-Vis, column chromatography, thin layer chromatography, ultrasonic sonicator, soxhlet apparatus, rotary evaporator

**10/2006 - 08/2007 Teaching Assistant, Department of Botany, University of Ruhuna,
Matara, Sri Lanka**

Conducted botany all practical classes for 1st, 2nd, 3rd-year undergraduate students at Department of Botany, University of Ruhuna, Sri Lanka.

RESEARCH FUNDING HISTORY

2022/4 – 2024/4 Multiomics study of oviposition deterrence compounds against wheat

Co-applicant midge

- Funding source: Innovation in Agricultural Genomics Program organized by Results Driven Agricultural Research (RDAR) and Genome Alberta

- Total budget including co-funding: CAD \$ 1,356,992
- Total received funding: CAD \$ 659,850
- Principal Investigator: James Harynuk
- Co-applicants: Alejandro C. Costamagna, Boyd Mori, Chaminda De Silva Weeraddana
- Funding competitive?: Yes

2023/3 – 2028/3
Collaborator

Wheat midge: enhanced surveys, wheat resistance traits and midge genetic variation to preserve the *Sm1* gene

- Full proposal is under review
- Funding source: Canadian National Wheat Cluster
- Total expected funding: CAD \$ 222,278
- Principal Investigator: Tyler Wist
- Funding competitive?: Yes

COURSES TAUGHT

Duties: supervising undergraduate students with laboratory experiments, delivering prelab talks, grading and evaluating of assignments, quizzes, formal lab reports, marking lab and lecture exams.

2017/01/01 - 2017/04/30

Graduate Teaching Assistant, Biology, University of Alberta

Course Title: General Microbiology 265

Course Code: 265

Course Level: Undergraduate

Academic Session: Winter

Number of Students: 20

Number of Credits: 3

Lab Hours Per Week: 6

2016/09/01 - 2016/12/31

Graduate Teaching Assistant, Biology, University of Alberta

Course Title: Introduction to Cell Biology 107

Course Code: 107

Course Level: Undergraduate

Academic Session: Fall

Number of Students: 20

Number of Credits: 3

Lab Hours Per Week: 6

2015/01/01 - 2015/04/30

Graduate Teaching Assistant, Biology, University of Alberta

Course Title: Introduction to Biological Diversity 108

Course Code: 108

Course Level: Undergraduate

Academic Session: Winter

Number of Students: 20
Number of Credits: 3
Lab Hours Per Week: 6

2014/09/01 - 2014/12/31

Graduate Teaching Assistant, Biology, University of Alberta
Course Title: Fundamentals of Plant Biology 205
Course Code: 205
Course Level: Undergraduate
Academic Session: Fall
Number of Students: 20
Number of Credits: 3
Lab Hours Per Week: 6

2014/01/01 - 2014/04/30

Graduate Teaching Assistant, Biology, University of Alberta
Course Title: Introduction to Biological Diversity 108
Course Code: 108
Course Level: Undergraduate
Academic Session: Winter
Number of Students: 20
Number of Credits: 3
Lab Hours Per Week: 6

2013/09/01 - 2013/12/31

Graduate Teaching Assistant, Biology, University of Alberta
Course Title: Fundamentals of Plant Biology 205
Course Code: 205
Course Level: Undergraduate
Academic Session: Fall
Number of Students: 20
Number of Credits: 3
Lab Hours Per Week: 6

2013/01/01 - 2013/04/30

Graduate Teaching Assistant, Biology, University of Alberta
Course Title: Introduction to Biological Diversity 108
Course Code: 108
Course Level: Undergraduate
Academic Session: Winter
Number of Students: 20
Number of Credits: 3
Lab Hours Per Week: 6

2012/09/01 - 2012/12/31

Graduate Teaching Assistant, Biology, University of Alberta

Course Title: Introduction to Biological Diversity 108

Course Code: 108

Course Level: Undergraduate

Academic Session: Fall

Number of Students: 20

Number of Credits: 3

Lab Hours Per Week: 6

2011/01/01 - 2011/04/30

Graduate Teaching Assistant, Environmental Sciences, Dalhousie University

Course Title: Analytical Chemistry CHMA1000

Course Code: CHMA1000

Course Level: Undergraduate

Academic Session: Winter

Number of Students: 20

Number of Credits: 3

Lab Hours Per Week: 6

2006/10/01 - 2007/08/31

Temporary Demonstrator, Department of Botany, University of Ruhuna, Sri Lanka

Course Title: Botany all practical courses (1st, 2nd, 3rd year)

Course Level: Undergraduate

Number of Students: 10

Lab Hours Per Week: 40

STUDENT MENTORING AND SUPERVISING ACTIVITIES

2022/4 – Present Mentor, University of Alberta

Mentoring a Ph.D. student at the Department of Chemistry, University of Alberta

Project title: Multiomics study of oviposition deterrence compounds against wheat midge

2021/09 – 2022/1 Mentor, University of Alberta

Mentored a M.Sc. student at the Department of Chemistry, University of Alberta

Project title: VOC profiling of midge-deterrent wheat using comprehensive two-dimensional gas chromatography

2020/9 – Present Mentor, University of Manitoba

Mentoring an M.Sc. student at the Department of Entomology, University of Manitoba

Project title: "Alternatives to *Sml*: hairy glumes and egg antibiosis for managing wheat midge".

2015/7 - 2015/8 Supervisor, University of Alberta

Supervised a high school student through a summer research program through the WISEST program (Women in Scholarship, Engineering, Science & Technology)

Research Topic: Effect of different sugar diets on oviposition of bertha armyworm, *Mamestra configurata*

2015/5 – 2015/08 Summer student supervisor, University of Alberta

2014/5 – 2014/08 Summer student supervisor, University of Alberta

2013/7 - 2013/8 Supervisor, University of Alberta

Supervised a high school student through a summer research program in the WISEST program (Women in Scholarship, Engineering, Science & Technology)

Research Topic: Effects of insecticide-coated canola seeds on larval development of bertha armyworm, *Mamestra configurata*

2013/5 – 2013/08 Summer student supervisor, University of Alberta

JOURNAL REVIEW ACTIVITIES

2022/07 - 2021/08 Reviewer, *Pest Management Science*, Wiley

Number of Works Reviewed / Refereed: 1

2022/01 – 2022/02 Reviewer, *Horticulturae*, Multidisciplinary Digital Publishing Institute

Number of Works Reviewed / Refereed: 3

2022/01 – 2022/06 Reviewer, *Journal of Asia-Pacific Entomology*, Elsevier

Number of Works Reviewed / Refereed: 2

2021/12 – 2023/01 Reviewer, *Agronomy*, Multidisciplinary Digital Publishing Institute

Number of Works Reviewed / Refereed: 4

2021/01 – 2023/02 Reviewer, *Physiological Entomology*, Wiley

Number of Works Reviewed / Refereed: 3

2021/05 - 2021/06 Reviewer, *Oecologia*, Springer Nature

Number of Works Reviewed / Refereed: 2

2021/03 - 2021/04 Reviewer, *Crop and Pasture Science*, CSIRO Publishing

Number of Works Reviewed / Refereed: 1

2022/09 - 2021/10 Reviewer, *Saudi Journal of Biological Sciences*, ScienceDirect

Number of Works Reviewed / Refereed: 1

COMMUNITY AND VOLUNTEER ACTIVITIES

2022/13 – 2022/16 Moderator

Moderated the chemical ecology session at Annual meeting of Entomological Society of America, Entomological Society of Canada, Entomological Society of British Columbia held at Vancouver Convention Centre, Vancouver.

2021/11 – 2021/11 Judge

Volunteered as a judge in student oral presentations, held at 77th Annual Meeting of Entomological Society of Manitoba, Winnipeg.

2011/3 - 2011/3 Judge

Volunteered as a judge at Chignecto Central-West Regional Science Fair, held at Bible Hill Junior High School, Nova Scotia, Canada

2005/5 Volunteer

Volunteered for Earthwatch organization for mangrove replanting near Puttalam Lagoon, Sri Lanka

KNOWLEDGE TRANSFER AT CANOLA FARMERS MEETINGS

2013/2 - 2013/2 Resource person

Worked as a resource person at the CanoLab program organized by the Canola Council of Canada. This program allowed growers and agronomists to learn from a team of experts to recognize and manage canola production issues such as insect pests and crop diseases.

KNOWLEDGE AND TECHNOLOGY TRANSLATION

2020/2 – Present

Organization Serving: Agriculture and Agri-food Canada, Richardson Centre for Functional Food and Nutraceuticals, Dr. Lovemore Malunga.

Outcome/ Deliverable: Designed a low-cost volatile collection setup, optimized an extraction method and a GC-MS method to monitor the change in flavor profile in rancid canary flour.

NATIONAL COLLABORATION ACTIVITIES

2021/9 – Present

Collaborating on a project on metabolomics study on deterrent wheat volatiles using TD-GC x GC-TOFMS with Dr. James Harynuk and Dr. Paulina de la mata (Metabolomics Innovation Centre, Chemistry Centre, University of Alberta).

2021/11 – Present

Collaborating on a research project with Dr. Mark A. Smith (Agriculture and Agri-food Canada, Saskatoon Centre) on wheat surface chemical analysis from six susceptible and deterrent wheat varieties using GC-MS and GC-FID.

2018/12 – Present

Collaborating on a research project with Dr. Kirk Hillier (Department of Biology, Acadia University) on testing wheat midge antennal sensitivity on VOCs produced by wheat varieties using GC-EAD (coupled gas chromatography - electroantennographic detection).

2018/12 – 2020/09

Collaborated a research project on screening wheat VOCs using GC-MS with Dr. Tom Ward (Department of Chemistry, University of Manitoba). These VOC experiments were conducted to introduce key deterrent VOCs as molecular markers for wheat midge resistance breeding programs.

MEMBERSHIPS

2022/1 – 2023/12 Early career professional member, Entomological Society of Canada

2019/1 – 2021/12 Early career professional member, Entomological Society of America

2021/12- 2022/12 Regular member, Entomological Society of Manitoba

2015/1 - 2018/12 Student member, Entomological Society of America

2012, 2013, and 2017 Student member, Entomological Society of America

2016/1 - 2018/12 Student member, American Society of Plant Biologists

2010/1 Life member, Geo-informatics Society of Sri Lanka

2010/1 Life member, Young Scientists Forum, Sri Lanka (National Science & Technology Commission, NASTEC)

2010/1 Life member, Sri Lanka Association for the Advancement of Science (SLAAS)

MOST SIGNIFICANT CONTRIBUTIONS

Weeraddana et al., 2020, Infection of canola by the root pathogen *Plasmodiophora brassicae* increases resistance to aboveground herbivory by bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae), *Plant Science*, 300, 110625.

In the Canadian Prairies, clubroot disease, caused by a soil-borne protist *Plasmodiophora brassicae*, has recently emerged as an important economic pest that impacts canola production and yield. Both clubroot infection and bertha armyworm, *Mamestra configurata* infestation occur in the agroecosystems of Alberta canola fields; thus it is vital to study the potential interaction between clubroot diseased plants and bertha armyworm to manage both threats properly. We found that clubroot infection suppresses the growth of susceptible canola and impacts oviposition and offspring fitness of bertha armyworm. Induction of salicylic acid and its conjugates in susceptible canola plants resulted in fewer eggs being laid by a moth herbivore of canola. Larvae performed better on inoculated resistant plants, which suggests that clubroot infection may induce susceptibility in resistant canola to bertha armyworm herbivory. This is an important finding since canola growers use clubroot-resistant varieties to overcome clubroot infection, resulting in canola more vulnerable to bertha armyworm.

Weeraddana et al., 2020, An alkali-extracted biostimulant prepared from *Ascophyllum nodosum* alters the susceptibility of *Arabidopsis thaliana* to the green peach aphid, *Journal of Applied Phycology*, 33: 3319-3329

Extracts of brown macroalgae, *Ascophyllum nodosum* (L.) Le Jol. (ANE) applied to plants imparts resistance/ tolerance against biotic and abiotic stresses due to biological elicitors. However, little information is currently available on the effect of ANE on insect pests of crops. Green peach aphid, *Myzus persicae* is an economically important pest of many crops. We used a popular plant model, *Arabidopsis thaliana*, to determine whether the application of ANE confers protection from green peach aphid infestation. We found that ANE-treated plants had higher aphid numbers. Interestingly, ANE-treated plants exhibited higher biomass and better recovery with aphid pressure. ANE-treated plants had reduced cell deaths with lower expression of senescence genes. I concluded that ANE-treated plants conferred protection from aphid pressure while delaying senescence in *Arabidopsis*. Increased green peach aphid numbers may be partly associated with delaying senescence.

Chaminda De Silva Weeraddana, Maya Evenden, 2018, Canola nutrition and variety affect oviposition and offspring performance in the generalist herbivore, *Mamestra configurata* (Lepidoptera:Noctuidae), *Journal of Economic Entomology*, 111, 1702–1710

Bertha armyworm *Mamestra configurata* is a significant insect pest that feeds on canola in the Canadian Prairie Provinces. We tested the impact of plant nutrition and canola variety on oviposition and subsequent larval development of bertha armyworm. Fertilization of canola plants at moderate and high levels resulted in plants with higher foliar nitrogen, phosphorus, and potassium content. Fertilization increases canola plant growth. Perhaps for these reasons, bertha armyworm moths prefer to oviposit on moderate and highly

fertilized plants. Larvae performed better on plants treated with moderate levels of fertilizer. This study demonstrates that the bertha armyworm can detect differences in plant nutrient status. These findings will be helpful in the refinement of integrated pest management of bertha armyworm in the canola agroecosystems.

PEER-REVIEWED PUBLICATIONS

1. **Chaminda De Silva Weeraddana** and Maya Evenden. (2022). Oviposition by a specialist herbivore increases susceptibility of a canola to herbivory by a generalist herbivore, *Environmental Entomology*, 51:605-612, DOI: <https://doi.org/10.1093/ee/nvac028>
2. **Chaminda De Silva Weeraddana**, Ian Wise, Robert J. Lamb, Sheila Wolfe, Tyler Wist, Curt A. McCartney, Marjorie A. H. Smith, Alejandro C. Costamagna). (2021). A laboratory method for mass rearing the orange wheat blossom midge, *Sitodiplosis mosellana* (Diptera: Cecidomyiidae). *The Canadian Entomologist*, 153: 828-836, DOI:10.4039/tce.2021.46
3. **Chaminda De Silva Weeraddana**, Saveetha Kandasamy, Cutler G.C, Pushp Sheel Shukla, Alan T. Critchley, Balakrishnan Prithiviraj). (2021) An alkali-extracted biostimulant prepared from *Ascophyllum nodosum* alters the susceptibility of *Arabidopsis thaliana* to the green peach aphid. *Journal of Applied Phycology*, 33: 3319-3329, DOI: 10.1007/s10811-021-02534-9
4. **Chaminda De Silva Weeraddana**, Victor Manolii, Stephen Strelkov, A. Paulina de la Mata, James J. Harynuk, Maya Evenden. (2020). Infection of canola by the root pathogen *Plasmidiophora brassicae* increases resistance to aboveground herbivory by bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae). *Plant Science*. 300: 110625, DOI: 10.1016/j.plantsci.2020.110625
5. **Chaminda De Silva Weeraddana** and Maya Evenden. (2019). Herbivore-induced plants do not affect oviposition but do affect fitness of subsequent herbivores on canola, Host plant selection and feeding Ecology. *Entomologia Experimentalis et Applicata*. 167
6. **Chaminda De Silva Weeraddana** and Maya Evenden. (2018). Canola nutrition and variety affect oviposition and offspring performance in the generalist herbivore, *Mamestra configurata* (Lepidoptera:Noctuidae). *Journal of Economic Entomology*. 111(4): 1702–1710, DOI: 10.1093/jee/toy158
7. Evenden, M.L., Batallas, R. and **Weeraddana, C.** (2017). Biology and Management of the Generalist Herbivore, the Bertha Armyworm, *Mamestra configurata* (Lepidoptera: Noctuidae), on Canola in Western Canada. Reddy, G.V.P. Integrated management of insect pests on canola and other Brassica oilseed crops.
8. Abeysinghe Pushpa D., **Weeraddana Chaminda De S.** 2011 Screening of Petroleum ether, Chloroform, Ethyl acetate, Ethanol and Water Extracts of Medicinal Plant,

Avicennia marina for Antibacterial Activity against Antibiotic Resistant bacteria Species, Staphylococcus and Proteus, Journal of Pharmaceutical and Biomedical Sciences, 3:11.

INVITED PRESENTATION

Chaminda De Silva Weeraddana. (2020). Abiotic and biotic factors influencing host-plant use of a generalist herbivore, bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae) on Canola

Department of Entomology Seminar Series, University of Manitoba, Winnipeg, Canada

ORAL AND POSTER PRESENTATIONS AT SCIENTIFIC CONFERENCES

1. **Chaminda De Silva Weeraddana**, Wendy Hillier, Taylor Swanburg, N. Kirk Hillier, Ramya Wijesundara, Curt McCartney, Tyler Wist, Ian Wise, Sheila Wolfe and Alejandro C. Costamagna (2022), Electrophysiological and behavioral responses of orange wheat blossom midge, *Sitodiplosis mosellana* (Géhin) (Diptera: Cecidomyiidae) to volatile organic compounds (VOCs) emitted from preanthesis and postanthesis stages of susceptible wheat – Oral presentation
Annual meeting of Entomological Society of America, Entomological Society of Canada, Entomological Society of British Columbia held at Vancouver Convention Centre, Vancouver.
2. Bridget A. White, **Chaminda D. S. Weeraddana**, Sheila Wolfe, Curt A. McCartney, Robert Lamb, Tyler Wist, Alejandro C. Costamagna. (2022). Assessment of awns and hairy glumes in spring wheat lines as a form of resistance against the orange wheat blossom midge, *Sitodiplosis mosellana* (Géhin) (Diptera: Cecidomyiidae) – Poster presentation
Annual meeting of Entomological Society of America, Entomological Society of Canada, Entomological Society of British Columbia held at Vancouver Convention Centre, Vancouver.
3. **Chaminda De Silva Weeraddana**, Daniel Hupka, Mark A. Smith, Ramya Wijesundara, Tyler Wist, Curt McCartney and Alejandro C. Costamagna (2022), Exploring chemical composition of surface waxes from wheat spikes of susceptible and deterrent lines to the orange wheat blossom midge, *Sitodiplosis mosellana* (Diptera: Cecidomyiidae) to discover new sources of wheat resistance.
Annual meeting of Entomological Society of Manitoba, Winnipeg.
4. Ryan P. Dias, **Chaminda De Silva Weeraddana**, Alejandro C. Costamagna, Boyd A. Mori, Curt A. McCartney, A. Paulina de la Mata, James J. Harynuk (2022). VOC profiling of midge-deterrent wheat using comprehensive two-dimensional gas chromatography - Oral presentation.
19th International GC x GC Symposium, Canmore, Alberta.
5. **Chaminda De Silva Weeraddana**, Wendy Hillier, Taylor Swanburg, N. Kirk Hillier, Tom Ward, Ramya Wijesundara, Curt McCartney, Tyler Wist, Ian Wise, Sheila Wolfe and Alejandro C. Costamagna. (2021). The effect of olfactory and tactile cues on wheat midge *Sitodiplosis mosellana* (Géhin) (Diptera: Cecidomyiidae) behavior on pre and postanthesis susceptible wheat - Oral presentation.
Annual meeting of Entomological Society of Manitoba, Winnipeg.
6. Bridget A. White, **Chaminda D. S. Weeraddana**, Sheila Wolfe, Curt A. McCartney, Ian Wise, Tyler Wist, Alejandro C. Costamagna. (2021). Understanding the novel response to

the resistance gene, *Sm1* by the orange wheat blossom midge, *Sitodiplosis mosellana* (Gehin) (Diptera: Cecidomyiidae) - Oral presentation
Annual meeting of Entomological Society of Manitoba.

7. **Chaminda De Silva Weeraddana**, Wendy Hillier, Taylor Swanburg, N. Kirk Hillier, Tom Ward, Curt McCartney, Tyler Wist, Ian Wise, Sheila Wolfe and Alejandro C. Costamagna. (2021). Exploiting volatile organic compounds (VOCs) in pre and postanthesis stages of susceptible wheat) - Poster presentation.
Annual meeting of Entomological Society of America, Denver, Colorado, United States of America
8. **Chaminda De Silva Weeraddana**, Tom Ward, Curt McCartney, Désirée Vanderwel, N. Kirk Hillier, Tyler Wist, Ian Wise, Sheila Wolfe and Alejandro Costamagna. (2019). Wheat volatile analysis on susceptible and resistant lines to the orange wheat blossom midge, *Sitodiplosis mosellana* (Diptera: Cecidomyiidae) - Oral presentation.
Annual meeting of Entomological Society of America, St. Louis, Missouri, United States of America
9. **Chaminda De Silva Weeraddana**, Victor Manolii, Stephen Strelkov, Maya Evenden. (2018). The effect of clubroot disease infection on bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae) on canola - Oral presentation.
Annual joint meeting of Entomological Society of America and Entomological Society of Canada, Vancouver, British Columbia, Canada
10. **C.D.S. Weeraddana**, V.P. Manolii, S.E. Strelkov, A.P. de la Mata, J.J. Harynak and M.L.E. Evenden. (2018). Infection of canola with *Plasmodiophora brassicae* increases resistance to herbivory by bertha armyworm, *Mamestra configurata* - Oral presentation.
International clubroot workshop, Edmonton, Alberta, Canada
11. **Chaminda De Silva Weeraddana**, Maya Evenden. (2017). The impact of altering canola physiology on the bertha armyworm, *Mamestra configurata* herbivory - Oral presentation. Annual joint meeting of Entomological Society of Canada and Entomological Society of Manitoba, Winnipeg, Manitoba, Canada
12. Paulina A. de la Mata, **Chaminda S. Weeraddana**, Maya L. Evenden, James J. Harynak. (2017). Exploring canola volatiles of healthy and stressed plants by GCxGC – TOFMS - Oral presentation.
8th Multidimensional Chromatography Workshop – MOECC, Toronto, Canada
13. Paulina A. de la Mata, **Chaminda S. Weeraddana**, Maya L. Evenden, James J. Harynak. (2017). Profiling volatile organic compounds released from canola after herbivory by diamondbackmoth, *Plutella xylostella* - Oral presentation.
41st International Symposium on Capillary Chromatography & the 14th GCxGC Symposium, Fort Worth, Texas, Canada
14. James J. Harynak, Paulina A. de la Mata, **Chaminda S. Weeraddana**, Maya L. Evenden. (2016). Sampling methods for profiling plant volatiles profiling by GCxGC- TOFMS - Poster presentation.
12th Annual Conference on the Metabolomics Society, Dublin, Ireland
15. **Chaminda De Silva Weeraddana**, Victor Manolii, Stephen Strelkov, Maya Evenden. (2016). Effect of canola infection with clubroot disease on oviposition by the Bertha armyworm - Poster presentation.
XXV International Congress of Entomology, Orlando, Florida, Canada

16. James J. Harynuk, Paulina A. de la Mata, **Chaminda S. Weeraddana**, Maya L. Evenden, Lawrence A. Adutwum. (2016). Profiling of volatile organic compounds from canola by GCxGC-TOFMS – Poster presentation
140th International Symposium on Capillary Chromatography and 13th GCxGC Symposium, Riva del Garda Fierecongressi, Riva del Garda, Italy
17. **Chaminda De Silva Weeraddana**, Victor Manolii, Stephen Strelkov, Maya Evenden. (2015). The effect of clubroot disease infection on oviposition preference and performance of bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae) - Oral presentation. Proceedings of joint Annual meeting of Entomological Society of America with the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America, Minneapolis, Minnesota, Canada
18. **Chaminda De Silva Weeraddana**. (2015). The impact of canola physiology on oviposition and larval performance of the bertha armyworm, *Mamestra configurata*. Entomology seminar series, University of Alberta, Edmonton, Canada – Oral presentation
19. Evenden, M.L., R. Batallas, **C. Weeraddana**, J. Rossato. (2015). Cutworm-crop interactions – Oral presentation
Prairie Pest Monitoring Network, Saskatoon, Canada
20. Batallas, R., J. Kwon, J. Rossato, **C. Weeraddana** and M. Evenden. (2014). Cutworms: Effects of crop management on larval development and adult flight monitoring on multiple crops - Oral presentation
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21. Batallas, R., J. Rossato, **C. Weeraddana**, J. Kwon and M. Evenden. (2014). Cutworms: adult flight monitoring on multiple crops and effects of crop management on larval development - Oral presentation
Prairie Pest Monitoring Network, Saskatoon, Canada
22. **Weeraddana, C.D.S**, Pearson, V, and Evenden, M. (2013). The effects of insecticide-coated canola seeds on larval development of bertha armyworm, *Mamestra configurata* - Oral presentation.
Proceedings of Annual meeting of Entomological Society of Alberta, Olds College, Alberta, Canada
23. **Chaminda De Silva Weeraddana**, Maya Evenden. (2013). Oviposition behavior of bertha armyworm, *Mamestra configurata* - Poster presentation.
CanoLAB, Canola council of Canada, St Albert, Alberta,
24. **Chaminda De Silva Weeraddana**, Maya Evenden. (2014). Effect of crop cultivar and soil fertility on larval performance, and oviposition behavior of bertha armyworm, *Mamestra configurata* - Oral presentation.
Proceedings of Annual joint meeting of Entomological Society of Canada and Entomological Society of Saskatchewan, Saskatoon, Canada
25. **De Silva W.C**, O. Wally, C. Cutler, R. Robinson, A. Critchley, B. Prithiviraj. (2011). Potential use of Brown seaweed, *Ascophyllum nodosum* (L.) Le Jol. Extracts for the Management of Green peach aphid, *Myzus persicae* - Oral presentation.
Proceedings of Graduate Symposium at Annual joint meeting of Entomological Society of Canada and Acadian Entomological Society, Halifax, Nova Scotia, Canada

26. **Chaminda De Silva Weeraddana**, C. Cutler, B. Prithiviraj. (2010). Potential use of seaweed extract product for insect pest management specifically *Myzus persicae* on crucifer using Arabidopsis model – Poster presentation
Proceedings of Graduate Research Day, Agricultural Campus, Truro, Nova Scotia

THESIS/ DISSERTATION

1. Abiotic and biotic factors influencing host-plant use of a generalist herbivore through plant-mediated interactions: oviposition and larval performance by the bertha armyworm, *Mamestra configurata* Walker (Lepidoptera: Noctuidae) on canola. (2018). University of Alberta. Ph.D. Dissertation. 228pp
Advisor: Dr. Maya Evenden
2. Extracts of the brown seaweed, *Ascophyllum nodosum*, effect *Arabidopsis thaliana* - *Myzus persicae* interaction. (2012). M.Sc Thesis. Department of Environmental Sciences. Dalhousie University. 84pp
Advisor: Dr. Balakrishnan Prithiviraj
3. Isolation and characterization of antibacterial compounds *Avicennia marina* for antibacterial activity against antibiotic resistant bacteria species, *Staphylococcus* and *Proteus*. (2006). Bachelor's Honours Thesis. University of Ruhuna. Sri Lanka. 50 pp
Advisor: Dr. Pushpa Abeysinghe

AGRICULTURAL MAGAZINE ENTRIES

1. Bertha armyworms feed more on canola plants with diamondback moth eggs.
Published by Canadian Agronomist, June 30, 2022
Category: Insects
2. James Snell. (August 19, 2022). Wheat varieties could move from midge tolerance to midge resistance.
Category: Canola diseases and insect pests
Published by CountryGuide.
3. Jennifer Bogdan. (March 2, 2021). Exploring pest and clubroot interactions.
Published by Top Crop Manager. 2021, 47(1): 32-34.
Category: Canola diseases and insect pests

CONFERENCE PUBLICATIONS

1. **W.C. De Silva**, Dumindika Siriwardane, Sumudu Herath, Enosha De Silva, N. Savitri Kumar, Lalith Jayasinghe. (2011). Bioactive extracts from some common fungi - Poster presentation.
Proceedings of IFS – AFASSA International Symposium on Natural Products and their Applications in Health and Agriculture, Kandy, Sri Lanka.

To my knowledge, I certify that the above-given particulars are true and correct.

Chaminda De Silva Weeraddana

Date: February 15, 2023