Leslie Alejandra Aviles Lopez

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Education

2020 - Present **Purdue University. PhD. Student (Entomology)**

Advisor: Laura Ingwell, Ph.D.

Dissertation title: Improving twospotted spider mite management in high tunnel cucumber

production.

2018 - 2020 Louisiana State University, M.S. (Entomology)

Advisor: Rodrigo Diaz, PhD.

Thesis title: Ecology of the roseau cane scale (Nipponaclerda biwakoensis, Hemiptera:

Aclerdidae) in coastal Louisiana.

2011 - 2014 Pan-American Agriculture University El Zamorano, B.S. (Agriculture)

Advisor: Juan Carlos Rosas, PhD.

Thesis title: Application of molecular markers in selecting for resistance to bean yellow mosaic virus (BYMV) and bean common mosaic necrosis virus (BCMNV) on common bean

(Phaseolus vulgaris).

Peer-reviewed publications

- 1. **Aviles, L.,** Maynard, L., Guan, W., Ingwell, L.L. Parthenocarpic cucumber cultivar susceptibility against pests in high tunnels. *In preparation*
- 2. Holt, J.R., Bernaola, L., Britt, K.E., McCullough, C., Roth, M., Wagner, J., Ragozzino, M., Aviles, L., Li, Z., Huval, F., Pandey, M., Lee, B.W., Asche, M., Hayes, A., Cohen, A., Marshall, A., Quell horst, H. E., Wilkins, R.V., Nguyen, V., Maille, J., Skinner, R. K., Ternest, J.J., Anderson, S., Gula, S.W., Hauri, K., Eason, J., Mulcahy, M., Lee, S., Villegas, J. M., Shorter, P. 2020. Synergisms in Science: Climate Change and Integrated Pest Management Through the Lens of Communication—2019 Student Debates. Journal of Insect Science. Vol., 20: 1-11.
- 3. Knight, I.A., Wilson, B.E., Gill, M., **Aviles, L.,** Cronin, J. T., Nyman, J.A., Schneider, S.A., Diaz, R. 2018. Invasion of *Nipponaclerda biwakoensis* (Hemiptera: Aclerdidae) and *Phragmites australis* dieback in Southern Louisiana, USA. Biological Invasions. Vol. 20: 2739-2744.

Extension and educational publications

- 1. Aviles, L., Ingwell, L.L. 2024. Insect Spotlight: Cucumber Beetles. Crops Hotline. Issue 735.
- 2. **Aviles, L.,** Ingwell, L.L. 2024. Selecting Your Ideal Cucumber Cultivar for High Tunnel Production. Vegs. Crops Hotline. Issue 734.
- 3. **Aviles, L.,** Pruett, K., Diaz, R. 2020. Potential management options for the roseau cane scale including biological control and parasitoid wasps. Louisiana Insect Pest Management Guide. Louisiana State University AgCenter publication 1838.
- 4. **Aviles, L.,** and Diaz, R. 2020. The importance of *Cryptolaemus montrouzieri* (Coleoptera: Coccinellidae) in biological control. Bug Biz Series, Louisiana State University AgCenter.

Summer 2024 Field scientist intern, Corteva Agriscience

Supervisor: Dr. Gabriela Invennato Carmona

Responsibilities: Assisted with data collection, processing, and analysis of efficacy trial on specialty crops in California. Trials was conducted on different pest such as twospotted spider mite (Tetranychus urticae), Lygus bug (Lygus Hesperus), Thrips, Melon aphid (Aphis gossypii), Cabbage aphid (Brevicoryne brassicae), Green peach aphid (Myzus persicae), cabbage looper (Trichoplusia ni), diamondback month (Plutella cylostells), flea beetles,

Southern Root-knot Nematode (Meloidogyne incognita), Variegated leafhopper (Erythroneura variabilis), Virginia creeper leafhopper (Erythroneura ziczac), Western grape leafhopper (Erythroneura elegantula).

2017-2018 Visiting scholar, Louisiana State University

Advisor: Dr. Rodrigo Diaz

Responsibilities: Assisted with data collection, processing, and analysis of invasive species Roseau cane scale (Nipponaclerda biwakoensis), Salvinia weevil (Cyrtobagous salviniae), Crape myrtle bark scale (*Eriococcus lagerstroemia*), Air potato leaf beetle (*Lilioceris cheni*), and Emerald ash borer (Agrilus planipennis Fairmaire).

Visiting scholar, The National Agricultural and Forestry Technology Center, El Salvador Spring 2013

Advisor: Reina Flor de Serrano

Responsibilities: Led an undergraduate research project assessing the antagonistic activity of two Trichoderma species against five pathogenic fungi of bean plants (*Phaseolus vulgaris*) in a laboratory assay.

2013-2014: **Undergraduate Research Assistant, Zamorano University**

Advisor: Dr. Juan Carlos Rosas

Responsibilities: Assisted with validating the marker-assisted selection (MAS) with molecular markers SCAR in the development of cultivars resistant to Bean Common Mosaic Virus (BCMV)

and Bean Common Mosaic Necrosis Virus (BCMNV) to manage yield losses.

Invited presentations

- 1. Aviles, L., Ingwell, L.L. 2023. Evaluating the efficacy of biorational products on TSSM and their effect on predatory mites in HTs. The Acarological Society of America Symposium in conjunction with the Entomological Society of America Annual Meeting, National Harbor, Maryland.
- 2. Aviles, L., Liz, M., Wenjing., G., Ingwell, L.L. 2023. Cucumber cultivar susceptibility against twospotted spider mites in high tunnels. Indiana Small Farm Conference. Danville, Indiana.
- 3. Aviles, L. 2023. Twospotted spider mites en la Industrial Ornamental (delivered in Spanish). Indiana Green Expo. Indianapolis, Indiana.

- 4. Aviles, L., Knight, I.A., Cronin, J.T., Stout, M., Diaz, R. 2019. Comparison of *Phragmites australis* varieties defense traits and their role in host plant resistance. LSU Annual Meeting Roseau Cane Program. Baton Rouge, LA.
- 5. Aviles, L., Knight, I.A., Wilson, B.E., Gill, M., Cronin, J.T., Diaz, R. 2018. Host specificity of roseau cane scale (Nipponaclerda biwakoensis, Hemiptera: Aclerdidae) on economic and environmental important grasses. LSU Annual meeting roseau cane program. Baton Rouge, LA.
- 6. Aviles, L., Knight, I.A., Wilson, B.E., Gill, M., Cronin, J.T., Diaz, R. 2018. Roseau cane die-off. Loyola University. New Orleans, LA.

Contributed presentations

- 1. Aviles, L., Ingwell, L.L. 2024. *Poster presentation*. Evaluating the efficacy of biorational products on TSSM and their effect on predatory mites in HTs. Third International Congress of Biological Control. San Jose, Costa Rica.
- 2. Aviles, L., Ingwell, L.L. 2024. Poster presentation. Developing an IPM plan for spider mites in high tunnels. Indiana Horticulture Conference and Expo. Danville, Indiana.
- 3. Aviles, L., Ingwell, L.L. 2023. Poster presentation. Developing an IPM plan for spider mites in high tunnels. Great Lake Expo, Michigan Greenhouse Grower expo. Grand Rapids, Michigan.
- **4. Aviles, L.,** Ingwell, L.L. 2023. *Poster presentation*. Evaluating the efficacy of biorational products on TSSM and their effect on predatory mites in HTs. Entomological Society of America Annual Meeting. National Harbor, Maryland.
- **5. Aviles, L.,** Ingwell, L.L. 2023. *Poster presentation*. Assessing consumption efficiency of TSSM by predatory mites and the influence of biorational products on predators. 9th Symposium of Zamorano Alumni in the United States. West Lafayette, Indiana.
- **6. Aviles, L.,** Ingwell, L.L. 2023. *Poster presentation*. Assessing consumption efficiency of TSSM by predatory mites and the influence of biorational products on predators. Global Food, Nutrition Security and Human Health Symposium. West Lafayette, Indiana.
- 7. Aviles, L., Ingwell, L.L. 2023. Poster presentation. Selecting optimal predators for two spotted spider mite control in high tunnels: Evaluating TSSM consumption efficiency, and biorational product effects on predators. Ecological Sciences and Engineering Symposium. West Lafayette, Indiana.
- 8. Aviles, L., Ingwell, L.L. 2023. Poster presentation. Assessing consumption efficiency of TSSM by predatory mites and the influence of biorational products on predator. Plant Science, Corteva Symposium Series. West Layette, Indiana.
- 9. Aviles, L., Maynard, L., Guan, W., Ingwell, L.L. 2023. Cucumber cultivar susceptibility against twospotted spider mites in high tunnels. Indiana Horticulture Conference and Expo. West Lafayette, Indiana.
- 10. Aviles, L., Maynard, L., Guan, W., Ingwell, L.L. 2022. Cucumber cultivar susceptibility against twospotted spider mites in high tunnels. Entomological Society of America Annual Meeting. Vancouver, Canada.
- 11. Aviles, L., Maynard, L., Guan, W., Ingwell, L.L. 2021. Poster presentation. Improving two-spotted spider mite management in high tunnel cucumbers. International Integrated Pest Management Conference. Denver, Colorado.
- 12. Aviles, L., Maynard, L., Guan, W., Ingwell, L.L. 2021. Poster presentation. Susceptibility of high tunnel cucumber cultivars to two-spotted spider mites. Entomological Society of America Annual Meeting. Denver, Colorado.

- **13. Aviles, L.,** Maynard, L., Guan, W., Ingwell, L.L. 2021. *Poster presentation*. Working to improve spider mite management in high tunnel Cucumbers (*Cucumis sativa* L.). Indiana Small Farm Conference (Virtual).
- **14. Aviles L.,** Knight, I.A., Diaz, R., Stout, M. 2019. Understanding host plant resistance to the roseau cane scale on *Phragmites australis* varieties. Entomological Society of America Annual Meeting. St. Louis, Missouri.
- **15. Aviles L.,** Knight, I.A., Diaz, R., Stout, M. 2019. Resistance to the roseau cane scale among *Phragmites australis* varieties. LSU Department of Entomology. Baton Rouge, LA.
- **16. Aviles, L.,** Knight, I.A., Wilson, B.E., Diaz, R. 2019. *Poster presentation*. Assessing the host range of *Nipponaclerda biwakoensis* (Hemiptera: Aclerdidae), a grass scale associated with Phragmites die-offs. 7th Symposium of Zamorano Alumni in the United States. Raleigh, North Carolina.
- **17. Aviles, L.,** Knight, I.A., Wilson, B.E., Diaz, R. 2018. Host specificity of roseau cane scale (Hemiptera: Aclerdidae) on economic and environmental important grasses. Southeastern Branch of Entomological Society of America Annual Meeting. Mobile, Alabama.
- **18. Aviles, L.,** Knight, I.A., Wilson, B.E., Gill, M., Cronin, J.T., Diaz, R. 2018. Host specificity of roseau cane scale (*Nipponaclerda biwakoensis*, Hemiptera: Aclerdidae) on economic and environmental important grasses. LSU Department of Entomology. Baton Rouge, LA.

Extension Presentations

- 1. **Aviles, L.** 2023. High tunnel diversification and biological control, Meigs Horticulture Farm Field Day, Purdue University. Lafayette, IN. July 20, 2023. 50 attendees
- 2. **Aviles, L.** 2023. Two-spotted spider mite management for high tunnel cucumbers. SWPAC Field Day, Purdue University. Vincennes, IN. June 28, 2023. 45 attendees
- 3. Ingwell, L.L. and **Aviles L**. 2022. Twospotted spider mite tolerance in high tunnel cucumber production. Fruit, Veg and Hemp Field Day, Meigs Horticulture Farm. Purdue University. Lafayette, IN. July 21, 2022. 45 attendees
- 4. **Aviles, L.** 2021. Black soldier flies into compost production. Small Farm Education Field Day, Purdue Student Farm. West Lafayette, IN. July 29, 2021. 50 attendees.

Mentoring experience

- Narciso Zapata. He is currently an M.S. student in the lab of Dr. Daniel Quinn at Purdue. My mentoring focus in offering feedback on their thesis and other academic documents, assisting with structuring citing sources, methodology design, data analysis and techniques. Project: Corn yield, nitrogen use and biological activity responses.
- 2024 **Celia Corado.** She is currently an M.S. student in the lab of Dr. Stephen Meyer at Purdue. My mentoring focused on providing guidance for entry into graduate school, and her research project during her visiting scholar stay, prior to her acceptance into the grad program. Additionally, I am currently providence guidance in their master academic journey. Project: Exploring underutilized weed management methods on Indiana small farmer through on far-research, community learning and farmer to farmer education.
- **Josue Cerritos.** He is currently an M.S. student in the lab of Dr. Stephen Meyer at Purdue. My mentoring focused on providing guidance for entry into graduate school, and his research project

- during her visiting scholar stay, and now in his graduate pathway. Project: use of silage tarps for early season weed management in small scale potato and onion production.
- 2024 **Elva Hernandez.** She just graduates from her undergraduate, and she is looking to start an visiting in scholar in the university of the united state with the purpose of exploring potential pathways for her future career.
- **Jenni Quiceno.** She is currently working as a quality analyst at Safer Agrobiologicos in Colombia. My mentoring focuses on providing guidance for her entry into graduate school, and guidance on selecting the ideal entomological program base in her passions and goals.
- 2023 **Samuel Treminio.** He is currently an intern from Zamorano University, assisting in laboratory and field experiments during his internship at Purdue. My mentoring focuses on providing guidance for entry into graduate school, and data analysis in his intern research project. Project: Predation capability of *Orius insidious* (Hemiptera: Anthocoridae) upon *Aphis glycines* (Hemiptera: Aphididae)
- 2023 **Suleima Patt.** She is currently a visiting scholar who graduated from Zamorano University. She is currently assisting in improving laboratory and field techniques in the lab of Dr. Krupke at Purdue University. My mentoring focuses on providing guidance for her entry into graduate school.
- 2023 **Christian Ochoa.** He is currently an intern from Zamorano University working in the lab of Dr. Ingwell at Purdue University. He currently assisting in laboratory and field experiments. My mentoring focuses on his experience and training in the lab.
- Allison Zablah. She is currently an M.S. student in the lab of Dr. Ingwell at Purdue. My mentoring focused on providing guidance for entry into graduate school, and her research project during her visiting scholar stay, prior to her acceptance into the grad program. Project: Screening biocontrol agents for winter management of aphids on high tunnel spinach. Impacts of winter growing conditions and biopesticide applications on predator performance.
- Milena Aguilar. She is currently an M.S. student in the lab of Dr. Ingwell at Purdue. My mentoring focused on providing guidance for entry into graduate school, and her research project during her visiting scholar stay, prior to her acceptance into the grad program. Project: Converting food waste into soil amendments while growing protein with *Hermetia Illucens*.

Honors and awards (\$25,624 total)

- 1. The 2024 College of Agriculture Graduate Student Mentoring Award (\$500) at Purdue University. 2024. West Lafayette, Indiana.
- 2. 1st place in the graduate student poster competition at the Entomological Society of America Annual Meeting. 2021. Denver, Colorado.
- 3. Ross Fellowship Award for PhD student with academic excellence (\$24,124). 2020. West Lafayette, Indiana.
- 4. Outstanding graduate student Zamorano Agriculture Society (ZAS) scholarships (\$500). 2019. Baton Rouge, Louisiana.
- 5. Outstanding Service by student award (\$500) in the Department of Entomology at Purdue university. 2023. West Lafavette, Indiana.
- 6. 2nd place in the graduate student poster competition at the Ecological Science and Engineering (ESE) Symposium at Purdue University. 2023. West Lafayette, Indians.
- 7. Purdue Graduate Student Government Travel Grant (\$300). 2023. West Lafayette, Indiana.
- 8. 1st place in the graduate student poster competition at the Entomological Society of America Annual Meeting. 2021. Denver, Colorado.

- 9. Ross Fellowship Award for PhD student with academic excellence (\$24,124). 2020. West Lafayette, Indiana.
- 10. Outstanding graduate student Zamorano Agriculture Society (ZAS) scholarships (\$500). 2019. Baton Rouge, Louisiana.
- 11. 1st place in the Graduate Student Symposium of Department of Entomology. 2019. Baton Rouge, Louisiana.
- 12. 1st place in the Graduate Student Poster Competition at the 7th Symposium of Zamorano Alumni in the USA. 2019. Raleigh, North Carolina.
- 13. Joseph Freeland travel award (\$500). 2019. Baton Rouge, Louisiana.
- 14. 1st place at Graduate Student Symposium of Department of Entomology. 2018. Baton Rouge, Louisiana.

Professional development

- 2023 **A comprehensive workshop in agricultural acarology**. Tropical Research and Education Center, of Florida. Homestead, FL
- Writing for Impact and Influence. Journal of American Institute of Biological Sciences. (virtual). Learning new techniques for writing scientist publications by doing assignments.

Organized Symposia

- 2024 Co-organizer, Latin/Hispanic symposium at the Entomological Society of America Annual Meeting.
- **2024** Co-organizer, Beyond Graduation: Navigating the Professional Landscape at the Entomological Society of America Annual Meeting.
- 2023 Co-organizer, Latin/Hispanic symposium at the Entomological Society of America Annual Meeting.
- 2023 Co-organizer, 9th Symposium of Zamorano Alumni in the USA held at Purdue University.

Committee service and leadership

Purdue University

- 2023 Graduate Student Representative, Purdue Student Government, Department of Entomology.
- **2022** Graduate Student Representative, Diversity, Equity, and Inclusion Committee, Department of Entomology.
- 2022 Secretary, Association of Zamorano Alumni in the USA.
- 2022 President, Zamorano Agriculture Society at Purdue.
- 2022 Purdue Student Chair, North Central Branch of the Entomological Society of America.
- 2021 Purdue Student Chair, North Central Branch of the Entomological Society of America.
- 2021 Vice President, Zamorano Agriculture Society at Purdue.
- 2020 Graduate Student Representative, Graduate Curriculum Committee, Department of Entomology.

Louisiana State University

- 2019 Leader of the Department of Entomology Debate Team during the Annual Entomology Society of America Meeting. Topic: How can scientists better communicate with the public to get them more engaged in Integrated Pest Management (IPM)?
- **2019** Secretary, Department of Entomology Club at LSU.
- 2019 Secretary, Zamorano Agriculture Society at LSU.

Zamorano University

2011 Member assisted the health clinic with ambulance service.

Community outreach

- 2024 Volunteer at "Purdue Bug Bowl", West Lafayette, IN
 - Gave interactive talks about composting with Black Soldier Flies.
- 2023 Volunteer at "Purdue Bug Bowl", West Lafayette, IN
 - Gave interactive talks about composting with Black Soldier Flies.
- 2023 **Organized and volunteered the Entomological Graduate Student Organization (EGO)** T-shirt Display table at the Purdue Bug Bowl, West Lafayette, IN
- 2023 Volunteer at the "Learn about bugs" event, West Lafayette, IN
 - Gave interactive talks to brownie/daisy girl scout troop.
- 2019 Volunteer at the "AgMagic", Baton Rouge, LA
 - LSU AgCenter showcasing agriculture to the public.
- Volunteer at the display table "Garden Show and Arts and Crafts Fair", Baton Rouge, LA LSU AgCenter showcasing Entomology, and agriculture to the public.

Press

- 1. Celebrating Hispanic Heritage Month: A Decade of Empowering the Latin/Hispanic Entomology Community. Entomology Today. 10/13/2023. Link: https://entomologytoday.org/2023/10/06/hispanic-heritage-month-entomology-latin-hispanic-symposium-decade/
- 2. LSU AgCenter researchers conduct plant host study on Roseau cane scale. LSU AgCenter. 09/26/2018. Link:
 - https://www.lsuagcenter.com/profiles/rbogren/articles/page1537976513197?fbclid=IwAR3yjMOAZFPGUie1PtDle9N7qKlgSfZvO5h68iEkgOVli9E4qhZWJZ9Z1aA

Related experience

Fall 2016 Crop production lead. Red Fox, Las Mercedes S.A. de C.V. Santa Ana, El Salvador.

Monitored the harvest of ornamental cutting, packing, and shipping to the U.S.

Managed harvesting personnel.

Trained staff about pesticides, the correct equipment use, cleaning, and sanitation of work tools. Provided talks about teamwork.

2015 – 2017 Co-founder of an ornamental plant business "Kaktal." San Salvador, El Salvador.

Supervised production of ornamental plants such as cactus, bonsai, and succulents.

In charge of the marketing of the brand "Kaktal" on social media.

Professional memberships

Entomology Graduate Student Organization (EGO) at Purdue	2021 – Current
Acarology Society of America	2020 – Current
Entomological Society of America	2018 – Current
Association of Zamorano Alumni in USA	2017 – Current
Entomology Graduate Student Organization at LSU	2017 - 2020

Languages

English: Full professional proficiency

Spanish: Native Language

Professional references

Dr. Laura L. Ingwell, PhD Assistant Professor Department of Entomology, Purdue lingwell@purdue.edu

Dr. Rodrigo Diaz, PhD Assistant Professor Department of Entomology, LSU rdiaz@agcenter.lsu.edu

Dr. Michael Stout, PhD
Department Head
Department of Entomology, LSU
MStout@agcenter.lsu.edu

Dr. Ian A. Knight, PhD
Post-doctoral Associate
U.S. Army Engineer Research and Development Center
Ian.A.Knight@erdc.dren.mil