Adrian Israel Zuniga Pinto

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PROFESSIONAL PROFILE

Agronomist graduated from Agricultural Science and Production program at Zamorano University. Undergraduate training experience in different areas of crop and food production. Graduate research experience in plant fungal diseases. Focused on continuous learning with primary interest in research and currently a Ph.D. student in the department of Plant Pathology at the University of Florida.

EDUCATION

University of Florida, Gainesville, Florida, United States.
Doctor of Philosophy in Plant Pathology, May 2018 – present

University of Florida, Gainesville, Florida, United States.
Master of Science in Plant Pathology, May 2018

Zamorano University, Escuela Agricola Panamericana, Francisco Morazán, Honduras.
Bachelor of Science in Agronomy, December 2012

RESEARCH EXPERIENCE

Aug 2016 – May 2018 — **Plant Pathology**, University of Florida
Master of Science

- Determined fungicide resistance frequencies of *Botrytis cinerea* from nurseries and Florida strawberry fields to five Succinate Dehydrogenase Inhibitor (SDHI) fungicides.
- Determined baseline sensitivity and molecular characterization of SdhB mutations that confer resistance to isofetamid, a new SDHI fungicide.
- Evaluated the efficacy of heat treatment as possible means to reduce *Botrytis cinerea* resistant populations on strawberry transplants.

Jan 2013 – May 2015 — **Gulf Coast Research & Education Center – University of Florida,** Wimauma, Florida.
Research Scholar.
Activities: Study of *Botrytis cinerea* and *Colletotrichum acutatum*, causal agents of Botrytis and anthracnose fruit rot, respectively. Research on disease infection and chemical and/or biological control on strawberry.

Jan – Apr 2012 — **Gulf Coast Research & Education Center - University of Florida,** Wimauma, Florida.
Undergraduate internship.
Activities: assisting on the implementation and data collection of plant pathology research experiments on strawberry.

Jan – Oct 2012 — **Plant Tissue Culture**, Micro-propagation, Zamorano University

Bachelor of Science in Agronomy

- Determined the protocol for the in vitro establishment of sugar cane cultivar CP 73-1547
- Evaluated the effect of antioxidants agents used in the medium culture for the establishment of sugar cane cultivar CP 73-1547.
- Evaluated the in vitro production of buds in the multiplication stage of sugar cane cultivar CP 73-1547.

PRESENTATIONS

Aug 2020 **American Phytopathological Society Meeting**, Virtual Meeting.
Poster presentation
- Overview of fungicide resistance affecting the efficacy of single-site fungicides to control Botrytis fruit rot in Florida strawberry fields.

Aug 2019 **American Phytopathological Society Meeting**, Cleveland, OH.
Poster presentation
- Detection of *Sdh*B mutations in *Botrytis cinerea* isolates from strawberry using a High-Resolution Melting (HRM) assay.

Aug 2018 **International Congress of Plant Pathology 2018: Plant Health in a Global Economy,** Boston, MA.
Poster presentation
- Phenotypic and molecular characterization of *Botrytis cinerea* isolates from strawberry to isofetamid and cross-resistance with other SDHI fungicides.

Mar 2018 **Exit Seminar and M.Sc. Thesis Defense,** Wimauma, FL.
Oral presentation
- Sensitivity of *Botrytis cinerea* to Succinate Dehydrogenase Inhibitor (SDHI) fungicides and to heat treatments.

Mar 2018 **Research Seminar Series - Gulf Coast Postdoc and Student Association,** Wimauma, FL.
Oral presentation
- Management of Botrytis fruit rot on strawberry in Florida.

Aug 2017 **American Phytopathological Society Meeting**, San Antonio, TX.
Poster presentation
- Heat treatment for management of *Botrytis cinerea* inoculum on strawberry.

May 2017 **Florida Phytopathological Society Meeting**, Quincy, FL.
Oral presentation
- Heat treatment for management of *Botrytis cinerea* inoculum on strawberry.

Aug 2016 **American Phytopathological Society Meeting**, Tampa, FL.
Poster presentation
- Potential of heat treatment for management of *Botrytis cinerea* resistance on strawberry.

Aug 2015 **American Phytopathological Society Meeting**, Pasadena, CA.
Poster presentation
- Evaluation of rotation and tank-mixture programs for gray mold management in strawberry.

May 2015 **Florida Phytopathological Society Meeting**, Gainesville, FL.
Oral presentation
- Evaluation of rotation and tank-mixture programs to control gray mold in strawberry.

Dec 2012 **Zamorano University**, graduation project. Francisco Morazán, Honduras.
Oral presentation
- In vitro establishment of sugarcane (*Saccharum officinarum*) cultivar CP 73-1547.

PEER-REVIEWED PUBLICATIONS

Zuniga, A., Wang, N. Y., and Peres, N. A. 2021. Heat Treatment as a Possible Means to Reduce *Botrytis Cinerea* Resistant Populations on Strawberry Transplants. (under preparation)

Zuniga, A. I., Souza Oliveira, Rebello, C. S., and Peres, N. A. 2020. Baseline sensitivity of *Botrytis cinerea* isolates from strawberry to isofetamid compared to other SDHIs. Plant Dis. 104:1224-1230.

Amiri, A., Zuniga, A. I., and Peres, N. A. 2020. Mutations in the membrane-anchored SdhC subunit affect fitness and sensitivity to succinate dehydrogenase inhibitors in *Botrytis cinerea* populations from multiple hosts. Phytopathology 110:327-335

Zuniga, A., Baggio, J., Mertely, J., and Peres, N. 2020. Evaluation of biorational products for control of Botrytis fruit rot on annual strawberry, 2019-20. Plant Dis. Manag. Rep. 14:PF081.

Zuniga, A., Baggio, J., Mertely, J., and Peres, N. 2020. Evaluation of fungicide products for control of Botrytis fruit rot in annual strawberry, 2019-20. Plant Dis. Manag. Rep. 14:PF082.

Amiri, A., Zuniga, A. I., Cordova, L. G., and Peres, N. A. 2019. The importance of selecting appropriate rotation and tank-mix partners for novel SDHIs to enhance Botrytis fruit rot control in strawberry. Plant Dis. Doi: 10.1094/PDIS-07-18-1276-RE.

Cordova, L., Zuniga, A., Mertely, J., and Peres, N. 2019. Evaluation of fungicide products to control Botrytis fruit rot in annual strawberry, 2018-19. Plant Dis. Manag. Rep. 13:PF077.

Zuniga, A., Cordova, L., Mertely, J., and Peres, N. 2019. Evaluation of biorational products for control of Botrytis fruit rot on annual strawberry, 2018-19. Plant Dis. Manag. Rep. 13:PF076.

Amiri, A., Zuniga, A. I., and Peres, N. A. 2018. Potential impact of populations drift on botrytis occurrence and resistance to multi- and single-site fungicides in Florida southern highbush blueberry fields. Plant Dis. Doi: 10.1094/PDIS-11-17-1810-RE

Amiri, A., Zuniga, A. I., and Peres, N. A. 2018. Prevalence of Botrytis cryptic species in strawberry nursey transplants and strawberry and blueberry commercial fields in the eastern United States. Plant Dis. Doi: 10.1094/PDIS-07-17-1065-RE.

Cordova, L., Zuniga, A., Mertely, J., and Peres, N. 2018. Evaluation of biorational products for control of Botrytis fruit rot in annual strawberry, 2017- 18. Plant Dis. Manag. Rep. 12:PF072.

Zuniga, A., Cordova, L., Mertely, J., and Peres, N. 2018. Evaluation of fungicide products to control Botrytis fruit rot in annual strawberry, 2017-18. Plant Dis. Manag. Rep. 12:PF074.

Souza Oliveira, M., Amiri, A., Zuniga, A. I., and Peres, N. A. 2017. Sources of Primary Inoculum of *Botrytis cinerea* and Their Impact on Fungicide Resistance Development in Commercial Strawberry Fields. Plant Dis. 101:10, 1761-1768.

Cordova, L., Zuniga, A., Mertely, J., and Peres, N. 2017. Evaluation of biorational products for control of Botrytis fruit rot in annual strawberry, 2016-17. Plant Dis. Manag. Rep. 11:SMF022.

Zuniga, A., Cordova, L., Mertely, J., and Peres, N. 2017. Evaluation of fungicide products to control Botrytis fruit rot in annual strawberry, 2016-17. Plant Dis. Manag. Rep. 11:SMF029. Doi: 10.1094/PDMR11.

Cordova, L., Zuniga, A., Mertely, J., and Peres, N. 2015. Evaluation of products for the control of Botrytis fruit rot in annual strawberry, 2014-15. Plant Dis. Manag. Rep. 9:SMF020. Doi: 10.1094/PDMR09.

Cordova, L., Zuniga, A., Mertely, J., and Peres, N. 2015. Evaluation of biorational products for the control of Botrytis fruit rot in annual strawberry, 2014-15. Plant Dis. Manag. Rep. 9:SMF021. Doi: 10.1094/PDMR09

Amiri, A., Zuniga, A. I., Mertely, J., and Peres, N. A. 2014. First Report on Resistance to Pyraclostrobin, Thiophanate-methyl, Fenhexamid and Boscalid in Botrytis cinerea from Eucalyptus Seedlings in Florida Greenhouses. Plant Dis. 98:6, 851-851.

Cordova, L., Zuniga, A., Mertely, J., and Peres, N. 2014. Evaluation of products for the control of Botrytis fruit rot in annual strawberry, 2013-14. Plant Dis. Manag. Rep. 8:SMF028. Online publication. Doi: 10.1094/PDMR08.

REVIEWER FOR INTERNATIONAL JOURNAL

Jan 2016 – present Plant Disease

UNIVERSITY SERVICE

Jan – Dec 2020 **President**, Gulf Coast PostDoc and Student Association (GCPSA)
Gulf Coast Research and Education Center (GCREC), University of Florida

Jan – Dec 2019 **Secretary**, Gulf Coast PostDoc and Student Association (GCPSA)
Gulf Coast Research and Education Center (GCREC), University of Florida

TEACHING AND TRAINING EXPERIENCE

Aug – Dec 2019 **Teaching Assistant,** General Plant Pathology
College of Agricultural and Life Sciences, University of Florida

Dec 2018 **Training instructor,** Establishment and use of Spiral Gradient Dilution (SGD) method
Driscoll's, Mexico

Jan – May 2016 **Teaching Assistant,** Fungus Among Us Mushrooms, Molds, and Civilization
College of Agricultural and Life Sciences, University of Florida

PROFESSIONAL MEMBERSHIPS

Aug 2015 – present The American Phytopathological Society (APS)

AWARDS

May 2020 IFAS/CALS Graduate Student Travel Award.
Jul 2019 Plant Pathology Graduate Student Organization Travel Award.
Jun 2019 IFAS/CALS Graduate Student Travel Award.
Jul 2018 Plant Pathology Graduate Student Organization and F.A. Wood Memorial Fund Travel Award.
Apr 2018 Gulf Coast Research and Education Center Travel Award.
Jul 2017 IFAS/CALS Graduate Student Travel Award.
May 2017 Florida Phytopathological Society Meeting Student Competition.

LANGUAGES

Spanish: Fluent (Native speaker)
English: Fluent
Portuguese: Proficient

REFERENCES

Dr. Natalia A. Peres
Professor, Plant Pathology
University of Florida

Dr. Gary Vallad
Professor, Plant Pathology
University of Florida

Dr. Amiri Achour
Assistant Professor, Plant Pathology
Washington State University

Dr. Juliana Baggio
PostDoc Associate, Plant Pathology
University of Florida

Dr. Nan-Yi Wang
Research Assistant, Plant Pathology
University of Florida

Dr. Leandro Cordova
Applications Engineer
Coteva Agriscience

M.Sc. Maria Alexandra Bravo
Assistant Professor, Plant Tissue Culture Lab and Plant Science Area Coordinator.
Zamorano University

Dr. Rodrigo B. Onofre
PostDoc Associate, Plant Pathology
Kansas State University

Dr. Bruna B. Forcelini
Fungicide Biologist
Corteva Agriscience