

Carrie Lapaire Harmon

<https://plantpath.ifas.ufl.edu/people/faculty-pages/carrie-harmon/>

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Educational background:

- Ph.D., 2013, Plant Pathology, University of Florida
- M.S., 2002, Plant Pathology, Purdue University
- B.S., 2000, Plant and Soil Sciences, University of Massachusetts

Employment:

- 2016-present, Senior Associate-In Extension Scientist, University of Florida, Department of Plant Pathology, UF-IFAS
- 2010-2016, Associate-In Extension Scientist, University of Florida, Department of Plant Pathology, UF-IFAS
- 2003-2010, Assistant-In Extension Scientist, University of Florida, Department of Plant Pathology, UF-IFAS
- 2009-present, Director, Plant Diagnostic Center, UF-IFAS
- 2003-present, Co-Director of the Southern Plant Diagnostic Network, University of Florida, Department of Plant Pathology, UF-IFAS
- 2019-2022, Executive Director, National Plant Diagnostic Network

Current FTE: 80% Extension, 20% Research

Teaching (2009 - present):

PLP 6942, Professional Internship in the Plant Disease Clinic, all semesters (current)

PLP 6291, Plant Disease Diagnosis, summer A (current)

PLP 6105, Plant Disease Management (2015-2019)

University Service

PLP Department Chair Search and Screen Committee (current)

IFAS Shared Services Center Faculty Advisory Group (current)

DPM Plant Pathology comprehensive exam committee member (current)

UF Faculty Senate, member, IFAS Representative 2017-2020

UF Land Use Committee, vice-chair 2020, 2017-2020

Mentoring (extension):

- Craig Frey, Hendry County Extension Director and Multi-County Commercial Horticulture Extension Agent

Mentoring (graduate students):

- Raquel Hill, DPM and MS (Dec 2023) in Plant Pathology (Chair of both committees)
- Brianna Benitez, DPM (Chair)
- Alec Dunker, DPM (Chair)
- Caitlin Sollazzo, DPM (Chair)
- Samantha McCoy, DPM (Chair)
- Kaitlin Waibel, DPM (Chair)

CARRIE LAPAIRE HARMON

- Lyuyi Chen, DPM (Member)
- Lindsay Mikell, DPM (Member)
- Lynhe Demesyieux, PhD (Member)
- Deanna Bayo, PhD in Plant Pathology (Member)
- Julia Rycyna, DPM (Member, graduated May 2023)
- Heather Kalaman, DPM (Member, graduated December 2022)
- Nick Goltz, DPM (Chair; graduated August 2021, employed as lab director at UConn)
- Paulo Pinto de Mello Neto, MS in Plant Pathology (Member; graduated December 2021)
- James Fulton, PhD in Plant Pathology (Member; graduated May 2021, employed at FDACS-DPI)
- Amanda Long, DPM and MS in Environmental Horticulture (Member; graduated 2020, employed in UF-IFAS Extension)
- Lisbeth Espinosa, DPM (Member; graduated December 2017, employed as faculty in ESPOL, Ecuador)
- John Bonkowski, DPM (Member; graduated 2016, employed as a diagnostician in the Purdue University Diagnostic Lab)
- Christopher Kerr, DPM (Member; graduated December 2016, employed as UF-IFAS Extension Agent)
- Rosa Raudales, PhD (Member; graduated 2016 in Env. Hort., employed at UConn as Assoc. Prof.)
- Alicyn Ryan, DPM (Member; graduated 2015, employed at UMaine as diagnostic lab director and Assistant Professor)

Professional service:

- Co-editor of Phytofrontiers Focus Issue 2023
<https://apsjournals.apsnet.org/doi/10.1094/PHYTOFR-02-23-0014-FI>
- Executive Director of the [National Plant Diagnostic Network](#), responsible for overseeing network operations of more than 70 labs and 200 professionals (2019-2022)
- Expert advisor to government agencies, universities, and private industry in 6 countries and 9 US states regarding laboratory design, setup, equipment, staffing, training, and protocols (2005-present)
- Anonymous peer-reviewer of >45 articles submitted to Plant Disease, Plant Health Progress, Phytofrontiers, MDPI – Pathogens section, open-access journal, <https://www.mdpi.com>), and the Global Forum for Rural Advisory Services (www.g-fras.org)
- Member of the American Phytopathological Society (2002-present) Extension, Diagnostics, Teaching, and Mycology Committees, and Caribbean and Southern Divisions

Current extramural funding

<u>Project Title</u>	<u>PI/ CoPI</u>	<u>\$ total amount</u>	<u>Year-year</u>
The Southern Plant Diagnostic Network (USDA-NIFA)	PI	\$1,299,141	2022-2024
<i>Phytophthora ramorum</i> Program Diagnostic Support for APHIS Survey/Regulatory Incidents	PI	\$264,699	2022-2024
Diagnostic Assay Validation Network (USDA-AFRI)	Co-PI	\$999,996	2022-2025

Validation of a Rapid, High-throughput Assay for Detection of <i>Phytophthora ramorum</i> (USDA-APHIS)	Co-PI	\$58,650	2021-2023
Improved Surveillance, Detection, and Resistance Delivery for Agricultural Biosecurity	Co-PI	\$999,885	2020-2023

Peer-reviewed Publications (2018 - present):

1. Paez, C.A.; Smith, J.A.; Nakasone, K.K.; Bec, S., Harmon, C.L.; Urbina, H.; Eickwort, J.M.; and Smith, M.E. *Parvodontia relampaga* sp. nov.: Cystostereaceae fungal pathogen that is the causal agent of relámpago blight of woody plants in Florida, USA (*Submitted to Fungal Biology October 2023, In Press*)
2. Benitez, B.; Poudel, M.; Jones, J.B.; and Harmon, C.L. **2023**. First report of *Herbaspirillum huttiense* causing leaf spots on Boston Fern (*Nephrolepis exaltata*) in Florida. Plant Dis. <https://doi.org/10.1094/PDIS-06-23-1115-PDN>
3. Harmon, C.L.; Castlebury, L.; Boundy-Mills, K.; Broders, K.; Hyten, A.M.; Jacobs, J.L.; Knight-Connoni, V.K.; Mollov, D.; Riojas, M.A.; and Sharma, P. **2023**. Standards of Diagnostic Validation: Recommendations for reference collections. Phytofrontiers. <https://apsjournals.apsnet.org/doi/pdf/10.1094/PHYTOFR-05-22-0050-FI>
4. Cardwell, KC; Harmon, CL; Luster, DG; Stack, JP; Hytern, AM; Sharma, P; and Nakhla, MK. **2023**. The need and vision for a diagnostic Assay validation network. Phytofrontiers. <https://doi.org/10.1094/PHYTOFR-05-22-0056-FI>
5. Adhikari, A.; Beckham, K.; Harmon, C.L.; Dufault, N.S.; Goss, E.; and Harmon, P.F. **2023**. First report of *Bipolaris sorokiniana* leaf spot disease on watermelon (*Citrullus lanatus*) in Florida. Plant Dis. <https://doi.org/10.1094/PDIS-09-22-2208-PDN>
6. Parajuli, A., Harmon, C.L., Minsavage, G., Jones, D., Timilsina, S., Parent, M.L., and Jones, J. **2022**. Draft genome sequences of *Pseudomonas amygdali* pv. *loropetali* pathotype strain DSM 105780 PT, isolated from Florida. Access Microbio. 2022;4:000423. <https://doi.org/10.1099/acmi.0.000423>
7. Harmon, C.L.; Akey, B.L., Ochoa-Corona, F.M.; Ramachandran, A.; and Sharma, P. Training, Tests, and Tech: Deployment of Diagnostic Tools for Biosecurity *In* Cardwell, K. F., and Bailey, K. L., eds. Tactical Sciences for Biosecurity in Animal and Plant Systems. Hershey, PA: IGI Global, **2022**. <http://doi:10.4018/978-1-7998-7935-0>
8. Iles, L.C.; Fulladolsa, A.C.; Smart, A.; Bonkowski, J.; Creswell, T.; Harmon, C.L.; Hammerschmidt, R.; Hirsch, R.; Rodriguez Salamanca, L. **2021**. Everything Is Faster: How do land-grant university-based plant diagnostic laboratories keep up with a rapidly changing world? Ann. Rev. of Phytopath. 59 (1):333-349. <https://doi.org/10.1146/annurev-phyto-020620-102557>

9. Smart, A.; Byrne, J.; Hammerschmidt, R.; Snover-Clift, K.; Stack, J.; Brenes-Arguedas, T.; Jones, J.B.; Harmon, C.L. **2021**. Evolving plant diagnostics during a pandemic. *Plant Health Prog.* <https://doi.org/10.1094/PHP-08-20-0074-MR>
10. Dale, A.; Harlow, E.; Harmon, C.L.; and Marble, C. **2021**. Galling damage to woody ornamentals: diagnosis and potential causes. IFAS EDIS ENY-2055/IN1310. <https://doi.org/10.32473/edis-in1310-2021>
11. Klingeman, W.E.; Chong, J-C.; Harmon, C.L., Ames, L.; LeBude, A.V.; and Chandran, P. **2020**. Scale insect records from ornamental plants help to prioritize plant health resource development. *Plant Health Prog.* 21:278-287. <https://doi.org/10.1094/PHP-05-20-0045-S>
12. Fulton, J.C.; Klein-Gordon, J.; Bec, S.; Fayette, J.; Jones, J.B.; Garrett, K.A.; Harmon, C.L. **2020**. Draft genome sequences of plant pathogenic *Klebsiella variicola* isolated from plantain in Haiti. *Microbiology Resource Announcements.* <https://doi.org/10.1128/mra.00336-20>
13. Fulton, J.C.; Bec, S.; Fayette, J.; Ploetz, R.C.; Garrett, K.A.; Harmon, C.L. **2020**. First report of plantain soft rot caused by *Klebsiella variicola* in Haiti. *Plant Disease.* <https://doi.org/10.1094/PDIS-10-19-2105-PDN>
14. Fayette, J.; Bec, S.; Loubeau, S.; Fulton, J.C.; Garrett, K.A.; Harmon, C.L. **2019**. First report of *Lasiodiplodia hormozganensis* causing fruit rot of eggplant in Haiti. *Plant Disease.* <https://doi.org/10.1094/PDIS-05-19-1093-PDN>
15. Schubert, T., Jeyaprakash, A., and Harmon, C.L. **2018**. Fundamentals and Advances in Plant Problem Diagnostics; Chapter in Handbook of Florists' Crops Diseases and Handbook of Plant Disease Management. McGovern, R.J. and Elmer, W.H. (Eds.) Springer International Publishing. Hardcover ISBN 978-3-319-39668-2. DOI 10.1007/978-3-319-32374-9_1-1 <https://link.springer.com/referencework/10.1007/978-3-319-39670-5>
16. Arous, S., Capobianco, H., Harmon, C.L., and Polston, J. **2018**. Comparison of genus-specific primer pairs in RT-PCR for the Broad-spectrum detection of viruses in the genus *Potyvirus* by plant diagnostic laboratories. *J. Vir. Methods*, 258: pp29-34. <https://doi.org/10.1016/j.jviromet.2018.05.003>
17. Harmon, C.; Timilsina, S.; Bonkowski, J.; Jones, D; Sun, X.; Ramos, L.; Bull, C.; Vallad, G.; Jones, J. **2018**. Bacterial gall of *Loropetalum chinense* caused by *Pseudomonas amygdali* pv. *loropetalii* pv. nov. *Plant Dis.* 102(4) pp799-806. <https://doi.org/10.1094/PDIS-04-17-0505-RE>

Industry/extension publications:

1. Greenhouse Product News Desktop Diagnosis **2023** industry publication for greenhouse and protected ag: <https://gpnmag.com/article/desktop-diagnostics>