

## YANG LIN

Department of Soil, Water, and Ecosystem Sciences (SWES)  
2181 McCarty Hall, PO Box 110290  
College of Agricultural and Life Sciences (CALs)  
Institute of Food and Agricultural Sciences (IFAS)  
University of Florida, Gainesville, Florida 32611  
(352) 294-3125 | [ylin2@ufl.edu](mailto:ylin2@ufl.edu) | <https://ylinterra.com/>

### EDUCATION

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2010-2015 Ph.D. Geography, University of California, Santa Barbara  
2007-2010 M.Sc. Soil Science, University of Alberta, Canada  
2003-2007 B.Sc. Biological Sciences, Zhejiang University, China

### RESEARCH INTERESTS

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environmental science | soil health | biogeochemistry | ecosystem ecology | soil organic matter | redox biogeochemistry

### ACADEMIC POSITIONS

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2020-present Assistant Professor (60% teaching & 40% research), University of Florida  
2016-2019 Postdoctoral Scholar, University of California, Berkeley  
2015-2016 Postdoctoral Scholar, University of California, Santa Barbara  
2010-2015 Graduate Research and Teaching Assistant, University of California, Santa Barbara  
2007-2010 Graduate Research and Teaching Assistant, University of Alberta

### REFERRED PUBLICATIONS

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(<sup>U</sup>Undergraduate students, <sup>G</sup>Graduate student from my group, <sup>O</sup>Other graduate students)

#### Journal Articles

38. Kellerman AM, **Lin Y**, McKenna AM, Osborne TZ, Lee Y<sup>G</sup>, Freitas AM, Chanton JP, and Spencer RG. Identifying the molecular signatures of organic matter leached from land-applied biosolids via 21 Tesla FT-ICR Mass Spectrometry. *Environmental Science & Technology*. In press. DOI: 10.1021/acs.est.3c06678.
37. Gil C<sup>O</sup>, Tucker K<sup>O</sup>, Victores S<sup>O</sup>, **Lin Y**, Obreza T, and Maltais-Landry G. (2024) Nitrogen and carbon mineralization from organic amendments and fertilizers using incubations with sandy soils. *Agriculture* 14, 2009. DOI: 10.3390/agriculture14112009.
36. Champiny RE<sup>G</sup>, Inglett KS, and **Lin Y**. (2024) The role of nutrient and energy limitation on microbial decomposition of deep podzolized carbon: a priming experiment. *Journal of Geophysical Research: Biogeosciences* 129, e2024JG008176. DOI: 10.1029/2024JG008176.
35. Xu M<sup>G\*</sup>, **Lin Y\***, Ma J, Gao P, Yang G, Song C, Zhang X, Long L, Chen C, and Wu J. (2024) Biochar regulated biogeochemical cycling of iron and chromium in paddy soil system by stimulating *Geobacter* and *Clostridium*. *Pedosphere* 34, 929-940. \*, equal contribution. DOI: 10.1016/j.pedsph.2023.07.013.
34. Oldfield EE, Lavalley JM, Blesh J, Bradford MA, Cameron-Harp M, Cotrufo MF, Eagle AJ, Eash L, Even RJ, Kuebbing SE, Kort EA, Lark TJ, Latka C, **Lin Y**, Machmuller MB,

- O'Neill B, Raffeld AM, RoyChowdhury T, Rudek J, Sanderman J, Sprunger CD, Toombs TP, Aragon NU, Vidal M, Woolf D, Zelikova TJ, and Gordon DR. (2024) Greenhouse gas mitigation on croplands: clarifying the debate on knowns, unknowns and risks to move forward with effective management interventions. *Carbon Management* 15, 2365896. DOI: 10.1080/17583004.2024.2365896.
33. Wang X<sup>u</sup>, Zhang H, Sun H, Chang SX, **Lin Y**, and Cai Y. (2024) Converting natural forests to tea plantations reduced soil phosphorus sorption capacity in subtropical China. *Land Degradation & Development* 35, 659-669. DOI: 10.1002/ldr.4943.
  32. Nyabami P<sup>G</sup>, Weinrich E, Maltais-Landry G, and **Lin Y**. (2024) Three years of cover crops management increased soil organic matter and labile carbon pools in a subtropical vegetable agroecosystem. *Agrosystems, Geosciences & Environment* 7, e20454. DOI: 10.1002/agg2.20454.
  31. Champiny RE<sup>G</sup>, Bacon AR, Brush ID<sup>u</sup>, Colopietro DJ<sup>g</sup>, McKenna AM, and **Lin Y**. (2024) Unraveling the persistence of deep podzolized carbon: insights from organic matter characterization. *Science of the Total Environment* 906, 167382. DOI: 10.1016/j.scitotenv.2023.167382.
  30. Mahmood S<sup>G</sup>, Nunes MR, Kane DA, and **Lin Y**. (2023) Soil health explains the yield-stabilizing effects of soil organic matter under drought. *Soil & Environmental Health* 1, 100048. DOI: 10.1016/j.seh.2023.100048.
  29. Nyabami P<sup>G</sup>, Maltais-Landry G, and **Lin Y**. (2023) Nitrogen release dynamics of cover crop mixtures in a subtropical agroecosystem were rapid and species-specific. *Plant and Soil* 492, 399–412. DOI: 10.1007/s11104-023-06183-4.
  28. Almaraz M, Groffman PM, Silver WL, Hall SJ, **Lin Y**, O'Connell CS, and Porder S. (2023) Dinitrogen emissions dominate nitrogen gas emissions from soils with low oxygen availability in a moist tropical forest. *Journal of Geophysical Research: Biogeosciences*, 128. e2022JG007210.
  27. Xu M<sup>G</sup>, **Lin Y**, da Silva EB, Cui Q<sup>G</sup>, Gao P, Wu J, and Ma LQ. (2022) Effects of copper and arsenic on their uptake and distribution in As-hyperaccumulator *Pteris vittata* L. *Environmental Pollution* 300, 118982.
  26. **Lin Y**\*, Gross A\*, and Silver WS. (2022) Low redox decreases potential phosphorus limitation on soil biogeochemical cycling along a tropical rainfall gradient. *Ecosystems* 25, 387–403. \*, equal contribution.
  25. Muthukrishnan R, Hayes K, Bartowitz K, Cattau ME, Harvey BJ, **Lin Y**, and Lunch C. (2022) Harnessing NEON to evaluate ecological tipping points: opportunities, challenges, and approaches. *Ecosphere* 13, e3989.
  24. Nagy RC, Balch JK, others, and NEON Science Summit Participants including **Lin Y**. (2021) Harnessing the NEON data revolution to advance open environmental science with a diverse and data-capable community. *Ecosphere* 12, e03833.
  23. Qin C, Bartelme R, Chung YA, Fairbanks D, **Lin Y**, Liptzin D, Muscarella C, Naithani K, Peay K, St Rose A, Stanish L, Pellitier P, Werbin Z, and Zhu K. (2021) From DNA sequences to microbial ecology: Wrangling NEON soil microbe data with the *neonMicrobe* R package. *Ecosphere* 12, e03842.
  22. **Lin Y**, Campbell AN, Bhattacharyya A, Didonato N, Thompson AM, Tfaily MM, Nico PS, Silver WS, and Pett-Ridge J. (2021) Differential effects of redox conditions on the decomposition of litter and soil organic matter. *Biogeochemistry Letters* 154, 1-15.

21. Chari NR<sup>u</sup>, **Lin Y**, Lin YS, Silver WS. (2021) Interactive effects of temperature and redox on soil carbon and iron cycling. *Soil Biology and Biochemistry* 157, 108235.
20. Slessarev EW, **Lin Y**, Jimenez BY<sup>u</sup>, Homyak PM, Chadwick OA, D'Antonio CM, and Schimel JP. (2020) Cellular and extracellular C contributions to soil respiration after wetting dry soil. *Biogeochemistry* 147, 307–324.
19. **Lin Y**, Gross A, O'Connell CS, and Silver WS. (2020) Anoxic conditions maintained high phosphorus sorption in humid tropical forest soils. *Biogeosciences* 17, 89-101.
18. Gross A\*, **Lin Y**\*, Weber PK, Pett-Ridge J, and Silver WS. (2020) The role of soil redox conditions in microbial phosphorus cycling in humid tropical forests. *Ecology* 101, e02928. \*, equal contribution.
17. **Lin Y**, Slessarev EW, Yehl S<sup>u</sup>, D'Antonio CM, and King JY. (2019) Long-term nutrient fertilization increased soil carbon storage in California grasslands. *Ecosystems* 22, 754-766.
16. Bhattacharyya A, Campbell AN, Tfaily MM, **Lin Y**, Silver WS, Nico PS, and Pett-Ridge J. (2018) Redox fluctuations control the coupled cycling of iron and carbon in tropical forest soils. *Environmental Science and Technology* 52, 14129–14139.
15. **Lin Y**, Bhattacharyya A, Campbell AN, Nico PS, Pett-Ridge J, and Silver WS. (2018) Phosphorus fractionation responds to dynamic redox conditions in a humid tropical forest soil. *Journal of Geophysical Research: Biogeosciences* 123, 3016-3027.
14. Shi Z, **Lin Y**, Wilcox KR, Jiang L, Jung CG, Xu X, Yuan M, Guo X, Zhou J, and Luo Y. (2018) Successional change in species composition alters climate sensitivity of grassland productivity. *Global Change Biology* 24: 4993-5003.
13. Miller DL, Roberts DA, Clarke KC, **Lin Y**, Menzer O, Peters EB, McFadden JP. (2018) Gross primary productivity of a large metropolitan region using high spatial resolution satellite imagery. *Urban Ecosystems* 21, 831–850.
12. **Lin Y**, King JY, Karlen SD, and Ralph J. (2018) Short-term facilitation of microbial litter decomposition by ultraviolet radiation. *Science of the Total Environment* 615, 838–848.
11. Adair CE, Parton WJ, King JY, Brandt LA, and **Lin Y**. (2017) Accounting for photodegradation dramatically improves prediction of carbon losses in dryland systems. *Ecosphere* 8, e01892.
10. **Lin Y**, Prentice SE, Tran T<sup>u</sup>, Bingham NL, King JY, and Chadwick OA. (2016) Modeling deep soil properties on California grassland hillslopes using LiDAR digital elevation models. *Geoderma Regional* 7, 67–75.
9. Slessarev EW, **Lin Y**, Bingham NL, Johnson JE, Dai Y, Schimel JP, Chadwick OA. (2016) Water balance defines a threshold in soil pH at the global scale. *Nature* 540, 567-569.
8. Xu X, Shi Z, Chen XC, **Lin Y**, Niu SL, Jiang LF, Luo RS, and Luo YQ. (2016) Unchanged carbon balance driven by equivalent responses of production and respiration to climate change in a mixed grass prairie. *Global Change Biology* 22, 1857-1866.
7. **Lin Y**, King JY, Karlen SD, and Ralph J. (2015) Using 2D NMR spectroscopy to assess effects of UV radiation on cell wall chemistry during litter decomposition. *Biogeochemistry* 125: 427-436.
6. **Lin Y**, Scarlett RD<sup>u</sup>, and King JY. (2015) Effects of UV photodegradation on subsequent microbial decomposition of *Bromus diandrus* litter. *Plant and Soil* 395: 263-271.
5. **Lin Y** and King JY. (2014) Effects of UV exposure and position on litter decomposition in a California grassland. *Ecosystems* 17: 158-168.

4. **Lin Y**, Han G, Zhao M, and Chang SX. (2010) Spatial vegetation patterns as early signs of desertification: a case study of a desert steppe in Inner Mongolia, China. *Landscape Ecology* 25, 1519-1527.
3. **Lin Y**, Hong M, Han G, Zhao M, Bai Y, and Chang SX. (2010) Grazing intensity affected spatial patterns of vegetation and soil fertility in a desert steppe. *Agriculture, Ecosystems and Environment* 138, 282-292.
2. Wu J, Jiang P, Chang SX, Xu Q, and **Lin Y**. (2010) Dissolved soil organic carbon and nitrogen were affected by conversion of native forests to plantations in subtropical China. *Canadian Journal of Soil Science* 90, 27-36.
1. Yang X, Pattison S, **Lin Y**, Ikehata K, Lau BLT, Chang SX, and Liu Y. (2009) Agricultural wastes. *Water Environment Research* 81, 1490-1544.

### Book Chapters

1. Champiny RE<sup>G</sup> and **Lin Y**. (2024) Enhanced rock weathering as a nature-based solution for carbon sequestration in sandy soils. In Hartemink AE and Huang J (Eds.), *Sandy Soils, Progress in Soil Science Series*. Springer Cham. DOI: 10.1007/978-3-031-50285-9\_11

*In review or in preparation* (only manuscripts with complete drafts are listed; available upon request)  
 Celestin F<sup>G</sup>, Maltais-Landry G, Dubeux J, Mylavarapu RS, and **Lin Y**. Cropping systems are a key driver of soil health after accounting for environmental and edaphic variability. In review.

Donald JB<sup>G</sup>, Hatfield RG, Ellis R, Osborne TZ, Bacon AR, and **Lin Y**. Long-term impacts of biosolids on Florida sandy soils: assessing legacy phosphorus and heavy metals 14 years post-application. In review.

Georgiou K, Angers D, Champiny RE<sup>G</sup>, Cotrufo MF, Craig M, Doetterl S, Grandy AS, Lavalley JM, **Lin Y**, Lugato E, Poeplau C, Rocci K, Schweizer S, Six J, and Wieder WR. Soil carbon saturation: what do we really know? In review.

Manirakiza N<sup>G</sup>, Melkani S, Bai X<sup>g</sup>, **Lin Y**, and Bhadha JH. Four conservation agricultural practices to manage organic soil loss: Conservation agricultural practices. UF/IFAS EDIS. In review.

Champiny RE<sup>G</sup>, Georgiou K, and **Lin Y**. Methods matter: examining the apparent saturation of soil mineral associated organic carbon. In preparation.

Colopietro DJ<sup>g</sup>, Gonzalez Y, Mahmood S<sup>G</sup>, Bacon AR, and **Lin Y**. Investigating aggregate stability in a flatwood ecosystem under low-severity burning with the application of sonication and laser diffraction. In preparation.

Lee Y<sup>G</sup>, Freitas AM, Nair VD, Bacon AR, and **Lin Y**. Roles of subsoil horizons in regulating phosphorus leaching from biosolids impacted sandy soils. In preparation.

### EXTERNAL GRANTS

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2024-2027	PI, USDA-NRCS-SPSD, “Decadal changes in carbon and dynamic soil properties in Florida”. <b>\$500,000</b> .
2023-2024	PI with graduate student Co-PI Franky Celestin, Florida Cattle Enhancement Board, “Rapid and cost-effective prediction of soil health indicators for Florida ranchlands”. <b>\$24,907</b> .

- 2023-2025 Co-PI with graduate student Co-PI Noel Manirakiza, USDA SARE Graduate Student Grant, “Examining carbon-farming practices to address soil sustainability in the Everglades Agricultural Area, South Florida”. **\$16,500**.
- 2023-2024 Co-PI, St. Johns County Sponsored Projects, “Identifying Soil Health Sampling Scales for Corn Management”. \$9,652
- 2022-2027 Co-PI, St. Johns River Water Management District, “Environmental remediation technologies pilot project for treatment of biosolids-derived phosphorus from fields”. \$600,000 (my share, **\$88,000**).
- 2022-2024 Co-PI, Environmental Defense Fund, “Assessing a suite of indicators to predict soil carbon trajectories in agricultural systems”. \$280,000 (my share, **\$65,808**).
- 2022-2023 PI, Florida Cattle Enhancement Board, “Building a soil health database for Florida ranchlands”. **\$19,609**.
- 2022-2023 PI with graduate student Co-PI Precious Nyabami, VoLo Foundation Vista Grant, “Carbon sequestration: rewriting the role of modern agriculture in climate change”. **\$10,000**
- 2021-2026 PI, USDA-NIFA Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship, “Data science training for future leaders in soil health research and extension”, **\$243,500**.
- 2021-2025 Co-PI, Florida Department of Agriculture and Consumer Services, Advances in FDACS Agricultural BMPs, “Integrated crop-livestock systems: validating plot-scale benefits through multi-farm demonstrations”. \$509,628 (my share, **\$12,900**).
- 2021-2024 Co-PI. St. Johns River Water Management District, “Transformation and transport of biosolids-derived phosphorus from fields to receiving waterbodies”. \$605,000 (my share, **\$89,000**).
- 2014 NSF Doctoral Dissertation Improvement Grant, Directorate for Biological Sciences. “Quantifying changes in lignin chemistry during photodegradation versus biotic decomposition using 2D NMR spectroscopy” (**\$19,505**)

## **TEACHING AND MENTORING**

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### **Course Instructor**

<u>Course</u>	<u>Unit</u>	<u>Term</u>	<u>Enrollment</u>	
SWS4720C GIS in Soil and Water Sci.	3	Spring 2025	39	
	3	Fall 2024	29	
	3	Spring 2024	49	
	3	Fall 2023	35	
	3	Spring 2023	54	
	3	Fall 2022	25	
	3	Spring 2022	37	
	3	Fall 2021	35	
	SWS4932/6932 Soil Health and Data	3	Fall 2024	18
		3	Fall 2023	6
3		Fall 2022	16	
IDS2935 Unintended Consequences in the Environment	3	Spring 2021	7	
	3	Spring 2025	58	
	3	Spring 2024	62	

	3	Spring 2023	63
	3	Spring 2022	35
	3	Spring 2021	8
SWS4932/6932 Forest and Soil Ecosystem Services	3	Fall 2021	14
	3	Fall 2020	8

### Graduate Students Advisees

<u>Student</u>	<u>Degree</u>	<u>Role</u>	<u>Years</u>
JoAnn Donald	Ph.D.	Advisor	2024-present
Xinlin Wang	M.S. Thesis	Co-advisor	2023-present
Ryan Champiny	Ph.D.	Advisor	2023-present
Sarah Thompson	M.S. Non-thesis	Advisor	2022-present
Swarnali Mahmood	Ph.D.	Advisor	2022-present
Franky Celestin	Ph.D.	Advisor	2021-present
Noel Manirakiza	Ph.D.	Co-advisor	2021-present
JoAnn Donald	M.S. Thesis	Advisor	2022-2024
Courtney Roen	M.S. Thesis	Advisor	2022-2024
Julia Lee	M.S. Thesis	Co-advisor	2022-2023
Ryan Champiny	M.S. Thesis	Advisor	2021-2022
Precious Nyabami	M.S. Thesis	Advisor	2020-2022
Bridgette Hattle	M.S. Non-thesis	Advisor	2021-2024
Qinghong Cui	M.S. Non-thesis	Advisor	2020
Sunita Shrestha	Ph.D.	Committee member	2024-present
Mohkam Singh	Ph.D.	Committee member	2024-present
Ioannis Gallios	Ph.D.	Committee member	2024-present
Karun Katoch	Ph.D.	Committee member	2023-present
Vaasuki Marupaka	Ph.D.	Committee member	2023-present
Justina Odogwu	Ph.D.	Committee member	2023-present
Julia Ferreira	Ph.D.	Committee member	2022-present
Elaine Beauvais	M.S. Non-thesis	Committee member	2022-present
Nevaeh Renwick	M.S. Thesis	Committee member	2023-2024
Victoria Tesch	M.S. Thesis	Committee member	2022-2024
Cristina Gil	M.S. Thesis	Committee member	2022-2024
Daniel Colopietro	Ph.D.	Committee member	2020-2023
Angelique Lopez	M.S. Non-thesis	Committee member	2022-2023
Min Xu	Ph.D.	Visiting student	2020

### Mentoring of Undergraduate Student Researchers

<u>Student</u>	<u>Experience</u>	<u>Years</u>
Audrey Plauche	Research for pay; University scholar	2023-present
Gabriella Rutan	Research internship	2024-present
Emma Wolman	Research internship	2025-present
Jacob Zucker	Research internship	2025-present
Madelyn Marshall	Research internship	2025-present
Christen Riedeman	Research internship	2024
Me'Keila Lightfoot	Research internship	2024
Hao Tan	Research internship	2024

Haley Lockmiller	Research internship	2024
Isabella Brush	Honors thesis; research internship; research for pay	2022-2024
Isabella Marinelli	Research internship	2023
Daniil Fortuna	Research internship; research for pay	2022-2023
Gabrielle Fisher	Honors thesis; research internship	2021-2022
Wistride Lumas	Volunteer	2021-2022
Victoria Tesch	Volunteer	2021
Merina Ingram	Research internship	2021
Julia Lee	Research for pay	2021
Xinlin Wang	Honors thesis; University scholar	2020-2022
Nikhil Chari	Honors thesis; Summer Research Fellowship	2019-2020

### **Awards and Recognition of Advisees**

<u>Student</u>	<u>Degree</u>	<u>Award/Recognition</u>	<u>Year</u>
Franky Celestin	Ph.D.	SWES Carlisle Fellowship (\$1,250)	2024
Ryan Champiny	Ph.D.	SWES Biogeochemistry Fellowship (\$2,000)	2024
Ryan Champiny	Ph.D.	CALS Lowe Scholarship (\$2,000)	2024
Ryan Champiny	Ph.D.	UF James Davidson Graduate Travel Scholarship (\$300)	2024
Ryan Champiny	Ph.D.	SSSA Summer Conference Travel Grant (\$900)	2024
JoAnn Donald	M.S.	UF James Davidson Graduate Travel Scholarship (\$350)	2024
JoAnn Donald	M.S.	IFAS travel grant (\$250)	2024
Swarnali Mahmood	Ph.D.	SWES Hochmuth Award (\$1,250)	2024
Swarnali Mahmood	Ph.D.	UF Graduate Student Council travel grant (\$400)	2024
Audrey Plauche	UG	Golden Opportunity Scholar, ASA-CSSA-SSSA	2024
Audrey Plauche	UG	University Scholar Program (\$2,350)	2024
Courtney Roen	M.S.	UF James Davidson Graduate Travel Scholarship (\$350)	2024
Isabella Brush	UG	SWES Frederick Smith Award (\$1,000)	2023
Ryan Champiny	Ph.D.	SWES William Robertson Fellowship (\$1,000)	2023
Ryan Champiny	M.S.	SWES Excellence in Graduate Studies Award	2023
Julia Lee	M.S.	IFAS travel grant (\$250)	2023
Julia Lee	M.S.	ASA-CSSA-SSSA Leadership Conference	2023
Swarnali Mahmood	Ph.D.	SWES Sam Polston Fellowship (\$1,000)	2023
Swarnali Mahmood	Ph.D.	ASA-CSSA-SSSA Leadership Conference	2023
Swarnali Mahmood	Ph.D.	CALS Scholarship (\$2,000)	2023
Swarnali Mahmood	Ph.D.	SWES Research Forum Best Poster Presentation (\$500)	2023
Noel Manirakiza	Ph.D.	SARE Graduate Student Grant (\$16,500)	2023
Isabella Brush	UG	Graetz Education Enrichment Fund (\$1,000)	2022
Ryan Champiny	M.S.	ESA Soil Ecology Section Travel Award (\$400)	2022
Daniil Fortuna	UG	CALS Research Internship (\$3,700)	2022
Precious Nyabami	M.S.	VoLo Foundation Vista Award (\$10,000)	2022
Franky Celestin	Ph.D.	SWES William C. and Bertha M. Cornett Fellowship	2021
Ryan Champiny	M.S.	SWES Biogeochemistry Fellowship (\$1,000)	2021
Swarnali Mahmood	Ph.D.	UF Grinter Award (\$6,900)	2021
Precious Nyabami	M.S.	UF Graduate Student Council Travel Grant (\$350)	2021
Precious Nyabami	M.S.	IFAS Travel Grant (\$250)	2021
Xinlin Wang	UG	University Scholar Program (\$2,250)	2020

## **In-Service Training**

- 2024 Lecture, instruction, and co-organization of the 2024 Soil Health IST (#32294), North Florida REC
- 2024 Presentation on soil health assessment, the 73<sup>rd</sup> Annual UF Beef Cattle Short Course
- 2023 Guest lecture on soil health for the online onboarding sessions of new IFAS extension agents
- 2023 Guest lecture on soil health indicators for Florida Certified Crop Adviser Educational Program
- 2021 Guest lecture on soil health management for Florida Certified Crop Adviser Educational Program
- 2021 Co-organize a Soil Health extension IST (#316171) for county extension specialists and give lectures on the definitions and assessment of soil health.

## **INVITED SEMINARS**

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- 2024 Society for Range Management Annual Meeting, Oral Presentation, Reno, NV.
- 2023 SWES Department Research Forum.
- 2021 American Chemical Society Fall Meeting, Oral Presentation, Geochemical section, Atlanta, GA.
- 2019 Soil and Water Sciences Department, University of Florida, Gainesville, FL.
- 2019 Program of Environmental Science, Whittier College, Whittier, CA.
- 2019 Dept. of Environmental, Geographical, and Geological Sciences, Bloomsburg University, Bloomsburg, PA.
- 2017 Biogeosciences Seminar, University of California, Santa Barbara, Santa Barbara, CA.
- 2016 Soil and Water Sciences Department, University of Florida, Gainesville, FL.
- 2016 Tropical Research & Education Center, University of Florida, Homestead, FL.

## **WORKSHOPS**

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- 2024 USDA-NIFA soil carbon saturation, Boulder, CO.
  - 2023 Soil Spectroscopy for the Global Good workshop. St. Louis, MO.
  - 2023 EDF row crop greenhouse gas mitigation research workshop. Washington, D.C.
  - 2021 NSF NEON W
- orkshop. Complex landscapes at Scale: Integrating our Understanding of Managed and Unmanaged Lands at Regional to Continental Scales. Virtual events due to COVID-19.
- 2020 New Advances in Land Carbon Cycle Modeling. Northern Arizona University. Virtual events due to COVID-19.
  - 2019 Microbial Determinants of Phosphorus Transport Workshop, The Pennsylvania State University, University Park, PA.
  - 2019 NEON Science Summit, University of Colorado-Boulder, Boulder, CO.



2016 Phosphorus Cycling in Terrestrial Ecosystems: Taking a new approach to advancing our fundamental understanding through a model-data connection, Oak Ridge National Lab, Townsend, TN.

## **PROFESSIONAL SERVICE**

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### **University, College, and Departmental**

2024-present UF Land Use and Facilities Planning Committee  
2024-present CALS Graduate Scholarship and Leadership Awards Committee  
2024-present Mentor for the UF Student Science Training Program serving high school students  
2024-present Coach, UF Soil Judging Team  
2023-present Mentor for the UF Active Learning Program  
2022-present SWES Teaching committee, Undergraduate Teaching Subcommittee  
2020-present Faculty advisor for the Agronomy-Soils Club  
2024 Selection committee, Robertson Graduate Student Award, SWES  
2024 Judge, SWES Postdocs Lightning Talks  
2022 Selection committee, Ben Skulnick Fellowship, SWES  
2021 Faculty search committee member, nutrient cycling agroecologist, Agronomy Department, UF  
2021 Preview advisor for incoming first year undergraduate students  
2021 Selection committee, V.W. Carlisle Fellowship, SWES  
2021-2022 Faculty advisor for Strong Roots Movement. Winner of the 2022 Projects for Peace (UF, \$10,000 for promoting food and water accessibility in Kenya)  
2020 Selection committee, Sam Polston Fellowship, SWES

### **Professional Society Activities**

2025-present Lloyd R. Frederick Soil Teaching Travel Study Award Committee, Soil Science Society of America  
2024-present Soils Processes and Critical Zone Technical Committee, American Geophysical Union  
2024-present Henry Lin Travel Grant Award Committee, Soil Science Society of America  
2024 Session organizer and convener. "Soil Carbon Farming Oral: Verification, Co-Benefits and Unintended Consequences", 2024 ASA-CSSA-SSSA Meeting.

### **Editorial Activities**

2024-present *Plant and Soil*, Section Editor  
2023-present *Soil Use and Management*, Associate Editor  
2023 *Soil & Environmental Health*, Excellent Editorial Board Member  
2023-present *Soil & Environmental Health*, Editorial Board Member

### **Manuscript Review** (the number of reviews is listed in parentheses)

*Biogeochemistry, Biogeosciences, Biology and Fertility of Soils, Canadian Journal of Soil Science, CATENA, Chemosphere, Critical Reviews in Environmental Science and Technology, Ecology, Ecology and Evolution, Ecosystems, Environmental Science & Technology, European*

*Journal of Soil Science, Functional Ecology, Geoderma, Global Biogeochemical Cycles, Global Change Biology, Journal of Arid Environments, Journal of Ecology, Journal of Geophysical Research: Biogeosciences, Journal of Plant Ecology, Journal of Soils and Sediments, Landscape Ecology, Nature, Nature Communications, New Phytologist, PeerJ, Plant and Soil, Proceedings of the National Academy of Sciences, Remote Sensing, Science of the Total Environment, Scientific Reports, Soil Biology & Biochemistry, Soil Science Society of America Journal, and Soil & Environmental Health.*

2025      *CATENA* (1)  
 2024      *Chemosphere* (1), *Geoderma* (1), *Nature* (1), *Nature Communications* (1), *Soil Biology & Biochemistry* (1), *Soil & Environmental Health* (1), *Soil Science Society of America Journal* (2), *Soil Use and Management* (4)  
 2023      *Biogeochemistry* (1), *Critical Reviews in Environmental Science and Technology* (1), *Environmental Science & Technology* (1), *New Phytologist* (1), *Science of the Total Environment* (2), *Soil & Environmental Health* (3), *Soil Science Society of America Journal* (1).  
 2022      *Biogeochemistry* (1), *Chemosphere* (1), *EDIS* (2), *European Journal of Soil Science* (1), *Geoderma* (1), *Nature* (1), *New Phytologist* (1), *Soil Biology & Biochemistry* (1).  
 2021      *Biogeochemistry* (1), *Ecosystems* (1), *Geoderma* (3), *Science of the Total Environment* (1).  
 2020      *Biology and Fertility of Soils* (1), *Current Biology* (1), *Ecology and Evolution* (1), *Ecosystems* (1), *Global Biogeochemical Cycles* (1), *Global Change Biology* (1), *Journal of Geophysical Research: Biogeosciences* (1), *Nature Communications* (1), *Plant and Soil* (2), *PLoS One* (1), *Science of The Total Environment* (1).

### **Proposal Review**

2024      Ad-hoc review for NSF-EAR Postdoctoral Fellowship program  
 2021      Ad-hoc review for NSF-DEB core program.  
 2020      Ad-hoc reviews for NSF-DEB core program and OPUS.  
 2020      Ad-hoc review for National Science Center, Poland.  
 2019      Ad-hoc review for Agriculture and Food Research Initiative, USDA-NIFA.

### **PROFESSIONAL SOCIETIES**

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Since 2012      American Geophysical Union  
 Since 2014      Soil Science Society of America  
 Since 2023      International Humic Substances Society

### **RECENT CONFERENCE PROCEEDINGS**

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Mahmood S<sup>G</sup>, Dubeux J, and **Lin Y**. Aligning farmers' perceptions of soil productivity with soil health test results in Florida pastures. Poster presentation, Soil and Water Conservation Society 80<sup>th</sup> Annual Conference. Costa Mesa, CA.  
 Manirakiza N<sup>G</sup>, Melkani S, Bai X, **Lin Y**, Rabbany A, Bacon AR, Anreu MG, and Bhadha J. Using redox potential as proxy for organic soil conservation associated to flooded rice cultivation within the Everglades Agricultural Area of South Florida. Poster presentation, Soil and Water Conservation Society 80<sup>th</sup> Annual Conference. Costa Mesa, CA.

- Lin Y.** Soil health assessment and management in sandy soils under diverse cropping systems. Oral presentation, 2024 AGU Fall meeting.
- Sprunger C, Smychkovich A, Naasko K, Cordova SC, Mahmood S<sup>G</sup>, **Lin Y** and Lavallee J. Assessing the resistance and resilience of soil health indicators in agroecosystems managed over a 30-year period. Oral presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Champiny RE<sup>G</sup> and **Lin Y.** Enhanced rock weathering as a climate solution: the impact of material type on carbon storage and metal export. Oral presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Judy J, Renwick N<sup>g</sup>, Nair VD, **Lin Y**, and Osborne TZ. Application of phosphorus immobilizing technology on a legacy biosolids site. Oral presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Lin Y.** Biosolids age regulated phosphorus release trajectories from soil. Oral presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Mahmood S<sup>G</sup>, Sprunger C, Margenot AJ, Cordova SC, Lavallee J, McKenna AM, and **Lin Y.** Combined effects of extraction temperature and SPE resins on the retention and chemistry of soil DOC. Oral presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Manirakiza N<sup>G</sup>, Melkani S, Bai X, Rabbany A, **Lin Y**, Bacon AR, Andreu MG, and Bhadha J. Organic soil conservation through flooded rice (*Oryza sativa*) cultivation within the Everglades Agricultural Area. Poster presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Plauche Au, Mahmood S<sup>G</sup>, and **Lin Y.** Relationships between land management practices and soil health on eleven dairy farms. Poster presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Renwick N<sup>g</sup>, Judy J, Osborne TZ, Nair VD, and **Lin Y.** Evaluating potential immobilizing phosphorus technologies (IPT) to reduce phosphorus (P) leaching from biosolids-amended soils in the Upper St. Johns River Basin. Oral presentation, 2024 ASA, CSSA, SSSA International Annual Meeting.
- Roen C<sup>G</sup>, Mylavarapu RS, Klarenberg G, and **Lin Y.** Phosphorus accumulation in bahiagrass (*Paspalum notatum*) pastures: a county-level analysis in Florida. Poster presentation, 2024 Soil Science Society of America Bouyoucos Summer conference.
- Donald J<sup>G</sup>, Bacon A, Hatfield R, and **Lin Y.** Long-term impacts of biosolids on Florida soils: an analysis 14 years post-application. Poster presentation, 2024 Soil Science Society of America Bouyoucos Summer conference.
- Champiny RE<sup>G</sup>, Georgiou K, and **Lin Y.** Methods matter: identifying saturation behavior of mineral associated organic carbon. Poster presentation, 2024 Soil Science Society of America Bouyoucos Summer conference.
- Celestin F<sup>G</sup>, Deiss L, Mylavarapu RS, and **Lin Y.** Predicting soil health indicators in Florida sandy soils using diffuse reflectance mid-infrared Fourier transform spectroscopy. Poster presentation, 2024 Soil Science Society of America Bouyoucos Summer conference.
- Lin Y**, Champiny RE<sup>G</sup>, and Georgiou K. Apparent saturation of mineral-associated organic carbon in the United States. Oral presentation, 2024 Clay Mineral Society Annual Meeting.
- Manirakiza N<sup>G</sup>, **Lin Y**, Rabbany A, Bacon A, Andreu M, and Bhadha J. Poster presentation, 2024 Soil and Water Conservation Society International Annual Conference.
- Lin Y**, Champiny RE<sup>G</sup>, and Georgiou K. Apparent saturation of mineral-associated organic carbon in Mollisols. Invited talk. 2024 Society for Range Management Annual Meeting.

Donald JB<sup>G</sup>, Bacon AR, and **Lin Y**. Evaluating historical biosolids applications in Florida soils: implications for water quality. 2024 UF Water Institute Symposium.

Judy JD, **Lin Y**, Nair V, and Osborne T. Application of Phosphorus Immobilizing Technology on a Legacy Biosolids Site. 2024 UF Water Institute Symposium.

**Lin Y** and Champiny RE<sup>G</sup>. Characterization and persistence of deep podzolized soil carbon. Poster presentation, 2023 American Geophysical Union Annual Fall Meeting.

Brush I<sup>a</sup>, Lee Y<sup>G</sup>, and **Lin Y**. Impacts of biosolids application history and rate on soil phosphorus leaching loss. Poster Presentation, 2023 ASA, CSSA, SSSA International Annual Meeting.

Lee Y<sup>G</sup> and **Lin Y**. Predictability of phosphorus leaching from biosolids treated soils. Poster presentation, 2023 ASA, CSSA, SSSA International Annual Meeting.

Manirakiza N<sup>G</sup>, **Lin Y**, Fan Y, Rabbany A, and Bhadha J. Assessing Soil Health Dynamics of Three Cover Crops within the Everglades Agricultural Area of South Florida. Oral presentation, 2023 ASA, CSSA, SSSA International Annual Meeting.

Mahmood S<sup>G</sup>, **Lin Y**, Sprunger C, Cordova SC, and Lavallee J. Hot water-extractable carbon indicates carbon trajectory in archived soils from long-term agricultural trials. Oral presentation, 2023 ASA, CSSA, SSSA International Annual Meeting.

Champiny RE<sup>G</sup>, Bacon A, and **Lin Y**. A deep dive into sandy soil carbon: characteristics and degradability of deep podzolized carbon in a southeastern US coastal plain soil. Oral presentation, 2023 Global Conference on Sandy Soils. Madison, WI.

**Lin Y**, Celestin F<sup>G</sup>, and Mylavarapu RS. Building a soil health database for Florida ranchlands. Oral presentation, 2023 Florida Cattlemen Association Annual Convention.

Celestin F<sup>G</sup>, Mylavarapu RS, and **Lin Y**. Soil health assessment across various cropping systems in Florida sandy soils. Oral presentation, 2023 Global Conference on Sandy Soils. Madison, WI.

Brush I<sup>a</sup>, Champiny RE<sup>G</sup>, and **Lin Y**. Characterization of deep podzolized carbon with infrared spectroscopy. Poster presentation, 2022 ASA, CSSA, SSSA International Annual Meeting.

Celestin F<sup>G</sup>, Mylavarapu RS, and **Lin Y**. Assessing soil health indicators across various cropping systems in Florida. Oral presentation, 2022 ASA, CSSA, SSSA International Annual Meeting.

Mahmood S<sup>G</sup>, Kane DA, Nunes MR, and **Lin Y**. Healthy soil stabilizes US corn yield under drought. Oral presentation, 2022 ASA, CSSA, SSSA International Annual Meeting.

Colopietro DJ<sup>g</sup>, Bacon AR, Gonzales Y<sup>g</sup>, **Lin Y**, and Mahmood S<sup>G</sup>. Aggregate stability gradient under low-severity burning in the Florida flatwood ecosystems. Oral presentation, 2022 ASA, CSSA, SSSA International Annual Meeting.

Manirakiza N<sup>G</sup>, **Lin Y**, Amgain NR, Rabbany A, Trotta M, and Bhadha J. Estimation of carbon sequestration potential and soil enzymatic activity of regenerative farming practices within the Everglades Agricultural Area (EAA), Florida. Oral presentation, 2022 ASA, CSSA, SSSA International Annual Meeting.

Champiny RE<sup>G</sup>, Bacon A, and **Lin Y**. Deep podzolized carbon: stabilization mechanisms for carbon accumulation in sandy soils. Poster presentation, 2022 Ecological Society of America and Canadian Society for Ecology & Evolution Joint meeting.

**Lin Y**. Improving soil health scoring functions. Oral presentation, 2021 American Geophysical Union Annual Fall Meeting.

Nyabami P<sup>G</sup>, Maltais-Landry G, and **Lin Y**. Cover crops: How does mixing legume and grass cover crops influence nitrogen release in subtropical sandy soils? Poster presentation, 2021 Soil Science Society of America Annual meeting.

**Lin Y**, Gross A, and Silver WS. Redox regulated potential phosphorus limitation on soil biogeochemical cycling along a tropical rainfall gradient. Poster presentation, 2020 American Geophysical Union Annual Fall Meeting.