

Dr. Amélie CM Gaudin
Associate Professor and Endowed Chair of Agroecology
Department of Plant Sciences
University of California Davis
agaudin@ucdavis.edu - Phone: 530-650-5101
<http://gaudin.ucdavis.edu>

Agroecology | Root and rhizosphere ecology | Impacts of planned biodiversity on agroecosystem soils and multifunctionality in a changing climate

EDUCATION

2011	PhD	Plant Agriculture	University of Guelph, Canada
2004	BSc (Hons)	Crop Sciences	Wageningen University, The Netherlands Ecole Supérieure d'Agriculture, France
2002	Diploma	Agronomy	LEGTA Olivier de Serres, France

PROFESSIONAL APPOINTMENTS

2021-present	Endowed Chair in Agroecology, Department of Plant Sciences, University of California Davis
2020-present	Associate Professor, Agroecology, Department of Plant Sciences, University of California Davis
2016-present	Adjunct Researcher, Lawrence Berkeley National Lab
2015-2020	Assistant Professor, Agroecology, Department of Plant Sciences, University of California Davis
2012-2014	Post-doctoral Fellow, University of Guelph, Canada
2011-2012	Post-doctoral Fellow, International Rice Research Institute, CGIAR, Philippines
2004-2007	Research Assistant, International Potato Center, CGIAR, Peru

HONORS AND AWARDS

2023	Barbara Webster Scholar Award for distinguished scholarship in Plant Sciences
2022	UCCE Outstanding Research Team Distinguished Service Award
2021	Endowed Chair in Agroecology, University of California Davis
2016	FFAR New Innovator in Food and Agricultural Award
2011	Outstanding International Graduate Student Award, University of Guelph
2006	Innovation for Productivity and Competitiveness Fellowship, IICA, International Potato Center

TEACHING AND MENTORING

University of Guelph (lecturer, 2012-2014)

- AGR 250 Undergraduate- *Fundamentals of Agroecology*

UC Davis (2015-present, courses taught yearly)

- PLS 150 Undergraduate- *Sustainable Agroecosystem Management 100%*
- ECL 216 Graduate- *Ecology and Agriculture 100%*
- HRT 200A Graduate- *Principles of Horticulture and Agronomy 50%*

Current graduate students: 4 PhD, 1 MSc

Current postdoctoral mentees: 2

PROFESSIONAL SERVICES

2021	International Panel on Climate Change, Contributing author, Chapter 5, Workgroup4
2022- present	Belowground Biodiversity Advisory Committee to CDFR. Contributing author "Soil Biodiversity in California Agriculture: Framework and Indicators for Soil Health Assessment"

Advisory Boards

2016-present	California Climate Network Science Advisory Board.
2019- present	California Farm Demonstration Network Technical Committee
2020- present	California representatives for the Western Cover Crops Council
2020- 2022	Leader, Sustainable Intensification Community, Agronomic Society of America

Editorial Services (2019-present)

Section Chief Editor Annals of Botany Plants, Section Agroecology and Environment

Associate Editor Frontiers in Sustainable Food Systems, Sustainable Intensification & Ecosystem Services section\

Memberships to professional Societies:

Union of Concerned Scientists (2016-present), International Society for Root Research (ISSR, 2007-present), ASA, SSSA (2009-present), ISME (2016-present), Soil Ecology Society (2016-present)

DIVERSITY AND INCLUSION INITIATIVES

2019- 2023 Mentor, PabGAP program, UC Davis. Hosted and trained one summer undergraduate student/year

2019- present Mentor, Graduate Student of Color Program, UC Davis. Mentorship for one graduate student/year

2021- present Faculty lead, Soil and Biogeochemistry Graduate Group, Envision UC Davis

2022 - present Member, Department DEI committee

2022 – present Chair, Department Faculty Mentoring and Skills committee

2024- present Creator and lead faculty, PEAS fellowship program for Undergraduate Research

PUBLICATIONS

Total= 73; H index= 35; i10-index=56; Citations = 4572 (Google Scholar, 09/27/2024)

See list here: <https://gaudin.ucdavis.edu/publications/>

RECENT RELEVANT PEER REVIEWED PUBLICATIONS

(**Bold=lab members**)

Costa A, Bommarco R, Smith ME, Bowles T, **Gaudin ACM**, [..] Vico G. 2024. Crop rotational diversity can mitigate climate-induced grain yield losses. *Global Change Biology*. 30, e17298.

KM Brewer, **M Muñoz-Araya**, **I Martinez**, **KN Marshall**, **ACM Gaudin**. 2023. Long-term integrated crop-livestock grazing stimulates soil ecosystem carbon flux, increasing subsoil carbon storage in California perennial agroecosystems. *Geoderma* 438, 116598

VM Wauters, K Jarvis-Shean, N Williams, A Hodson, BD Hanson, S Haring, H Wilson, A Westphal, S Sandoval Solis, K Daane, J Mitchell, **ACM Gaudin.**, 2023. Developing cover crop systems for California almonds: Current knowledge and uncertainties. *Journal of Soil and Water Conservation* 78 (1), 5A-11A

AS Grandy, AB Daly, TM Bowles, **ACM Gaudin**, A Jilling, **A Leptin**, MD McDaniel, J Wade, H Waterhouse., 2023. The nitrogen gap in soil health concepts and fertility measurements. *Soil Biology and Biochemistry* 175, 108856

de Albuquerque Nunes, P.A., Laca, E.A., de Faccio Carvalho, P., Li, M., de Souza Filho, W., Robinson Kunrath, T., Posselt Martins, A. and **Gaudin, A.C.M.**, 2021. Livestock integration into soybean systems improves long-term system stability and profits without compromising crop yields. *Scientific Reports*, 11(1).

Ryschawy, J., Tiffany, S., **Gaudin, A.C.M.**, Niles, M.T. and Garrett, R.D., 2021. Moving niche agroecological initiatives to the mainstream: A case-study of sheep-vineyard integration in California. *Land Use Policy*, 109, 105680.

Peterson, C.A., Bell, L.W., Carvalho, P. and **Gaudin, A.C.M.**, 2020. Resilience of an Integrated Crop–Livestock System to Climate Change: A Simulation Analysis of Cover Crop Grazing in Southern Brazil. *Frontiers in Sustainable Food Systems*, 4.

Brewer, K. and **Gaudin, A.C.M.**, 2020. Potential of crop-livestock integration to enhance carbon sequestration and agroecosystem functioning in semi-arid croplands. *Soil Biology and Biochemistry*, 149, p.107936.

Peterson, C.A., Deiss, L. and **Gaudin, A.C.M.**, 2020. Commercial integrated crop-livestock systems achieve comparable crop yields to specialized production systems: A meta-analysis. *PLOS ONE*, 15(5), p.e0231840.