UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

II. Academic Program Review Dossier Cover Page | 2025 Cycle

Name, Lived Name: **Preferred Pronoun(s):**	Vivian Wauters (she/her/hers)
Academic Title:	Assistant Project Scientist
County/Program:	UC Sustainable Agriculture Research & Education Program
Review Type:	Merit, 18/30 Month Option
Current Rank/Step:	IV
Requested Rank/Step:	V
Review Time Period:	January 1, 2024 (hiring date) to September 30, 2025
Thematic Area:	Supporting agroecological systems in California

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UNIVERSIDAD DE CALIFORNIA
Agricultura y Recursos Naturales

Position Description

Vivian Wauters
Project Scientist in Agroecology

Effective Date: 1 January 2024

PURPOSE & CLIENTELE

The UC Sustainable Agriculture Research and Education Program (SAREP) is a statewide program of UC Agriculture and Natural Resources (UC ANR). It was created through the grassroots efforts of organizations and individuals concerned about the environmental impacts of agriculture, the health of rural communities, and the profitability of family farming operations in California. SAREP's mission to "support and conduct research and education on agriculture and food systems that are economically viable, conserve natural resources and biodiversity, and enhance the quality of life and equity in the state's communities." It accomplishes this mission through transdisciplinary, synergistic collaboration that crosses traditional institutional and disciplinary boundaries, working from a holistic systems understanding of food and farming systems that supports the "triple bottom line." SAREP tends to focus on new emerging topics and on intersections of topics that are not already being addressed by other colleagues and programs in ANR.

SAREP's clientele is necessarily broad given that we focus on making connections "from farm to fork" across the supply chain. Our primary audiences and partners include California's farmers and ranchers of all scales (urban and rural), the professionals and institutions that advise farmers (such as Pest Control Advisers, Certified Crop Advisers, UC Cooperative Extension, Resource Conservation Districts, and non-profits such as CAFF and CCOF), regional distributors and food hubs, institutional and retail buyers (schools, colleges, universities, corporate cafeterias, restaurants, groceries), community organizations and government agencies that address food, agricultural, and natural resource issues, commodity organizations, food policy councils and other local policy groups, farm and food system labor and food service providers. SAREP is increasingly aware of and committed to being accountable to Black, Indigenous and other communities of color that are disadvantaged in the current food and agricultural system and to finding ways to support their physical, economic and social wellbeing.

The Project Scientist will provide scientific leadership and capacity-building support for currently evolving extension co-learning networks, as part of the Agriculture and Environment area. This work will focus on supporting agroecological transitions for California farmers through enhanced understanding of placed-based integrated management of soil and ecosystems, and by supporting the technical assistance providers working with farmers to accelerate and enable those transitions. Responsibilities include designing applied outreach and research initiatives, creating and maintaining networks within and beyond the University, and working with SAREP team members and other partners on fundraising, grants administration, and targeted engagement and communication with multiple stakeholders.

ACADEMIC PROGRAM MAJOR RESPONSIBILITIES

- **Technical Competence & Impact**
    - Conduct applied agroecological research on climate-smart agriculture and participatory extension research designed to solve locally relevant problems and monitor related changes
    - Maintain and promote SAREP and UC ANR's credibility by partnering with clientele and university partners to share science-based knowledge and skills on agroecology, soil science, and participatory extension, building off the experiential knowledge of farmers and indigenous land stewards.
    - Represent SAREP and UC ANR locally and statewide in a professional manner.
    - Develop a research program investigating climate-smart agriculture practices and co-learning networks across the state of CA.
    - Contribute to SAREP's strategic vision in alignment with UC ANR's strategic initiatives and Public Value Statements.
- **Communication**
    - Disseminate useful, science-based information to inform clientele, using extension methods that are responsive to clientele needs and appropriate for the audience and situation.
    - Effectively use online communication methods and associated software programs to support research and instruction.
    - Actively advocate for SAREP and UC ANR program awareness and support.
- **Collaboration, Teamwork & Flexibility**
    - Develop collaborative teams with other UC ANR academics, campus-based specialists and faculty and/or others, to address priority issues for UC SAREP and UC ANR.
    - Act as a facilitator in the public policy arena to effectively bridge divergent interests around soil health issues.
    - Interact with UC ANR Program Teams, specialists, campus based Agricultural Experiment Station faculty (if appropriate) and others within the research/extension network to develop, strengthen and expand program goals.
    - Participate in UC and UC ANR leadership, through committees, task forces and other formal or informal structures, as relevant to the grants funding this position.
    - Serve the California public by participating in activities of public agencies and organizations, such has:
        - California Department of Food and Agriculture (CDFA)
        - Local Resource Conservation Districts
    - Interpersonal Relationships: Be an effective listener and communicator, take responsibility for our own actions, motivate others, keep commitments and cultivate political and industry support for UC SAREP and ANR.
    - Build relationships to work with diverse populations and acclimate to varying circumstances.
- **Professional Development & Lifelong Learning**
    - Participate in professional organizations and collaborate with federal, state and county governmental agencies, non-government organizations and others by providing independent science-based information and leadership, as relevant to the grants funding this position.
    - Maintain a program of continuous self-improvement by participating in in-service training, seminars, workshops, work group & program team meetings, short courses, professional society meetings and other relevant opportunities.

AFFIRMATIVE ACTION and DIVERSITY, EQUITY, AND INCLUSION (DEI)

- Comply with all applicable federal and state laws and regulations, and all University policies regarding affirmative action, including prohibition of discrimination on the basis of race, color, national origin, religion, sex, sexual orientation, physical or mental disability, age, veteran status, medical condition, ancestry or marital status.
- Promote, in all ways consistent with other responsibilities of the position, accomplishment of the affirmative action goals established by UC ANR.
- Take all measures necessary to assure any employee or volunteer workers supervised by this position fulfill their affirmative action responsibilities.
- Develop a statement of program mission and definition of potential program clientele that embody a commitment to serve diverse ethnic and gender groups.
- Plan and conduct programs in such a manner as to provide equitable service to all ethnic and gender groups that comprise the potential clientele population for the program.
- Identify any barriers to clientele participation related to ethnicity, gender, or other characteristic of concern under the University's affirmative action policies and take corrective action as needed to remove such barriers.
- Collect, and keep current, demographic data identifying the ethnic and gender distribution of the potential clientele populations for the program and describing other characteristics of the population relevant to the pursuit of the Division's affirmative action goals.
- Compile and maintain documentation of service to each ethnic and gender group within the clientele population served by the program, including statistical records of clientele contacts, quantitative evaluations of benefits realized by clientele and reports of any special efforts to serve under-represented groups.

RELATIONSHIPS

Administratively responsible to the Academic Coordinator for Agriculture and Environment, UC SAREP.

QUALIFICATIONS

A Ph.D. Degree in Soil Science, Ecology/Agroecology, Environmental Science, Geography, Geology, Plant Sciences (agronomy, pomology, etc.) or a related field is required. Specialty and/or professional experience must demonstrate capacity or potential to accomplish team-based research and education programs consistent with the values of UC SAREP and Cooperative Extension.

The qualified individual must demonstrate the following competencies:

- **Knowledge of human relations** - including the ability to work with people with diverse views and values while motivating and adapting to changing situations.
- **Literacy in internet communications** and with software to support research and education programs.
- **Aptitude for science communications** to lay audiences.
- **Broad training and aptitude to work across many disciplines** and supervise and/or collaborate with people with expertise in a large range of different subject areas, from soil science, plant sciences, and hydrology, to agricultural economics, geography, anthropology/sociology, evaluation science and related fields.
- **Systems thinking competency** - the ability to collectively analyze complex systems across different domains (society, environment, economy, etc.) and across different scales (local to global), in order to conduct effective whole systems analysis of food and farming systems.

- **Anticipatory competency** - the ability to analyze, evaluate, and craft pictures of the future and to consider appropriate interventions and forward-thinking solutions to current problems.
- **Adaptive learning orientation** – the ability to take in new information and re-consider previous directions and tenets, and re-orient one's professional approach and interventions based on new understanding.
- **Normative/Values competency** - the ability to identify, map, apply, reconcile, and negotiate sustainability values, principles, goals and targets, with recognition that sustainability is fundamentally value-laden and that different clientele may have different priorities, goals, and targets.

Reviewers:

[redacted]

_____ 5/31/2024___
Academic (your name and title) Date

[redacted]

_____ ___5/31/2024__
County/REC Director or Supervisor Date

_____ _____
Statewide Program Director (if applicable) Date

Final Approver:

Daniel Obrist Digitally signed by Daniel Obrist Date: 2024.06.07 16:08:40 -07'00'

_____ _____
Dr. Daniel Obrist Date
Vice Provost of Academic Personnel

I. Introduction

I am an assistant project scientist Step IV with 1.0 FTE within the Sustainable Agriculture Research and Education Program (SAREP), seeking a Merit advancement to Step V. I am submitting this dossier for consideration under the 18/30 option, demonstrating the equivalence of 24 months of performance at 21 months. In my role as a project scientist in agroecology, I contribute to SAREP's mission to "support and conduct research and education on agriculture and food systems that are economically viable, conserve natural resources and biodiversity, and enhance the quality of life and equity in the state's communities." I do this through research, synthesis, knowledge sharing, extension, facilitating networks, and developing tools to support resilient farming systems across California.

My work is organized around a single theme of *supporting agroecological systems*, which falls mainly within the **Agroecology, Regenerative, and Organic Program** as well as the **Soil Health and Management Program**. My position is 100% grant-funded (for this review period, via a UCOP Climate-Action Grant); in line with current grant deliverables, my work has focused on building cross-network capacity among farmers and technical assistants and increasing knowledge of CA-specific soil health metrics. This has included three projects (detailed below), including a qualitative needs assessment and quantitative research focused on understanding the soil health knowledge needs and priorities of CA farmers. Within the review period, I contributed substantially to two successful grants: 1) as co-coordinator and research collaborator on a $2.7 million-dollar "California Organic, Agroecology, and Regenerative Transitions" project which includes collaborators across ANR and the five AES campuses, and will provide 75% of my funding through 2028; 2) a 493k Specialty Crops Block grant in collaboration with the CA Association of Resource Conservation Districts (CARCD), for which I will provide research-based information to advance agroforestry practices in the San Joaquin Valley.

Through my position, I create impact by improving how farmers and farmer-serving professionals understand their soil and the sustainability impacts of management practices across the widely diverse cropping systems of CA, and by building cross-network capacity for collaborative research and extension efforts across the UC and with aligned non-profit, state, and federal agencies. Better understanding of the outcomes of management allows farmers to efficiently **improve and/or maintain soil health and productivity**. Through my facilitation of multi-sector networks of farmers, farmer-serving professionals, and researchers, I create impact by synthesizing and connecting work that provides evidence-based tools for **increasing the ecological sustainability of agriculture** and contributes to increased **public engagement and trust in science**.

II. Programmatic Theme: Supporting agroecological systems in CA

Background, clientele, goals, inputs

Agroecology, a knowledge-intensive form of sustainable land stewardship, is defined by a set of 10 interrelated social, ecological, and political components of agricultural systems (FAO 2022). While CA farmers are highly productive, there are many serious and urgent issues that threaten long-term farm viability, including the intersecting crises of climate change, biodiversity loss, ongoing inequities, and economic challenges. Agroecological management of farming systems can address these challenges through its focus on resilience, synergies, efficiency, circularity, and economic solidarity. I conduct applied research in close collaboration with academics, extensionists, farmers, and other community members to develop a nuanced understanding of how agroecosystems function and how to support successful agroecological transitions. My clientele includes farmers and CA organizations that serve farmers, such as Resource Conservation Districts (RCDs), UCCE offices, non-profits like the Community Alliance with Family Farmers (CAFF) and Sustainable Conservation (SusCon).

My work under this theme falls into four projects, each with separate but complementary goals:

1) Demonstration network & metrics for accelerating adoption of Climate Smart Farming Practices

A. Goal 1: Develop capacity and co-learning opportunities for CA technical assistance providers to implement effective participatory and networked extension methods
B. Goal 2: Develop the California Farm Demonstration Network (CFDN) as a go-to website and network to inspire farmers and technical assistance providers to adopt and recommend practices

that conserve soil quality and increase the ecological sustainability and efficiency of agriculture
C. Goal 3: Develop tools for sharing soil health data in farmer-friendly and effective ways to guide farmer and technical assistance provider decision-making

2) Assessing soil health knowledge priorities & needs for CA farmers & technical assistance providers

A. Goal 1: Build on recent research (e.g., Klein et al, 2024) to conduct a qualitative needs assessment of farmer knowledge priorities and need regarding soil health, in order to inform technical assistance providers and farmers about the state of knowledge on soil health assessments and priorities for continued research and outreach

3) Comparing in-field & lab soil health assessments

A. Goal 1: Review soil health assessment literature and refine in-field soil health assessment methods applicable to CA cropping systems
B. Goal 2: Evaluate the effectiveness of in-field and lab soil health assessment metrics to capture management differences and develop guidance on effective soil health metrics for CA

4) California Organic, Agroecology, & Regenerative Transitions

A. Goal 1: Evaluate agroecological research/extension efforts within the UC system
B. Goal 2: Support multi-campus efforts to catalyze agroecological transitions through aligned projects and grant-funded opportunities
C. Goal 3: Develop an outcomes-focused assessment tool for land managers and professionals to evaluate the agroecological impacts of management decisions.

5) California Agroforestry Network

A. Goal 1: Develop a survey for natural resources professionals to assess agroforestry knowledge needs and priorities across the US West Coast (CA, OR, WA)

The inputs in this theme include UCOP Climate Action Grant funding (which currently supports my salary 100%) as well as the time and labor of faculty at multiple UCs and CSUs, multiple UCCE Advisors, RCD staff, and UC Davis students. Starting in late 2025, I will be supported through UCOP Multi-Campus Research Programs and Initiatives funding, which will be the majority of my funding (75%) through 2028.

Methods, Outcomes, Impacts

Project 1: Demonstration network & metrics for accelerating adoption of Climate Smart Farming Practices

Methods: Organizing webinars and team meetings, website development, advisory committee work, outreach, database exploration, and app development

Since Jan 2024 I have worked with PI Sonja Brodt to develop webinars and facilitate project team meetings on such topics as participatory extension, soil database development, paying farmers for Extension activities, self-evaluation, and funding acquisition. I have worked closely with CARCD, a CFDN partner, to continue website development and maintenance. I have been an active participant in monthly CFDN Advisory Committee meetings, presented on the CFDN at the Yolo-Solano-Sacramento area Farmer Educator Network, and have represented the CFDN at two CA Department of Food and Agriculture (CDFA)-led convenings and a statewide CA Conservation Planning Partnership (C2P2) workgroup. With Co-PI Toby O'Geen and a contractor, I developed the structure of a database to hold soil health data for CA cropping systems. I am also currently working with academic partners across the UCs and CSUs to synergize other database development efforts across the state. With UCCE colleagues Sarah Light, Margaret Lloyd, and Taiyu Guan, as well as a contractor, I led efforts to adapt a soil health reporting template from the Washington Soil Health Initiative (WASHI) to make customized reports for local farmers, and to develop an app for users to generate their own soil health reports. Beta-testing is ongoing for the reporting app, and I will lead functional enhancement efforts in 2026.

Outcomes and early impacts

Website analytics for http://www.calfarmdemo.org were enabled in July 2024 and there have been 1770 clicks through Sept 30, 2025; 9 of the 10 top visit days occurred in 2025, indicating traffic increase over time. Multiple contacts have expressed excitement about the Network and the website; for example, an

RCD staff member shared that she is excited to use the website to inspire her farmer clientele to adopt conservation practices. In post-webinar evaluations, 15 (out of 22) technical assistance providers expressed interest in learning more about participatory extension methods and learning opportunities. I also worked closely with CARCD and the Gaudin Agroecology lab to successfully apply for a 2025 CDFA Specialty Crop Block grant to continue participatory extension work through the CFDN focused on agroforestry practices in the San Joaquin Valley. For the database work, a UCCE advisor expressed interest in using a coordinated database for data that they have received from their farmers or are collecting as part of projects, and through statewide partner conversations (including the CDFA-led meetings) we have made significant connections with other efforts that could help scale our ability to understand the role of farming practices in fostering soil health. Farmers who received customized soil reports expressed that it was helpful to see their soil health data in the context of data from other nearby farms. One farmer expressed appreciation that the report allowed her to compare multiple fields on her farm and assess the impact of different management decisions. We anticipate that this comparative soil health data report tool will allow farmers to self-benchmark their soil health and more effectively make soil health management decisions.

Project 2: Assessing soil health knowledge priorities & needs for CA farmers & technical assistance providers

Methods: Survey development, deployment, and analysis

I have collaborated closely with S Brodt and overseen the work of two UC Davis graduate students to develop a survey protocol, conduct focus groups and pilot interviews, and then conduct the bulk of our data collection in early summer 2025. During the protocol development, we solicited feedback from the broader CFDN network before conducting 18 farmer interviews and 6 technical assistant (PCA and/or CCA) interviews and then began coding and analysis in late summer 2025. We see this qualitative work as a needs assessment for soil health assessment work in CA, and have been engaging with the new soil health specialist at UC Davis as well as county-based partners in data analysis that complements the comparison of in-field and lab soil health assessments (below) based on farmer needs and priorities.

Outcomes and early impacts

UCCE advisors and RCD staff have expressed interest in what we learn through interviews, as it will help them guide their programs to more effectively tailor their soil health information to their clientele. We anticipate that our analysis will allow us to make recommendations about how to talk with farmers effectively about soil health to increase likelihood of soil health practice adoption.

Project 3: Comparing in-field & lab soil health assessments

Methods: Literature review, site selection, presentations, method development, sampling, data analysis

I began this work by reviewing relevant articles on soil health assessment and using them to develop a framework for soil health assessment work for this project in close collaboration with Amélie Gaudin at UC Davis, project PI S Brodt, and UCCE collaborators M Lloyd, L Klein, and S Light. I have also included Dr. Sutie Xu, the new Soil Health CE specialist, in this work, along with professor emerita Kate Scow. In January 2024, Margaret, Lindsey, and I co-facilitated a meeting with a group of farmers who self-identified as wanting to delve into soil health topics as part of an "Organic Think Tank", with whom we had a follow up research focus group to guide the direction of this work. We worked with the NRCS Soil Health Division to adapt and refine their national Cropland In-field Soil Health Assessment protocol, which is a binary diagnostic tool to identify resource concerns, into a quantitative scorecard applicable to CA. We presented preliminary findings of this work at the CAFF Small Farms Conference in Feb 2025. After refining the in-field assessment methods, we collaborated with UCCE and RCD colleagues in the Sac Valley (S Light, T Guan, C Reyes, and M Flynn) to identify a final set of sampling comparison sites. From Aug 2024 to Aug 2025, we conducted 15 in-field soil sampling events as well as 31 paired sampling events in which we conducted in-field assessments and collected soil to send for lab assessments. We have since hosted two meetings with the Think Tank farmers to collaboratively interpret results via customized comparative soil health reports for each farm (described above). Statistical analysis of in-field and lab-based soil health results began in summer 2025, with plans for continued outreach,

conference presentations, and publication in late 2025 and 2026.

Outcomes and early impacts

A primary outcome of this work is a refined set of protocols for in-field soil sampling, as well as a dataset from 31 farms testing across two treatment fields per farms with 5 pseudo-replicates within a field. The early impacts of this work are that the 6 farmers who received soil health reports have expressed enthusiasm for how these data can help them make management decisions related to tillage intensity, field rotations, and animal integration into cropping systems. Evaluation respondents from the Nov 2024 field day unanimously appreciated hands-on soil health assessment demonstrations, and all of the 11 of the 21 evaluation respondents from the April 2025 field day who filled in an open-ended question about what they planned to use from the field day indicated that they planned to implement at least one of the in-field soil health tests that were demonstrated.

Project 4: California Organic, Agroecology, & Regenerative Transitions

Methods: Survey development, grant writing, project management, relationship-building, lit review

In collaboration with S Brodt, UC Davis colleagues including Kase Wheatley, Ryan Galt, and A Gaudin, and UC Santa Cruz/ANR colleague Crystele Leauthaud, we developed a survey to assess the extent and types of agroecological work occurring in the UC system. This survey is the first step in a Delphi study to understand the roles and responsibilities of the UC in supporting just and equitable agroecological transitions. With collaborators across the five AES campuses and ANR, I co-led (with PI Galt and co-I Wheatley) the proposal-writing for a successful for a $2.7 million grant from UCOP as part of the Multi-Campus Research Projects Initiative; the funding is for Jan 2025-Dec 2028, and brings together researchers, students, educators, and extensionists on mapping and supporting agroecological transitions, including connections with state policy, undergraduate educational programming, Indigenous food and fire sovereignty, and training technical assistance providers about agroecology concepts.

Outcomes and early impacts

During the first year of the project, I have co-facilitated coordinated research and education efforts across the five AES campuses; within the three remaining grant years, these coordinated efforts could significantly increase the effectiveness of transition work across the state, including continued work on aligned grant-funded efforts such as the Climate Action and Land Equity project. Through this project, I shared insights from the in-field soil health assessment work with a cross-campus UC Santa Cruz-based Agroecology Field Course; we plan to continue leveraging development of soil monitoring tools for use in educational programming. In May 2025, I planned and co-facilitated the initial in-person gathering for project participants, which then led to a series of meetings for project participants to meet with key state agency members to learn ways to make their research policy-relevant. We look forward to future outcomes and impacts from ongoing research activities within this project.

Project 5: California Agroforestry Network

Methods: Network participation and survey development

Since Jan 2025 I have been an active member of the CA Agroforestry Network, specifically as part of the research team, as part of which I collaborated on the development of a survey to assess the agroforestry knowledge needs and priorities of natural resource professionals across the West Coast. A pilot version was launched in Feb 2025 and then closed and analyzed in spring 2025. Based on the initial results, I contributed to a redesign and expansion of the survey, which we sent out in Aug 2025. The survey will be live through Dec 2025, with analysis to follow

Outcomes and early impacts

The process of developing the survey has built relationships among agroforestry research professionals across the West Coast. Pilot survey data indicated that the top priority research topics were the connection between agroforestry and water resources and the application of agroforestry practices to CA's unique climates. We hope to expand our understanding of these priorities with the expanded survey as well as the funded CDFA Specialty Crops Block Grant with CARCD.

III. Professional competence and activity

During this review period, I have demonstrated professional competence through two peer-reviewed

publications, a poster presentation at the Plant & Soil Conference (Feb 2025), and the CAFF Small Farms Conference (Feb 2025). I was also invited to speak at the Sacramento Valley Pistachio Day (Feb 2024) about my research on cover cropping in almonds. I have reviewed 5 manuscripts across soil science, ecology, and agricultural science disciplines, and served as an invited reviewer for an Agriculture Research Initiatives proposal from the CSU system. I was an invited participant in a series of convenings led by Sustainable Conservation (SusCon), which led to a publication that I co-authored on "Cover cropping in the SGMA Era". Since publication, I have advised SusCon on the ongoing development of case studies to highlight opportunities and challenges detailed in the larger publication. Due to my soil health assessment work for the CFDN project, I was an invited participant in a CDFA convening on measuring, monitoring, reporting, and verification (MMRV) efforts across the state (Aug 2025).
I have sought multiple opportunities to develop my professional competence, including participation in multiple program teams which are relevant to my transdisciplinary position, such as the Diversified Farming and Food Systems PT meeting (May 2025), Water PT meeting (Nov 2024), Pomology PT meeting (PECC, Mar 2024), and CA Communities and Food Systems PT meeting (May 2024). I have completed multiple professional development trainings, including the Tribal Partnerships Workshop (Aug 2024), the NRCS Cropland Infield Assessment Training (Sep 2024), and a Collaborative Facilitation Workshop (Mar 2025).

IV. University and public service

Because my position is 100% grant funded, I am limited in the time that I can spend on service work. However, during the review period I served on the hiring committee for the Organic Ag Institute (OAI) Technical Assistance academic coordinator committee. I participated as an invited speaker on in-field soil health assessments for a cross-campus UC summer Agroecology Field Course (July 2025), as well as for a guest lecture on Regenerative Agriculture for a UC Davis plant science course (Nov 2024).

V. Civil Rights Compliance and Contributions to UC ANR's Principles of Community

The majority of my clientele are CA farmer-serving organizations such as Resource Conservation Districts, CAFF, UCCE offices, and CDFA. Recognizing that providing equal opportunities to UC ANR programs requires a basis of trust, I have worked to build strong working relationships with organizations rooted in diverse communities, such as CAFF, CLBL, and the Allensworth Progressive Association, as well as the Small Farms advisors. For example, one of the small farm advisors has been developing Hmong and Iu-Mienh-focused soil health lessons as part of our CFDN grant, and I was invited to join a meeting to help build rapport with this relatively new clientele group. A key component of the newly received UCOP grant that I am co-coordinating is concerned with expanding the UC's understanding of agroecology to include Indigenous food and fire lifeways. Within the recently expanded SAREP team, I try to embody UC ANR's Principles of Community through open-hearted participation in team-building activities and trainings, and I look forward to participating in a renewed visioning process for SAREP now that we have a full set of associate directors for our three program areas.

VI. Closing Summary

My work as a broadly trained agroecologist focuses on soil health research and outreach combined with intentional cross-sector collaborative team-building efforts to improve capacity across the state for agroecological transitions and improved soil health. I have contributed to the development of practical tools such as an in-field soil health assessment, a customizable soil health report app, and increased knowledge, such as the needs assessment on the research priorities of farmers for soil health and natural resources professional on agroforestry, as well as to networks like the CFDN and the COAR project, which together will allow cross-sector collaborations across the state to flourish and effectively support farmers to transition to more climate-smart, regenerative, and agroecological practices, which will conserve water, increase biodiversity, mitigate and adapt to climate change-related risks, and maintain farmer livelihoods and rural vitality.

Supporting Documentation

A. Projects Summary

Project Title	Year Funding Received & Duration	Role	Collaborators	Support	Support Source
Programmatic Theme: Supporting agroecological systems in CA					
Demonstration network and metrics for accelerating adoption of Climate Smart Farming Practices	2023 Aug 2023 – Jul 2026	Co-investigator	S Brodt @ UC ANR, S Light @ UC ANR, H Wilson @ UC ANR, M Lloyd @ UC ANR, A Schilder @ UC ANR, T O'Geen @ UCD, A Cump @ UCD, A Gaudin @ UCD, Oona Heacock @ Conservation Works, J Whiteford @ Ventura County RCD, A Bozzolo @ Rodale, L Harper @ Colusa RCD	$1,999,524 (full award)	UCOP Climate Action Grant Program
Assessing soil health knowledge priorities and needs for CA farmers and technical assistance providers	2023 Aug 2023 – Jul 2026	Lead researcher	S Brodt @ UC ANR, A Crump @ UCD, Tatiana Sierra @ UCD, V Riehle @ UCD	(part of "Demonstration network.." grant)	UCOP Climate Action Grant Program
Comparing in-field and lab soil health assessments	2023 Aug 2023 – Jul 2026	Lead researcher	M Lloyd @ UC ANR, L Klein @ UC ANR, S Light @ UC ANR, T Guan @ UC ANR, C Reyes @ UC ANR, A Gaudin @ UCD, K Scow @ UCD, S Xu @ UCD, S Brodt @ UC ANR	(part of "Demonstration network.." grant)	UCOP Climate Action Grant Program
California Organic, Agroecology, and Regenerative Transitions	2025 Jan 2025 – Dec 2028	Co-investigator; project co-coordinat	R Galt @ UCD R Ryals @ UCM H Wilson @ UCR T Bowles @ UCB C Leauthaud @ UC ANR D Wong @ UCSC	$2,699,994 (full award amount)	UCOP Multi-campus Research & Projects

Project		or	J Muramoto @ UCSC K Wheatley @ UCD K Mann @ UCD J Sowerwine @ UCB M Rodriguez @ UCM H Waterhouse @ UCSC A Gaudin @ UCD S Brodt @ UC ANR A Thompson @ UCD J Thompson @ UCB J Tuil @ UCD K Marshall @ UC ANR C Murillo-Barrick @ UC ANR J Merrill @ UCB S Philpott @ UCSC D Parr @ UCSC J Perez @ UCSC K Sogomo @ UCB S Das @ UCM BR Middleton @ UCD K Butterfield @ UCD S Rosenberg @ UC ANR MK Steen @ UCB A Rose @ UCD N Sanghera @ UCB E Schlickman @ UCD M Spinelli @ UCB K Sogomo @ UCB G Wong @ UCSC T Galarneau @ UCSC		Initiative
CA Agroforestry Network	Not currently funded	Network member and research collaborator	A Quandt @ SDSU, K Favor @ USDA, M Batchelor @ USDA, P Shultz @ WSU, M Smith @ USDA, C Brausieck @ Agroforestry NW, K Giday @ OSU, M Prendergast @ USDA, L Niebrugge @ Carbon Cycle Institute, A Kloster @ Center for Rural Livelihoods, S Brodt @ UC ANR	Not currently funded	Not currently funded

B. Professional Competence and Professional Activity

Professional Development and Training

Begin Date – End Date	Location	Name, Description and Occurrence of Activity
4 Sep 2024	Lockeford, CA	NRCS Cropland Infield Assessment Training
19 Aug 2024 – 20 Aug 2024	Davis, CA	UC ANR California Tribal Partnerships Workshop
12 Feb 2025 – 19 Mar 2025	Online & Davis, CA	Collaborative Facilitation Workshop
25 Mar 2024 – 26 Mar 2024	Davis, CA	Pomology (PECC) Program Team Meeting
22 May 2024 – 24 May 2024	Berkeley, CA	CA Communities Program Team Meeting
20 Nov 2025	Davis, CA	Water Program Team Meeting
14 Jan 2025	Davis, CA	Agronomy Program Team Meeting
28 May 2025	Santa Cruz, CA	Diversified Farming and Food Systems Program Team Meeting
10 Sep 2025	Lockeford	Fall Field Day at the Lockeford USDA Plant Materials Center (cover crop trials)
22 Sep 2025	Sacramento, CA	CDFA OARS Climate-Smart Ag Technical Assistance Conference (focus on C2P2)

Evidence of Professional Competence

Begin Date – End Date	Location	Name, Description and Occurrence of Award, Recognition, Professional Presentation, Office or Activity
6 Feb 2024 – 7 Feb 2024	Fresno, CA	Conference poster presentation about cover cropping in almonds at the CA Plant & Soil Conference
26 Feb 2025	Virtual	Oral presentation (with L Klein) on lab and in-field soil health tests and how to choose which to do and how to set up site comparisons to effectively evaluate soil health
20 May 2024	Virtual	Served as a reviewer for AoB PLANTS

6 Jun 2024	Virtual	Served as a reviewer for Weed Research Journal
3 Jul 2024	Virtual	Served as a reviewer for Journal of Applied Ecology
23 Sep 2024	Virtual	Served as a reviewer for Renewable Agriculture and Food Systems
3 Dec 2024 (ongoing)	Virtual	Invited advisory member of sub-group from the "Cover Cropping in SGMA Era" author team to develop further outreach materials on cover cropping
6 Feb 2025 – 7 Feb 2025	Visalia, CA	Conference poster presentation about soil health metrics at the CA Plant & Soil Conference
10 Mar 2025 – 14 Apr 2025	Virtual	Invited reviewer on a "Grazing in Vineyards Best Management Practices Guide" based on previous related publications
27 May 2025	Virtual	Served as a reviewer for Soil Science Society of American Journal
30 May 2025	Santa Cruz	Co-organized (with project co-coordinator K Wheatley) a project-wide gathering for the COAR Transitions UCOP grant-funded project
14 August 2025	Sacramento	Representative of the CFDN at the "Agricultural MMRV in California" workshop organized by CDFA
11 Sep 2025 – 22 Sep 2025	Virtual	Invited reviewer for a research survey cover crops in pistachios, based on my work in almonds

C. University Service

Begin Date – End Date	**Name, Descriptions, & Occurrence of Activity**	**Org Level**	**Your Contribution and Leadership Role**
1 Jan 2024 (ongoing)	Mentorship of a UCD graduate student working on a meta-analysis of the effects of agroecological practices on drought resilience	University	Mentor
1 Feb 2024 – 13 May 2024	Served on a successful search committee to Fill the Training and Assistance Coordinator role with UC OAI	Division-wide	Hiring committee member
3 Apr 2024 – 4 Apr 2024	Participated in the SAREP Integration Retreat to build	Division-wide	Contributor and presenter on soil health

	connections across the SAREP statewide team and with county-based SAREP staff and academics		
16 Jul 2025, 6 Aug 2025	Led a training and a follow-up lecture on in-field soil health assessment for a statewide undergraduate agroecology field course based at UCSC	University	Invited presenter

D. Public Service

Begin Date – End Date	Name, Descriptions, & Occurrence of Activity	Org Level	Your Contribution and Leadership Role
1 Jan 2024 (ongoing)	Member of the Cal Farm Demo Network Advisory Committee	Statewide	Advisory Committee member
5 Oct 2024	Hoes Down Harvest Festival public "Bug Walk" to teach about agroecological biodiversity	Community	Workshop leader
14 Mar 2025 (ongoing)	Member of the CARCD-led "Maintaining Locally Led Technical Assistance" workgroup	Statewide	Workgroup member

E. Extension Activities

Meetings Organized

Begin Date – End Date	Meeting Name and Type	Topic (no. of repetitions)	Role	Location(s)	Total No. of Attendees
Demonstration network and metrics for accelerating adoptions of Climate Smart Farming Practices					
1 Jan 2024 (ongoing)	CFDN Project Team Meetings	CFDN project -internal educational presentations (topics incl. Soil health, fundraising, evaluation, etc.)	Meeting co-organizer and facilitator	Virtual	10-25 depending on the session
26 Feb 2024	Webinar: Engaging with	A public webinar with panelists discussing	Meeting co-organizer;	Virtual	47

	Producers in Participatory Extension and Research: Insights from the Field	methods and approaches to participatory research and extension with farmers (1)	developed questions, helped select panelists and define topic		
7 Nov 2024	Webinar: Using Social Networking to Increase Your Impact in Agricultural Extension	A public webinar with multiple presentations and discussion of how to incorporate an understanding of social networks to enhance extension effectiveness (1)	Meeting co-organizer, helped define topic, select panelists and questions	Virtual	19
21 Jan 2025	CFDN Statewide Gathering	Co-organized (with project PI S Brodt) a statewide meeting for the Cal Farm Demo Network (both project internal and external participants) with a dual focus on participatory extension and soil health	Meeting co-organizer and facilitator	Monterey, CA	49
6 Mar 2025	Webinar: Carbon Farm Planning for Climate-Smart Agriculture: Orientation for Extension and Outreach Professionals	A public webinar with guest presenters from Carbon Cycle Institute on carbon-farming 101 and carbon farm planning (1)	Meeting co-organizer	Virtual	43
Comparing in-field and lab soil health assessments					
15 Jan 2024 – 30 Jun 2025	Organic Think Tank Meetings	Soil health research focus groups and data co-interpretation (4)	Lead researcher and meeting co-facilitator	Woodland, Winters	10, 14, 17, 14
1 Apr 2025	Field Day: Climate-Smart Farming Demonstration Field Meeting	Soil health and hedgerows in rice (4)	Workshop co-organizer, presenter	Colusa, CA	29
19 Nov	Field Day: Is	Soil health and farmer	Workshop	Winters,	15

2024	Your Soil Ready for Winter?	networking (1)	organizer, presenter	CA	
3 Apr 2025	Field Day: Twin Peaks Orchard Soil Demo Day	Soil health and farmer networking (1)	Workshop organizer, presenter	Newcastle, CA	30

Other Activities (digital media)

Begin Date – End Date	**Description**	**No. of instances**
Jan 2024 (ongoing)	CFDN website maintenance and upkeep; I am the primary contact for onboarding new farmers and confirming accuracy of existing profiles	1 publicly available website, 1770 clicks July 2024-Sept 2025
July 2025 (ongoing)	Customizable soil health report app: I lead conceptualization of the app adaptation from an existing code base and supervised the contractor who lead the actual coding	1 publicly available online application in beta form
Dec 2024 (ongoing)	A filterable database decision-support tool to choose which soil health testing to do based on budget and priorities. I helped with original database creation and data validation and have supported current efforts to build the online platform for the tool	1 website draft currently till in development (anticipated publication in 2026)
April 2024 (ongoing)	An interactive website to profile CFDN farms with management and soils data. I helped design the backend database structure for farm and plot-level data as well as soil health indicators, and advised on map interface decisions.	1 website still in draft form (anticipated publication in 2026)

F. Publications (Bibliography)

Peer-Reviewed

Wauters VM, Gaudin ACM, Haring S, Hanson BD, Geoghan P, Kim H, Hodson A. (2025). *Cover Crop Composition Influences Soil Health and Nematodes in a Mediterranean Almond Orchard System*. Applied Soil Ecology 206 (February):105888. https://doi.org/10.1016/j.apsoil.2025.105888.

Wauters led the field field, data analysis, writing, and editing of the manuscript, and contributed to revisions.

M, Muñoz-Araya; SR, Williams, et al. (2024). *A knowledge creation framework for academia toward agroecological transformations of food systems*. Frontiers in Sustainable Food Systems. https://doi.org/10.3389/fsufs.2024.1336632

Wauters contributed to manuscript writing and editing and revisions on the manuscript in close

collaboration with the first author.

Non-Peer Reviewed

Ayala E, Castle S, Light S, Smither-Kopperl M, Wauters VM, Williams S. (2025). *Cover Cropping in California's Water Scarce Environments: practical considerations for managing cool-season cover crops with maximal water benefits and minimal water use.* Sustainable Conservation. https://ucanr.edu/sites/default/files/2025-05/Cover%20Cropping%20in%20California's%20Water%20Scarce%20Environments.pdf

Wauters contributed to writing and revisions of the document.

Borum J, Bruno E, Castle S, Chiartas J, Crowley R, Decock C, Delgado C, DeVincentis A, Dufour R, Edwards A, Flaherty R, Flynn M, Grimm R, Hale L, Light S, Little C, Lowell K., Minshew H, Nocco M, Peterson C, Roby M, Roseman J, Roth A, Sandoval S, Silva SA, Smet E, Smither-Kopperl M, Suvocarev K, Waterhouse H, Wauters VM, Williams S, Zaccaria D. (2024). *Cover Cropping in the SGMA Era: A Comprehensive Overview of Water Impacts, Policy Implications, and Recommendations for California's Water Managers*. The Soil-Water Interface Expert Convening Series: Cover Crop Impacts on Water Budgets, California. https://suscon.org/wp-content/uploads/2024/05/SC-Cover-Crop-SMGA-ES.pdf

Wauters contributed to writing the section "Management factors that control cover crop – water interaction" and contributed to editing and review of the entire document.

Completed Award Transaction Report

Investigator Name: Vivian Wauters
Period of Review: Jan 1, 2024 - Sep 30, 2025
GTS Search Period: 01/01/2022 - 10/28/2025

**A single award may have multiple rows if multiple transactions occurred during the*
***The Cumulative Award Amount for a project reflects the total amount of funds auth*
****This list of funded awards may not include all of the investigator's projects. Some*
1) Projects where the transaction authorizing the award occurred out
2) Projects supported by donor/gift accounts or internal grants.
3) When GTS information on the project's Investigator tab is incompl
4) Unfunded Collaborations where no subaward was issued to ANR.

GTS Number	PI Last Name	PI First Name	Unit Name
Y24-7231	Leauthaud	Crystele	UCCE UC Santa Cruz
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog
Y23-6463	Brodt	Sonja	UC Sustainable Ag Research and Ed Prog

search period. Example: An award being funded via annual amendments would have a trans
orized by the sponsor to date, not the anticipated total award amount, if different. Example: F
examples of potential discrepancies include:
side of the search period. Example: The initial award was issued for the full five year amount

ete. Example: An Academic Coordinator was hired after the award so they may not be listed

Sponsor Name	Prime Sponsor Name
UC DAVIS	UNIVERSITY OF CALIFORNIA OFFICE OF THE PRESIDENT
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action row for each amendment. Do not sum the Cumulative Awarded Amount column as it may count the same aw
Project is being funded via annual amendments and we're anticipating a 5-year award but have only been authorized

upfront and there was not a subsequent transaction during the search period.

as a collaborator on the project in GTS.

Title	Award Number	Project Type
California Organic Agroecology Regenerative (COAR) Transitions	A25-2240-S001	Applied Research
Demonstration network and metrics for accelerating adoption of climate smart farming practices	R02CP6986	Applied Research
Demonstration network and metrics for accelerating adoption of climate smart farming practices	R02CP6986	Applied Research
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Demonstration network and metrics for accelerating adoption of climate smart farming practices	R02CP6986	Applied Research
Demonstration network and metrics for accelerating adoption of climate smart farming practices	R02CP6986	Applied Research

ard total multiple times.
l years 1 and 2 to date.

Description	Free Text Description	Final Project Start Date
New		1/1/2025
New		8/1/2023
Other	Revised Grant Admin Manual	8/1/2023
Prior Approval	Budget Revision	8/1/2023
Prior Approval	Budget Revision	8/1/2023
Prior Approval	Amd 2	8/1/2023
Change in Time	NCTE	8/1/2023
Prior Approval	Budget Revision	8/1/2023
Change in Time	NCTE	8/1/2023

Final Project End Date	Transaction Total	Cumulative Awarded Amount	Process Date
12/31/2028	$70,660.00	$70,660.00	4/18/2025
7/31/2026	$1,999,524.00	$1,999,524.00	8/9/2023
7/31/2026	$0.00	$1,999,524.00	2/7/2024
7/31/2026	$0.00	$1,999,524.00	6/11/2024
7/31/2026	$0.00	$1,999,524.00	3/7/2025
7/31/2026	$0.00	$1,999,524.00	4/29/2025
7/31/2026	$0.00	$1,999,524.00	6/9/2025
7/31/2026	$0.00	$1,999,524.00	10/20/2025
7/31/2026	$0.00	$1,999,524.00	10/13/2025

Goals and Objectives for the Coming Year:
For the Period October 1, 2024 - September 30, 2025

Due by deadline set by your supervisor. Upload by **December 8, 2025** if this is your assigned action

Include goals and objectives you intend to accomplish in the coming year, anticipated collaborators, and anticipated outcomes and impacts. It is recommended that you organize your objectives according to the themes you are going to use in your program review dossier. Remember to include objectives addressing the advancement criteria for your title series. Academic HR recommends that academics and supervisors have a conversation about goals and objectives in the fall; there is not firm deadline set by ANR.

Name:	Vivian Wauters
Academic Title:	Assistant Project Scientist
County/Program:	UC SAREP
Current Rank/Step:	IV

Part 1. Goals and Objectives for the Coming Year (October 1, 2024 - September 30, 2025)

Specific Goals	Anticipated Collaborators	Anticipated Outcomes and Impacts
Theme 1 (Goal): Supporting agroecological systems in CA		
Objective 1: Finalize analysis and draft manuscript on in-field and lab soil health assessments	Amelie Gaudin, Sonja Brodt, Margaret Lloyd, Sarah Light, Lindsey Klein, Kate Scow, Sutie Xu	Once published, this manuscript will enable farmers to between choose evaluation metrics for their soil health practices and make future evaluations of the effectiveness of climate-smart practices more efficient
Objective 2: Create outreach material on soil health knowledge priorities and needs	Sonja Brodt, Tatiana Sierra, Margaret Lloyd, Sarah Light	The published product will enable TAPs, especially those without significant soil health backgrounds, to more effectively engage their clientele on soil health topics and contribute to more effective agroecological practice adoption and monitoring
Objective 3: Finalize analysis and manuscript on farmer and advisor soil health knowledge priorities and needs	Sonja Brodt, Tatiana Sierra, Margaret Lloyd, Sarah Light	The published manuscript Will provide evidence of what TAPs and research should focus on for soil health monitoring and could guide research that can more effectively enable agroecological transitions on CA farms

Objective 4: Support continued and expanded capacity of the CFDN	NRCS, CARCD, CFBF, CDFA, UCD	A thriving CFDN will facilitate agroecological practice adoption across CA acreage while also facilitating collaboration and cross-training among TAPs to work with and for farmers as a cross-unit networked team, which more effectively leverages the resources of each organization to achieve greater impact – this will contribute to accomplishing UCANR's C2P2 agreement goals
Objective 5: Contribute to statewide COAR (CA organic, agroecology, and regenerative) Transitions work	Ryan Galt, Kase Wheatley, Sonja Brodt, Amelie Gaudin, Katelyn Mann	Coordination and research on an outcomes-focused assessment tool will help advance knowledge and capacity for agroecological transitions in CA
Objective 6: Contribute to analysis of agroforestry survey and publication of results	CA Agroforestry Network partners	Publication of the results from the ongoing survey will help align agroforestry research and outreach efforts and will facilitate effective actions to increase agroforestry adoption in CA
Objective 7: Contribute to agroforestry synthesis work as part of SCBG project	Sonja Brodt, Amelie Gaudin, CA RCD	This project will enhance knowledge of key agroforestry practices relevant to the San Joaquin Valley and contribute to farmer-to-farmer learning and then adoption of agroforestry practices.

Part 2. Anticipated Barriers or Obstacles in Accomplishing Your Goals and Objectives
I will be on leave for part of the year which will reduce the total time available to accomplish goals. I hope to make progress on all these projects but anticipate that the wide range of goals will necessitate some difficult decisions of prioritization. It is often challenging to wrap up one grant and move to work on another grant and I anticipate challenges making sure that relationships and accomplishments from my current grant-funded work do not suffer even as I need to shift my focus to new grant-funded efforts.

Part 3. Support from Supervisor(s)
Continued open communication and regular feedback has been critical to my success in my position and I look forward to that support in the next year.