The University of California, Agriculture & Natural Resources (ANR), Cooperative Extension system serves California through the creation, development, and application of knowledge in agriculture, natural, and human resources. UC ANR academics and staff are based in county offices across the state, interacting with California stakeholders where they live and work.

My cross-disciplinary academic training as a plant doctor at the University of Florida exposed me to rigorous coursework in entomology, nematology, plant pathology, agronomy, diagnostics, soil science, water resources, and water use efficiency. Furthermore, I spent six years working as a Research Associate at UC Berkeley, conducting research and outreach on pest management and biological control in vineyards and orchards.

Currently, in my academic role as a Farm Advisor in Napa County, I conduct applied research projects, develop, and disseminate educational resources to increase access to evidence-based information on viticulture and vineyard management. The overarching goal of my research and outreach program is to create positive learning environments that catalyze knowledge acquisition and behavior change among stakeholders.

UC ANR Advisors are expected to cultivate technical expertise, while simultaneously interacting with a broad range of stakeholders on varied topics. It requires that the Advisor inhabit both a technical scientific community and one in which practical, efficient and effective solutions must be communicated and implemented quickly in response to chronic and emerging issues. To be successful, I have developed skills in communication, collaboration, leadership, and consensus-building. I have conducted problem-solving research to resolve technical issues, as well as social science research to understand how human behavior influences the adoption of management practices. I am skilled at grant writing, having secured more than \$2 million over 12 years, and currently supporting 2.8 FTE (six staff positions).

As a generalist, I've worked on most aspects of viticulture and vineyard management, including pest management, water use efficiency, plant material, vine nutrition, equipment (sprayer), cover crops, and biodiversity, as well as working with many decision-support tools, such as for irrigation, scouting, fungicide resistance, spore detection and virus symptom identification. We've also worked extensively with the agricultural workforce, which culminated in the development of an agricultural job satisfaction survey to support workers and employers to provision equitable labor conditions. Because of my professional training and my role in the community, I've also been tangentially involved in local food and olive production, post-fire forest assessments, and invasive insects in forest and riparian trees.

I have close working relationships with a broad range of collaborators from the agricultural industry, other academic institutions (Washington State University, Oregon State University, University of Colorado), non-profit organizations (Napa Valley Farmworker Foundation), regulatory agencies (USDA, CDFA, Agricultural Commissioner), and public agencies (Napa County Flood Control District, Napa Resource Conservation District). I've presented my research to audiences locally, regionally, nationally, and internationally. I had a pivotal role in the eradication program for the European grapevine moth, where my technical expertise, communication skills, and collaborative approach were assets to the technical and regulatory aspects of the program. I interacted regularly with the agricultural industry to implement evidence-based practices and with policy makers to develop the framework for detection, containment, treatment, and eradication. I have subsequently used similar skills to navigate

issues such as grapevine leafroll, red blotch and Pierce's diseases, invasive leafhoppers, vine mealybug, bunch stem necrosis and sugar accumulation disorder.

I am interested and motivated to put my educational preparation, professional experience, and skills to work as a member of the TAG to support the NC GSA. I understand the issues that our community faces with respect to groundwater sustainability, critical ecosystem functions, as well as the various demands on our watershed. I am motivated by a strong sense of responsibility to steward the use of this resource for our community now and into the future. Thank you in advance for considering my application.

Billing Rate is not applicable, as I am a public servant.

Farm Advisor (Viticulture)

University of California, Agriculture and Natural Resources, Cooperative Extension 1710 Soscol Ave, Suite 4, Napa CA 94559-1311

707-253-4221, mlycooper@ucanr.edu

EDUCATION

University of Florida (Gainesville) Doctor of Plant Medicine, 2006

Washington & Lee University (Lexington, VA)

B.S. Biology, 1996

PROFESSIONAL EXPERIENCE

Assistant (2009-2011), Associate (2011-2014) and Farm Advisor-Viticulture (2014-present), University of California, Cooperative Extension, Napa County.

Staff Research Associate III-Supervisor (2006-09) and Staff Research Associate I (2003-06), Department of Environmental Science, Policy, and Management, UC Berkeley.

Graduate Research Assistant (2000-03): Department of Entomology, University of Florida.

Graduate Teaching Assistant (2001): Department of Plant Pathology, University of Florida.

HONORS AND AWARDS

Extension Distinction Award (2019; American Society for Enology & Viticulture)

International IPM Award of Recognition (2018)

USDA Deputy Administrator's Safeguarding Award (2016; Honorable Mention)

Vintage Report Innovation Award (2016)

Featured Extension Agent (2016; *Modern Farmer*)

UC ANR Distinguished Service Award for Outstanding Team (2015-16)

Gamma Sigma Delta Agricultural Honor Society (2002)

Robert E. Lee Scholar (1995)

PROFESSIONAL ACTIVITY

American Society of Enology and Viticulture

Entomological Society of America

American Society for Horticultural Science

Napa Valley Vineyard Technical Group (Executive Director)

Association of Applied IPM Ecologists (Board of Directors, 2015-2020)

American Journal of Enology & Viticulture, ASEV Catalyst (Associate Editor; 2015- present)

Hopland Research & Education Center (Research Advisory Committee, 2014-present)

UC ANR Grape Program Team (Member, 2009-present & Leader, 2018-2021)

Napa Valley Grape growers: Farmworker Education & Industry Issues Committees

EXTENSION AND RESEARCH ACTIVITY (\$2,300,000)

Over 19-year career, extension and applied research has been supported by a cumulative \$2,300,000 in competitive funding from USDA-NIFA (SCRI), USDA-APHIS-PPQ, US EPA, CDFA PD/GWSS Board, CDFA Specialty Crop Program, American Vineyard Foundation, Viticulture Consortium West, and Napa County Winegrape Pest & Disease District.

Select recent PUBLICATIONS (Refereed journals):

MacDonald S. L., T. E. Schartel, M. L. Cooper. 2021. Exploring grower-sourced data to understand spatiotemporal trends in the occurrence of a vector (*Pseudococcus maritimus* (Hemiptera: Pseudococcidae)) and improve grapevine leafroll disease management. J. Econ. Entomol. 114: 1452-1461; 10.1093/jee/toab091

Hogg B. N., M. L. Cooper, K. M. Daane. 2021. Areawide mating disruption for vine mealybug in California vineyards. Crop Protection 148; 105735; 10.1016/j.cropro.2021.105735.

Hobbs M. B., E. Klachky, M. L. Cooper. 2021. Addressing organizational climate can potentially reduce

- sexual harassment of female agricultural workers in California. California Agriculture 75(3):121-126; 10.3733/ca.2021a0014.
- Oliver C., M. L. Cooper, M. Lewis-Ivey, P. Brannen, T. Miles, W. Mahaffee, M. Moyer. 2021. Assessing the United States grape industry's understanding of fungicide resistance mitigation practices. American Journal of Enology & Viticulture72: 181-193;10.5344/ajev.2021.20062
- Beal D. J., M. L. Cooper, M. P. Daugherty, A. H. Purcell, R. P. P. Almeida. 2021. Seasonal abundance and infectivity of *Philaenus spumarius* (Hemiptera: Aphrophoridae), a vector of *Xylella fastidiosa* in California vineyards. Environ Entomol;10.1093/ee/nvaa178
- Al Rwahnih M., A. Diaz-Lara, K. L. Arnold, M. L. Cooper, R. J. Smith, G. Zhuang, M. C. Battany, L. J. Bettiga, A. Rowhani, D. A. Golino. 2021. Incidence and genetic diversity of grapevine Pinot gris virus in California, USA. Amer Journal of Enology and Viticulture 72: 164-169; 10.5344/ajev.2020.20044.
- Schartel T. E., M. L. Cooper, A. L. May, M. P. Daugherty. 2021. Quantifying vine mealybug (*Planococcus ficus* Signoret) invasion in northern California vineyards to inform management strategy. Environ Entomol 50: 138-148: 10.1093/ee/nyaa141
- Daane K. M., G. Y. Yokota, V. M. Walton, B. N. Hogg, M. L. Cooper, W. J. Bentley, J. G. Millar. 2020. Development of a mating disruption program for a mealybug, *Planococcus ficus*, in vineyards. *Insects* 11, 635; 10.3390/insects11090635.
- Girardello R. C., M. L. Cooper, L. A. Lerno, C. Brenneman, S. Eridon, M. Sokolowsky, H. Heymann, A. Oberholster. 2020. Impact of grapevine red blotch disease on Cabernet Sauvignon and Merlot wine composition and sensory attributes. Molecules 25, 3299; 10.3390/molecules25143299
- Hobbs M.B., T. Herrero, E. Klachky, M.L. Cooper. 2020. Leveraging pay and benefits as workforce retention strategies: insights from a case study of Napa vineyard workers. Catalyst 4:33-38.
- Blaisdell G.K., S. Zhuang, A. Rowhani, V. Klaassen, M.L. Cooper, K.M. Daane, R.P.P. Almeida. 2020. Trends in vector-borne transmission from co-infected hosts: *Grapevine leafroll-associated virus 3* and *Grapevine virus A*. Eur J Plant Path; 10.1007/s10658-019-01916-7
- Cooper M.L., M.B. Hobbs, B. Strode, L.G. Varela. 2020. Grape erineum mite: post-harvest sulfur applications reduce leaf blistering in the subsequent growing season. Calif Agric 74: 94-100; 10.3733/ca.2020a0012
- Hobbs M.B., E. Klachky, M.L. Cooper. 2020. Job satisfaction assessments of agricultural workers help employers improve the work environment and reduce turnover. Calif Agric 74: 177-186; 10.3733/ca.2020a0002
- Daane K.M., V.M. Walton, G.Y. Yokota, B.N. Hogg, M.L. Cooper, W.J. Bentley, J.G. Millar. 2020. Development of a mating disruption program for a mealybug, *Planococcus ficus*, in vineyards. Insects 11: 631. doi.org/10.3390/insects11090635
- Cooper M.L., M.B. Hobbs, C.L. Boser, L.G. Varela. 2019. Argentine ant management: using toxin-laced polyacrylamide crystals to target ant colonies in vineyards. Catalyst 3: 23-30; 10.5344/catalyst.2019.18009
- Arnold K. L., N. McRoberts, M.L. Cooper, R. J. Smith, D.A. Golino. 2019. Virus surveys of commercial vineyards show value of planting certified vines. Calif Agric 73: 90-95; 10.3733/ca.2019a0006
- Al Rwahnih M., A. Diaz-Lara, K. L. Arnold, M. L. Cooper, R. J. Smith, G. Zhuang, M. C. Battany, L. J. Bettiga, A. Rowhani, D. A. Golino. 2021. Incidence and genetic diversity of grapevine Pinot gris virus in California, USA. Amer Journal of Enology and Viticulture 72: 164-169; 10.5344/ajev.2020.20044.
- Schartel T. E., B.R. Bayles, M.L. Cooper, G. Simmons, S.M. Thomas, L.G. Varela, and M.P. Daugherty. 2018. Reconstructing the European grapevine moth (Lepidoptera: Tortricidae), invasion in California: insights from a successful eradication. Annals of the Entomological Society of America. doi: 10.1093/aesa/say056
- Cooper M.L., M.P. Daugherty, D.R. Jeske, R.P.P. Almeida, K.M. Daane. 2018. Incidence of grapevine leafroll disease: effects of grape mealybug (*Pseudococcus maritimus*) abundance and pathogen supply. Journal of Economic Entomology 111: 1542-1550.
- Ricketts K.D., M.I. Gomez, M.F. Fuchs, T.E. Martinson, R.J. Smith, M.L. Cooper, M. Moyer, A. Wise. 2017. Mitigating the impact of grapevine red blotch: Optimizing disease management strategies in U. S. vineyards. American Journal of Enology and Viticulture 68(1): 127-135.
- Kaplan J., R. Travadon, M. Cooper, V. Hillis, M. Lubell, K. Baumgartner. 2016. Identifying economic hurdles to early adoption of preventative practices: the case of trunk diseases in California winegrape vineyards. Wine Economics and Policy 5: 127-141.
- MacDonald S. L., M. Staid, M. Staid, M. L. Cooper. 2016. Remote hyperspectral imaging of *Grapevine leafroll-associated virus 3* in Cabernet Sauvignon vineyards. Computers and Electronics in Agric 130: 109-117.
- Cooper M. L., L. G. Varela, R. J. Smith, D. R. Whitmer, G. A. Simmons, A. Lucchi, R. Broadway, R. Steinhauer. 2014. A collaborative effort: grape growers, scientists and regulators respond to the European grapevine moth in California. California Agriculture 68(4): 125-133; 10.3733/ca.v068n04p125



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April 1, 2022

Napa County Groundwater Sustainability Agency (NCGSA) c/o Jamison Crosby Natural Resources Conservation Manager Dept. of Planning, Building and Environmental Services Napa, CA 94559

Subject: Recommendation for Dr. Monica Cooper to Napa County Groundwater Sustainability Agency (NCGSA) Technical Advisory Group (TAG)

Dear Manager Crosby and NCGSA:

Thank you for this opportunity to provide my support for Dr. Monica Cooper as a member of the NCGSA TAG. Dr. Cooper, as the UC Cooperative Extension (UCCE) Viticulture Advisor for Napa County, is an accomplished researcher and community educator, proven collaborator and team member, and committed member of the Napa County community. Each of these attributes will contribute to Dr. Cooper being a productive, constructive, and supportive TAG member.

Dr. Cooper is a recognized academic leader in the general field of viticulture and wine grape vine health, with specific expertise in the identification and management of vine pests and diseases. She is sought out by colleagues and counterparts across California, nationally, and internationally to make presentations and share the solutions and breakthroughs that have come from her work to sustainably grow wine grapes and reduce the impacts of pests and diseases through Integrated Pest Management. Her command of the scientific method, including experimental design and data analysis, contributed to the eradication of European Grapevine Moth from Napa County. This is just one of many examples demonstrating how Dr. Cooper has made a difference through her research.

As a complement to her scientific expertise and rigor, Dr. Cooper is committed to community members and lay audiences having access to science and technical information in ways that they can understand and use it to improve their lives and community. Dr. Cooper has transitioned from the didactic, expert to the learner delivery of information. Alternatively, she has innovated the dissemination and exchange of information through neighborhoods of peer learners, reaching more learners with content that is culturally relevant and tailored for their application. External evidence of Dr. Cooper's strong orientation to effective, purposeful learning was recently offered in 2019 when she was recognized with the Extension Distinction Award by the American Society for Enology and Viticulture. This award recognizes the society's most impactful educator of the year.

In her scientific and education endeavors, Dr. Cooper values teamwork and collaboration. An underpinning of her work is the understanding that problems are complex and require multi-disciplinary teams. Adding to this is the value she places on broad, inclusive participation of stakeholders in problem solving so developed solutions are feasible and have ownership in their

implementation. Dr. Cooper is successful at connecting with and enrolling other academic and technical experts to collaborate with her on research and education. She successfully collaborates with and contributes to local organizations and agencies, merging complementary roles and functions to raise the capacity of the whole. She also leads a strong, integrated program team of five individuals that bring diverse experiences and skill sets to successfully complete projects.

Dr. Cooper works and more importantly lives in Napa County. This is intentional on her part due to her sense of belonging to the Napa County community. It also is part of the UCCE's mission to embed UC academics, like Dr. Cooper, in local communities to forge relationships and contribute to community capacity. It is worth noting that Dr. Cooper is bilingual and highly functional in Spanish, having utilized her language skills to grow community relationships and deliver educational programs. She also has made significant contributions to local committees focused on diversity, equity, and inclusion in Napa County wine grape growing community. Specifically, she has contributed to or led efforts to advance the role women and people of color through farm employee professional development programming.

Dr. Cooper is a world class researcher and educator in her field. As the UCCE Viticulture Advisor for Napa County she is networked with UC Land Grant resources and can access content and expertise within that network to address local needs and problems. She is a proven member and manager of partnerships and diverse teams. Lastly, she is a committed and connected community member of Napa County. For these reasons I am confident Dr. Cooper will be a valuable and trusted resource and contributor to the NCGSA TAG and recommend fullest consideration of her application.

Please do not hesitate to contact me with any questions or if additional information is needed.

Thank you,

David J. Lewis

Director

djllewis@ucanr.edu