

May 14, 2021

Dear Search Committee Members:

I am enthusiastically applying for the position of Director of the CSU Center for Agricultural Research, Innovation, and Education (CARIE) at Spur because I am passionate about agriculture and the land-grant mission and have skills to offer which are an excellent fit for the job. Below I will describe some of my experiences and demonstrate how they are relevant to the qualifications that you seek in the CARIE Director.

✓ *An earned Master's degree in agricultural sciences, natural resources, or closely related field*

I earned my MS degree in Soil Science from Texas Tech University in 1984.

✓ *At least five years of significant leadership and/or administrative experience*

I have been the Department Head of the Department of Horticulture & Landscape Architecture (HLA) at Colorado State University since 2016. Other roles held at CSU include Director of the Institute for Livestock and the Environment from 2008-2012 and Deputy Director of the USAID Collaborative Research Support Program on Adapting Livestock Systems to Climate Change from 2010-2011.

✓ *Demonstrated ability to develop effective relationships with diverse stakeholders*

I have worked with a wide variety of stakeholders during my career at CSU. Before I came to HLA, I routinely worked with the Colorado Department of Public Health and Environment, the National Park Service, the Environmental Defense Fund, Nature Conservancy, Rocky Mountain Agri-business Association, the Colorado Corn Administrative Committee, the Colorado Association of Wheat Growers, and the Colorado Livestock Association. I often coordinated multi-state projects working with other land grant universities in Utah and New Mexico and in Region 8 of the U.S. EPA (6 states). I also had a productive collaboration with Hawassa University in Ethiopia and mentored eight MS students at Hawassa through that collaboration.

Since coming to HLA in 2016, my work with stakeholders has changed. I have worked with several NGOs to develop service-learning opportunities. Our work with ReVision in the Westwood neighborhood of Denver and the Food Bank for Larimer County are described in the next section. In addition, we initiated the Landscape Architecture Alumni Advisory Board and the Landscape Architecture Professional Community Advisory Board with whom we meet twice per year. They provide guidance to our Landscape Architecture program and connect with and mentor our students in both formal and informal ways. I also serve on the Colorado Wine Industry Development Board organized through the Colorado Department of Agriculture (CDA) and also interact regularly with the Colorado Nursery and Greenhouse Association (CNGA) and the Colorado Fruit and Vegetable Growers Association (CFVGA).

Several of our HLA department members are located at the San Luis Valley Research Center (SLVRC), and this has led to my engagement with the potato industry. In addition to three tenured faculty, the Potato Certification Service (PCS) is based at the SLVRC, and their seven employees are part of HLA. Therefore, I have worked closely with the Colorado Certified Potato Growers Association (CCPGA), the Colorado Potato Administrative Committee (CPAC; specifically, their Research Committee), and the CDA Seed Potato Act Advisory Committee. I will highlight two achievements we have made in partnership with the potato industry during these past five years. I worked with CPAC to develop an External Scientific Review process for their proposals, because they were dissatisfied with the scientific rigor of the proposals they were receiving. The number and quality of proposals has increased dramatically in the past several years. We negotiated and completed the revision of our Memorandum of Understanding (MOU) with CCPGA on

Plant Variety Protection and made substantial changes to the MOU to support the seed growers. We surveyed seed potato certification programs in other states, hired an external reviewer for PCS, and ultimately decided to have PCS separate from CCPGA. I worked with Andrew Houser (PCS Manager) to develop a business plan, a new fee structure, and an Advisory Council, and these changes are now in effect (as of April 1, 2021). My goal in all of these relationships is to strengthen the Colorado potato industry, both the seed and commercial parts of the industry, and to enhance the quality and impact of CSU's contributions to that industry.

✓ *Demonstrated commitment to principles and strength of diversity and inclusive excellence in people and programs*

I have demonstrated my commitment to justice, equity, diversity, and inclusion in several ways during the last five years: education of myself and my department members, implementing High-Impact Practices for Retention and Student Success, changing the physical artifacts in department spaces to represent more diverse people, and improving the gender balance in our faculty and our student body.

In addition to supervisor training workshops, I have participated in the Creating Inclusive Excellence training program, the Social Justice Institute, Creating Inclusive Conversations, and Pride Safe Zone Training at CSU, and the Annual National Conference on Race and Ethnicity in American Higher Education (NCORE), and I am registered for the Intergroup Relations Institute (May 18-21, 2021). In addition, I took ETST 250 African American History in Fall 2020 and ETST 253 Chicana History and Culture in Spring 2021 in addition to six semesters of Spanish earlier in my career at CSU.

In addition to my own education, I have routinely scheduled trainings for HLA faculty and staff on DEI topics. These have often been incorporated into our biannual retreats because we can set more time aside in those settings to focus on these important topics. Our departmental Diversity Catalyst Team has been developing a strategic plan for DEI in HLA. Therefore, they led a 1-hr discussion to lay the foundation for that plan in January 2021, and scheduled a training for faculty, staff, and graduate students on Unconscious Bias in May 2021.

HLA implemented several High-Impact Educational Practices during my tenure as Head. High-Impact Practices for Retention and Student Success benefit all students, but especially those from disadvantaged communities. In HLA, we have been working on several High-Impact Practices with a focus on becoming a welcoming place for all and specifically on improving retention of students who are minoritized and/or from disadvantaged communities.

- First-Year Seminar (HORT/LAND 192)--AGRI 192 was no longer functional for HLA. We have changed the prefix to be cross-listed HORT and LAND, and it is now required for all HLA majors. The class creates a sense of belonging in HLA and lays building blocks for success in college.
- Internship (HORT 487 and LAND Externships)--Most of our Horticulture and Environmental Horticulture majors are required to do an Internship. However, it wasn't being managed optimally, so in 2018 we committed 50% of an AdminPro position to being our departmental Internship Coordinator (Sarah Wilhelm) and named a Faculty Liaison (Mark Uchanski, currently Shannon Mason) to formalize policies and procedures for Internships. In addition, in 2019 we began Landscape Architecture Externships (1-wk placements in Landscape Architecture firms), organized by Jane Choi.
- Service Learning, Community-Based Learning (HORT/LAND 496)--HLA has been actively engaged in both experiential and service-learning methods for many years. We began a team-taught Group Study course to build on this foundation and to meet the following department goals of bringing our students (and faculty) together in a unifying and impactful project, improving our

cultural competence by engaging with diverse communities, and enhancing the diversity of our student body over the long-term. For this Group Study course, we sought partnerships with non-profit organizations that could engage students in all three of our majors. In Spring 2019, we worked with ReVision, a non-profit working in the Westwood neighborhood of Denver (81% Hispanic/Latinx) that cultivates thriving, resilient communities by developing local leaders, growing community food systems, and building a locally owned economy. In Spring 2020, we partnered with the Food Bank for Larimer County which ensures that those in our community who are hungry have convenient access to free, healthy and nutritious food; the Food Bank clientele is roughly 35% Hispanic/Latinx. In both cases, there were opportunities in both landscape horticulture (including design) and vegetable production. We spent the first several weeks learning about social identities, food insecurity, immigration, food justice, and cross-cultural communication in order to build our understanding and cultural competence prior to our engagement with the non-profits.

In our educational institutions, physical artifacts communicate important messages about our educational climate and values. These physical artifacts tell current and prospective students, as well as faculty and staff, who is valued. In 2016, HLA was a department disproportionately dominated by men, both in the faculty ranks and student enrollment. A team of HLA faculty developed the Portraits of Inclusion project to celebrate the contributions of women to our disciplines, to inspire our students, and to foster a climate of inclusion and gender equity in an effort to increase female undergraduate and graduate student numbers and retention of those students. A photographic exhibition of women leaders from a variety of ethnic and cultural backgrounds in the fields of Horticulture and Landscape Architecture was developed and accompanied by brief biographies of the women in their own words. The exhibition was displayed in the Lory Student Center, and an opening reception was held including some of the featured women, who discussed their involvement in the project and their experiences as female-identifying people working in their respective fields. These museum-quality photographs will be displayed in our Department spaces in the Nutrien Building after its completion in 2022.

In 2016, HLA's undergraduate and graduate student bodies were 38-39% female and 61-62% male, and the faculty was 21% female and 79% male. We have improved the gender balance of the student body, so that it is currently 49% female in the undergraduate population and 48% female among graduate students. In addition, we have hired 11 new faculty since 2016 (including two Hispanic/Latinx faculty) resulting in a current female percentage of faculty of 32% in 2021.

✓ *Valid driver's license*

I have had a Colorado driver's license since 1995.

✓ *An earned PhD degree in agricultural sciences, natural resources, or closely related field*

I earned my PhD in Soil Science from Texas A&M University in 1989.

✓ *At least five years leadership and/or administrative experience within higher education at a rank equal to or more advanced than an academic department head*

I have been the Department Head of the Department of Horticulture & Landscape Architecture at Colorado State University since 2016. More information about my role and accomplishments in this position are included in my resume and this document.

✓ *Demonstrated experience in guiding an organization's mission through appropriate combination of education, research, and stakeholder outreach/engagement*

The Department of Horticulture & Landscape Architecture at CSU is widely diverse including three majors (one of which is a design discipline) and faculty located at three of our Agricultural Experiment Station research centers (Arkansas Valley, San Luis Valley, and Orchard Mesa—part of the Western Colorado Research Center). It has been my intent to value and support all of the programs equally and to encourage faculty and staff to value and support each other, as well. While we were enhancing our educational offerings (see next bullet for more information), we also made significant investment in new faculty positions with large research appointments. This was critical for increasing our capacity for graduate training and enhancing our income from grants, while also developing a strong core of faculty in the area of Horticulture & Human Health. In addition, I was able to spread our Extension funding out to more faculty so that we built a broader commitment to outreach and engagement. The magic and potential of land-grant universities depends upon the synergy of teaching, research, and engagement, and I have worked hard to strengthen all three of these areas within HLA.

✓ *Significant leadership experience in new program and unit development for an organization*

Before I became a department head, I focused for many years on manure management and then, more broadly, on impacts of livestock on the environment. I developed a broadly multi-disciplinary institute called the Institute for Livestock and the Environment which involved 30 faculty from five colleges and worked closely with diverse stakeholders, as well. Our focus was solving problems at the interface of livestock and the environment (please see my resume for more information).

More recently, the new programs that I have been a part of have been primarily curricular. Specifically, HLA accepted its first students into the Online Horticulture degree in Fall 2017. This program had been under development for years prior to my joining the department, so my role was focused on incentivizing faculty to participate through income sharing because we had students enrolling but didn't yet have the full slate of courses available online. The Online Horticulture degree program is now the largest Online degree offered by CSU with ~150 students.

HLA also developed several new graduate programs during my tenure as department head. We currently offer an MS-Plan B in Horticulture & Human Health and two graduate certificates: 1) Urban Agriculture and 2) Horticulture & Human Health. Faculty are enthusiastic about these opportunities and are currently developing plans for two additional graduate certificates.

✓ *Demonstrated supervision/management, communication and interpersonal skills*

I currently supervise 30 faculty, 5 Administrative Professionals (including 2 Academic Success Coordinators), and 2 State Classified positions.

When I joined HLA, there was considerable dissatisfaction and sometimes conflict among the office staff. We had two people with Academic Success Coordinator (ASC) titles but with considerable administrative roles, so they were often pulled in different directions and had difficulty prioritizing the demands on their time. First, we attempted to eliminate unnecessary administrative tasks and improve efficiency on the remaining tasks. Then in 2019, we had two departures and were able to hire three new people and clarify everyone's job descriptions, so we now have an Assistant to the Department Head, an Office Manager, and 2 ASCs. This re-organization has resulted in improved teamwork and morale.

I am often asked to mediate difficult situations within my department. These are usually conflicts between faculty members and students (undergraduate or graduate) or research associates. I typically meet with each person individually, work to identify common goals and desired outcomes, and then meet

with both parties together. Although these are always difficult situations and often emotional, I get great satisfaction when I am able to mediate to a successful conclusion.

✓ *Demonstrated experience in developing and implementing interdisciplinary programs*

In 1989, during my first week on the job in my first faculty position at the University of Georgia's Coastal Plain Experiment Station, a dairy scientist came to my office to invite me to collaborate on an interdisciplinary project on manure management and water quality. This project set the stage for my career in interdisciplinary collaborations. I have collaborated widely across disciplines both within the College of Agricultural Sciences and with faculty in engineering, sociology, natural resources, veterinary medicine, and business. In addition, I have also led multi-state teams on potassium fertilization of cotton and on manure management extension. Interdisciplinary collaboration is an absolute necessity for us as we serve students, solve real-world problems, and meet stakeholders' needs. For one example of an interdisciplinary program that I led, please see the paragraph about the Institute for Livestock and the Environment in my resume.

The Department of Horticulture & Landscape Architecture (HLA) is innately interdisciplinary. The Horticulture side alone includes ornamental and landscape horticulture, controlled environments and field production, pomology and olericulture from genetics to storage and produce safety and quality, including phytochemistry. Landscape architecture is innately integrative, considering ecological and sociological impacts of built landscapes. When I came to HLA, it was difficult to bring all of the sub-disciplines together under one overarching vision. Ultimately, it became clear that all of the HLA programs contributed to *enhancing human health and community well-being*. Under that umbrella, we have been able to hire several new faculty members in Food Quality (Prenni), Produce Safety (Gutierrez Rodriguez), and Nutritional Genomics (Rhodes) focusing specifically on human health. In addition, HLA has recently developed both a Graduate Certificate and an MS-Plan B in Horticulture and Human Health to train students in this arena.

✓ *Experience in collaborative priority setting and decision making*

I have led a strategic planning process in HLA since 2016. We began by splitting into teams with specific focus areas (for example, the Graduate Program or Research Centers), and each team prepared a SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis, and then developed goals and strategies to achieve those goals. The teams reported back to the larger groups, and the plans were revised based on feedback. At bi-annual retreats, we have rotated through the five areas to report back and make plans for next steps. I consider strategic plans to be roadmaps for specific action plans, but also that they should be living documents that are continually re-evaluated and modified depending on other developments and considerations.

The HLA faculty developed some aspirational targets, and we have met many of them because people followed through and did what they said they would. I feel that an important part of our success was due to the grassroots nature of our goal setting, so people were bought in and felt ownership of the departmental goals. Here are a few examples:

- In January 2017, we set a goal to grow our undergraduate student body from 285 (Fall 2016) to 450 by Fall 2021 (a 58% increase). By Fall 2019, we had 490 students and have remained stable at this level through the pandemic.
- We aimed to get back to a graduate enrollment of 42 in spite of the discontinuation of the MLA degree in Spring 2017. This would require a 60% increase in Horticulture MS and PhD students in order to maintain graduate student numbers. Again, HLA surpassed its own goal with 46 graduate students in Fall 2020.

Each goal had many strategies to achieve it, and not all of those strategies worked, but because we had a lot of pathways to achieve our goals, we were still able to surpass our targets.

✓ *Demonstrated experience in allocating, directing and monitoring large scale annual budgets*

The HLA departmental budget is \$3.3 million/year (including base, online income, differential tuition, and indirect cost recovery). Early in my term as department head, I developed several policies with faculty input including GTA assignments, professional development grants for faculty, and distribution of income from online courses. I then used these policies to guide budget decision-making. In addition, we adjusted funding sources to fit faculty appointments in 2017 and have checked these annually to make adjustments as needed. Through all budgetary decisions, I worked closely with our departmental accountant (Sarah Solano) with a deep commitment to fairness in all matters.

✓ *Demonstrated ability to be fiscally responsible and adaptively manage resources with creativity and innovation*

We have been very fortunate in HLA during the past five years. In Fall 2017, a new Online Horticulture major began accepting students (this effort was initiated before my move to HLA), and this program is now the largest Online major at CSU with ~150 students. I mention this again here because the income from our Online courses has been essential to be able to balance the budget when the pandemic recession hit in 2020. As we were pressed to cut the budget, Sarah Solano and I worked closely together, running a variety of models to determine the best approach. I met with faculty several times during the summer of 2020 to document the challenge before us and discuss alternative solutions. Ultimately, I made the decision to change the Online income distribution; faculty had been receiving 75% of the income to the department, and I had to make the difficult decision to reduce that to 60%. Many faculty were unhappy, but as a result of this decision, we were able to maintain our GTA program which we all agreed was beneficial to the undergraduate students, the graduate program, and the faculty.

✓ *Experience overseeing or administering educational programs for K-12 audiences*

I do not have a lot of experience with K-12 audiences. However, several years ago my research associates and I did receive funding for the development of a 4-H Manure Management educational program from the Western Sustainable Agriculture Research and Education Program, and we developed materials for students and 4-H leaders with a Manure Management focus.

In the past year, as we have been preparing to move forward with HLA programming at Spur, we have developed a relationship with the Bruce Randolph School (6-12 grades) in the adjacent neighborhood. We (including Drs. Bousset, Craver, and Newman) have helped in the development of the Ag Pathway at Bruce Randolph School through brainstorming, partnership in budgeting and grant-writing, and seeking permission to offer HORT100 through concurrent enrollment at community college tuition rates.

I would be honored to put my skills and passion to work to advance the Center for Agricultural Research, Innovation, and Education at Colorado State University's Spur Campus. Thank you very much for considering my application. Please contact me with any questions you may have.

Sincerely,



Jessica G. Davis

JESSICA G. DAVIS



Academic Credentials

Cornell University	Agronomy (Minor in International Agriculture)	B.S., 1983
Texas Tech University	Soil Science	M.S., 1984
Texas A&M University	Soil Science	Ph.D., 1989
Boston University	Entrepreneurship	Graduate Certificate, 2013

Academic Positions

Instructor, Texas A&M University, 1985-1986
Junior Scientist, Tropical Soils Collaborative Research Support Program, U.S. Agency for International Development (USAID), Niger, West Africa, 1986-1987
Assistant Professor, Department of Crop & Soil Sciences, Coastal Plain Experiment Station, University of Georgia, 1989-1995
Associate Professor and Extension Specialist, Department of Soil & Crop Sciences, Colorado State University, 1995-2001
Professor and Extension Specialist, Department of Soil & Crop Sciences, Colorado State University, 2001-2016
Director, Institute for Livestock and the Environment, Colorado State University, 2008-2012
Deputy Director, USAID Collaborative Research Support Program on Adapting Livestock Systems to Climate Change, Colorado State University, 2010-2011
Affiliate Faculty, School of Plant Science and Horticulture, Hawassa University, Ethiopia, 2012-2016
Department Head, Department of Horticulture & Landscape Architecture, Colorado State University, 2016-present

Fellowships in Scientific Societies

American Society of Agronomy (2004)
Soil Science Society of America (2004)
Soil and Water Conservation Society (2009)

Publications and Presentations

Journal Articles: 77	Book Chapters: 9	Proceedings: 70
Bulletins: 21	Extension Factsheets: 47	Newsletter Articles: 105
Abstracts: 184	Popular Articles: 8	Reports: 125+
Invited Presentations: 80+	Extension Presentations: 400+	

Journal Articles Published in Last Five Years (2017-2021)

Afkairin, A., J.A. Ippolito, M. Stromberger, and J.G. Davis. 2021. Solubilization of organic phosphorus sources by cyanobacteria and a commercially available bacterial consortium. *Applied Soil Ecology* 162. <https://doi.org/10.1016/j.apsoil.2021.103900>
Asmamaw, M., G. Wolde, M. Yohannes, S. Yigrem, E. Woldemeskel, A. Chala, and J.G. Davis. 2019. Comparison of cyanobacterial bio-fertilizer with urea on three crops and two soils of Ethiopia. *African Journal of Agricultural Research* 14: 588-596.

- Erwiha, G.M., J. Ham, A. Sukor, A. Wickham, and J.G. Davis. 2020. Organic fertilizer source and application method impact ammonia volatilization. *Communications in Soil Science and Plant Analysis* <https://doi.org/10.1080/00103624.2020.1784919>
- Gebre, E., T. Degefu, E. Wolde-meskel, A. Lelago, and J. Davis. 2017. Response of kale (*Brassica oleracea* L.) crop to cyanobacterial biofertilizer in Ziway area, Ethiopia. *Chemistry and Materials Research* 9 (9) ISSN 2225-0956.
- Gray, J.L., T. Borch, E.T. Furlong, J.G. Davis, T.J. Yager, Y. Yang, and D.W. Kolpin. 2017. Rainfall runoff of anthropogenic waste indicators from agricultural fields applied with municipal biosolids. *Science of the Total Environment* 580: 83-89. <http://dx.doi.org/10.2016/j.scitotenv.2016.03.033>.
- Hurisso, T.T., J.G. Davis, A. Chala, A. Getachew, and E. Wolde-meskel. 2021. Impacts of Grinding and Acidification of Animal Bones with Coffee Wastewater on Plant Dry Matter Yield and Recovery of Phosphorus. *Communications in Soil Science and Plant Analysis*, DOI: 10.1080/00103624.2021.1872603
- Isweiri, H., Y. Qian, and J. Davis. 2021a. Comparison of fresh versus effluent water irrigation on soil chemical properties of golf course greens and fairways. *International Turfgrass Society Research Journal*. DOI: 10.1002/its2.42.
- Isweiri, H., Y. Qian, and J. Davis. 2021b. Interactive effects of waterlogging and salinity on perennial ryegrass and alkaligrass. *International Turfgrass Society Research Journal*. DOI: 10.1002/its2.60
- Mikha, M.M., D.P. Widiastuti, T.T. Hurisso, J.E. Brummer, and J.G. Davis. 2017. Influence of composted dairy manure and perennial forage on soil carbon and nitrogen fractions during transition into organic management. *Agriculture* 7: 37. doi:10.3390/agriculture7050037.
- Sterle, D.G., F. Stonaker, S. Ela, and J.G. Davis. 2021. Cyanobacterial biofertilizer as a supplemental fertilizer for peaches: Yield, trunk growth, leaf nutrients and chlorosis. *Journal of the American Pomological Society*. In Press.
- Sukor, A., F.S.M. Amer, J. Vanamala, and J.G. Davis. 2021. Phytohormones in organic fertilizers influence β -carotene concentration and marketable yield of lettuce (*Lactuca sativa*). *Acta Horticulturae*. In Press.
- Wenz, J., J.G. Davis, and H. Storteboom. 2019. Influence of light on endogenous phytohormone concentrations of a nitrogen-fixing *Anabaena* sp. cyanobacterium culture in open raceways for use as fertilizer for horticultural crops. *Journal of Applied Phycology* 31: 3371-3384.
- Widiastuti, D., and J.G. Davis. 2020. Optimization of the nutrient growing solution and inoculation rate for *Azolla mexicana* production and use as fertilizer. *Journal of Plant Nutrition*. DOI: 10.1080/01904167.2020.1849287
- Wolde, G., M. Asmamaw, M.Y. Sido, S. Yigrem, E. Wolde-meskel, A. Chala, H. Storteboom, and J.G. Davis. 2020. Optimizing a cyanobacterial biofertilizer manufacturing system for village-level production in Ethiopia. *Journal of Applied Phycology* <https://doi.org/10.1007/s10811-020-02221-1>
- Yoder N., and J.G. Davis. 2020. Organic fertilizer comparison on growth and nutrient content of three kale cultivars. *HortTechnology* 30: 176-184.

Grants

Received as PI: \$8,582,535

Received as co-PI: \$17,986,169

Total: \$26,568,704

Awards

- 1988, J. Fielding Reed Fellowship, Potash and Phosphate Institute.
- 1995, Distinguished Research Award, Sigma Xi, Tifton, GA branch.
- 1996, Educational Materials Awards Program, American Society of Agronomy, Division A-4 Extension Agronomy. Category: Display.
- 1996, Certificate of Merit in Research, United States Department of Agriculture, Agricultural Research Service.
- 1998, Educational Materials Awards Program, American Society of Agronomy, Division A-4 Extension Agronomy. Category: Newsletter.
- 1999, Novartis Crop Protection Recognition Award, American Society of Agronomy.
- 2000, F.A. Anderson Distinguished Service Award, Colorado State University Cooperative Extension.
- 2001, Certificate of Appreciation, United States Department of Agriculture, Natural Resources Conservation Service.
- 2004, Agronomic Extension Education Award, American Society of Agronomy.
- 2007, Educational Materials Awards Program, American Society of Agronomy, Division A-4 Extension Agronomy. Category: Poster.
- 2009, Educational Materials Awards Program, American Society of Agronomy, Division A-4 Extension Agronomy. Category: Video.
- 2012, Educational Materials Awards Program, American Society of Agronomy, Division A-4 Extension Agronomy. Category: Video.
- 2012, Educational Materials Awards Program, American Society of Agronomy, Division A-4 Extension Agronomy. Category: Publication over 16 pages.
- 2012, Team Award, Colorado State University Cooperative Extension.
- 2020, Who's Who in Agriculture (Denver Business Journal).

Teaching Experience

I developed and taught the following courses at CSU (*team taught):

- ANEQ 300-O (1 credit) Nutrient Management of Animal Waste (1996-1999)
- SOCR 792 Seminar (2001)
- SOCR 564 Soil Chemical Analysis (2001-2003)*
- ANEQ 448/SOCR 448 (3 credits) Manure Management & the Environment (2002-2008)
- ANEQ 548/SOCR 548 (3 credits) Issues in Manure Management (2004-2008)
- SOCR 171/HORT 171 (3 credits) Environmental Issues in Agriculture (2006-2009)
- SOCR 345/HORT 345 (2 credits) Diagnosis & Treatment in Organic Fields (2007)*
- ANEQ 300-W (1 credit) Equine Manure Management (2007-2010)
- SOCR 424/HORT 424 (3 credits) Topics in Organic Agriculture (2008)*
- SOCR 481/CIVE 481 Water & Wastewater Recycling (2010)*
- SOCR 350 (3 credits) Soil Fertility Management (2013-2015)
- SOCR 351 (1 credit) Soil Fertility Laboratory (2013-2015)
- SOCR 475 (3 credits) Global Challenges in Plant & Soil Sciences (2010-2016)*
- HORT 792 (1 credit) Seminar (2016-present)
- AGRI 192 & HORT/LAND 192 (1 credit) Orientation to Hort. & Landscape Arch. (2017-present)
- HORT/LAND 496 (credits) Group Study in Community Engagement (2019-2020)

Graduate Advising

I have advised 37 graduate students to completion of their degrees (9 PhD, 23 MS, and 5 MAg).

In addition, I served as the Coordinator of the Graduate Panel in Soil & Crop Sciences from 2013-2015. In this role, I improved efficiency of the graduate student application review process, coordinated the review of applications, coordinated the selection of graduate students for departmental awards, provided welcome and general advising support to all departmental graduate students, and surveyed graduate students in order to better meet their needs.

I was also the Coordinator of the MAg Peace Corps Masters Internationalist program for the College of Agricultural Sciences (2009-2016).

I have also served on numerous graduate committees for students in the Departments of Animal Sciences, Agricultural and Resource Economics, Atmospheric Science, Extension Education, Civil Engineering, Horticulture and Landscape Architecture, Food Science and Human Nutrition, and Sociology.

Service

1998-2000, Specialist representative to the Colorado Extension Director's Advisory Council.

1999, President, Colorado Extension Specialists Association.

1999, Chair, Division S-6 (Soil and Water Management and Conservation), Soil Science Society of America.

1999-2000 and 2004, Soil Science Society of America Board of Directors.

2002-2003, President, Western Soil Science Society.

2002-2006, Associate Secretary, Division 3, Soil Use and Management, International Union of Soil Science.

2005-2007, Associate Editor, Agronomy Journal.

2005-2007, Eastern Slope Director, Board of Directors, Soil and Water Conservation Society, Colorado Branch.

2012-2015, Global Agronomy Representative, Board of Directors, American Society of Agronomy.

2016-2018, President-Elect, President, and Past President, American Society of Agronomy.

International Experience

1986-1987, Junior Scientist, Tropical Soils Collaborative Research Support Program, U.S. Agency for International Development (USAID), Niger, West Africa.

1998, Visiting Scientist at the Agriculture and Agri-Food Canada, Lethbridge Research Centre in Alberta, Canada. Paid for by the Canada Alberta Beef Industry Development Fund.

2005, Fulbright Scholar in Environmental Sciences, Argentina and Uruguay.

2010-2011, Deputy Director, USAID Collaborative Research Support Program on Adapting Livestock Systems to Climate Change, Colorado State University.

2012-2016, Affiliate Faculty, School of Plant Science and Horticulture, Hawassa University, Ethiopia.

Spring 2022, Academic Dean, Semester at Sea.

I have also been actively involved in applied research and outreach in partnership with NGOs in Guatemala (with World Neighbors) and in Cambodia (with Sustainable Schools International).

Leadership/Administrative Experience

I served as the Soil & Crop Sciences Department's Extension Coordinator from 1997-2001 and as the Coordinator of the Graduate Program from 2013-2015. In addition, I have had three other substantial administrative roles during my tenure at CSU.

Director, Institute for Livestock and the Environment, Colorado State University, 2008-2012

In 1999, I began to form an inter-disciplinary team of scientists at Colorado State University to evaluate the environmental, economic, and social impacts of animal feeding operations on rural and urban communities and to enhance the beneficial impacts of animal agriculture while helping to solve problems arising from negative impacts. What began with two colleagues within the College of Agricultural Sciences in 1999 blossomed into the Institute for Livestock and the Environment (ILE) in 2008. The ILE included about 30 faculty members from five colleges (Agricultural Sciences, Engineering, Liberal Arts, Natural Resources, and Veterinary Medicine) organized into five working teams: ecosystems, air quality, water use and quality, pathogens, and pharmaceuticals. Each of these teams was multi-disciplinary including both physical and social scientists from campus as well as field extension staff. I served as the director of the ILE for five years, whose mission was to solve problems at the interface of livestock production and environmental management.

Deputy Director, USAID Collaborative Research Support Program on Adapting Livestock Systems to Climate Change, Colorado State University, 2010-2011

I served as the deputy director of the Adapting Livestock Systems to Climate Change CRSP (Collaborative Research Support Program) funded by USAID. In that role, I managed a budget of \$20.25 million, a leadership team of four, and 1 full-time and 3 part-time support staff. We utilized RFPs to select projects to support in order to achieve our strategic objectives in Africa and Asia and managed 16 projects.

Department Head, Dept. of Horticulture & Landscape Architecture, Colorado State University, 2016-present

As department head, I am responsible for all strategic, operational, financial and human resource activities of the Department of Horticulture and Landscape Architecture, as well as serving as a contributing member of the leadership team for the College of Agricultural Sciences (CAS). In addition, I led HLA's proposal for engagement at the National Western Center (now known as Spur) and have served on the CAS National Western Center Leadership Team since 2018, working with faculty to develop program proposals, prioritize efforts, and develop budgets. Specifically, my role was as the lead of Research and Extension within the CARIE vision (H. Chouinard was over Education, and M. Wallenstein over Innovation), and I focused my efforts on supporting faculty as they developed the Community Food Systems and the Green Roof & Controlled Environment Agriculture proposals and budgets. I have also represented the College of Agricultural Sciences on the President's Sustainability Commission, the International Affairs Committee, and the Statistics Lab Advisory Team.