

## JOB DESCRIPTION:

# Senior Scientist

## WHY WORK WITH MAD AGRICULTURE?

Our mission is to create a regenerative revolution in agriculture. At Mad Ag we believe that healing our relationships to self, others and the earth is our highest calling. To do this, we put radical ideals to work. We see no division between the work of the heart, soul, and mind. Our day-in, day-out work is focused on helping farmers and ranchers transition to and thrive in regenerative organic agriculture. We provide farming families land & business support, access to equitable financing, and values-aligned markets. We also work to tell the story of regeneration using a variety of communication approaches that often include collaborations within our community.

Mad Agriculture is a fast-paced startup and action-oriented organization seeking exemplary individuals committed to the revolution. Our culture is entrepreneurial and deeply rooted in a commitment to creating services and products that meet the deepest needs of the farmers, ranchers and land that we serve. MAD! currently works in 33 US states with over 100 farmers and ranchers. The majority of the farmers we serve raise staple crops and livestock at medium to large scale, however we are working more and more with smaller diversified farmers and historically underserved communities. The position is on the Mad Lands team of Mad Agriculture and will report directly to the Director of Lands.

## THE ROLE

The **Senior Scientist** will be an exemplary scientist with an entrepreneurial penchant for accelerating regenerative organic agriculture.

### **This role will have these core duties:**

- 1) Develop commanding knowledge of the benefits of regenerative agriculture for the ecological, social, and economic elements of agriculture. This knowledge will be based on your experience, and gained by keeping a close pulse on the literature and growing your social network of scientists and collaborators.
- 2) Lead our Impact reporting for Mad Agriculture. Lead the methodological development and collection of data across a wide range of metrics, such as number of farmers, acres, regenerative practices, social impact, carbon sequestration, biodiversity benefits and more.
- 3) Lead our in-field impact program. With a subset of our farm partners, work to measure, report and verify the ecological, social and financial outcomes of regenerative organic agriculture using field-based research. Manage our field work and our vendors to complete sampling, analysis, interpretation, write-up and publication in newsletters, white papers, memos, and occasional peer-reviewed publications.
- 4) Create communication assets and share our learnings to our #1 stakeholder, farmers, about insights and feedback on best practices. Also, communicate our learnings with policy makers, funding partners, thought leaders in the natural climate solutions sector. Be the MAD! spokesperson on all things related to the science of regenerative agriculture.
- 5) Work with our ED and Director of Development to find and win major grants to fund our scientific work, and potentially build your team.

- 6) Work with our sister companies Mad Capital and Mad Markets to help them understand the impact of their work.

## RESPONSIBILITIES

### **Leadership & Business**

- Represent Mad Agriculture as a leader in the emerging natural capital and ecosystem service marketplace, which will include speaking engagements, conferences and panels.
- Get to know all of the leaders in the natural asset space (i.e. Yardstick, EarthOptics, Regrow, Regen Network, etc.), understanding their approaches, strategies, and potential for partnership. Have a very strong working knowledge of how the MRV space is developing, with a clear understanding of the pros and cons of various approaches.
- Collaborate with the Executive Director and the Director of Operations to fundraise for our scientific efforts.
- Lead MAD! understanding and communication of the ecological, economic and social benefits or tradeoffs of regenerative agriculture, knowing what is 'known', 'not known', 'sort of known', and so forth. Develop a command of knowledge ranging from the impacts of cover crops to livestock to crop diversification and more on carbon, water, biodiversity etc. Know what are the core questions that need to be answered, and who is at the cusp of answering them.
- Create a MAD! wide annual impact report. Develop impact reporting and educational materials to support the training and animation of our teams and other stakeholders on regenerative organic agriculture.
- Work with our sister organizations, Mad Capital and Mad Markets, to provide strategic insights on our impact across services. Work with our Markets team to build impact reports for food brands and purchasers. Work with our Capital team to communicate impact to investors and financing partners.
- Work with Mad Media to communicate scientific learnings to our audiences, ranging from farmers, policy makers, funders, and the general public through a variety of mediums, such as newsletters, social media, video and other digital media, and more.

### **Scientific Investigation & Project Management**

- Lead and oversee all scientific projects of Mad Agriculture.
- In 2021, we launched a robust research project to deeply investigate the financial and ecological impact of transitioning to regenerative and organic agriculture. On select farms we conduct field research, collecting data on soil carbon, health and fertility; biodiversity of plants, insects and birds; and elements of the water cycle. We also measure the nutrient density of the crops that our farm partners grow and sell. Lead the research team and effort to collect this data and see projects through to completion.
- Maintain direct relationships with 30+ farmers and several vendors to deploy our research approach. We actively conduct science with farmers in 13 states. No person can reasonably manage the field work, so we work with a variety of vendors, including Ecdysis Foundation, RES (formerly Applied Ecological Services), Edacious, CSU, Regen Ag Labs, and more, to complete field research and soil sample analysis.

- Manage and organize all data into a synthesized and harmonized dataset that can be readily used to analyze data and investigate the impact of regeneration. As appropriate, originate and participate in collaborations with other scientists to expand the value and utility of the data that we collect.
- Collaborate with other team members to understand the financial and social outcomes of regenerative agriculture in parallel with the ecological outcomes.
- Use strong analytical, strategic and critical thinking skills to analyze results, communicate findings verbally and in reports, and be able to shift easily between strategic and tactical roles.
- Continual learning and deep understanding of the research trends and paradigms of understanding with regards to how agriculture impacts soil health, as well as natural and managed ecosystems.
- Participate in creative problem solving and process improvement for data gathering, assessments, analysis, reporting, team coordination, and project management.
- Work with Philip Taylor, Ph.D. on all of the above. Philip has a degree in Ecology and Evolutionary Biology and has strong working knowledge regarding major biogeochemical cycles and the science of regenerative agriculture. .

### **Natural Climate Solutions Sector**

- Use the principles and practices of environmental science and ecosystem ecology to support landscape scale regeneration.
- Lead the development of insetting strategies with major national partners. We are currently working with a variety of companies to help them inset their climate impact by investing in natural capital and rewilding spaces within farm agroecosystems.
- Use ecosystem service assessment and valuation, with ability to evaluate and use best-fit strategies for our goals (e.g., novel ES modeling approaches, ecosystem services credit implementation, carbon credit valuations, conservation finance, insetting impact with partnering buyers and brands, etc). Be about to calculate life cycle assessments and leveled cost of climate mitigation, ranging from quick back of the envelope methods to peer-reviewable quality.

## **QUALIFICATIONS**

- High-level training in the fields of ecology, biogeochemistry, environmental and/or soil sciences. A robust understanding of ecological theory, principles and practices, and the ability to apply this knowledge to projects. A Ph.D. degree is preferred with postdoc and/or sector experience.
- Familiarity with ecological economics, natural asset management and/or valuation.
- Demonstrated experience engaging diverse stakeholder communities, especially the soft skills of building trust and connecting with farmers.
- Deeply empathic and cares foremost for the customers and land we serve.
- Seeking personal and professional transformation in your work.
- Enjoys developing compelling communication (e.g. decks, pitches, IGNITE talks) to help relay knowledge passionately and convincingly.
- Great at working within teams, yet can operate independently.
- Experience and comfort developing and holding to budgets.

- Direct experience in designing and managing scientific field campaigns.
- Highly organized, punctual and able to get things done on time.
- Experienced or has ambition to manage a fast-moving and agile team.
- Creative, curious with a relentless appetite for learning and for action.
- Bring energy, verve and a commitment to entrepreneurial creation. Discover how valuing nature for its whole wealth can lead to viable farm businesses.
- Gregarious, a connector, networker, and loves empowering others. Instinctively see opportunities for collaboration, and knows how to develop those relationships/opportunities with poise, focus, grace and generosity.
- Capacity to lead and grow a team. We have no immediate plans to hire another scientist, however this work could grow, possibly including post-graduate fellows and contractors, so you need to have the capacity to manage diverse teams and grow in leadership. You'll be highly supported in this work with professional development.
- Entrepreneurial by nature. You're a self-starter able to function independently and adapt to changing priorities in a start-up, fast-paced environment.
- Strong analytical skills, strategic and critical thinking skills, and able to shift easily between strategic and tactical roles.
- Strong writing, research and verbal skills, especially analytical skills.
- Ability to travel as needed.

## TO APPLY:

**This application is rolling with a Dec 1st deadline.** Please submit your resume and a cover letter on our [Application Page](#). Candidates are encouraged to apply as soon as possible, making sure to include a resume and cover letter that describes why you're right for this role, what inspires you about our mission, your qualifications, salary requirements, and how you learned of the position.

This is a full-time position that reports to the Director of Mad! Lands. Competitive salary, ranging between **\$90-130k/year**. This position can be remote and will involve travel to farms, conferences, and key partner meetings across the country. Mad Ag is based in Boulder, Colorado and we have a fantastic workspace downtown Boulder. Unlimited PTO. Healthcare and retirement benefits provided.

Mad Agriculture provides **equal employment opportunities (EEO)** to all employees and applicants for employment without regard to race, color, creed, religion, sex, national origin, ancestry, active military or veteran status, age, physical or mental disability, medical condition, pregnancy (which includes pregnancy, childbirth, medical conditions related to pregnancy and childbirth, and breastfeeding and expressing breast milk), sexual orientation, gender, gender identity, gender expression, genetic information, or any other characteristic protected by law.