



# SOIL HEALTH CENTER

## HEALTHY SOILS FOR A HEALTHY PLANET

Soils are the living infrastructure of the planet — quiet ecosystems beneath our feet that feed us, filter our water, anchor our landscapes and host the microbial communities that make life possible. Yet these foundational systems are under growing pressure from industrial agriculture and a changing climate. The UC San Diego **Soil Health Center** at Scripps Institution of Oceanography seeks to **rebuild soil function, resilience and microbial diversity** for the health of people and the planet. Building on Scripps Oceanography’s Healthy Soils Project, which started in January 2024, the Soil Health Center will play a critical role in improving soil health and climate resilience in California and beyond.

The center brings together campus researchers across disciplines to promote soil resilience, plant growth, carbon sequestration, clean waterways and food security. Researchers studying microbial interactions, soil chemistry and related processes are working together to develop innovative approaches to accelerate soil regeneration and build more sustainable food systems. The center works toward developing cutting-edge technologies that are effective in lab and real-world settings. This necessitates an interdisciplinary approach that incorporates social, cultural and economic aspects from beginning to end.

At this pivotal moment, all of us — scientists, farmers, students, donors, policymakers, Indigenous communities, nonprofit organizations — can come together in support of restoring our soils and the microbial communities within them. The Soil Health Center brings UC San Diego’s research prowess into the vital work of soil regeneration. Together with local partners and supporters, the center will enhance natural processes by expanding research and practice so that we can improve the health of our ecosystems while continuing to produce food, fiber and fuels.

At UC San Diego, we believe that what we don’t know today will forever change our tomorrows. Empowered by generosity and fueled by curiosity, we are unafraid to chase the unknown — to ask the questions no one has asked before and to push the boundaries of possibility. Together, we unite diverse people and unconventional perspectives to propel limitless impact. Because we know that when we come together, nothing is beyond us.

**22%**

Global greenhouse gas emissions come from industrial agriculture (United Nations Environment Programme, 2024)

**16+**

Affiliated faculty members from Scripps Oceanography, School of Medicine, School of Biological Sciences, Herbert Wertheim School of Public Health and Human Longevity Science, School of Global Policy and Strategy, and Jacobs School of Engineering

**12+**

Local partnerships, including the San Diego Zoo Wildlife Alliance, Coastal Roots Farm, the Salk Institute’s Harnessing Plants Initiative and Foodshed Cooperative



## SOIL HEALTH CENTER PRIORITY AREAS

Healing our soils is foundational for healing our planet. Advance the Soil Health Center's vision for healthy soils and a diverse microbiome with a gift in one of the following areas:

### RESEARCH AND DEVELOPMENT OF NEW METHODS

Center researchers are developing probiotic agricultural solutions using a consortium of microorganisms with plant growth-promoting and carbon sequestering properties. At the lab, field, greenhouse and computational levels, they are studying microbial interactions to accelerate soil regeneration while reducing reliance on environmentally harmful methods — ultimately, increasing global food security and reducing carbon footprint. With greater support, this critical research can develop faster and at a larger scale, expanding to include additional crops and locations.

### EDUCATIONAL RESEARCH EXPERIENCES

The Soil Health Center seeks to involve graduate and undergraduate students in its research. Through your support, the center may offer research fellowships to talented graduate students, so they can gain career-shaping experience in this high-impact area. Your support may also help the Soil Health Center establish a summer research program that would provide opportunities for undergraduate students to focus on and contribute to pioneering environmental research.

### POLICY-LEVEL SUPPORT

Ensuring that microbial technologies are economically feasible for farmers is a priority of the Soil Health Center. The center's involvement in policy analysis and implementation would help address economic concerns, ensure accessibility and encourage widespread adoption of these technologies. Gifts in this area would provide dedicated support so the center can advance science and policy in tandem.

Together with your support, we can develop sustainable, interdisciplinary solutions to our planet's most pressing challenges.

**[Learn more at scripps.ucsd.edu/giving.](https://scripps.ucsd.edu/giving)**

For more information on supporting the Soil Health Center, please contact:

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