

Healthy Soil Serves Everyone

Join the Journey

The future of our grazing lands and U.S. ranches is impacted by three challenges:



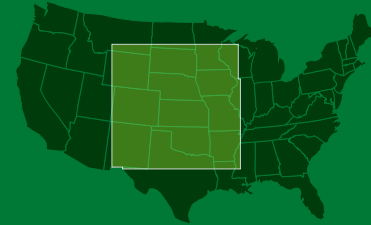
Land productivity and regeneration in the face of climate variability



On-ranch profitability and debt



Declining population of agricultural producers



Why do healthy grazing lands matter?

Grazing lands do more than support the production of grazing livestock — cattle, sheep and goats. Grazing lands impact our climate, water, air, wildlife and domestic food security.

Grazing lands are one of America's greatest natural resources, representing the single largest land use — **covering 654 million acres** — of this nation. Healthy soil contributes to:

- Improved water quantity and quality.
- Enhanced wildlife habitat.
- More nutrient-dense food.
- Greater water-holding capacity to create resiliency against both flood and drought.
- Decreased use of chemical inputs and subsequent pollution.
- Carbon storage to impact climate variability.
- Increased organic matter within the soil.

Additionally, in the last 20 years, more than 11 million acres of U.S. agricultural lands have been converted, fragmented or paved over by development projects.

Every acre matters.

What is regenerative ranching?

For Noble, regenerative ranching simply means improving soil health and building a stronger bottom line.

Within the soil lives a biological world that many agricultural producers do not consider or include in their operations. For modern agriculture, we have been taught to manage the chemistry within the soil for the benefit of plants, but recent science tells us the biology may be even more important than the chemistry.

To harness the impact of soil biology and soil health, we have to manage the whole system — soil, water, forage, livestock, economics and the farmer/rancher. It all has to work together.

The six principles of soil health are the backbone of our management on our own ranches and at the core of our guidance to the nation's farmers and ranchers. They are:



Know your context.

Apply the remaining five principles in accordance with your operation, climate, geography, resources, skills and goals. One size doesn't fit all.



Minimize soil disturbances.

Tilling, fire, grazing and fertilizer interrupt the biological activity and/or structure of the soil. Use these tools only as needed to allow the life in the soil to function as intended.



Cover the soil.

Avoid bare ground. Cover crops, managed grazing and trampled residues manage the sun's access to the soil, help retain moisture and prevent erosion.



Increase diversity.

The soil benefits from differing interactions of plants and animals. Increases in plant diversity increase pollinators, wildlife and the opportunity for soil health.



Maintain continuous living roots.

Living roots all year round keep the soil biology processes working.



Integrate livestock.

Livestock manage landscapes, facilitate nutrient cycling and enable conservation through management.



What are the barriers to adoption?

Managing for soil health and a stronger bottom line in the ranching industry is contrary to generations of thought and practice.


Understanding the economics is essential. Margins are razor thin in the ranching industry, amplifying risks and the consequences of setbacks or failures. Traditional financial mitigation tools in agriculture, such as lines of credit, follow an age-old model that may not align with new practices based on ecological principles.

Ranchers operate within an environment where agricultural-sector salespeople, fellow ranchers, lending institutions and commodity markets conform to a singular production model. This model favors cheap, efficient and indistinguishable (commodity) products driven by costly chemical inputs to maintain the desired model. To deviate from this system typically requires personal resilience to overcome pressures from both community and industry.

Farmers and ranchers need two key elements to begin their regenerative journey — information and support.

While there is a growing body of research about regenerative ranching, there remains a need for science-based understanding and knowledge to assist interested farmers and ranchers. There is no recipe or standardized checklist for managing for soil health — it is affected by individual operations, climate, geography, resources, skills and an individual rancher's operational goals.

There is a lack of experienced mentors and guides across the U.S. to assist farmers and ranchers interested in embarking on this management approach. Noble aims to fill both of the research and mentoring gaps for tens of thousands of producers nationwide.



“ There’s always a more productive, more profitable, more beneficial way to manage our natural resources. Noble Research Institute has been like a friend that we can run questions or ideas by as we’re trying to make the most positive impacts out here.”

—YATES ADCOCK, Middle Creek Ranch, Oklahoma

Noble's Areas of Emphasis



OUR GOAL

By 2040, reach **84,000** farmers and ranchers and **164 million** acres across the U.S. with **75%** of farmers and ranchers meeting their financial goals.

Learn more at www.noble.org/our-goal

Producer Guidance

We are building in-person and online educational programming to allow farmers and ranchers to master new skills and gain confidence to undertake a regenerative approach. We are building peer networks that enable ranchers to learn from other ranchers. And we are designing one-on-one consultation to offer guidance and mentorship to better ensure success. Beyond the application of in-field management, we will provide a framework for financial and operational planning, staff management and generational transition. Our programs depend upon critical thinking, planning and managing each ranch — no matter how large or small — as a viable business. **We will launch our programming in 2023.**

Reaching the Learner

The average age of a U.S. rancher today is 57. In the next 15 years, 40-percent of America's agricultural land will transition between owners. Ranchers in the Southern Great Plains face different challenges than those in the Northern Plains or West. We seek to understand not only the current generation of learners but also future generations of ranchers and land managers.

Despite this complexity, we are developing educational programming tailored to the learner — taking into consideration aspects such as goals, age, experiences, gender, values and geographic location. We focus on learning to meet individual needs of each adult learner.

Research and Ranching

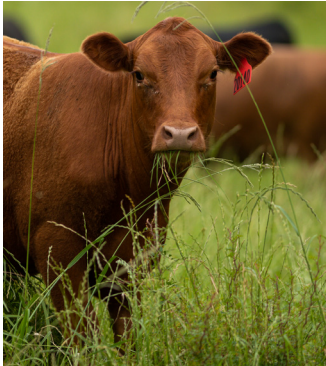
Scientific research can help us see beyond the problem at hand. However, we don't believe that reductionist science or laboratory-scale research can answer the necessary questions for producers stewarding pasture or rangeland. We have transitioned our work to landscape-scale research. This allows for observation, investigation and measurement of outcomes that impact soil, water, forage, livestock, economics and the rancher who manages them all.

Research starts on Noble ranches but extends to producer properties. We collaborate with and serve farmers and ranchers who help define the questions we seek to answer on our ranches. We make them a part of the discovery.

On the next page, we provide additional insight into the areas of research we are currently undertaking.

Research and Ranching

We have focused our research activities on the following five areas of regenerative ranching:



Livestock adaptability. Select qualities and attributes of livestock well-suited for success and profitability in a regenerative system.



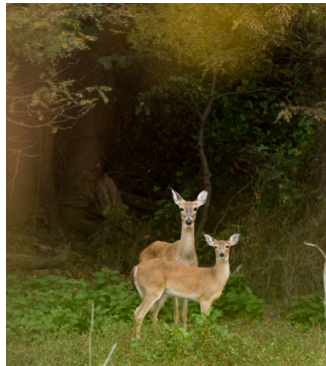
Transition. Observe, assess and measure the timing and impacts of a transition from conventional to regenerative management.



Metrics, management and monitoring. Observe, assess and measure ecological outcomes, production, economics, nutrient quality and producer well-being based on landscape and livestock management.



Silvopasture and pecan production. Design and measure impact of implementing regenerative management for native and introduced pecans. Assess impact of livestock grazing integration.



Wildlife impacts. Measure impact of regenerative management of wildlife species' (including insects) productivity and health.

Lives and Acres Changed: A Need to Go Further

Noble has been making a difference in ranchers' lives for generations.

We are building educational programming, online platforms and tools to assist producers in making sound business and management decisions impacting their soil and livestock production. Our research intends to answer critical questions that remain unanswered or that need greater understanding.


We support today's grazing animal producer and the land they manage. We seek to give farmers and ranchers the tools they need to be successful — not only in this generation but for future generations. **Working across industry lines, we seek to create a critical mass of change within the ranching industry to profitably manage the regeneration of 164 million acres of land through the work of 84,000 farmers and ranchers.** The consequences will be far-reaching — beyond the dinner table — to impact the viability of rural America and create healthier, more productive landscapes that are a tool against climate variability. Further, we are creating viable business operations for the next generation of ranchers.

Join us in our journey with farmers and ranchers to regenerate our nation's grazing lands.

We ask you that you join us in our pursuit to help farmers and ranchers transform our land so that it may produce healthier food, build resiliency against climate variability, store carbon, provide for wildlife habitats and benefit the lives of generations to come.

To donate or for more information:

noble.org/giving 580-224-6247 giving@noble.org

A woman in a grey t-shirt and blue jeans stands in a field of tall grass and purple flowers. She is holding a surveying instrument (a level) and looking at it. The background shows a clear sky with some clouds.

“ Every decision you make is tied to another decision on the ranch, and you find out if you made the right one years down the road. Noble has helped us navigate the responsibility we have to make good decisions today so we can take care of the land and raise healthy animals long-term.”

—MEREDITH ELLIS, G Bar C Ranch, Texas

