

In Cows We Trust: A Hopeful Message on Grazing for Climate from the United Nations Food Systems Summit

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A mixed species herd at the Africa Centre for Holistic Management in Zimbabwe stays tightly packed and regularly on the move, mimicking the soil-enhancing behavior of their wild ancestors. This Holistic Planned Grazing, or, in academic literature, called Adaptive Multi-paddock Grazing — increases soil carbon levels significantly while providing beneficial ecological outcomes. Photo credit: Seth Itzkan 2019.

This week the United Nations (UN) General Assembly has something new on the menu — a [Food Systems Summit](#). This unprecedented, one-day event, organized by UN Secretary General António Guterres, seeks a “global food systems transformation” to help achieve the 17 UN Sustainable Development Goals ([SDGs](#)) by 2030. Examples of SDGs, humanity’s shared north star, include “No Poverty” (Goal 1), “Zero Hunger” (Goal 2), “reduced inequality” (Goal 10) “Climate Action” (Goal 13) and, well, just about everything else that’s wholesome.

Agriculture is currently one of the worst drivers of climate change, accounting for [19% to 29%](#) of all greenhouse gas (GHG) emissions. Yet, by implementing the practices of regenerative agriculture or agroecology, growing crops and raising animals can reduce emissions, mitigate global warming, while healing degraded soil, and [sequestering carbon](#) to reverse the climate crisis. The key? Cows.

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How can the much-vilified livestock be a surprising ally in the quest to create food systems that improve the climate? A policy paper produced for the UN Food Systems Summit’s [Sustainable Livestock Solution Cluster](#), titled [Grazing for Soil, Climate and People](#), tells all:

Grasslands [coevolved](#) with vast herds of grazing animals over tens of millions of years. They require appropriate grazing impact to thrive. A growing body of [evidence](#) shows that when livestock — particularly ruminant ungulates (e.g., cows, sheep, and goats) — are managed in a way that replicates historical herd movements, soil carbon stocks increase rapidly. Other

signs of ecological health, such as soil moisture, plant cover, and biodiversity also improve. There are [doubters](#), but the science is clear.

A seminal 2016 journal [article](#) by range ecologist Dr. Richard Teague of Texas A&M University and colleagues, titled “The role of ruminants in reducing agriculture’s carbon footprint in North America,” shows that when cattle are managed in a fashion Teague calls “Adaptive Multi-paddock Grazing (or AMP Grazing)”, soil carbon stocks increase at a rate of 1.2 metric tons per acre per year. The total potential for North American rangeland to sequester carbon is estimated to be 800 million metric tons of carbon per year. For context, our Summit paper noted this amounts to “nearly half of all US GHG emissions.” Other research cited shows greater carbon sequestration rates resulting from properly managed grazing.

Science aside, these practices work in real life.

[Gabe Brown](#) is a North Dakota, corn and soybean commodity farmer who was going broke. To cut costs, he implemented no-till farming. To cut fertilizer, herbicide and pesticide costs, he planted cover crops that pull nutrients and carbon out of the air and put them deep into the soil. He then turned cows out to eat down the cover crops. He doesn’t have to pay to feed them and they clean his fields for planting. Gabe now gets as high yields of corn and soybeans as his neighbors, but without costly chemicals. He is also sequestering enormous amounts of carbon in the soil. Plots on his 6,000 acre farm went from under 2% to 11% soil organic matter. Every 1% soil organic matter consists of 5 to 10 tons of carbon and holds 20,000 gallons of water per acre. Gabe is rolling climate change backward at a profit.

On the other side of the planet, [Vijay Kumar](#) is helping millions of smallholders (farming one acre plots) in India use Gabe’s principles of minimal disturbance of the soil, biomass

covering the soil, living root always in the soil, diversity of plants and animal impact, and other concepts indigenous to India to triple their profits and productivity, increase soil moisture so that they can harvest year around, sequester carbon and increase the health of farmers, their families and farm communities. In Africa, [Dr. Million Belay calls it agroecology](#), and is helping poor firmers double their productivity and increase their health.

Key to the success of these, and thousands of other such examples from around the world, is the integration of livestock. Now, companies from [General Mills](#) to [McDonalds](#) are adopting these same principles to help farmers on millions of acres become more regenerative. [Savory Institute's Hubs](#) are helping ranchers on 14 million hectares become carbon farmers.

Industrial meat systems are unethical and environmentally harmful. By contrast, regenerative agriculture offers a high quality of life for livestock and farmers, while assuring fertile soil, ubiquitous wildlife, abundant water and a cooler planet. In short, hope for the future.

About the authors: L. Hunter Lovins is founder and CEO of Natural Capitalism Solutions. Seth Itzkan and Karl Thidemann are cofounders and co-directors of Soil4Climate Inc. Seth and Hunter are participants in the United Nations Food Systems Summit's Sustainable Livestock Solutions Cluster. [More from hlovins](#)