Testimony of Bonnie Haugen

before the

House Committee on Oversight and Reform
Subcommittee on Environment

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Chairman Khanna, Ranking Member Norman, and members of the Subcommittee,

Thank you for the opportunity to speak to you today. I am Bonnie Haugen and I believe that "Farming is Truly Everybody's Bread, Butter and Water."

In southeastern Minnesota, in hilly karst geology, 50 miles from the Mississippi River, my family runs a grazing dairy business with a seasonal herd of 160 cows. On our 270-acre farm, we use rotational grazing, and our cows graze on pasture with forage that includes grasses, clover, and more. These forages sequester carbon and keep soil from eroding by wind or water.

My passion for farming and environmental stewardship has led me to be involved with several different organizations including the Land Stewardship Project, Campaign for Family Farms and the Environment and other groups. I am also a part-time Dairy Grazing Apprenticeship (DGA) Education Coordinator, and a certified Farm Transition Coordinator with International Farm Transfer Network (IFTN), but I am representing myself today. Until 2011, I did the management, feeding and most of the milking of our seasonal herd averaging 130 cows. My husband worked off the farm and supplied health insurance, a typical arrangement for farmers today. In 2011, our son, Olaf came home to manage the dairy. Currently, on our farm I do the bookwork and grandchild care when needed. Three of the grandkids, ages 8, 6, and 3, want to farm. And I want them to have the opportunity to farm without being a serf to corporate ag.

When we bought these acres 29 years ago, there were about 12 dairy farms within a three-mile radius of us. Now, there is only one other dairy, with approximately 400 cows, aside from us. What I have seen in my community mirrors national trends. In 1970, there were about 620,000 dairy farms nationwide, and now there are only 32,000 dairy farms left, or about 19 percent. The pressure of corporate agriculture and CAFOs (Concentrated Animal Feeding Operations) on the dairy sector in my community has taken away a fair opportunity from the neighbors who wanted to keep or pass on dairy farming to their children. Corporate dairy farms also often use management actions that threaten the safety of our water and air. These large-scale operations concentrate millions of gallons of liquid manure in one spot which is risky, especially in this karst area. I really think a moratorium on any new CAFO dairies is a good idea for the milk markets and our communities.

Please remember that big CAFO dairies are not the same as ours. They are like big box stores, similar to a Walmart building in the middle of one of our small towns.

It is also important that sustainable farming practices are supported. Our unique farming methods have helped us survive difficult times on the farm, and benefit the environment. Our cows live outside, walk to the barn for milking then go out to the paddock get most of their feed and leave most of the manure in the paddock (which is a specific fenced area) where it will start to benefit the soil, soil bugs, dung beetles, and plant roots right away. The cows get a new paddock area after each milking, twice a day. Studies such as Grassland 2.0 at the University of Wisconsin College of Agricultural & Life Sciences, show that perennial pasture, like the pasture we have grown, is the best crop for carbon sequestration and also increases water infiltration which benefits water and soil quality.

An analysis by Green Land Blue Waters, a partnership of organizations and land grant universities in the Upper Midwest, concluded that for every one dollar in investment made in supporting the establishment of a perennial pasture and grazing system on farms with livestock, a projected $3.46 in social and environmental value will be generated, with benefits flowing to farms, taxpayers, community members, and municipal water users. The largest outcome was the projected reduced costs of eutrophication of waterways due to avoided nutrient runoff, followed by the financial returns accruing to the farm.

I am enclosing a list of research reports and studies with my written testimony that further demonstrate these concepts – please give them at least a skim.

You have probably heard of "regenerative agriculture" as part of conversations about the role of agriculture in climate change. It is worth talking a bit about the practices I think deserve the "regenerative" label. In regenerative ag, the focus is to restore and enhance the carbon cycle, not simply "bury" carbon in the ground. Under typical conventional commodity crop production, there is no living plant root in the soil during a large portion of the year (you can easily see this if you drive through the Midwest from October through May and see acres of bare soil.) Only living plants with a living root are conducting photosynthesis and converting carbon dioxide into carbohydrates for the plant to use. The plant will give up some of this carbohydrate energy to the microbiology in the soil. This living plant-microbe (soil biology) relationship is so critical to the carbon cycle, but it has been severed by many practices common in commodity crop production. Soil biology benefits from a diverse mix of plants including grasses, legumes (that fix nitrogen from the atmosphere), and other plants and even trees. The dominant system of two crop (corn and soy) rotations in much of the country do not benefit this crucial soil biology. Integrating livestock on well-managed pastures by adaptively grazing diverse cover crop blends as part of longer crop rotations should be our goal. But industrialized CAFO operations that do not integrate livestock into cropping systems and rely on commodity crops like intensively-produced corn and soy are the opposite of what we need to do for our soil biology and carbon cycle.

We do not have large CAFO operations replacing independent family-scale farms simply by accident, or even bad luck. A long list of policies, from environmental rules to farm programs, give these large operations an advantage. The vast majority of government payments to farms go to commodity crops produced in ways that are the opposite of regenerative. These payments come in the form of commodity payments as well as subsidized crop insurance. Meanwhile, important programs that could help more farms adopt practices such as grazing are routinely oversubscribed due to lack of funding. The U.S. Department of Agriculture conservation

programs, such as the Conservation Stewardship Program (CSP), help farmers implement regenerative practices. I urge you to support increased funding for CSP. Unfortunately, other conservation programs have been diverted from their original purpose by changes that steer their funds to large CAFO operations to subsidize their manure management. A recent report by the Institute for Agriculture and Trade Policy found that a USDA program called the Environmental Quality Incentives Program (EQIP) has been supporting agricultural practices that are not environmentally beneficial or in some cases actively make the environment worse, while thousands of farmers' applications for real conservation improvements that could help their bottom lines are turned away. We need a new approach to how the EPA regulates CAFOs and which types of farming practices the USDA supports and encourages.

This summer, whenever you might be caught in a rain shower or thunderstorm, I challenge you to remember this: the rain drops landing on you may have landed on my cows back, fallen down on the grass, soaked into the ground, followed a karst crack into the St. Peter aquifer, then my neighbor's confined cow drank it and passed it on into their slurry store, then out on the corn field, but before it could soak through the dry crust, it was carried with a deluge into the stream, the creek, the river, the ocean, then evaporated to the sky where it connected with other drops while floating in the wind currents, being carried over your head, clinging to other rain drops and getting too heavy, so it drops on you.

We are all so interconnected – what I do on my hills does affect water quality and quantity for all of society. "Farming Truly is Everybody's Bread Butter and Water."

Thank you.

Bonnie Haugen
Additional Resources

Conquest of the Land Through 7,000 Years
USDA Natural Resources Conservation Service

Conquest of the Land through 7,000 Years is Dr. Lowdermilk's personal report of a study he made in 1938 and 1939. Dr. Lowdermilk studied the record of agriculture in countries where the land had been under cultivation for hundreds, even thousands, of years. His immediate mission was to find out if the experience of these older civilizations could help in solving the serious soil erosion and land use problems in the United States, then struggling with repair of the Dust Bowl and the Sullied South. He discovered that soil erosion, deforestation, overgrazing, neglect, and conflicts between cultivators and herdsman have helped topple empires and wipe out entire civilizations. At the same time, he learned that careful stewardship of the earth's resources, through terracing, crop rotation, and other soil conservation measures, has enabled other societies to flourish for centuries.

The Community Advantages of Family-Sized Dairies
Richard A. Levins, Professor Emeritus of Applied Economics, University of Minnesota, Saint Paul.

This paper concludes "There is considerable evidence for a general conclusion that communities that see fewer, larger dairy farms will experience reduced economic vitality, and virtually no evidence that larger farms improve community vitality… Family-sized dairies not only provide special advantages over their very large counterparts—they also assure that more rural communities will enjoy the economic benefits of dairy farming on any scale."

Well-Managed Perennial Pasture: Setting the Gold Standard for Ecosystem Services
University of Wisconsin-Madison, College of Agricultural & Life Sciences, Grassland 2.0 program

This study compares well managed pasture with row crops with no-till and cover crops across several ecosystem services. It finds that the most effective means of generating multiple ecosystem services in agriculture is through well-managed grazing of perennial pastures. Investing in managed grazing systems is a win-win-win for the environment, the farmer, and the community.

Sustainable Return on Investment to Perennial Forage and Grazing as a Strategy for Keeping the Soil Covered
Green Lands Blue Waters

The analysis takes a benefit-cost approach to estimate the total social, environmental and economic value generated by perennial forage and grazing. The approach compares the estimated outcomes achieved by perennial forage and grazing against the environmental impacts of annual row crops in the Upper Midwest. The analysis concluded that for every dollar in investment made in supporting the establishment of a perennial pasture and grazing system on

farms with livestock, a projected $3.46 in social and environmental value will be generated, with benefits flowing to farms, taxpayers, community members, and municipal water users. The largest outcome monetized was the projected reduced costs of eutrophication due to avoided nutrient runoff, followed by the financial returns accruing to the farm.

Enhancing Agroecosystem performance and Resilience through Increased Diversification of Landscapes and Cropping Systems
Matt Liebma, Lisa A. Schulte, Iowa State University

Over the past two decades, ecologists have gained a considerable amount of insight concerning the effects of biological diversity on how ecosystems function. Greater productivity, greater carbon sequestration, greater retention of nutrients, and greater ability to resist and recover from various forms of stress, including herbivorous pests, diseases, droughts, and floods, are among the effects of increased biological diversity. In addition to being better able to withstand and recover from disturbances due to pests, weather, and other biophysical factors, resilient agroecosystems can be less susceptible to fluctuations in production costs and market prices.

Mapping the Soil Vulnerability Index across Broad Spatial Extents to Guide Conservation Efforts
Ellen M. Audia, Lisa A. Schulte (Iowa State University), and David E. James (USDA Agricultural Research Service)

Overall, this study demonstrates the soil vulnerability index methodology for categorizing the vulnerability of Iowa agricultural fields to soil runoff and leaching. Under a targeted conservation framework, these data can be used to help protect soil and water in Iowa and beyond.

Payments for Pollution: How federal Conservation Programs Can Better Benefit Farmers and the Environment
Institute for Agriculture and Trade Policy

This report examines how the Environmental Quality Incentives Program pays for agricultural practices that are not environmentally beneficial or in some cases actively make the environment worse. This report finds that current resources are being misdirected to large, polluting operations while thousands of farmers are being turned away from contracts that could help them pay for conservation improvements and help their bottom lines. Reforms are needed to ensure that EQIP funds only go toward truly environmentally beneficial practices.

Subfield Profitability Analysis Reveals an Economic Case for Cropland Diversification
E Brandes, G S McNun, L A Schulte, I J Bonner, D J Muth, B A Babcock, B Sharma, and E A Heaton

Researchers use soil maps in several areas in Iowa and apply the costs of production for corn and soybeans and the average yields to calculate where farmers are often losing money. Authors propose that these areas should be seeded to permanent vegetation to both improve water quality and improve cropland profitability. The paper demonstrates an economic rationale for cropland

diversification at the subfield scale, revealing 'hotspots' for potential management change in Western, Central, and Northeast Iowa. In these least profitable areas, incorporating conservation management that breaks even (e.g., planting low-input perennials), into low-yielding portions of fields could increase overall cropland profitability by 80%.

Farmer and Farmland Owner Views on Spatial Targeting for Soil Conservation and Water Quality
E. K. Zimmerman, J. C. Tyndall, L. A. Schulte, and G L D. Larson

New precision technologies and conservation planning frameworks offer opportunities to adapt the current agricultural system to meet environmental goals along with production by strategically placing best management practices (BMPs) to target and address specific in-field resource concerns. The researchers found that farmers and farmland owners often recognized the importance of producing a diverse suite of on- and off-farm environmental benefits, but lacked the context, information, certainty, and strong incentives to manage for them. For broad acceptance, a spatially targeted conservation approach would need to be paired with expanded partnerships, trusted technical service, and adaptation incentives to reduce farm-level economic tradeoffs.

Tracking Carbon Dioxide Across the Globe | NOAA Climate.gov

Scientists at NOAA's Earth Systems Research Laboratory created CarbonTracker, a carbon dioxide measuring and modeling system that tracks sources and sinks around the globe. The video included on this website provides a virtual tour of CarbonTracker, highlights results from recent analyses, and explains the importance of long-term CO2 monitoring.

Real World: The Carbon Cycle - Essential for Life on Earth | Real World | NASA eClips

Learning how carbon is converted through slow- and fast-moving cycles helps us understand how this life-sustaining element moves through the environment. This resource explains how NASA measures carbon through both field work and satellite imagery keeping watch through its eyes on the sky, on Earth, and in space.