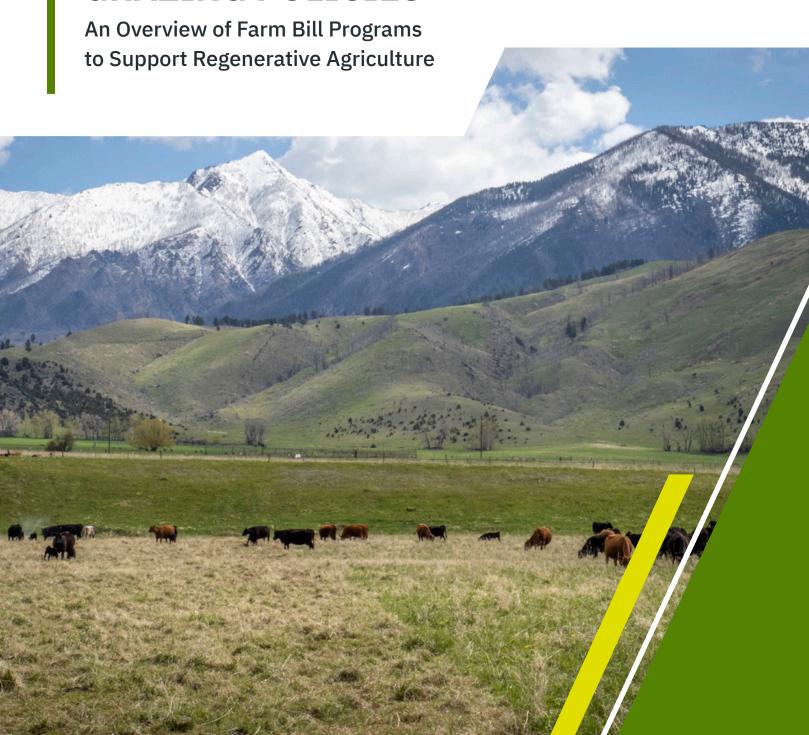
MANAGED ROTATIONAL GRAZING POLICIES







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About the Center for Agriculture and Food Systems

Vermont Law and Graduate School's Center for Agriculture and Food Systems (CAFS) uses law and policy to build a more sustainable and just food system. With local, regional, national, and international partners, CAFS addresses food system challenges related to food justice, food security, farmland access, animal welfare, worker protections, the environment, and public health, among others. CAFS works closely with its partners to provide legal services that respond to their needs and develop resources that empower the communities they serve. Through CAFS' Food and Agriculture Clinic and Research Assistant program, students work directly on projects alongside partners nationwide, engaging in innovative work that spans the food system. Visit vermontlaw.edu/cafs to learn more.

COVER PHOTO: Barney Creek Livestock, a fourth-generation ranch in Livingston, Montana, operates with a focus on soil health and regenerative agriculture. Source: USDA/FPAC photo by Preston Keres

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GLOSSARY

Agroforestry	A type of agriculture that integrates the cultivation and conservation of trees into crop and animal farming systems. ¹
Concentrated animal feeding operation (CAFO)	The Environmental Protection Agency defines a CAFO as an animal feeding operation (AFO) that confines and feeds animals for a total of 45 days or more in any given 12-month period. ² There are small, medium, and large CAFOs. A large CAFO is one that confines at least either 700 dairy cows, 1,000 cattle, 2,500 swine each weighing 55 pounds or more, 10,000 swine each weighing less than 55 pounds, 30,000 laying hens or broilers if the AFO uses a liquid manure handling system, or 125,000 chickens (other than laying hens) if the AFO uses a liquid manure handling system.
Continuous grazing	A grazing system that allows livestock to graze for long periods of time with little to no resting time for the land. 3
Environmental justice	The Environmental Protection Agency defines environmental justice as the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."
Grassland	A type of rangelands that provides plant cover and is managed like native vegetation. ⁵
Grazier	A farmer or rancher who raises their livestock exclusively on grass.
Managed rotational grazing (MRG)	A grazing system that involves dividing pastureland into a grid where grazing is concentrated for a variable amount of time within each gridded section, or paddock, before livestock are rotated into another enclosed paddock and the land is allowed to rest. MRG may also be referred to as advanced grazing management, adaptive multi-paddock grazing, management intensive rotational grazing, holistic planned grazing, regenerative grazing, and many other terms. While each term may vary slightly in its origin and systems-level application, all refer to a series of rotation and rest cycles with short periods of concentrated grazing followed by longer periods of forage rest and recovery.
Pastureland	The US Department of Agriculture defines pasturelands as those utilized for forage cultivation and grazing purposes only. There are two different types of pasturelands: <i>improved pasture</i> in which the land is subject to periodic treatments to enhance forage quality for grazing purposes, and <i>native pasture</i> which is similarly used for grazing purposes but does not receive treatments like improved pastures. Forests and naturalized open areas other than rangeland, primarily used for grazing by livestock and wildlife, are considered native pasture.

GLOSSARY

Rangeland

The US Department of Agriculture defines rangelands as lands that have been revegetated naturally or artificially to provide a plant cover that is managed like native vegetation. Rangeland includes natural grasslands, savannas, most deserts, tundra, alpine plant communities, coastal and freshwater marshes, and wet meadows.¹⁴

Regenerative agriculture

A type of agriculture generally understood as a holistic approach to farming and producing food with myriad social and environmental benefits. Regenerative agriculture may be defined by both its processes (cover cropping, no-till farming, and rotational grazing, for example) and its outcomes (improved soil health, increased biodiversity, and climate change mitigation, for example). As a practice and philosophy implemented by Indigenous and other communities of color for a long time prior to its recent interest within white-dominated agricultural spaces, regenerative agriculture may also be defined by its ecological, cultural, and social relevance and impacts.

Silvopasture

A type of agroforestry practice in which trees and grazing livestock operations are integrated into one system on the same plot of land. 16

ACRONYMS

ACEP	Agriculture Conservation Easement Program
AGR	Adjusted Gross Revenue
вірос	Black, Indigenous, and other People of Color
CAFO	Concentrated Animal Feeding Operation
CART	Conservation Assessment Ranking Tool
CRP	Conservation Reserve Program
CSP	Conservation Stewardship Program
EQIP	Environmental Quality Incentives Program
FSA	Farm Service Agency

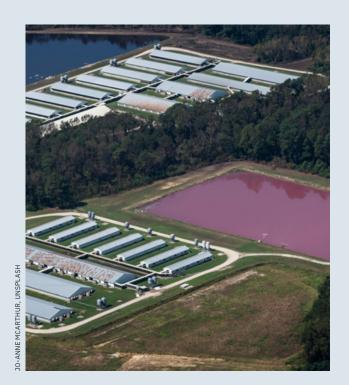
GLCI	Grazing Lands Conservation Initiative
GRP	Grasslands Reserve Program
MRG	Managed Rotational Grazing
NRCS	Natural Resources Conservation Service
RMA	Risk Management Agency
STC	State Technical Committee
WFRP	Whole Farm Revenue Program
USDA	United States Department of Agriculture



INCENTIVIZED BY STATE AND FEDERAL LAWS AND POLICIES, US livestock production has become more consolidated, industrialized, and cost-efficient over the last several decades. ¹⁷ Predominant forms of livestock management practices are extractive, degenerative, and unsustainable. Practices such as **concentrated animal feeding operations (CAFOs)** and continuous grazing systems (see deep dive on page 9), require significant inputs of water, energy, land, and labor. ¹⁸ At the same time, these practices release exorbitant waste and pollution into waterways and the atmosphere through runoff and greenhouse gas emissions. ¹⁹

Due in part to these impacts, the agricultural sector is one of the leading contributors to global climate change. ²⁰ Eleven percent of the total greenhouse gas emissions in the US are generated by agricultural practices—and nearly 80 percent of this amount is attributable to animal production alone in the form of feed production, ²¹ continuous grazing, enteric fermentation, and manure management. ²² Most livestock raised in the US for meat, dairy, and eggs are held in CAFOs, ²³ which contribute to environmental and public health impacts. These impacts include degraded soil, air, and water quality; ²⁴ increases in asthma, gastrointestinal disease, and other **environmental injustices** for neighboring communities which are often low-income and communities of color; ²⁵ and aquatic and wildlife habitat reduction. ²⁶

The 2022 Intergovernmental Panel on Climate Change report on *Impacts, Adaptation and Vulnerability* emphasizes the need to strengthen local and regional food and agriculture systems to mitigate and reverse these impacts and better withstand the shocks and stressors caused by an increasingly changing climate.²⁹ Critically, resilient food systems are needed to improve the livelihoods of those most impacted by climate change, including low-income households, Black,



CAFOs and Environmental Justice

As described in Farm Bill Law Enterprise's report on Climate and Conservation, a cascade of acute externalities is experienced by communities neighboring CAFOs.27 For example, large and medium CAFOs often use what is referred to as a "lagoon and sprayfield" model in which they store animal manure in open-pit lagoons, or ponds, contaminating the surrounding air. To remove the manure, CAFOs spray it on nearby land, further polluting the air as well as the water and soil. This manure management strategy creates a large radius of putrid smells and toxins and directly causes myriad health issues for nearby communities. Critically, CAFOs are disproportionately located in low-income communities and communities of color, resulting in significant environmental injustices—something federal agencies like EPA and USDA have been mandated to redress and prevent by Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.²⁸

AT LEFT: A manure lagoon adjacent to a concentrated animal feeding operation (CAFO) in North Carolina.

Indigenous, and other people of color (BIPOC), small-scale producers and fishing communities, and people living in high-risk regions.³⁰

Transitioning away from industrial forms of livestock management that exacerbate climate change, degrade the environment, and adversely affect the health of frontline communities requires broad policy reform. Many small-scale livestock farmers and ranchers are at the forefront in experiencing the earliest effects of climate change. Tet, current US systems, structures, and policies do not sufficiently incentivize or invest in small-scale livestock operations and agricultural practices that promote climate and food system resilience, such as **managed rotational grazing (MRG)**. Instead, the private agricultural sector continues to lobby for large-scale, consolidated, industrial forms of livestock management, which are heavily incentivized by US food, nutrition, and agriculture policy. In fact, major companies

in the meat and dairy industry have explicitly lobbied against climate and environmental legislation in order to maintain federal subsidies in place that support harmful practices such as CAFOs.³³

Resilient food systems are needed to improve the livelihoods of those most impacted by climate change.

Farmers and ranchers need direct, comprehensive, and long-term financial and technical support to shift from the predominant forms of livestock management. While the farm bill is one of many pieces of legislation that support industrial agricultural production practices, it can be strategically leveraged by states to better support small-scale farmers, ranchers, and graziers transitioning toward more sustainable and resilient forms of livestock management and grazing systems.

#**X**#

Terminology: Farmers, Ranchers, and Graziers

A **rancher** is a type of farmer who owns and raises animals such as beef cattle, horses, sheep, and goats. While **farmers** who raise animals such as pigs, poultry, and dairy cows are not typically considered ranchers, the definitions are fluid. In this report, the term **grazier** is used to describe a specific type of farmer or rancher—one who raises their livestock exclusively on grass. Some graziers may employ continuous grazing systems during an animal's early life, prior to selling them to a backgrounder who grows cattle from weaning age to slaughter, or to a CAFO or feedlot to be finished for slaughter. Other graziers may be smaller scale than those using continuous grazing and high-density confinement systems and raise their animals on a managed rotational grazing system for their entire life span (also known as *grass-finished* livestock).

The Biden Administration's Climate, Agriculture, and Racial Equity Priorities

Fighting climate change while advancing racial equity and conserving US land and water is a priority for the Biden Administration, as outlined in the following actions:

- 2021 Executive Order 14008 on "Tackling the Climate Crisis at Home and Abroad"34
- 2021 Executive Order 13985 on "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government"³⁵ with an aim to broadly influence federal programs, processes, and funding allocation
- The "America the Beautiful" 30x30 mandate "to conserve, connect, and restore 30 percent of our lands and waters by 2030 for the sake of our economy, our health, and our well-being" 36

Additionally, President Biden's 2021 Executive Order 14036 entitled "Promoting Competition in the American Economy" named agriculture as an industry that has been negatively impacted by extreme consolidation. Indeed, just four companies own the majority of all processing in each of the beef, pork, and chicken industries in the US. Among its directives, EO 14036 directs USDA to consider new rules under the Packers and Stockyards Act—the law governing livestock operations—to better protect farmer and rancher interests.

A recent investment in agriculture conservation and climate change mitigation, the Inflation Reduction Act of 2022 allocates \$38 billion to agricultural conservation, agricultural credit, renewable energy, and forestry programs over a 10-year period. ⁴⁰ Agricultural conservation programs, including those that support managed grazing systems, will receive \$19.5 billion over fiscal years 2022–2031. ⁴¹ To achieve the goals outlined in the 30x30 mandate and Biden's Executive Orders, policymakers, researchers, advocates, and farmers alike will need to continue to invest in pathways for transitioning toward more regenerative and resilient agricultural systems.

This report considers how improvements to farm bill conservation program access, structure, and incentives can increase the number of farmers, ranchers, and other land managers using MRG systems as an adaptive tool for building climate resilience.

Background on CAFOs and Continuous Grazing Systems

Concentrated animal feeding operations, or **CAFOs**, are industrial agricultural facilities that confine and feed animals in large numbers at a high density for long periods of time (45 days or more in any given 12-month period)⁴² to produce meat, dairy, or eggs for consumption.⁴³ Inside a CAFO, animals do not have access to pasture or rangeland.⁴⁴ Instead, CAFOs rely heavily on row crop commodities that are subsidized by the farm bill⁴⁵—mainly corn and soybeans—to feed their animals.⁴⁶

Given their size, CAFOs are extremely resource intensive and extractive, requiring substantial capital investments and resource allocation to confine, feed, and water livestock while holding and managing massive amounts of waste. CAFOs are a major contributor to climate change due to significant greenhouse gas emissions from livestock digestive gases as well as gases from waste decomposition in open-pit manure lagoons.⁴⁷ Additionally, CAFOs contribute to a myriad of other negative environmental health impacts including contaminated surface and groundwater,⁴⁸ reduced air quality and other environmental injustices for surrounding communities,⁴⁹ and reduction in aquatic and wildlife

habitats.⁵⁰ Due to the overuse of antibiotics in CAFOs, particularly for nontherapeutic purposes such as to promote growth, antibiotic-resistant pathogens have become more prevalent.⁵¹ An increase in these antibiotic-resistant pathogens decreases the effectiveness of existing antibiotics and increases the risk of foodborne illnesses in humans, causing thousands of hospitalizations and deaths annually.⁵²

Still, CAFOs continue to grow and dominate the livestock sector in the US due to the artificially low cost of inputs (such as subsidized feed), the economic efficiencies of larger operations, and the increase in processor control over production.53 For example, the largest 5.7 percent of CAFOs confine 89 percent of all US livestock.⁵⁴ While poultry and swine operations have been vertically integrated for decades, cattle operations are currently experiencing increasing consolidation in ways that mirror the trajectory of the poultry and swine industries.⁵⁵ This consolidation and vertical integration of the meat industry, in combination with the increase in advance contracts offered by meatpackers, continues to push out smallscale livestock operators and limits ranchers' ability to directly sell their cattle on the cash market, reducing



farmer profitability.⁵⁶ When meatpackers artificially depress prices for cattle, it is ultimately reflected in a reduced price for everyone along the supply chain, including consumers.⁵⁷ This reduced price tag not only directly cuts into farmers' profitability but also contributes to consumer expectations that meat should be cheap.58

Continuous grazing is a practice wherein livestock graze for prolonged time periods with little to no rest for the land, 59 used by many ranchers in the conventional beef industry. Generally, beef cattle production occurs in three phases: the cow-calf phase, which includes the period from birth to about 6-8 months old; the stocker phase, which is up to 9-15 months old; and the finishing phase, which is the last 18-24 months of the cow's life. 60 Occasionally, cattle will be sent to a backgrounder prior to stocking and finishing if it is underweight.61 Once animals have passed the stocker phase in a conventional system, they are sold to feedlots such as CAFOs for "finishing" on subsidized grain diets and ultimately to meatpackers for processing once the cattle reach slaughter weight.62 In a grass-fed system, cattle are finished on pasture-based forage, either in an MRG or a continuous grazing system.⁶³

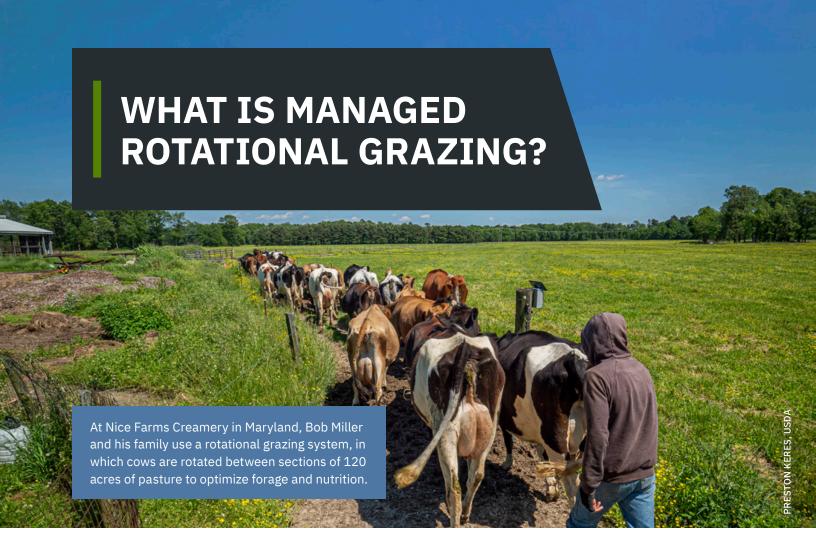
Continuous grazing systems are also utilized by farmers raising all types of livestock including chickens and other poultry, hogs, bison, sheep, goats, and horses. Whether livestock are raised on continuous grazing systems their whole life or, in the case of cattle, only until they are fully weaned, these systems contribute to a cascade of land and habitat deterioration.⁶⁴ Without adequate rest, forage plants are unable to deepen their root systems and regenerate, causing a decrease in the land's capacity to hold water, retain nutrients, and build topsoil.⁶⁵ As the soil erodes and loses nutrients vital for the growth of forage plants-creating ideal conditions for less nutritious or poisonous plants grasslands and pasturelands, and the flora and fauna supported by them, are significantly altered.66 Further, these degraded grasslands may be unable to support agricultural systems in a way that meets consumer demand for meat and dairy, maintains farm profitability, and builds climate resilience.



Efforts to remedy the impact of CAFOs and continuous grazing systems while supporting producers in transitioning away from them have fallen short. Despite local advocacy campaigns and public health investigation efforts to reform pollution emission regulations, 67 and failed Obama-era struggles to improve regulations that govern livestock operations,68 the US livestock industry remains tethered to a highly consolidated meat supply chain.

This commitment to and reliance on an industrialized and consolidated meat industry is incentivized by a broad policy and legal framework, including many programs and policies within the farm bill. For example, the farm bill directly supports the costs of building and maintaining CAFOs by providing access to construction loans for CAFO facilities without environmental review,69 ensuring a steady supply of subsidized feed-grade grain to CAFO operators,70 and allowing agriculture conservation dollars to be used for CAFO waste management.71 All these subsidies contribute to a US marketplace and culture of "cheap meat," 72 making it difficult for farmers and ranchers to gain and hold fair prices on products raised and processed with high-value and humane agricultural practices such as regenerative, local, grass-fed, or organic.

While the farm bill is the focus of this report, it is important to note that it is one part of a much broader legal framework that insulates conventional agricultural production methods like CAFOs from accountability to animal, human, environmental, and climate injustices and harm⁷³ including exemptions and loopholes in policies and regulations regarding water and air quality, animal welfare, food safety, antitrust regulation, immigration, worker safety, and labor rights.74



MANAGED ROTATIONAL GRAZING (MRG) is a type of livestock management that involves rotating livestock across gridded pastureland, allowing animals to graze in a single gridded section, or paddock, at a time.⁷⁵ Rotating livestock allows each paddock to "rest" between periods of grazing, such that forage grasses and plants can recover, deepen their root systems, and increase long-term pasture yields.⁷⁶ As an adaptive livestock and land management technique, MRG requires close observation of forage rest and recovery needs, which can vary by soil composition, rainfall, species growth rate, and seasonal temperatures.⁷⁷ Critically, MRG systems mimic the way bison naturally migrate and forage and have been used in similar forms by Indigenous peoples for centuries.⁷⁸ This system is known to improve soil, water, and air quality, enhance animal health and welfare, increase biodiversity, reduce nutrient and capital inputs, decrease on-farm greenhouse gas emissions, mitigate climate change, improve weather event resilience, and increase regional food system vitality.⁷⁹

 $Advocates for soil health improvement practices point to MRG as the "most effective system for managing perennial grasslands." {\it 86} Examples in the Midwest show increased soil organic matter, and the most effective system for managing perennial grasslands." {\it 86} Examples in the Midwest show increased soil organic matter, and the most effective system for managing perennial grasslands." {\it 86} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter, and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwest show increased soil organic matter and {\it 87} Examples in the Midwes$

Managed rotational grazing is known to improve soil, water, and air quality, enhance animal health and welfare, and increase biodiversity, among other benefits.

Managed rotational grazing may also be referred to as advanced grazing management, 80 adaptive multi-paddock grazing, 81 management intensive grazing, 82 holistic planned grazing, 83 regenerative grazing, 84 and many other terms. 85 While each term may vary slightly in its origin and systems-level application, all refer to a series of rotation and rest cycles with short periods of concentrated grazing followed by longer periods of rest and recovery for forage plants.

high soil carbon accumulation rate potential, overall improved soil and belowground biological activity, and net greenhouse gas reduction after integrating MRG systems with continuous cover cropping.⁸⁷ While there is debate as to whether pasture and rangeland can function as substantial carbon sinks given the offsets to livestock methane emissions, ⁸⁸ there is evidence that shows MRG prevents soil erosion, improves forage quality and composition, increases water-holding capacity,



Bison graze on the Blackfeet Indian Reservation in northeast Montana.

enhances wildlife habitat and biodiversity, and promotes soil carbon sequestration due to frequent movement of high densities of livestock and adaptive forage rest and recovery periods. ⁸⁹ In particular, grazing diverse cover crops within an MRG system builds soil health and offsets cover crop management costs for farmers. ⁹⁰ Additionally, research indicates MRG improves animal health and nutrition and can lead to increased farm profitability through reductions in input costs, including feed and infrastructure, and access to higher-value markets, such as organic and grass-fed beef and dairy. ⁹¹

Potential Benefits of Managed Rotational Grazing



Improves forage quality, enhancing wildlife habitat and biodiversity

Prevents soil erosion and composition

Increases water-holding capacity

Promotes soil carbon sequestration

Managed Rotational Grazing as Regenerative Agriculture

At its core, MRG systems function through a constant feedback loop of observation and adaptation to mitigate and reverse climate change impacts. It is one of many interconnected management practices and principles that comprise a type of farming and food production known as **regenerative agriculture**. 92 There is no single cultural or legal definition of regenerative agriculture, but it is generally understood as a holistic way of producing food with numerous environmental and social benefits. 93 And, while regenerative agriculture has become more of a focus in white-dominated agricultural spaces over the last several decades, 94 this approach is not new.

Regenerative agriculture is a holistic agricultural method that has been used by Indigenous communities and other communities of color for hundreds of years. Leaders from these communities are pushing regenerative agriculture advocates to question the scope of harms this type of agriculture is aiming to address.⁹⁵ Specifically, they are advocating to include rectifying the social and racial injustices embedded in predominant agricultural systems.⁹⁶ Addressing food and farming injustices against BIPOC communities, including immigrants, migrants, and refugees, directly supports efforts to increase the nation's food system resilience.⁹⁷ For example, removing discriminatory barriers and improving access to land, financial resources, infrastructure, and information for BIPOC communities and farmers advances the US food system's racial equity and resilience.⁹⁸ Additionally, agricultural leaders of color want to see the movement credit and include direct representation by the communities who have been using regenerative agricultural practices historically and currently—something that has not yet happened in mainstream environmental and agricultural movements in the US.⁹⁹

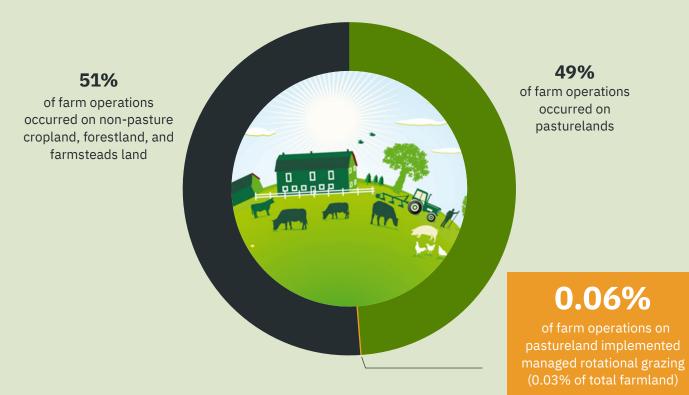


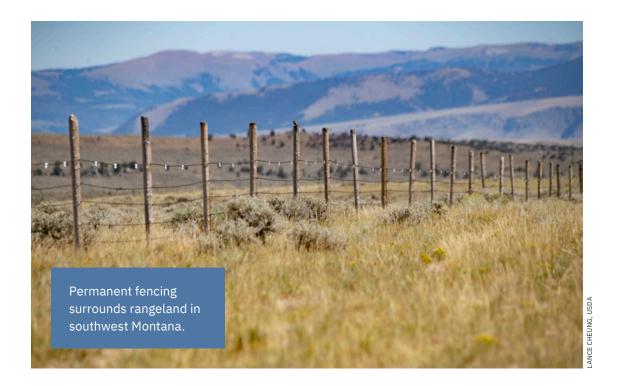
What land is used for managed rotational grazing?

Grazing occurs on both public and private pastures, grasslands, and rangelands across the US. There are 20 publicly owned National Grasslands comprised of 4 million acres managed by the USDA Forest Service. The Forest Service also manages about 96 million acres of public rangelands within the 191 million acres of National Forest Systems lands. The Department of Interior's Bureau of Land Management administers the remaining public national rangelands, about 155 million acres.

By contrast, over 27 percent of the total acreage of the contiguous 48 states are privately owned range- and pasturelands, exceeding both forestland and cropland. According to the 2017 Census of Agriculture, 440,606,426 acres, or 49 percent of all US farm operations, occur on pasturelands including pastured forestland and cropland. Identifying a precise number of acres utilizing MRG in any given year is challenging due to collection methods and the variety of land types—both public and private—it can occur on, including pasturelands, rangelands, grasslands, as well as pastured cropland and forestland. However, of those acres, it is estimated that managed rotational grazing is implemented on about 265,000 of those acres, or about 0.06 percent of pastureland. Notably, the number of farm operations implementing MRG has decreased since 2012. One possible reason for this is the decrease in available funding and technical assistance provided for MRG systems via the farm bill over the same time period.

In 2017, 49% of the farm operations in the U.S. occurred on pasturelands, including pastured forestland and cropland, and 0.06% of those acres implemented managed rotational grazing.





Challenges of Shifting to a Managed Rotational Grazing System

Transitioning to regenerative grazing operations can require significant up-front costs for basic equipment such as electrical fencing or water systems as well as consultations with grazing specialists for grazing plan development. ¹⁰⁷ A primary mechanism to address these challenges as graziers seek to transition to or expand regenerative agriculture and MRG systems is through agricultural conservation programs at the state and federal levels. At the federal level, these programs are provided through the farm bill.

However, for graziers who may be looking for alternative supply chains and market channels as they transition away from confined animal operations, there may be substantial costs and needs beyond what farm bill conservation programs can support. These costs and technical assistance may include those associated with market research, product testing and development, marketing, small-scale slaughtering and processing, rebuilding lost hard grazing infrastructure (such as permanent perimeter fencing), technology upgrades or adoption, labor, training, relationship building, and direct competition with a highly efficient and consolidated industry. Particularly for beginning farmers and ranchers and existing farmers with limited capital interested in starting rotational grazing operations, the cost of land, livestock, equipment, facilities, vehicles, and other infrastructure and inputs can be prohibitive without significant external financial and technical support.

The next section will provide an overview of the purpose, eligibility requirements, history, and impact, as well as barriers and gaps of these farm bill conservations programs related to state and federal rotational grazing policies and practices.



The Farm Bill

THE FARM BILL IS AN OMNIBUS PACKAGE of federal legislation passed roughly once every five years that defines and authorizes the majority of critical federal agriculture, nutrition, conservation, and rural economic development programs and policies in the US. ¹⁰⁸ In particular, the conservation section of the farm bill includes a suite of programs available to farmers, ranchers, landowners and land operators to implement and maintain environmental improvements on working lands (grazing pastureland, for example) as well as land retirement programs, conservation easements, partnership and grant programs, and conservation compliance programs. ¹⁰⁹ These programs are administered by various agencies within USDA.

The history of the first farm bills and their focus on conservation is rooted in early devastating environmental and agricultural US law and policies. Over the course of the late 1800s and early 1900s, the violent removal of Apache, Comanche, and Kiowa peoples as well as bison and native grasses were followed by short-sighted agricultural practices used to raise cattle and wheat as US migrants and German immigrants settled across the Southern Plains. These events were incentivized by the federal government through policies that included the Dawes Act of 1887 and the Homestead Act of 1862, as well as by eager real estate developers and regional USDA agents advocating for dry-farming methodologies. This abrupt transition to extractive environmental and agricultural practices led to the swift and devastating loss of millions of tons of topsoil across the Southern Plains between 1931 and 1936. The resulting environmental disaster, famously described as the Dust Bowl, galvanized the Roosevelt Administration and Congress to urgently pass measures, including the first farm bill, to reverse soil, air, and water quality degradation while financially supporting struggling farmers. Conservation initiatives

were included in the first two farm bills, the Agricultural Adjustment Acts of 1933 and 1935, with an emphasis on mending the country's growing soil erosion problem.¹¹⁴

Since the first two farm bills, the evolution of each subsequent farm bill has included an expanding conservation agenda advocated for and supported by a bipartisan coalition of environmentalists, farmers, technical assistance providers, and policymakers. 115 This approach benefits established, larger, consolidated farm operations. However, the farm bill has simultaneously incentivized ecologically destructive agricultural practices, such as CAFOs and continuous grazing systems.

Typically, farm bill conservation programs address only one type of financial barrier for farmers: overall cost of implementing a certain practice or acquiring infrastructure. 116 This approach benefits established, larger, consolidated farm operations. However, many farmers face other financial barriers such as high start-up costs for new and beginning farmers, ongoing annual maintenance costs, or the overall financial risk of making the transition to a new management practice like MRG.117 At the same time, more farmers are sharing their positive and profitable experiences with farm bill conservation programs¹¹⁸ and have been using program funding and technical assistance to implement MRG systems on working lands for at least the last decade.119

Farm Bill Conservation Programs

The bulk of conservation programs in the farm bill Conservation Title are administered by the Natural Resources Conservation Service (NRCS) and organized as either working

lands programs or land retirement programs. 120 The Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP) are the two working lands programs that provide financial support and technical assistance to private landowners and operators as they plan and implement conservation practices. 121 The Conservation Reserve Program (CRP), on the other hand, is the primary land retirement program in the farm bill. The CRP's main purpose is to remove environ-



Ray Rush of Melrose, New Mexico, was one of the first landowners to sign up for the CRP in 1986.

mentally sensitive land from production and implement practices that improve water and soil quality and reinstate wildlife habitats.¹²² One type of CRP, known as Grassland CRP, functions as a hybrid between the working lands and land retirement programs that allows grazing on certain types of lands. Additional farm bill programs that impact grazing efforts include the Agriculture Conservation Easement Program (ACEP) and the Grazing Lands Conservation Initiative (GLCI). This section provides an overview of each program and how it provides support for managed rotational grazing.

Working Lands Program: Environmental Quality Incentives Program (EQIP)

PROGRAM OVERVIEW

The Environmental Quality Incentives Program (EQIP) functions as a competitive cost-share program in which up to 75 percent of costs incurred and 100 percent of income foregone for implementing eligible conservation practices may be covered by NRCS for contracted awardees. The actual amount of financial assistance available for selected conservation practices in any given state varies depending on the state's agricultural history and landscape as well as its conservation and technical priorities. Managed rotational grazing is included as an eligible practice under EQIP. To successfully apply for grazing management support under EQIP, applicants must have a certified grazing plan in place, written and approved by certified grazing planners. Planners are proved by certified grazing planners.

ELIGIBLE GRAZING ACTIVITIES

The most common grazing practices eligible for funding under EQIP include:

- Grazing management design including a prescribed grazing plan and identification of infrastructure and material needs such as fencing, forage plantings, and water systems. ¹²⁵
- Prescribed grazing¹²⁶ including animal rotation and pasture or range resting that improves or maintains:
 - desired species composition, structure, or vigor of plant communities;
 - quantity or quality of forage for animals' health and productivity;
 - surface or subsurface water quality or quantity;
 - · riparian or watershed function; or
 - quantity, quality, or connectivity of food or cover available for wildlife.
- Mechanical treatment to improve soil and plant conditions on grazing lands. 127



At their farm in Sheridan, Arkansas, Kenny and Annette Sites have adopted a conservation plan that includes prescribed grazing as well as forage and biomass planting.

ADDITIONAL EQIP INFORMATION

At the national level, 50 percent of EQIP funding is reserved for livestock operations, including grazing management practices. ¹²⁸ However, funding and knowledgeable technical assistance for livestock operations and MRG varies by state and may be more difficult to access for farmers who already have diverse operations or are interested in integrating animals into an operation that is not yet diversified. ¹²⁹ For example, a row crop farmer who typically uses cover cropping on their farm and is interested in grazing the cover crop may decide to apply for EQIP support for both the livestock integration in the form of electrified perimeter fencing and the continued cover cropping expenses. If the farmer applies for and receives EQIP funding for cover cropping, they cannot also receive funding for livestock fencing. ¹³⁰

Relatedly, for farmers interested in adding animals to their operation or transitioning away from row cropping to livestock management, EQIP will only fund livestock-related improvements once farmers already have animals. ¹³¹ For example, if a farmer wants to convert their farm from row crops to pasture, EQIP will not fund permanent perimeter fencing or other

types of fencing before the farmer purchases livestock. This can present significant issues for farmers as fencing is needed prior to purchasing animals, so that the animals can be placed on the pasture. Consequently, the farmer would be forced to front the cost for the transition and would not be eligible for EQIP payments until they made EQIP-defined improvements to their operation. In Illinois, this is a common experience for farmers interested in transitioning toward grazing. ¹³² As the state was incentivized by the farm bill to

50 percent of EQIP funding is reserved for livestock operations. However, funding is difficult to access for diversified farms and those transitioning from row crops to livestock.

expand into widespread commodity row crop production, permanent perimeter fencing was removed. Now, rebuilding this fencing is one of the most significant barriers for farmers interested in reintegrating livestock grazing on their farms. ¹³³

EQIP may also be more geared toward conventional farms and farming practices. Access to payments for conservation practices applicable to conventional row crop (corn and soybeans, often) operations is more streamlined in terms of planning costs, time, and logistics compared to diversified operations. ¹³⁴ For example, a **silvopasture** operation—a type of agriculture in which tree cultivation is integrated with animals—requires at least two certified plans prior to receiving EQIP funding: a grazing plan and a silvopasture plan. In many cases, this type of farm is likely to have an organic transition plan as well. Each plan requires identifying, accessing, and paying expert certified planning consultants as well as risking substantial up-front costs purchasing animals and fencing, planting trees, and obtaining certifications¹³⁵ before receiving financial support for the operation. ¹³⁶ With limited numbers of certified planners in any given state, this can also create a significant bottleneck.

In addition to the federal funding reservation for livestock operations, states may have their own set-asides. For example, a state may reserve a portion of the state's EQIP funds for CAFO management, depending on priorities determined by the NRCS State Conservationist, the state technical committee, and local working groups. ¹³⁷ Using EQIP funding for CAFOs, however, is a significant divergence from the program's original intent to "improve water and air quality, conserve ground and surface water, increase soil health and reduce soil erosion and sedimentation, improve or create wildlife habitat, and mitigate against drought and increasing weather volatility" ¹³⁸—environmental issues that CAFOs directly contribute to.

EQIP funding explicitly excluded CAFOs from eligibility until the 2002 Farm Bill, ¹³⁹ following substantial lobbying from agribusiness companies in an effort to skirt regulatory requirements. ¹⁴⁰ This change made CAFO management practices eligible for cost-share or incentive payments under the program ¹⁴¹ and created the opportunity for states to dedicate increasing amounts of funding toward maintaining CAFOs. ¹⁴² In 2020, for example, more than 11 percent of EQIP funding went toward CAFO practices including waste storage facilities, waste facility covers, animal mortality facilities, and manure transfer. ¹⁴³

Additionally, CAFOs are eligible to use EQIP funds for building anerobic digesters, a system that converts greenhouse gases produced by livestock manure, such as methane, into a type of fuel known as biogas. 144 Not only do manure biogas systems fail to reduce overall methane production or capture other greenhouse gases emitted by CAFOs, but they also inherently rely on industrial, large-scale animal agriculture to produce methane-containing manure while continuing to cause environmental and public health harms during the anaerobic digestion process. 145 While ensuring safe management of CAFOs is important, these eligible activities work against the program's central purpose by allocating funds to support costly and environmentally degrading CAFO waste and mortality management rather than supporting farmers and ranchers in implementing conservation practices on working lands. 146

Due to differing state priorities and needs, EQIP funding is not uniformly distributed across the country and is significantly oversubscribed. In 2021, for example, 34,054 EQIP applicants were funded (29.9 percent of applications received) with the highest number of contracts in Texas, Mississippi, and California. At the same time, the highest number of unfunded applications were submitted in Mississippi, Arkansas, and Texas, by acreage, and Mississippi, California, and Arkansas, by dollar amount requested. With this limited funding, EQIP is unable to optimize environmental benefits outlined in its purpose. 149



EQIP and CSP Set-asides for "Historically Underserved Producers"

For "historically underserved producers," 150 the costs covered for eligible EQIP practices are up to 90 percent with the possibility of advance payments up to 50 percent for necessary start-up costs. 151 However, even with some available advance payments, the program mostly operates through a reimbursement process which can present a significant financial barrier for farmers and ranchers with limited resources and low capital. 152

For both EQIP and CSP, five percent of funding is set aside for "socially disadvantaged farmers and ranchers" 153 and five percent is set aside for "beginning farmers and ranchers" 154 with "veteran farmers and ranchers" 155 as a priority within those two set-asides. 156 Even with these commitments, 19 states did not meet the five percent set-aside for historically underserved farmers and ranchers in fiscal year 2019-2020. 157 These shortcomings are notable, particularly given USDA's history of longstanding racial discrimination. 158

> ABOVE: Tammy Higgins, a Native American rancher raising cattle in Okfuskee County, Oklahoma, has participated in EQIP and CSP.

Working Lands Program: Conservation Stewardship Program (CSP)

PROGRAM OVERVIEW

CSP is the largest federal conservation program by acreage and offers five-year competitive contracts to farmers and ranchers owning or controlling any private agricultural land, including pasture and rangeland, who meet a defined "stewardship threshold" and satisfy specific conservation and natural resource criteria identified by each NRCS State Conservationist and state technical committee. ¹⁶⁰

In contrast to the individual practice-based incentives provided through EQIP, CSP is intended to offer "whole farm" financial and technical assistance for farmers who combine basic conservation activities with more substantial interventions, referred to as enhancements, which are unique to CSP. Additionally, CSP applicants are able to "bundle" their enhancement activities for compounded conservation and financial benefits. Bundles are considered the "most integrated elements of CSP supported interventions" and are essentially a suite of conservation enhancements that NRCS determines will likely work well together to meet a particular conservation priority. Critically, bundles provide flexibility to farmers as they can choose which practices to implement on their land. Managed rotational grazing is considered part of an eligible CSP plan. Notably, CSP offers five different bundles related to grazing.



ELIGIBLE GRAZING ACTIVITIES

Grazing enhancements eligible for CSP funding include:166

- Management Intensive Rotational Grazing
- Installing electrical fence offsets and wire to facilitate cross-fencing for improved grazing management
- Grazing management that improves or maintains
 - riparian and watershed function to mitigate erosion and water temperature regulation
 - monarch butterfly habitat
 - · quantity and quality of food or cover and shelter for wildlife
 - · plant structure and composition for wildlife
- Prescribed grazing that protects sensitive areas from gully erosion as well as surface or ground water from nutrients
- Strategically planned patch burning for grazing distribution and wildlife habitat
- Grazing to reduce wildfire risks in forests
- Improved grazing management on pasture for plant productivity and health with monitoring activities
- Maintaining forage quality and quantity for animal health and productivity

Like EQIP, CSP funding is not equally distributed across states and depends on the overall budget, the number of applications, and state priorities. In 2021, for example, 35 percent of all CSP applications (both new and renewal) were funded with the highest number of acres enrolled in the program in New Mexico, Utah, and Arkansas. ¹⁶⁷ By funding level, the highest enrollment was in Alabama, Arkansas, and Mississippi. ¹⁶⁸ Leading states for CSP renewal enrollment were New Mexico, Utah, and Montana, by acreage, and Illinois, Iowa, and New Mexico, by funding level. ¹⁶⁹

Electrical fencing allows graziers to easily rotate livestock to rested paddocks while keeping animals secure and safe.



Shifting Intentions and Impacts of EQIP and CSP

Over time, the original intent of both EQIP and CSP have given way to other policy priorities. EQIP contracts were intended to pay farmers and ranchers for small, "one-off" projects. ¹⁷⁰ CSP, on the other hand, was meant to financially and technically support those farmers already implementing some conservation practices and who were interested in adopting additional whole-farm projects to meet broader, long-term conservation priorities. ¹⁷¹ As stated above, since the prohibition on CAFO eligibility has been lifted, increasing amounts of EQIP funding have been allocated to costly management of confinement operations. ¹⁷² Most recently, under the Trump Administration, CSP slowly shifted from its original intent by supporting farmers unfamiliar with conservation practices or only interested in one-off projects, a group that was traditionally encouraged to apply for EQIP funds. ¹⁷³

And yet, EQIP and CSP consistently have more applicants than available funding. Analysis by the National Sustainable Agriculture Coalition (NSAC) and Institute for Agriculture and Trade Policy (IATP) shows that between 2010 and 2020, fewer than half of the producers who applied for EQIP and CSP were awarded contracts, with only 42 percent of CSP applicants and 31 percent of EQIP applicants successful. While demographic data is limited, the contract award rate is much lower for producers of color. In 2020, for example, 3.7 percent of CSP contracts and 6.4 percent of EQIP contracts were awarded to producers of color—just one percent of the producers of color in the United States.

The projected spending for conservation programs in the current farm bill, the Agricultural Improvement Act of 2018, was about six billion dollars—roughly seven percent of the total budget—making it one of the larger non-nutrition titles. Still, this amount is half of what goes to support commodity crops (and, therefore, CAFOs) through crop insurance and commodity titles. The end of 2020, the actual amount spent was just over five billion dollars. And yet, the demand to participate in the working lands programs significantly exceeds available funds. Lack of funding is not the only barrier farmers experience with EQIP and CSP; these programs also fall short on the type of funding farmers need, such as direct payments, advance stipends for equipment and infrastructure, or a pay-for-performance approach.

Lack of funding is not the only barrier farmers experience with EQIP and CSP; these programs also fall short on the type of funding farmers need, such as direct payments, advance stipends for equipment and infrastructure, or a pay-for-performance approach. EQIP and CSP also lack inclusive and knowledgeable technical assistance and grazing plan development services for graziers, especially those located in corn and soybean dominated states or those raising animals other than beef cattle and dairy cows. 181 This gap in services may disproportionately impact beginning or limited resource farmers and ranchers who want to raise livestock that have fewer infrastructure and input needs, such as goats. 182 And, when relevant technical assistance is available, it is tied to a financial assistance contract. 183 Therefore, any technical assistance from NRCS staff outside of an awarded contract, such as conservation preplanning, relies on discretionary funding from a separate USDA program, known as Conservation Technical Assistance (CTA).¹⁸⁴



Goats, who prefer to graze on woody and weedy species, select younger parts of the plant first and then work their way down.

Other Farm Bill Grazing Programs and Initiatives

GRASSLAND CONSERVATION RESERVE PROGRAM (CRP)

CRP contains several initiatives specific to land type, including the Grassland Conservation Reserve Program, or Grassland CRP. USDA's Farm Service Agency (FSA) is the administering entity for CRP, with management support from NRCS and state forestry agencies. Grassland CRP is intended to uniquely support landowners and operators to protect important grasslands, including pastures and rangelands, while maintaining grazing operations. All types of CRP contracts, including those under the grassland enrollment, are for longer term 10- to 15-year contracts with rental payments at 75 percent of the contracted land's grazing value. All contracts are awarded on a competitive basis and scored using a set of ranking factors including current and future acre use, maximum acre preservation potential, vegetative cover, environmental significance, and whether the applicant is a small-scale livestock producer or "historically underserved producer." After the initial contract is completed, grassland enrollment awardees are able to reenroll on a competitive basis for another term, if desired.

USDA typically sets aside about 2 million CRP acres for grassland enrollments annually. ¹⁹² In 2022, USDA accepted offers for more than 3.1 million acres, a 22 percent increase from 2021. ¹⁹³ The largest numbers of acres accepted were in Colorado, South Dakota, and Nebraska, with the highest increases compared to the previous year in Arizona, California, and Utah. ¹⁹⁴ Notably, 1.9 million acres of that total are owned or operated by "historically underserved producers." ¹⁹⁵ While "common grazing practices" and "grazing related activities such as fencing and livestock watering facilities" are permitted on Grassland CRP acres, there is no additional financial incentive or specialized technical assistance for implementing managed rotational grazing systems. ¹⁹⁶ For acres enrolled in CRP without the grasslands designation, landowners and operators actually receive reductions in CRP payments if they graze their land, even when it could benefit ecologically from grazing (such as in the case of small livestock such as goats grazing to manage invasive plant growth). ¹⁹⁷

Other CRP Grazing Support



As part of the Conservation Reserve Program, FSA is offering 30-year contracts through its Clean Lakes, Estuaries, And Rivers subprogram, known as the CLEAR30 pilot. This pilot is available nationwide and targets cropland and certain marginal pastureland currently enrolled in a CRP or Grassland CRP contract. Photosophy Notably, land enrolled in the CLEAR30 pilot may be used for "compatible economic uses" such as "periodic haying and grazing," provided the use is "included in the conservation plan and [c]onsistent with the long-term protection and enhancement of the conservation resource for which the land was enrolled. Program. In this allowance is intended to support livestock producers in areas with "localized or regional drought, flooding, wildfire, or other emergency.

GRAZING LANDS CONSERVATION INITIATIVE (GLCI)

Created in the 1990s, GLCI is a program that has historically been dedicated to providing placebased resources (funding, technical assistance, peer-to-peer learning, training) to farmers and ranchers implementing grazing systems.²⁰³ Funding for GLCI was first included in the 2002 Farm Bill and used over the years to build expert grazing teams at the state level across NRCS staff, cooperative extension agents, and grazing support organizations.²⁰⁴ After reaching funding levels of \$27 million in 2008, GLCI funds were cut in 2009, removing support for local and regional grazing expertise and forcing states to deprioritize sustainable grazing.²⁰⁵ Extensive advocacy from farmers, ranchers, and groups like the National Sustainable Agriculture Coalition led to the reestablishment of GLCI in 2022 but at a much lower level of \$14 million.²⁰⁶ Advocates continue to push for GLCI to receive a mandatory funding of \$50 million per year over the life of the 2023 Farm Bill.²⁰⁷

AGRICULTURAL CONSERVATION EASEMENT PROGRAM (ACEP)

ACEP is another land retirement program within the farm bill that utilizes easements to permanently restrict land use in exchange for a government payment.²⁰⁸ Created in 2014, ACEP combined three separate easement programs including a previously established Grassland Reserve Program (GRP).²⁰⁹ While this program may be utilized to protect "grasslands of special environmental significance,"210 it does not include any prescription or incentive for adopting MRG. And, notably, the transition from GRP to ACEP led to a loss in support for grazing programs overall.²¹¹



CROP INSURANCE AND MANAGED ROTATIONAL GRAZING

Crop insurance is the largest federal farm subsidy offered in the farm bill.²¹² Administered by USDA's Risk Management Agency (RMA), this program subsidizes farmer premiums for crop and other farm insurance,²¹³ incentivizing farmers to take risks on crops or methods of production they might not otherwise pursue.²¹⁴ States are allowed to offer additional crop insurance subsidies depending on local priorities and needs. For example, in the case of Iowa and Illinois, a five dollar per acre crop insurance rebate is offered for planting cover crops.²¹⁵

Differences in insurance options may deter farmers from transitioning away from row crop commodities, which have a strong safety net, to animal agriculture, which has less of a safety net and a higher administrative burden. The two primary insurance options for diversified farm and livestock operators include the Whole-Farm Revenue Protection and the Pasture, Range, and Forage programs.

In 2007, the Pasture, Range, and Forage insurance pilot program was developed by RMA to assist farmers and ranchers in mitigating drought impacts on pasturelands and rangelands. ²¹⁶ Since then, the program has been expanded to the entire continental US and enrollment has increased significantly with 98 million acres insured in 2018. ²¹⁷ The primary objective of the program is to help farmers and ranchers cover replacement feed costs when there is a loss of forage for grazing or for harvesting hay due to a lack of precipitation. ²¹⁸ However, due to the coverage mechanism (structured around a farmer's ability to predict periods of drought) and the extremely low payments, there is an opportunity to improve insurance options for graziers.

In the 2014 Farm Bill, the Whole-Farm Revenue Protection insurance pilot was created²¹⁹ as a substantial update to Adjusted Gross Revenue (AGR)²²⁰ and AGR-lite²²¹ programs to support farmers with an insurance option that covers their entire operation, including crop, livestock, and nursery production under one policy.²²² However, due to low and delayed payments, administrative burden, lack of information about the pilot, and disinterest among insurance companies, enrollment has been low.²²³ Notably, RMA permanently updated its rules for the Prevented Planting provision in insurance policies (both WFRP and common crop insurance) to allow haying, grazing, or chopping cover crops while still receiving payments under the provision.²²⁴ Prevented Planting provides coverage for farmers in the event that they cannot carry out expected plantings due to extreme weather.²²⁵ Before, farmers were limited to haying, grazing, or chopping cover crops during a certain time of year and if this limitation was violated, a prevented planting payment was reduced by 65 percent.²²⁶ Now, farmers are not financially penalized on their payment if they decide to hay, graze, or chop their cover crops at any point during the year.²²⁷

HOW STATES IMPLEMENT FARM BILL CONSERVATION PROGRAMS AND INCENTIVIZE GRAZING



STATE NRCS OFFICES administer most of the conservation programs established and funded by the farm bill and work closely with conservation districts, Resource Conservation and Development Councils, extension programs, and state agriculture departments and natural resource departments to offer technical assistance to farmers, ranchers, and other private land managers. While state NRCS offices receive funding to manage the conservation programs through federal farm bill appropriations, the actual amount of funding received as well as quality and availability of technical assistance provided through these programs is not uniform across states. Available funding, awarded contracts, and administered technical assistance is significantly influenced by each state's technical committee priorities.

Each state technical committee (STC) is legally required to be chaired by a competitively hired NRCS State Conservationist and comprised of representatives from federal and state natural resource agencies, American Indian Tribes, agricultural and environmental organizations, agricultural producers, owners of private forested land, agribusinesses, and state cooperative extension services and land grant universities. ²³¹ As practicable, membership also includes representation from "historically underserved groups and individuals." ²³² Ultimately, it is up to the chair to ensure there is "balanced representation of interests" among the committee membership. ²³³ STCs are expected to meet regularly to discuss and make recommendations to agencies tasked with implementing conservation programs. ²³⁴ Meetings are open to the public and minutes are posted on most state NRCS websites. ²³⁵

Within the STC structure, State Conservationists may form subcommittees to focus on specific conservation programs (such as EQIP) or issues (such as grazing) and provide recommendations directly to NRCS state staff.²³⁶

Recommendations may include: 237

- criteria to be used in prioritizing program applications
- state-specific application criteria
- priority natural resource concerns in the state
- emerging natural resource concerns and program needs
- conservation practice standards and specifications

To aid in their decision-making, STCs use the Conservation Assessment Ranking Tool, or CART, to assist in identifying winning contracts. ²³⁸ Consequently, STCs play a key role in determining what a state's conservation priorities and needs are and what state-specific criteria are applied when NRCS reviews applications. Competing agricultural interests, needs, and resources make it challenging for states to allocate funding and technical assistance for conservation practices that are in alignment with the original intent of conservation programs like EQIP and CSP. For example, based on STC recommendations, state NRCS offices may have to decide between awarding large EQIP contracts to CAFOs for costly waste and animal mortality management and other eligible sustainable practices, such as rotational grazing and cover cropping. ²³⁹ This process further reinforces that NRCS programs are designed with a focus on the present needs of existing farmers and agricultural systems rather than those of next generation farmers.

Competing agricultural interests, needs, and resources make it challenging for states to allocate funding and technical assistance for conservation practices that are in alignment with the original intent of conservation programs like EQIP and CSP.

Key Challenges for States

Given the increased concern over natural resource management in a continually changing climate, states are invested in identifying, incentivizing, and implementing conservation efforts across various environmental, economic, and business sectors, with a particular focus on agriculture.²⁴⁰ At the same time, decades of data indicate that federal and state agriculture conservation programs lack the resources, funding, and capacity to meet the interests and needs of farmers transitioning to or expanding conservation efforts, including MRG systems.²⁴¹

As stated above, grazing-specific technical capacity building offered at the state level declined drastically since its peak in the late 1990s and early 2000s due to the elimination of GLCI in 2009.242 While GLCI was reestablished in 2022, funding for the program has not yet reached full operating levels.²⁴³ To compensate, states and Native Nations have tried to offer additional funding and incentives to farmers interested in conservation practices through innovative programs and initiatives such as healthy soil efforts in New York²⁴⁴ and California,²⁴⁵ nutrient reduction planning in Iowa,²⁴⁶ climate action planning to reduce greenhouse gas emissions in Washington,²⁴⁷ and small-scale livestock supply chain infrastructure and processing development and marketing investment in Indian Country.²⁴⁸





FARMERS, RANCHERS, AND GRAZIERS are motivated to adopt conservation practices such as MRG due to a combination of environmental, economic, social, and personal factors. Resources and incentives should be crafted and implemented with these motivations in mind. ²⁴⁹ Further, policy incentives must be designed to appeal to farmers by addressing multiple types of financial, cultural, and operational barriers. ²⁵⁰ Recommendations below are based in part on the advocacy and research of several entities including the National Sustainable Agriculture Coalition, the Institute for Agriculture and Trade Policy, The Wallace Center, Farm Bill Law Enterprise, and the Department of Forest and Wildlife Ecology at University of Wisconsin–Madison. These recommendations aim to improve how managed grazing is funded, incentivized, and technically supported at the state and federal level while meeting ambitious climate mitigation and racial equity goals put forth by the Biden Administration.

ABOVE: Ample rainfall has helped this filter strip, with conservation cover planting, grow plentiful and tall for Landowner and Farmer Darrel Kjerstad.

Improving Farm Bill Programs

- Continue to increase funding for EQIP and CSP programs, including the designated set-asides for "historically underserved producers."
- Build trust-based relationships with and improve strategy and efficacy of program outreach to "historically underserved producers."
- Increase access to EQIP and CSP programs through a conservation navigator program that allows experienced nonprofits to operate, guide, and assist historically underserved farmers and ranchers in accessing agricultural programs through cooperative agreements.
- Improve EQIP cost-share mechanism for farmers, including up to 100 percent of advance payments²⁵¹ and pay-for-performance.²⁵²
- Restore EQIP and CSP to their original intents (EQIP for individual conservation practices and CSP for more advanced whole farm conservation enhancements and long-term planning).²⁵³
- Reinstate the restriction preventing EQIP funds from being spent on CAFOs.²⁵⁴
- Prioritize climate-friendly eligible practices for EQIP and CSP and choose participants based on how well an application mitigates climate change.²⁵⁵
- Incentivize producers who have acres enrolled in Grassland CRP and ACEP to implement managed rotational grazing systems.
- Increase GLCI funding to rebuild state and regional grazing technical capacity. ²⁵⁶
- Reform insurance options for diversified and livestock operations, ²⁵⁷ including the Whole-Farm Revenue Protection and Pasture, Range, and Forage programs, to better support existing graziers and farmers transitioning away from row crop commodities to MRG livestock operations.
- Improve demographic data collection and public access to that data to ensure states are meeting priority group set-asides.

Increasing MRG Education and Technical Assistance

- Shift NRCS hours of service to create some availability outside of 9:00 A.M. to 5:00 P.M. hours for farmers who work off-farm jobs, which is especially common among beginning and historically underserved producers.
- Improve technical expertise with professional development and expanded staffing within NRCS to better support diverse grazing operations including support for goats, sheep, pigs, chickens, and bison.²⁵⁸
- Establish and fund a training and mentorship program that trains and pays experienced farmers and ranchers to lead workshops and provide mentorship and additional technical expertise to peer farmers interested in adopting or expanding managed grazing practices.

Building MRG Implementation Capacity

- Establish state interagency priorities and plans (such as climate action plans and nutrient loss reduction strategies) for climate adaptation that incorporates the climate impact and needs of livestock operations and MRG systems.
- Encourage state technical committees to prioritize climate-resilient conservation practices.
- Increase support for NRCS Tribal Liaisons.
- Collaborate with Indigenous communities and organizations and Native Nations to offer regenerative agriculture and managed rotational grazing expertise to farmers, ranchers, and graziers.
- Improve meat processing availability for small- and mid-scale farmers.

Conclusion

Industrial forms of animal agriculture, including CAFOs and continuous grazing systems, are extremely resource intensive, extractive, and a major contributor to climate change. Climate and agriculture research demonstrates that strong regional and regenerative food and agriculture systems are needed to mitigate and reverse climate impacts while building resilience to better withstand future shocks and stressors. Transitioning away from CAFOs and continuous grazing systems toward more regenerative livestock agriculture, including MRG systems, requires broad environmental, agricultural, labor, immigration, antitrust, and animal welfare policy reform.

However, improving the structure, function, and implementation of farm bill conservation programs to better support graziers in transitioning to or expanding regenerative livestock agriculture systems is an effective place to start. Critically, farm bill reform must be guided by farmers' and ranchers' financial, social, cultural, and operational needs. Bold and explicit support for climate resilient agricultural practices must be central to the farm bill's policy framework moving forward, with input from farmers eager to adopt more regenerative agriculture livestock management practices as well as those that are already using and modeling regional and resilient livestock supply chains through MRG and small-scale processing.

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164 Chelsea St, PO Box 96 South Royalton, VT 05068 (802) 831-1000 vermontlaw.edu/cafs