Accelerating Climate Solutions on Livestock Operations through the Inflation Reduction Act



The Natural Resources Conservation Service (NRCS) and its partners are helping producers reduce greenhouse gas emissions on their livestock operations, while also addressing other natural resource concerns, including improving water quality, reducing odors, and generating biogas which can be used to replace fossil fuels.

Whether they want support to transition to pasture, improve their current waste management system, or get assistance with a grazing, feed, or nutrient management plan, NRCS supports opportunities for all producers and operations to reduce their on-farm emissions and contribute to climate solutions.

Now, NRCS is using additional funding in the Inflation Reduction Act to accelerate climate-smart solutions through several of it's existing programs and strategies.

This additional funding will help farmers, ranchers, and forest landowners apply new or additional conservation activities, with a focus on Climate-Smart Mitigation Activities that have the potential to increase storage of carbon and reduce greenhouse gas emissions. Activities supported by the Inflation Reduction Act for their mitigation benefits can be implemented in systems that provide multiple benefits, including addressing other natural resource concerns.

Climate-Smart Mitigation Activities – Livestock Practices

Greenhouse gas emissions from livestock, including from enteric fermentation and manure management, account for over 40% of the emissions from the agricultural sector in the United States.¹Livestock producers can play a critical role in fostering a healthy environment by incorporating conservation activities into their operations, which can help to reduce these emissions and provide other benefits to the environment and surrounding communities. Several conservation activities related to livestock are considered Climate-**Smart Mitigation Activities** because they can contribute to climate change mitigation by avoiding, capturing, or reducing greenhouse gas emissions or by increasing carbon storage in soil and plant communities.

¹U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990=2023. https://www.epa.gov/ghgemissions/ inventory-us-greenhouse-gas-emissionsand-sinks

The Inflation Reduction Act

represents the single largest investment in climate and clean energy solutions in American history. It provided an additional \$19.5 billion over five years for climate-smart agriculture through NRCS conservation programs. The majority of Inflation Reduction Act financial assistance funds will be made available to landowners through fiscal year 2026 in five conservation programs - the **Environmental Quality Incentive Program** (EQIP), the Conservation Stewardship Program (CSP), the Agricultural **Conservation Easement Program** (ACEP), and the Regional Conservation Partnership Program (RCPP) with implementation happening through fiscal year 2031.

Climate-Smart Agriculture and Forestry (CSAF)

is an integrated approach that enables farmers, ranchers, and forest landowners to respond to climate change by reducing or removing GHG emissions (mitigation) and adapting and building resilience (adaptation), while sustainably increasing agricultural productivity and incomes.

How to Apply

Learn more about the exciting opportunities to utilize Inflation Reduction Act funds for your livestock operation at your local USDA Service Center: farmers.gov/working-with-us/ USDA-service-centers.

ACCELERATING CLIMATE SOLUTIONS ON LIVESTOCK OPERATIONS



NRCS can provide support to livestock producers for climate-smart mitigation activities, including:

- To implement Prescribed Grazing (Code 528), which can improve and maintain soil organic matter and soil carbon by intensively managing the harvest of vegetation with grazing or browsing animals.
- To establish Silvopasture (Code 381), which can increase biomass carbon stocks and enhance soil carbon by establishing trees, shrubs, and compatible forages on the same acreage.
- To implement Nutrient Management (Code 590), which can reduce nitrous oxide emissions when livestock manure is applied using the 4Rs of nutrient stewardship to improve nitrogen use efficiency.
- To implement Feed Management (Code 592), which can reduce enteric methane emissions from livestock by manipulating diets or other feed management strategies, including the use of feed additives.
- To install a Waste Separation Facility (Code 632), which removes solids from manure streams to potentially reduce methane generated from the storage lagoon.
- To implement a Composting Facility (Code 317), which can lead to reduced methane emissions when compared to traditional liquid manure slurry storage from the increased higher temperatures and greater aeration during composting.
- To implement a Compost-Bedded Pack system, under the practice Waste Storage Facility (Code 313), which when compared to traditional liquid manure slurry storage can lead to reduced methane emissions resulting from the added carbonaceous bedding material and regularly tilling to promote aerobic composting.
- To install a cover to capture biogas from anaerobic lagoons or liquid storage systems, under the practice Roofs and Covers (Code 367), which can lead to reduced methane emissions as biogas is captured and either flared or used to replace fossil fuels.
- To install an Anaerobic Digester (Code 366), which can reduce emissions by capturing biogas and using it to replace fossil fuel or flaring it to reduce potent GHG potential.

NRCS also supports several additional grazing lands climate-smart mitigation activities, including Brush Management (314), Herbaceous Weed Treatment (315), and Range Planting (550), which can be used to maintain, restore, or enhance plant communities and associated carbon stocks. For more information on NRCS support to grassland ecosystems through the Inflation Reduction Act, see the factsheet <u>Harnessing</u> the Inflation Reduction Act to Further Support Grasslands.

While Climate-Smart Mitigation Activities can lead to direct, quantifiable climate change mitigation benefits, additional practices may be needed to facilitate the management or function of these activities to achieve their mitigation benefits. These facilitating practices may not have quantifiable mitigation benefits themselves, but they may be an essential part of the system and provide other co-benefits.

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Conservation Systems Can Provide a Range of Benefits to Producers and Local Communities

Through its conservation planning process, NRCS works with livestock producers to holistically address their current natural resource concerns. Once they have a conservation plan, producers have the opportunity to access financial and technical assistance through NRCS conservation programs. NRCS planning, financial, and technical assistance for livestock operations not only benefits farmers but can also provide public benefits. On the climate side, these practices can provide greenhouse gas benefits, as well as generation of renewable heat, power, and natural gas. Additionally, improved waste management systems can provide localized air and water quality benefits for nearby communities, including reduced odor, nutrient runoff, leaching, and pathogens. NRCS ensures manure management funding provided through its programs does not result in harmful localized impacts.

When NRCS supports farmers in implementing manure management practices, the agency adheres to safeguards to ensure public health and safety and environmental performance. NRCS identifies and addresses disproportionately high and adverse human health or environmental effects of their actions on communities of concern. As part of its environmental evaluation process, NRCS planners must consider whether the proposed action would have any disproportionate impacts on these communities. The environmental evaluation provides a framework for documenting compliance with environmental justice requirements and addressing any potential impacts. The agency also issues operation and maintenance guidance to maximize practice lifespan and ensure the safety of producers and the surrounding community, as part of its financial assistance requirements.

Recent and Ongoing NRCS Conservation Opportunities for Livestock Operations

NRCS and its partners help livestock producers improve their operations through financial assistance programs like the <u>Environmental Quality Incentives Program</u> (EQIP), <u>Conservation Stewardship Program</u> (CSP), and the <u>Agricultural Conservation Easement Program</u> (ACEP), as well as through <u>Conservation Technical Assistance</u> and partnership programs such as <u>Regional Conservation Partnership Program</u> (RCPP) and <u>Conservation Innovation</u> <u>Grants</u> (CIG). With NRCS financial and technical assistance, states, non-governmental organizations, and tribes leverage resources to achieve maximum environmental benefits on livestock operations. Recent NRCS investments supporting livestock producers:

- NRCS routinely invests at least 50% of EQIP on livestock practices, as directed by Congress², contributing to cleaner air and water, while reducing greenhouse gas emissions and increasing carbon sequestration.
- Conservation Innovation Grants (CIG) is a competitive grant program that supports the development of new tools, approaches, practices, and technologies to further natural resource conservation on private lands. In 2023, <u>NRCS invested \$65 million across two CIG funding opportunities</u>, including \$25 million from the Inflation Reduction Act to support projects that have climate change mitigation benefits. As part of the CIG On-Farm Trials, NRCS invited innovative projects that addressed feeding management and enteric methane reduction and grazing lands, among other priority areas.
- The <u>Grazing Lands Conservation Initiative</u> (GLCI) is a coordinated effort to identify priority issues, find solutions, and effect change on private grazing land, enhancing existing conservation programs. In 2024, NRCS is <u>investing up to \$22 million in partnerships</u> to expand delivery of conservation technical assistance on grazing lands. The assistance will include supporting grazing management planning, climate smart practice implementation and monitoring to ensure local natural resource concerns and conservation benefits are met within grazing management systems.
- As part of the <u>Organic Transition Initiative</u>, in 2023, NRCS <u>invested \$75 million to assist producers</u> <u>transitioning to organic production</u>, including producers looking to increase outdoor access to pasture for their livestock. NRCS can also provide assistance to organic livestock producers with practices such as pasture and grazing management, diverse pasture plantings, fencing, and walkways, watering facilities, and shelters for both large and small animals.

²Agricultural Improvement Act of 2018 (2018 Farm Bill, P.L. 115-334), Section 2304(c)