



Food and Agriculture Climate Alliance

FARM BILL

POLICY PRIORITIES

RECOMMENDATIONS TO THE 118TH CONGRESS

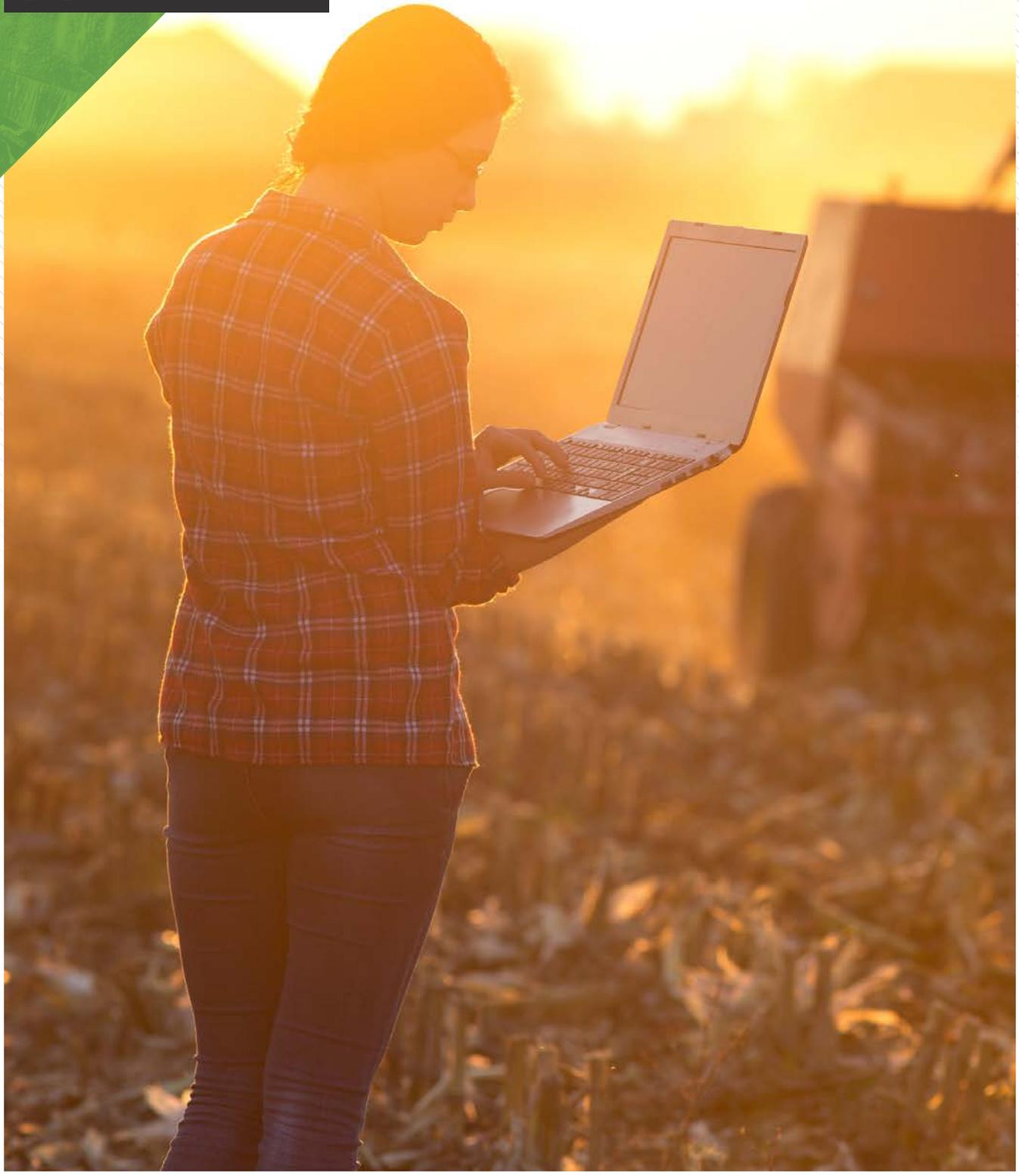


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SECTION 1

EXECUTIVE SUMMARY



ABOUT FACA

The Food and Agriculture Climate Alliance (FACA) initially began as an informal dialogue between eight organizations discussing opportunities for the food, agriculture, and forestry sectors to help advance climate solutions across the supply chain. Since formally launching in 2020, FACA has grown into an 80+ member coalition.

Today, our broad membership represents farmers, ranchers, forest owners, agribusinesses, manufacturers, the food and innovation sector, state governments, higher education associations, sportsmen and sportswomen, and environmental advocates.

FACA has served as a resource to Members of Congress and Administration officials. Our past recommendations have been credited with shaping federal laws and programs. FACA members are united in support of federal climate policies that:

1. **Are voluntary, market- and incentive-based;**
2. **Advance science-based outcomes;**
3. **Promote resilience and help rural economies better adapt to climate change;**
4. **Ensure equitable opportunities for all farmers, ranchers, and forest owners, including historically underserved and small producers; and**
5. **Are strongly bipartisan.**

OPPORTUNITIES IN THE 2023 FARM BILL

U.S. farmers, ranchers, and forest owners are at the forefront of national efforts to address climate change. But we cannot do it alone. Further reducing emissions throughout the agricultural and forestry supply chain will require a comprehensive effort involving financial and technical assistance, research investments, proactive response to innovation, public-private partnerships, and a commitment to equitable opportunities for all producers.

With that in mind, FACA has developed a suite of policy recommendations for the upcoming farm bill that would help our sectors achieve our climate mitigation potential while preserving and creating new economic opportunities. These recommendations reflect FACA's guiding principles and fall into six categories, which include:

- **Conservation, Risk Management, and Credit**
- **Energy**
- **Food Waste**
- **Forestry**
- **Livestock and Dairy**
- **Research, Extension, and Innovation**

FACA recognizes the enormous importance of farm bill programs and supports critical investments in the farm safety net and disaster assistance, as well as for conservation, forestry, rural development, market access and research programs. These programs are all vital to sustaining rural livelihoods and protecting our nation's ability to produce the most abundant, affordable, and safe food supply in the world.

FACA's 23-member Steering Committee developed farm bill policy recommendations to advance voluntary bipartisan climate solutions. We urge both chambers of Congress and the President to act this year to pass this essential legislation, which impacts every family in America.

The recommendations outlined in this report were developed jointly by FACA's Steering Committee.

- **American Farm Bureau Federation** (co-chair and founding member)
- **American Seed Trade Association**
- **American Sugar Alliance**
- **Association of Equipment Manufacturers**
- **Association of Public and Land-Grant Universities**
- **Biotechnology Innovation Organization**
- **Crop Insurance and Reinsurance Bureau**
- **CropLife America**
- **Ducks Unlimited**
- **Environmental Defense Fund** (co-chair and founding member)
- **Farm Credit Council**
- **Federation of Southern Cooperatives/Land Assistance Fund**
- **FMI - The Food Industry Association** (founding member)
- **International Fresh Produce Association**
- **National Alliance of Forest Owners** (founding member)
- **National Association of State Departments of Agriculture** (founding member)
- **National Cattlemen's Beef Association**
- **National Corn Growers Association**
- **National Cotton Council**
- **National Council of Farmer Cooperatives** (co-chair and founding member)
- **National Farmers Union** (co-chair and founding member)
- **National Milk Producers Federation**
- **The Nature Conservancy** (founding member)

STEERING COMMITTEE MEMBERSHIP



STEERING COMMITTEE

MEMBERS:

FOUNDING MEMBERS (IN ALPHABETICAL ORDER)



ADDITIONAL COMMITTEE MEMBERS (IN ALPHABETICAL ORDER)



CONSERVATION, RISK MANAGEMENT, AND CREDIT



USDA conservation programs must remain voluntary, science- and incentive-based to help producers build upon current stewardship practices and foster resiliency to a changing climate.

FACA understands optimal implementation of a climate-smart agriculture policy framework will require deliberate consideration of the data, personnel, financial, and technical assistance needed to support farmers and ranchers in their efforts. This would create a new, cutting-edge workforce, which could invigorate rural economies while also assisting farmers in making climate-smart investments.

To that end, FACA supports robust funding for financial and technical assistance in conservation programs, including the recent enactment of significant additional funding in

Title II programs. FACA urges Congress to preserve those investments in the 2023 Farm Bill. FACA also supports funding for programs and cooperative agreements that expand access to conservation assistance for historically underserved producers, including beginning farmers and ranchers, and military veterans.

FACA recognizes that risk management tools including crop insurance are vitally important and can be the first line of defense for farmers and ranchers impacted by weather disasters exacerbated by climate change. As such, FACA supports strengthening crop insurance in the 2023 Farm Bill. FACA recommendations would help to ensure a strong, actuarially sound crop insurance program, while examining and addressing potential barriers to climate-smart innovation.

NOTE:

Recommendations are numbered for ease of organization and review. Numeric position does not indicate order of importance.

CONSERVATION AND RISK MANAGEMENT

1 Provide robust funding to continue Natural Resource Conservation Service (NRCS) support to farmers and ranchers to address a wide range of natural resource concerns in line with local conservation priorities that improve the quality of our air, water, soil, and wildlife habitat.

- A. In particular, FACA supports utilizing the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and the Regional Conservation Partnership Program (RCPP) to encourage practices that improve soil health, increase carbon sequestration, reduce emissions, and improve the resilience of farm and ranch operations.

2 Enhance conservation technical assistance to promote soil carbon and climate resilience outcomes.

- A. Set aside one percent of total farm bill conservation program mandatory funding for a new conservation technical assistance initiative focused on increasing climate resilience and reducing net greenhouse gas (GHG) emissions. The funds should be used to recruit and train additional technical service providers (TSPs) and staff to provide on-the-ground support.
- B. Streamline the TSP certification process, including for certified crop advisors, and cooperative-based agricultural staff and scientists.

3 Develop a streamlined program application process for historically underserved producers applying to all conservation programs.

This program should be modeled after the FSA Microloan Program and would include resources

set-aside for technical assistance by community-based organizations or TSPs with no less than 10 years of documented history of providing technical assistance for underserved producers, foresters, landowners, fishing operators, and beginning farmers and ranchers.

4 Streamline the NRCS conservation practice approval process.

- A. Require NRCS to establish a proactive approach to updating standards that recognizes new practices and technologies in a timely manner. Currently, producers and stakeholders must petition NRCS through the local, state, and then national level to gain interim status for new practices and technologies.
- B. Require NRCS to conduct a science-based, comprehensive review of existing conservation practice standards to evaluate their effectiveness on climate mitigation and resilience that reflects the latest science.

5 Recognize and reward early adopters.

- A. FACA encourages the continued recognition and incentivization of the ongoing work and environmental impact reductions achieved by early adopters when implementing NRCS and other USDA programs.

6 Strengthen public-private partnerships through greater flexibility in RCPP.

- A. Achieve stronger program outcomes by reducing partnership contribution amounts and facilitating participation by cooperatives and other entities, including those that process farm commodities.



7 Offer more practices in EQIP and CSP to increase legumes, forbs, and pollinators in grazing systems.

- A. This change should help these programs achieve greater carbon sequestration, and increased GHG reductions, biodiversity, and land resilience.

8 Support soil carbon monitoring efforts and mid-contract management opportunities in the Conservation Reserve Program (CRP).

- A. CRP mitigates millions of metric tons of carbon and carbon equivalents, while also offering numerous additional environmental benefits to soil, air, and water quality, biodiversity, and wildlife habitat.
- B. Support investments in CRP to measure and monitor soil carbon sequestration and other benefits, which will improve the data and science for further public and private efforts moving forward.
- C. In all CRP offerings, utilize mid-contract management options requested by producers to address climate change mitigation and adaptation, carbon sequestration, and improvements in biodiversity, including plant diversity.
- D. FACA recognizes the impact that changes to CRP could have on economic opportunity in rural communities and land access for small and new producers, and encourages USDA and Congress to explore innovations that increase climate mitigation while preserving economic opportunities for farmers and ranchers.

9 Support the adoption of cropland conservation practices, including cover crops, through streamlined delivery of financial incentives.

- A. Incentives should be administered through the USDA NRCS or FSA, based on annual crop reporting, a short checklist of practice requirements, and include practices that require limited technical assistance and conservation planning resources.
- B. Farmers would be eligible if the practice makes agronomic sense for their operation and assists with reduction of soil erosion, improves soil health, sequesters carbon, or reduces GHG emissions, enhances water

supplies, improves water quality, increases wildlife habitat, or reduces damages caused by floods, drought, and other natural disasters.

- C. This approach would be in addition to and not replace existing working lands conservation programs. This approach should utilize a set payment structure of financial incentives based on acreage adopting the practice.

10 Support incentives for precision ag equipment purchases.

- A. Precision ag technologies are critical tools that help America's farmers and ranchers maximize their yields and reduce their environmental footprint. However, the upfront costs to purchase new, cutting-edge equipment is often prohibitively expensive. FACA supports incentives that would encourage the adoption of these technologies.

11 Consider reforms to conservation programs that would strengthen focus on specialty crops.

- A. FACA believes all of agriculture, regardless of commodity, size, or geographic region, should have access to financial and technical assistance through NRCS to promote conservation and climate outcomes.
- B. FACA encourages the consideration of reforms that would make conservation programs more inclusive to specialty crops and other crops that have traditionally been left out.



12 Recognize that cooperatives serve a critical resource gap for small, limited resource, and historically underserved producers and expand cooperative business engagement within conservation programs.

- A. Fund programs and cooperative agreements that expand access to conservation assistance for historically underserved producers, including for beginning farmers and ranchers, socially disadvantaged producers, and military veterans.
- B. Expand USDA-wide recognition and funding of cooperatives.
- C. Expand cooperatively owned, local, and regional marketing infrastructure with access to diverse markets.

13 Establish a USDA grant program to help states improve soil health on agricultural lands.

- A. The federal grant funds would be supplementary to assist states in their soil health efforts and eligibility would be limited to states or tribes that have enacted and are currently funding a state or tribal soil health program.

14 Reduce barriers to entry for the Agricultural Conservation Easement Program (ACEP) by increasing the federal match contribution and reducing transaction costs incurred by program participants.

- A. Financial and technical assistance will help conserve agricultural lands and wetlands and their related benefits. It facilitates the protection of farmland and wetlands that have the potential to combat climate change, compared to other land uses.

15 Reduce barriers to the implementation of conservation adoption for rented land.

- A. USDA conservation program eligibility requirements and the relative impermanence of rental agreements can disincentivize conservation program participation on rented land, especially for high impact, but high-cost soil health-focused practices. FACA supports increasing conservation practices on rented lands, with a particular focus on rented tribal land.



16 Study the interaction between crop insurance and climate smart ag practices.

- A. As part of the study or studies, USDA must review the impact of climate-smart ag practices on crop productivity and on crop insurance coverage, liabilities, and premium rates. USDA should also identify potential policies or modifications to crop insurance that constrain the adoption of climate smart farming practices.
- B. The study or studies must be data-driven, and USDA must consult with growers, researchers and industry representatives as part of this process.
- C. This work will help identify additional ways to assist producers in adopting science-based climate stewardship practices, while ensuring that changes are driven by data and consistent with appropriate underwriting practices.



17 Use 508(h) to encourage the adoption and continued use of climate-smart ag practices in the form of new crop insurance policies and endorsements.

- A. The 508(h) process ensures the actuarial soundness of including such practices in multi-peril crop insurance products and ensures that the agronomic and risk management benefits of such practices are accounted for.

18 Provide additional incentives for cover crops and other climate smart ag practices.

- A. Support voluntary conservation efforts that allow producers to self-certify compliance with program requirements to FSA to be eligible for additional incentives, discounts, and/or acreage based payments for the adoption of climate-smart practices such as, but not limited to, cover crops.
- B. Consideration must also be given to the creation of incentives for climate-smart practices in addition to cover crops to reach additional producers, commodities and regions. No federal programs should preclude producers from participating in similar state programs.

19 AGI Limits.

- A. FACA continues to support incentives for historically underserved producers within conservation programs, Title 1, and crop insurance and is not looking to further limit access to these programs by creating or tightening AGI limits. In the face of increasing risk from climate change, such limitations would only serve to hinder access to risk mitigation tools and conservation benefits and would also reduce the number of producers subject to conservation compliance.
- B. Given the urgency of climate change, support USDA Secretarial discretion to waive both AGI and FSA requirements for landscape level projects deemed of critical importance to advance conservation and climate outcomes.



CREDIT

20 Raise the FSA Microloan Program limit from \$50,000 to \$100,000.

- A. This increase would reflect increased costs associated with product, input, land access, and especially emerging climate-responsive practices.

21 Raise the FSA Direct Farm Operating loan limit from \$400,000 to \$600,000.

- A. This increase would align with the FSA Direct Farm Ownership maximum loan amount and reflect increased costs associated with product, input, land access, and especially emerging climate-responsive production practices.

22 Increase funding for programs that assist historically underserved producers in acquiring land and clearing title issues.

- A. This could help address barriers to conservation program participation.



ENERGY



The U.S. Department of Energy estimates that as much as 10 million acres of rural land could be needed to meet clean energy goals. The 2023 Farm Bill provides an opportunity to influence how and where this clean energy development takes place, including maximizing benefits and reducing risks for farmers and working lands.

FACA recommends robust funding of existing energy title programs that support critical infrastructure and clean energy investments in rural America, alongside incorporating policies that allow farmers to participate in the clean energy economy while maintaining and enhancing working lands.



NOTE:

Recommendations are numbered for ease of organization and review. Numeric position does not indicate order of importance.

ENERGY

- 1 **Secure and maintain robust funding for Energy Title programs that support renewable energy and energy efficiency investments in rural America, most importantly, the Rural Energy for America Program (REAP).**
- 2 **Increase USDA cost-share for REAP bundled renewable energy and energy efficiency projects.**
- 3 **Encourage USDA to develop a streamlined REAP application process for farmers and farmer-owned cooperatives meeting the program's small business size requirements.**
- 4 **Support Secretarial discretion to waive the small-business size limitation impacting farmer-owned cooperatives' eligibility in REAP.**
 - A. FACA encourages the Secretary to consider these requests on a case-by-case basis. Granted waivers should facilitate small- and medium-sized producer participation in digester and renewable energy projects operated and financed by farmer-owned cooperatives.
 - B. The inclusion of cooperatives in REAP recognizes a different model for digesters, for example a community digester that pools several producers' waste or a cooperative that owns and maintains digesters on farms. This inclusion would not be limited to digesters, and similar models could be used for wind, solar, and/or efficiency projects.
- 5 **Incentivize solar PV practices that support agricultural and renewable energy goals.**
 - A. Direct USDA to engage with local stakeholders, including but not limited to farmers, ranchers, landowners, and energy providers, and work with State Rural Development Energy Coordinators and Rural Development State offices, State Departments of Agriculture, and Land-Grant Universities and/or Cooperative Extension Offices to provide technical assistance and cost-share for projects.
 - B. Specific projects to prioritize technical assistance and financial assistance should include:
 - i. Installation of dual-use solar PV designed with best practices for agricultural lands to achieve energy production and agricultural goals related but not limited to:
 - Agricultural considerations such as agrivoltaics, grazing, and raised panels,
 - Rural livelihood considerations such as public acceptance, community benefits, and landowner concerns, and
 - Environmental considerations such as pollinator habitat, native vegetation, soil health, wildlife habitat, and water quality and quantity.
 - ii. Projects should discourage the loss of prime farmland and ensure that project acres maintain their use-value tax assessment of agricultural lands while enrolled in the program.



FOOD WASTE



By some estimates, as much as 35 percent of the food grown and raised in the United States is “wasted” – i.e., goes unsold and uneaten by consumers. This number is particularly discouraging considering that USDA estimates that as many as 13 million households were food insecure at some time in 2021. More than 60 percent of food waste takes place on farms and ranches, manufacturing operations, and consumer-facing businesses such as restaurants and grocery stores.

Addressing food waste in the supply chain has major benefits in terms of feeding Americans, creating new economic opportunities for businesses, and guaranteeing that the environmental resources put towards growing and producing food are used as efficiently as possible.

The 2018 Farm Bill included language explicitly related to food waste for the very first time, including the creation of a food waste liaison at USDA. FACA recommends Congress look for ways to build on this progress by including food waste reduction as part of the larger reauthorization of U.S. agriculture and food programs and exploring opportunities to include this goal in existing USDA structures.



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FOOD WASTE

1 **Make the position of USDA Food Waste Liaison permanent.**

- A. In addition, provide Congressional support to the ongoing collaboration and shared responsibilities on food waste between USDA, FDA, and EPA.

2 **Direct USDA to provide funding, outreach, and education to farmers and ranchers, consumers, manufacturers, restaurants, and grocery stores on opportunities to reduce food waste.**

- A. Increase outreach and education on the new Food Donation Improvement Act, which expanded the scope of direct-to-consumer donations subject to liability protections under the Bill Emerson Good Samaritan Food Donation Act.
- B. Identify grant funding opportunities for the scale-up of technologies (such as dehydration, stabilization, an improvement of cold chain efficiency) for reducing loss and waste of foods while keeping products in the human food supply chain.

3 **Expand prioritization of food waste education in existing nutrition education programs and build outreach for ongoing efforts.**

- A. Broaden the distribution of USDA materials geared towards school and consumer education on food waste.
- B. Empower Cooperative Extension offices to further distribute USDA materials on food waste.

4 **Allocate funds to support in-house and competitive programs to develop reusable, recyclable, and compostable packaging suitable for a diversity of foods sold through multiple channels.**

- A. Innovation in packaging is critical for reducing food loss and waste, while maintaining shelf life, food safety, and visual appeal of foods.
- B. No efforts should be directed at limiting the use of technologies (such as functional stickers for fresh produce) that aim to reduce packaging waste while maintaining efficiencies of operations.

5 **Conduct outreach on grants and other funding opportunities for food waste research – with a focus on opportunities to address field- and processing-level food waste – to reach new academic and research audiences.**

- A. Expand outreach beyond traditional researchers to bring in innovative new thinkers who may be unfamiliar with opportunities at USDA. This would include leveraging existing grant programs administered by USDA that allow for food waste research and pilot programs including the Office of Rural Development (which has a food waste funding guide), the Agricultural Marketing Service, Food and Nutrition Service, and the National Institute of Food and Agriculture.
- B. This could include expanding USDA's webpage devoted to these opportunities (<https://www.usda.gov/foodlossandwaste/funding>).

6 **Ensure USDA considers a systems approach to food loss and waste and recognizes the role of plant breeding and biotechnology.**

- C. Streamline regulatory approval for crops, including polyploids, developed using modern plant breeding technologies.
- D. Biotechnology is a critical tool in breeding to enhance the efficiency and efficacy of agriculture through improvements in genetics. Modern breeding tools offer breakthroughs for extending shelf life, enhancing quality, safety, and resilience as well as breeding for traits desirable by consumers.

FORESTRY



FACA supports voluntary, market- and incentive-based policies to create natural climate solutions through forestry and forest conservation at scale from U.S. forests. These efforts must also include safeguards to ensure positive outcomes for forests and the climate. These recommendations will advance the role of forests as a climate solution in the Farm Bill.

FACA supports climate-informed forest management and restoration, including cross-boundary efforts to reduce wildfire risk and improve forest health.

This work should be supported by advancing forest-carbon science, data, information, and analysis. This includes research and full life cycle assessment of forest products across different forest types, harvesting practices, forest management, terrain, and regeneration methods in the United States. Our recommendations include policies that reduce barriers to participation in voluntary markets which will increase stakeholders' ability to address climate concerns.

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FORESTRY

1 Reduce barriers to participation in voluntary, high-quality forest carbon markets.

- A. Expand the Landscape Scale Restoration (LSR) program to increase the authorization for climate mitigation practices and support landowners entering voluntary forest carbon markets. This would also include an expanded scope of the LSR program while providing maximum flexibility for the program's non-federal cost share to enable more conservation outcomes.
- B. Invest in and offer grant opportunities to develop and advance technologies and approaches that enhance forest carbon project integrity and build confidence in market participation.
- C. Establish a program to provide loan guarantees for environmental impact bonds, loans, or other investment vehicles to entities engaged in aggregation of sustainable forestry practices for the purpose of financing forest carbon projects developed for voluntary carbon markets.



2 Invest in the reforestation supply chain, including tree nursery and seed bank infrastructure expansion.

- A. Address the national shortage of seedlings needed for reforestation through increased technical assistance and training for native seed collection and seedling production and addressing other workforce issues.
- B. Augment existing research and technical assistance programs to support natural regeneration.

3 Provide voluntary, incentive-based tools and resources for landowners to build climate resilience and increase the climate mitigation of their forests. This includes support for additional technical assistance measures for sustainable, climate-informed private forest management and reforestation.

4 Continue research and innovation for the use of wood to expand markets and maximize the benefits toward meeting climate objectives, including the reauthorization and full funding of the wood innovation grant program.

5 Support programs to expand the federal government's commitment to reflect the carbon benefits of advanced wood construction. Policies to reward the carbon benefits of forest products must be based on scientifically sound life cycle analysis and include safeguards to promote positive outcomes for forests and the climate.





6 Increase federal investment in forestry-related research to ensure farmers, ranchers, forest landowners, and Tribal Nations have access to the scientifically rigorous tools and information they need to build climate resilience and increase the climate mitigation of their forests.

- A. Increase investment in the Forest Inventory and Analysis (FIA) program to reflect growing program needs and enhance forest carbon science and ecologically beneficial decision-making.
- B. Increase investment in research to improve our understanding of belowground carbon, carbon sequestration, emissions reduction, and the co-benefits of “climate-smart” management.
- C. Support research and advancements in forest carbon lifecycle accounting to understand the carbon footprint of wood products relative to more carbon-intensive building materials.



7 Create and optimize climate benefits within public forests and grasslands, such as increasing wildfire resilience and maintaining clean water sources for millions of Americans.

- A. Provide additional authorities to accelerate and expand the appropriate use of prescribed fire and ecologically beneficial wildfire mitigation activities on lands managed by the Forest Service or the Department of the Interior. This includes close cooperation with states, Tribal Nations, and private landowners on controlled burns to ensure they reduce risk and provide substantial benefits to public and private lands and communities.
- B. Support efforts to gather and analyze data to determine the effectiveness of current fire suppression strategies and the impact on public and private lands.
- C. Provide authorities that enable USDA to partner with adjacent landowners to reduce wildfire risk on private lands. This includes cost-share instruments to facilitate and enhance cross-boundary work.
- D. Remove barriers to participation in the Cooperative Fire Protection programs to facilitate greater uptake, especially in underserved communities and rural areas. This includes removing population and volunteer thresholds for participation.





8 Support reforestation and revegetation policies that encourage planting more fire-resistant species following a wildfire to reduce the spread of invasive species, reduce wildfire risk, and develop a future climate-resilient forested ecosystem. This includes post-fire revegetation policies that encourage planting native and adaptable species, that can include more fire-resistant plant species such as edible browses, to reduce the spread of invasive species, future suppression costs, fire size, and wildlife and private property losses; and support livestock grazing as a resource management tool and deterrent.

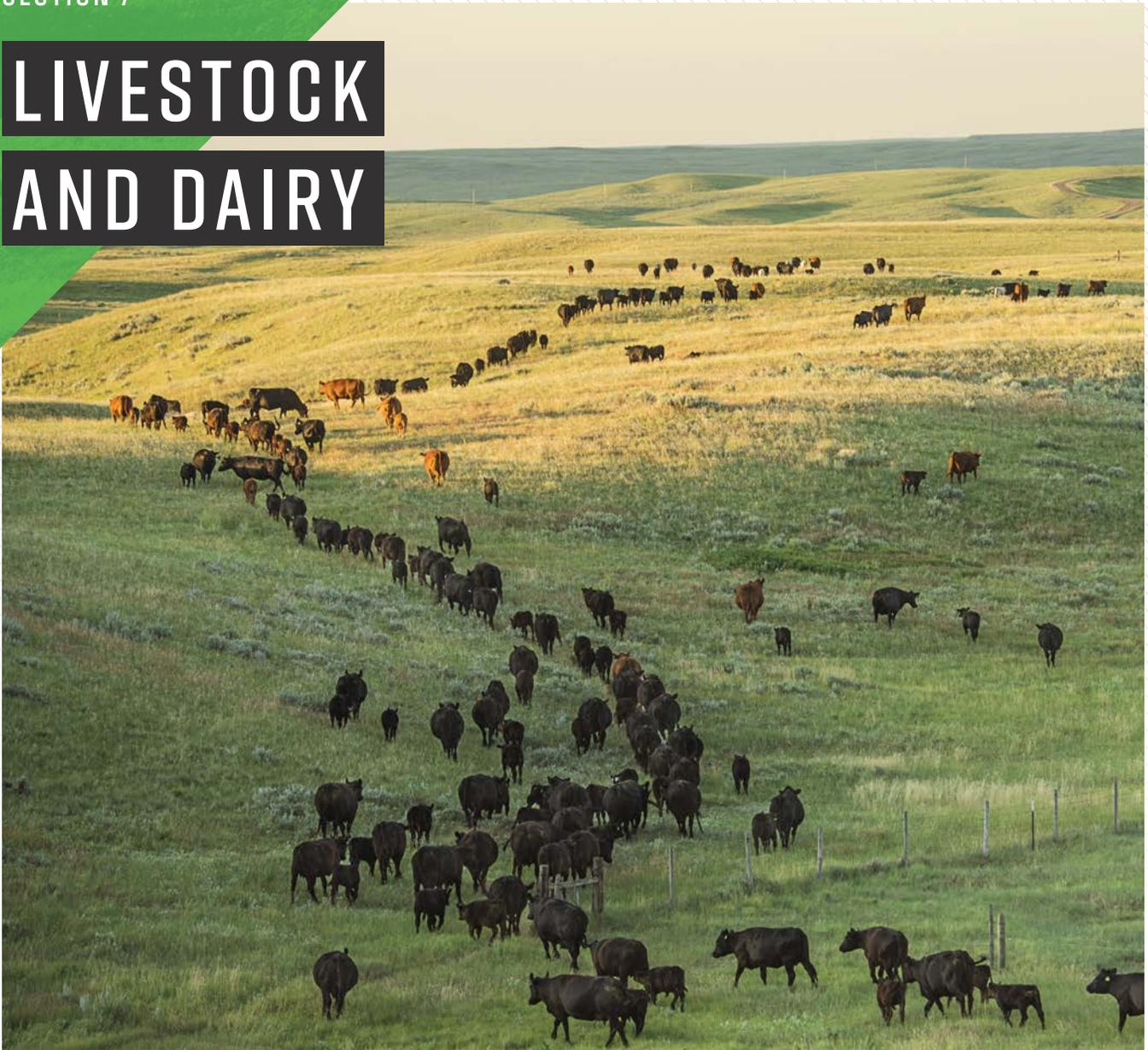
- A. Invest in improving science and deepening practical knowledge and implementation of natural regeneration of forest ecosystems and climate-informed replanting techniques.

9 Provide funding to enhance monitoring efforts to detect, identify, and evaluate the risks of non-native insects and diseases on forest health and carbon sequestration.

- A. Invest in improving biosecurity efforts at ports of entry, developing practical tools to improve forest management practices so landowners and managers can respond swiftly, and funding tree improvement efforts that use traditional breeding and informed and appropriate modern biotechnology tools.
- B. Invest in research on the functional loss of tree species to non-native pests and pathogens.

10 Provide funding for prompt post-disturbance forest recovery and restoration activities to prevent the spread of invasive species and protect water quality.

LIVESTOCK AND DAIRY



Meaningful and significant USDA technical assistance and policy support would provide livestock and dairy producers with the resources and tools needed to maximize opportunities to reduce greenhouse gas emissions, including methane, carbon dioxide, and nitrous oxide.

FACA recommendations identify opportunities to improve manure management programs, advance science and genetics around feed and nutrition, and increase support for pasture and grazing programs.



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LIVESTOCK AND DAIRY

Adjusted Gross Income (AGI) Limits:

Currently, the main tools for farmers to reduce emissions from manure through improved management are through USDA's Natural Resource Conservation Service (NRCS) programs and the Rural Energy for America Program. NRCS programs are challenging for larger farmers to navigate due to eligibility around AGI and caps on payments. FACA is not looking to further limit access to these programs by creating or tightening AGI limits, particularly given the increasing risks from climate change. Such additional limitations would only serve to hinder access to risk mitigation tools and conservation benefits.

1 Provide adequate technical assistance for NRCS programs.

- A. Recruit and train the additional NRCS technical professionals and technical service providers needed to provide direct technical assistance to producers to install and operate anaerobic digesters, covers with flares, solid separators, and other manure management technologies that reduce GHG emissions. Tools like methane digesters help livestock producers pursue sustainable manure management, often capturing as much as 80 percent of the methane resulting from a waste stream.
- B. Barriers to the adoption of manure management technologies are not limited to accessing funds. Technical assistance to assist farmers in determining the best technology for manure management and planning is a crucial first step in achieving a higher percentage of manure management practices deployed.

2 Streamline a forward-looking conservation practice approval process.

- A. A streamlined conservation practice approval process that better keeps up with rapidly changing technology will hopefully free up additional conservation program funds in a more timely manner. Moreover, upfront cost, in addition to the annual maintenance, continues to serve as a barrier to adoption of digester technologies.

3 Expand support for non-biogas manure management options.

- A. Recognize that biogas systems may not be a fit for every farm. Biogas systems are an immediate solution that some farms can implement to reduce agricultural methane emissions. However, they can only be implemented on farms of certain sizes and management characteristics.
- B. Direct USDA to include in every phase (standard development, technical assistance, and funding) opportunities for non-biogas manure management systems that avoid GHG generation and that are widely accessible to farms of all sizes and management systems.
- C. Additional support is needed for on-farm adoption of manure management technologies such as solid/liquid separation and composting that can be utilized on a wider segment of farms and that avoid GHG emissions.

4 Direct USDA to develop a risk- and science-based regulatory pathway to streamline the animal biotechnology approval process.

- A. A risk- and science-based approval process for animal biotechnology products will help farmers and ranchers better insulate themselves and food production from the risks of climate change and contribute to GHG reductions.
- B. Enable the use of technologies, such as gene editing, to improve animal genetics. Improving animal genetics to produce more meat or milk could allow for a reduction in the total number of animals in production, thus reducing the aggregate environmental impact. Improvements of animal genetics will also be a critical aspect to helping livestock producers around the world adapt to a changing climate.

Feed, Nutrition, and Genetics:

Changes in feed composition can directly or indirectly reduce methane emissions resulting from enteric fermentation in ruminant livestock. Improved genetics that support digestive efficiency and productivity can also contribute to reduced GHG emissions and climate resilience. Innovative technologies with the potential to reduce enteric emissions often face regulatory roadblocks preventing or delaying market approval. Incentives are necessary to offset the risk a farmer faces by changing feed rations, testing new enteric methane inhibiting products, or making changes to their breeding/herd genetics.

5 Create NRCS conservation practices focused on nutrition and genetics/breeding management.

- A. Expand support for conservation planning and technical assistance in order to optimize livestock management and land stewardship for climate adaptation and mitigation.
- B. Create conservation practice standards and update existing practice standards to reflect feed management, genetics, and nutrition planning to reduce emissions. Practice standards should make clear that enteric methane inhibiting products that have demonstrated climate and digestive efficiency benefits and are approved for sale and use in the U.S. are eligible for support under NRCS programs.

- C. Third-party TSPs would receive funding to work with livestock farmers and ranchers to develop new nutrition and genetic plans focused on efficiency, animal health, and reduced emissions.

6 Ensure NRCS can provide the support and technical assistance that the livestock sector needs.

- A. Additional resources would enable all technical advisers, including technical service providers, to work with livestock producers through nutrition and genetic/breeding planning to reduce emissions.

7 Ensure NRCS adequately incorporates feed/nutrition management as a tool to reduce emissions.

- A. Currently there is no conservation planning assistance for livestock producers who are working to reduce emissions from their animals.
- B. Explicit inclusion of approved enteric methane inhibiting products in NRCS practice standards would send an important signal to FDA as they consider new methods of regulating these products. On average, FDA takes 3-5 years to review animal feed additives for approval, including those that have important climate benefits. Enteric methane inhibiting products that have climate benefits are a promising tool to address enteric emissions in ruminants, but regulatory burdens are adding years onto the process of making these products available to producers. According to a study by Informa Economics, companies lose \$1.75 million per year in revenue while they wait for approval of new animal feed additives

8 Ensure feed, genetics and nutrition management are eligible under the Conservation Innovation Grant (CIG) On-Farm Trial Program.

- A. Preserve enacted increase in funding to accommodate the additional categories.
- B. CIG on-farm trials are a critical tool for farmers to try out and prove new practices with reduced risk. Inclusion of feed management provides additional means for farmers to test out the newest technologies to ensure they work in their operations. These include animal feed rations and additives, grazing systems, and genetics that have been proven to reduce enteric emissions.



Pasture/Grazing:

Improved pasture and grazing management has the potential to play a substantial role in terrestrial carbon sequestration. More needs to be done to develop protocols and to deploy prescribed pasture and grazing practices to reduce emissions.



9 Direct NRCS to identify regions and practices with the greatest potential for carbon sequestration and methane emissions reduction, and support research, development, and widespread use of decision-support tools for climate and land stewardship outcomes.

- A. Adjust NRCS state office priorities for providing technical assistance to grazing land managers in high-priority regions in coordination with the National Grazing Lands Coalition.
- B. Initiate research and development efforts to improve enteric fermentation/forage intake estimation models.
- C. Ensure conservation planning and climate-beneficial practices are accessible to all grazing lands managers and increase adoption of such practices by streamlining access to and expanding capacity and support for technical assistance delivery, including recruitment and training of additional NRCS staff and expansion/enhancement of the technical service provider program.
- D. Expand research and development to improve and expand use of tools like COMET-Farm, COMET-Planner, LandPKS, Rangeland Analysis Platform and CART that support farm and ranch management for increased biodiversity, soil health, carbon storage/sequestration, and other conservation outcomes.
- E. Support and expand practices that have demonstrated emission reductions capability.
- F. Support additional funding for technical assistance to support producers in conducting conservation planning, including the recruitment and training of NRCS staff and expansion of TSP program. Practices appropriate to each operation/landscape can be best identified through a conservation planning approach, as defined by NRCS and through the National Conservation Planning

Partnership. Conservation planning currently can be cost-shared but is often limited by lack of local technical assistance or technical service provider support.

- G. Continue prescribed grazing and related land stewardship and increase funding for technical assistance, including conservation planning. These are longstanding NRCS conservation practices with demonstrated results. The proper management of grazing lands can lead to soil and aboveground carbon sequestration, helping the animal agriculture sector reduce net GHG emissions. Increased funding for technical assistance will help farmers and ranchers carry out prescribed grazing and related practices.

10

Provide mandatory funding for the Grazing Lands Conservation Initiative (GLCI) and add new elements to the program purpose.

- A. Include robust funding for the GLCI, which supports voluntary efforts to improve the management, productivity, and health of the nation's private grazing lands. Well managed grazing lands can help improve soil health, sequester carbon in the soil, protect water quality, improve biodiversity, and increase resilience and producer profitability.
- B. Disperse GLCI funds through competitive grants and cooperative agreements to support partnerships that address unique grazing lands needs at the local, state, and regional levels. FACA supports a diversity of projects, inclusive of different stakeholders and encourages, whenever possible, to scale conservation and agronomic impacts, including in conjunction with other existing programs and initiatives. GLCI partnership agreements may provide grazing lands conservation technical services for grazing planning and implementation, workshops and demonstrations, peer-to-peer education, and support for producer networks, and producer outreach.

RESEARCH, EXTENSION, AND INNOVATION



Robust investments in research, Extension, and innovation are vital to unlock the agriculture and forestry sectors' climate mitigation potential. To produce more with less, while protecting our resources and communities, we must foster innovation through a strong, science-based risk/benefit regulatory system. Doing so will require a coordinated partnership effort between the federal government, universities, and the private sector.

In addition, the agricultural and forestry sectors must have access to scientifically rigorous tools and information to build climate resilience, mitigate environmental impacts, and increase productivity. This includes science-based

protocols, production practices, and new technologies. FACA recommendations would maximize opportunities with and modernization of USDA National Institute of Food and Agriculture related university experiment stations/research farms and forests. We also support related resources for the USDA Agricultural Research Service and Forest Service.

The 2023 Farm Bill offers a key opportunity to prioritize the innovation, partnerships, and research needed to create sustainable solutions and strengthen the science behind their mitigation potential. To achieve these goals, FACA requests increased investments in agriculture research and innovation to adapt to and address climate change impacts.

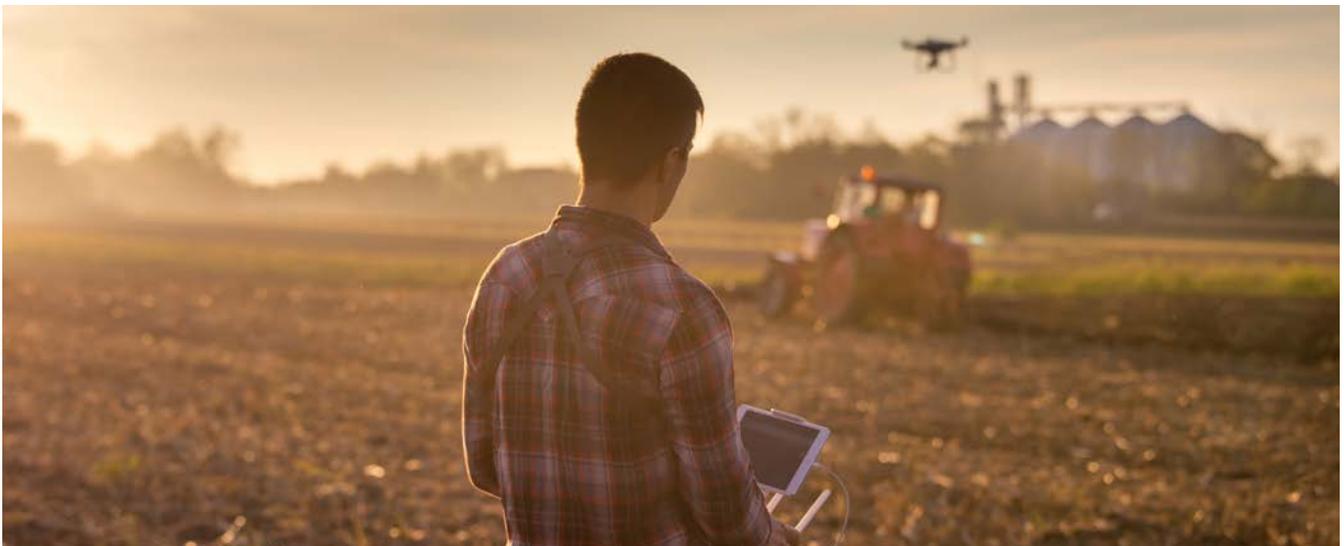
NOTE:

Recommendations are numbered for ease of organization and review. Numeric position does not indicate order of importance.

RESEARCH, EXTENSION, AND INNOVATION

Ensure USDA Climate Hubs maximize research opportunities and outreach.

- A. Provide a clear connection between Climate Hubs and the Office of the Chief Scientist and Office of Energy and Environmental Policy.
- B. Consider a diverse range of crops and production systems in the U.S. in protocols for measurement and quantification.
- C. Ensure protocols are created in partnerships among non-profits, higher education institutions, the private sector, USDA's Office of Energy and Environmental Policy, Agricultural Research Service (ARS), and Forest Service (FS), and in close coordination with the National Institute of Food and Agriculture (NIFA).
- D. Leverage NIFA's networked research and Extension for field testing, laboratory analysis, and human capacity for research on crop- and livestock-specific innovations to adapt to, mitigate, and increase resilience to climate challenges. These capacities exist through Experiment Stations/Research Farms and the Experimental Forest and Range Network.
- E. Use the Cooperative Extension Service as the primary education and outreach feature of the Hubs to create site specific approaches to mitigating, adapting, and adopting practices that limit impacts to the environment.
- F. Maintain an accessible and updated clearinghouse of information from the Hubs. This would assist producers, agribusinesses, and other partners in the agriculture and conservation sector in identifying and implementing climate-smart practices. The clearinghouse should be easily accessible and updated on an annual basis.



2 Facilitate and stimulate innovation to build strong and sustainable agriculture and food systems.

- A. Provide reauthorization and full funding of the Agriculture Advanced Research and Development Authority (AGARDA). Advanced Research and Development through the “other transaction authority” established in AGARDA allows USDA to drive high-risk and long-term research focused on climate resiliency.
- B. Continue research and innovation in crop and forestry protection with the goals of reducing non-target impacts, improving crop and forest productivity, and maximizing the benefits toward meeting climate objectives.
- C. Establish a federal definition for biostimulants, along with a predictable, science- and risk-based framework for their assessment. Plant biostimulants are emerging and promising tools that could mitigate or reduce GHG emissions, conserve and replenish soil health, and improve water quality.
- D. Support a robust science- and risk-based regulatory process for animal and plant biotechnology products to help ensure access to safe and effective tools for achieving sustainable food production.
- E. Continued development of innovation in plant breeding to fully capitalize on plant-based solutions for adapting to and mitigating the effects of climate change, ensuring climate resiliency, and continuing to achieve environmental gains. Public-sector research should support equitable access of farmers, ranchers, and forest owners and managers to improved genetics developed using a range of breeding methods, including gene editing, genomic enabled predictive breeding, and genetic engineering in a diversity of crops.
- F. Continue to improve animal genetics. This is a critical innovative solution for livestock producers to adapt to and mitigate the impacts of a changing climate, while improving production.

- G. Emphasize climate-smart inputs and processes. This includes biotechnology, pesticides (both organic and conventional), biologicals, mechanical solutions, and data solutions- with potential to contribute to net positive impacts on climate mitigation, when used in combination with tillage management, integrated pest management and other conservation practices.

3 Reauthorize and fund the Research Facilities Act (RFA)

- A. Update and upgrade the facilities for food and agricultural research at the U.S. colleges and universities of agriculture. A Gordian report found that 70% of the facilities at agricultural colleges and universities are beyond their useful life, with an estimate of deferred maintenance of \$11.5 billion and a replacement value of \$38.1 billion.
- B. Utilize RFA authority to provide one-time, competitive funding for facility construction, alteration, acquisition, modernization, renovation, or remodeling of critical research infrastructure for research defined as food and agricultural sciences. Qualified facilities may be connected with Cooperative Extension services, education, and outreach.

4 Strengthen grant programing through the National Institute for Food and Agriculture for the Cooperative Extension System.

- A. Increase voluntary adoption of conservation or climate practices through a new competitive grants program in Smith-Lever (d) for land-grant colleges and universities to raise public awareness, conduct workshops, add capacity, and provide technical assistance.
- B. Implement a grant program with a discretionary authorization level of \$80 million to support implementation of innovative conservation or climate practices, additional staffing, workshops, materials, and, if applicable, transfer of innovations and information about related markets.



5 Provide consistent and comprehensive evaluation mechanisms for climate- smart agriculture practices and processes, including measurement, verification, and data collection.

- A. Continue periodic funding for surveying crop production practices, such as nutrient management, which will be key to reducing impacts to climate and water.
- B. Add information related to the planting of cover crops to the NASS Prospective Plantings survey. Data related to acres and types of cover crops planted last season, and intention to plant cover crops next season would help producers and the seed industry to plan ahead to ensure the availability of high- quality cover crop varieties at the right place and the right time.
- C. USDA should conduct an end user assessment report of the Carbon Management & Emission Tool (COMET). The report should:
 - I. Determine if improvements would be needed to align with GHG protocols for a diversity of users;
 - II. Provide clarity around scope of COMET for a diversity of crops, production systems, and both production and conservation practices; and
 - III. Determine if key stakeholders representing a diversity of crops and cropping systems have access and can utilize its results.
- D. Support continued improvements to USDA's COMET-Farm tool by investing in soil science research and updating the NRCS SSURGO database with site-specific soil data to reflect the diversity of crops and cropping systems.





LEARN MORE ABOUT FACA



The Food and Agriculture Climate Alliance consists of organizations representing farmers, ranchers, forest owners, agribusinesses, manufacturers, the food and innovation sector, state governments, higher education associations, sportsmen and sportswomen, and environmental advocates. These groups have broken through historical barriers to develop and promote shared climate policy priorities across the entire agriculture, food, and forestry value chains.

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