



USDA AGRICULTURE INNOVATION AGENDA

Agriculture Innovation as a Solution for Farmers, Consumers, and the Environment

American agriculture is environmentally sound, economically viable, and consumer focused, and its success is due to the United States' open-arms approach to innovation. The Agriculture Innovation Agenda (AIA) is the United States Department of Agriculture's (USDA) commitment to the continued success of American farmers, ranchers, producers, and foresters in the face of future challenges. It is a department-wide effort to align USDA's resources, programs, and research to provide farmers with the tools they need and to position American Agriculture as a leader in the effort to meet the food, fiber, fuel, feed, and climate demands of the future. We will also continue working to modernize our regulatory framework so America's producers will have the benefit of modern technologies, such as biotechnology, necessary to meet these challenges. USDA will stimulate innovation so that American agriculture can achieve the goal of increasing U.S. agricultural production by 40 percent while cutting the environmental footprint of U.S. agriculture in half by 2050.

To help achieve this goal, USDA commits to:

- I. **Create a comprehensive U.S. agriculture innovation strategy to align public and private research efforts:** Bold and transformative innovation is needed to meet future demands. We will seek input from the agricultural community on what innovative technologies and practices are needed to meet these demands. We will use that input to seek alignment between the research goals of the scientific and innovation communities with the demand for tangible and relevant outcomes.
- **Over the next year, USDA will:**
 - Utilize innovation breakthrough opportunities derived from the 2019 National Academies of Science report, Science Breakthroughs to Advance Food and Agricultural Research by 2030, to form the basis for a forthcoming USDA Request for Information (RFI) on the most important innovation opportunities to be addressed in the near and long



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term. The focus will be on transformational innovation opportunities defining the next era of agriculture productivity and environmental conservation. We encourage stakeholders to provide input on how these exciting science and technology developments hold potential for agriculture in the future. USDA will offer technical assistance for workshops to gather this feedback.

- Using input provided, identify common themes across the agriculture customer base to inform research and innovation efforts in the Department, the broader public-sector, and the private sector.

II. Integrate the latest innovative conservation technologies and practices into USDA programs:

There have been dramatic advances in efficiency and conservation performance over the past two decades. USDA can assist farmers in accessing and adopting new technologies and practices to help producers meet productivity and environmental goals. To accomplish this, the Department will focus on USDA program delivery to encourage rapid adoption of cutting-edge technologies and practices. USDA will also champion commercialization of innovative technologies in the private sector

• Over the next year, USDA will:

- Improve internal coordination in order to facilitate transmission of best approaches among USDA research and program agencies and identify, customize, and fast-track the best emerging innovative technologies to integrate and deliver to our customers through USDA programs.
- Develop standardized OneUSDA processes, including a “fast pass” process for immediate in-take and integration of proven technologies.
- Work with existing regional outreach networks and other partnerships to identify innovation opportunities in order to rapidly integrate the latest technologies into our programs and understand how those technologies can best serve our customers.
- Solicit and encourage development of the best “ready-to-go” innovative technology from the private sector.



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- III. Improve USDA Data Collection and Reporting:** USDA currently collects a wealth of data on commodity production, but information on how our food is produced and the conservation practices being employed is harder to come by. USDA intends to increase our understanding of the adoption of conservation practices and improve the timeliness and access to conservation information, delivering a powerful new tool to measure and track progress. Through improved reporting and access to conservation data, USDA and the public will be able to understand and monitor conservation and productivity trends and progress. Access to this information will also serve as a catalyst for innovation and improved conservation decision-making.
- **Over the next year, USDA will:**
 - Review the array of data we're collecting on conservation practices, and make improvements to conservation reporting systems to identify:
 - The most useful data for tracking progress towards goals;
 - Gaps in the data that USDA currently collects that prevent large-scale trend analysis in production and conservation adoption trends;
 - Improvements in data collection and reporting;
 - Trends in production and conservation adoption;
 - The effects of conservation on natural resources; and
 - The most useful data for tracking food loss and waste.
 - USDA will recommend improvements to conservation reporting systems which will be regularly updated, leveraging data from existing USDA surveys. This new reporting will contain timely and detailed trend data on agricultural conservation adoption, as well as production, to track progress toward meeting our goals.
 - **Hold Ourselves Accountable with Benchmarks:** USDA has outlined benchmarks to hold us accountable as we stimulate innovation so that American agriculture can achieve the goal of increasing U.S. agricultural production by 40 percent while cutting the environmental footprint of U.S. agriculture in half by 2050. This will be an on-going effort toward meeting the demands of the future.



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- **Agricultural productivity:** Increase agricultural production by 40 percent by 2050 to do our part to meet estimated future demand.
- **Forest Management:** Build landscape resiliency by investing in active forest management and forest restoration through increased Shared Stewardship Agreements with States.
- **Food loss and waste:** Advance our work toward the United States' goal to reduce food loss and waste by 50 percent in the United States by the year 2030, from the 2010 baseline.
- **Carbon Sequestration and Greenhouse Gas:** Enhance carbon sequestration through soil health and forestry, leverage the agricultural sector's renewable energy benefits for the economy, and capitalize on innovative technologies and practices to achieve a net reduction of the agricultural sector's current carbon footprint by 2050 without regulatory overreach.
 - Multiple pathways exist to achieve this goal, including promoting innovation and new technologies and practices to improve fertilizer and manure management, capturing biogas, improving livestock production efficiency, conserving sensitive and marginal lands to enhance carbon sinks, reforestation and responsible forest management to prevent wildfire, maximizing the benefits of renewable energy through improved efficiency and carbon capture, and encouraging soil health practices such as no-till to sequester carbon.
- **Water Quality:** Reduce nutrient loss by 30 percent nationally by 2050.
 - Address the areas with the greatest needs.
 - Support existing watershed goals.
- **Renewable Energy:** Support renewable fuels, including ethanol, biodiesel, and biomass.
 - Increase biofuel feedstock production and biofuel production efficiency and competitiveness to achieve market-driven blend rates of E15 in 2030 and E30 in 2050. Achieve market-driven demand for biomass and biodiesel.