



CELEBRATING

NIFA 2021 HIGHLIGHTS AND ACHIEVEMENTS

MEETING ADMINISTRATION PRIORITIES WITH CREATIVE SOLUTIONS

DIVERSITY, EQUITY, INCLUSION AND ACCESSIBILITY

In 2021, NIFA put more emphasis across all programs and efforts, such as closer collaboration with Minority-Serving Institutions (MSIs). Specific accomplishments include holding recruiting events for Hispanic-Serving Institutions, conducting quarterly outreach with 1890 Universities, welcoming increased diversity and experience among NIFA staff, launching an enhanced system for tracking the diversity of NIFA peer review panels, increasing funding to MSIs in both MSI-specific and other programs, and opening new lines of communication to stakeholders.

CLIMATE CHANGE

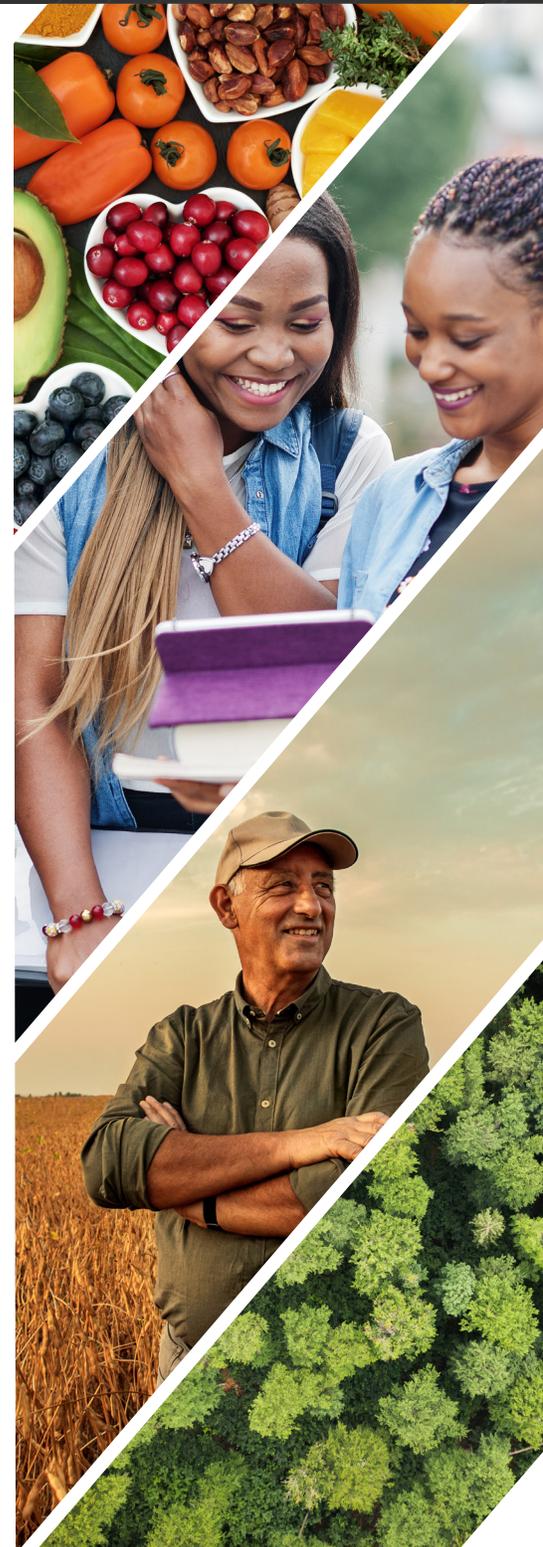
NIFA established a Climate Team focused on program development, held webinars for stakeholder feedback and information, published Request for Applications (RFA) for the Farm of the Future, and announced an opportunity for expanding the reach of Climate Hubs through Cooperative Extension. NIFA is developing efforts to involve 4-H and Youth nationwide in climate-focused work.

NUTRITION SECURITY

The agency increased partnerships across USDA, among both new and traditional groups. NIFA launched a monthly webinar series showcasing efforts across multiple NIFA programs. The results of these activities led to NIFA-initiated program development for sustainable agricultural systems focused on culturally appropriate local and regional food systems.

BUILDING BACK THE ECONOMY

NIFA enhanced funding for Beginning Farmers and Ranchers, conducted a stronger push for increasing applications in its Small Business Innovation Research Initiative, and strengthened connections to community colleges for workforce development through the Agriculture and Food Research Initiative (AFRI), 1994 and 1890 scholarship and research, Extension programs, and other areas.



HIRING THE NATION'S MOST QUALIFIED EXPERTS

The NIFA staff is now more than 300 strong. The agency is aggressively working to complete hiring a full staff of the nation's most qualified experts. NIFA continues to build a strong team of leaders in the Office of the Director, working diligently to improve processes and ensure NIFA is delivering optimal partner service and scientific leadership. At the request of key stakeholders, NIFA is building a strong 4-H & Positive Youth Development Team that will be critical to preparing the nation's future workforce and agricultural leaders.

PROCESSING MORE GRANTS WITH IMPROVED BUSINESS AND TECHNOLOGY TOOLS

Through a two-year focused effort to improve processes and procedures based on stakeholder feedback, NIFA fully implemented a published schedule of funding opportunities, developed and delivered a suite of training modules to ensure new employees had needed guidance to do their jobs while teleworking, and developed a new process to efficiently recruit, hire, and train more diverse peer review panels. The NIFA web team made requested changes to the agency's website to make program web pages easier to navigate. New web-based tools were added that help potential applicants understand the process and enable all visitors to identify and contact NIFA staff for support and service.

As a result, NIFA was able to process 23% more grants than in 2019, in record time, during a pandemic, with a new staff, while offering optimal customer service. Both the efficiency and improved quality of customer service have received great reviews across the agency's stakeholder base. The teams working on these projects are now shifting to become Business Evaluation Teams to provide continuous quality improvement across NIFA in the years ahead.

LAUNCHED INTEGRATED NIFA REPORTING SYSTEM

For more than five years, NIFA has worked closely with stakeholder teams to create an integrated single NIFA Reporting System (NRS) that improves data collection and reduces the reporting burden on its partners. The system went live in May of this year, on schedule, as promised. Accomplishments over the past 12 months include:

- **DELIVERED ON PROMISE** – Migrated over 7,000 users who are actively entering, reviewing, and tracking over 350 critical issues, 6,500 research projects, and 250 Extension programs within the new system.
- **MAINTAINED MISSION-FIRST FOCUS** – Transitioned initiation and tracking of all NIFA-required reporting capacity programs – Hatch, Hatch Multi-State, Evans-Allen, Smith Lever, 1890 Extension, McIntire-Stennis, Renewable Resources Extension Act, and Animal Health and Disease Research.
- **BUILT RELATIONSHIPS AND FOCUSED ON CUSTOMER-CENTRIC SOLUTIONS** – Held weekly working groups with NIFA National Program Leaders and representatives from 30 1862 and 1890 Land-grant University research and Extension partners. These working groups provided us critical user input and feedback regarding priority planning, outreach, usability testing, and developing new system features in partnership with the NRS user community.
- **CULTIVATED EFFECTIVE MODERN IT USE TO MAXIMIZE BUSINESS UTILITY** – Refined IT development, security and operations practices, increasing code security coverage and automation, and cutting average software release time from hours to under 10 minutes while eliminating required system downtime.
- **OPTIMIZED THE DATA CAPABILITIES AND OPEN DATA CULTURE** – Developed Application Program Interface (API) standard and implemented tools to dynamically create API documentation, laying groundwork for available API connectivity between the NRS and other applications.

CREATING AND IMPROVING FEDERAL PARTNERSHIPS

- With the U.S. National Science Foundation (NSF), NIFA invested \$220 million in 11 new Artificial Intelligence Research Institutes. USDA-NIFA and other agencies and organizations have partnered with NSF to pursue transformational advances in a range of economic sectors and science and engineering fields — from food system security to next-generation edge networks. The new investment builds on the first round of seven AI Research Institutes funded in 2020, totaling \$140 million.

- To help promote vaccine confidence and uptake, the Centers for Disease Control and Prevention and NIFA entered into an interagency agreement to engage Land-grant Universities and the Cooperative Extension System to improve vaccination coverage in rural and other medically underserved communities. This is the two agencies' first concentrated vaccine education effort in rural America.
- Adopting and maintaining healthy diets are crucial for preventing a variety of chronic diseases. There is a critical need for validated objective markers of dietary intake to measure the effectiveness of interventions that promote a healthy diet. The National Institutes of Health (NIH) and NIFA-supported research to develop metabolomics-based dietary intake biomarkers at two multidisciplinary Dietary Biomarker Development Centers, investing \$1 million a year for five years at each center.
- NIFA invested \$15 million in two key programs awarded through its Agriculture and Food Research Initiative (AFRI) and Food and Agriculture Cyberinformatics and Tools. The 30 grants support research in two critical areas:
 - Big data analytics, machine learning, artificial intelligence, and predictive technologies needed to keep U.S. agriculture on the leading edge of food and agricultural production.
 - Nanotechnology-based solutions that improve food production, nutrition, sustainable agriculture and food safety.
- NIFA and 4-H partner with the Department of Defense Office of Military Community and Family Policy; Army Child, Youth and School Services; Air Force Airman and Family Services; and Navy Family Readiness to support positive youth development education for youth whose parents are serving in the military. Research suggests that children of deployed parents experience more stress than their peers. While they are often described as a resilient group, the cumulative effects of multiple moves and significant parental absences can erode this resilience. By providing research-based programming and a safe and nurturing environment for military kids, 4-H enhances resilience.

BUILDING AND STRENGTHENING PARTNERSHIP WITH NIFA STAKEHOLDERS

- **LISTENING TO STAKEHOLDERS:** Stakeholder engagement/feedback has been central to NIFA this year. NIFA increased webinars for specific organizations and programs, as well as listening sessions to gain input and feedback on strategic direction; added a Stakeholder Affairs Officer to the Office of the Director staff and brought Josh Stull, NIFA's former Congressional Affairs Officer, back to the agency to lead this critical effort; and refined liaison efforts with multiple stakeholder groups, identifying a dedicated NIFA expert to support better two-way communication.
- **SUPPORTING STAKEHOLDERS:** To ensure NIFA's programs are understood, available and accessible to all, the agency offered additional technical support for Minority-Serving Institutions, new investigators, and others with unique needs; increased informational webinars and identified expert advisors to work one-on-one with key audiences to ensure equity across our stakeholder base; and instituted a new plan to make Civil Rights Reviews at Land-grant Universities a partnership program for improvement, setting expectations that NIFA is a partner to help them succeed in this area.
- **COMMUNICATING WITH STAKEHOLDERS:** To further ensure partners and stakeholders, as well as those across USDA, are fully informed about NIFA opportunities, policies, awards, and successes, the agency increased both internal and external communication, prioritizing recruiting and hiring needed experts in its Office of Communications to ramp up these efforts. Over the past year, NIFA Communications increased media mentions by 64% over 2020 (more than 14,000 mentions) and reached a potential media audience of more than 26.3 billion viewers compared with 7.9 billion in 2020, an increase of 18.4 billion viewers or 233%. The biggest news placement of the year was a BBC story featuring the University of Kentucky and Colorado State University researchers training drones to find cattle and assess their health from the air. It reached 181 million viewers. Additionally, monthly Town Hall meetings with NIFA partner organizations' communications staffs help coordinate messaging and leverage the collective power of partners to elevate media messages about NIFA grant-funded projects and impacts, build strong relationships, and offer needed technical support.

INCREASED THE EFFICIENCY OF NIFA'S CORE GRANT PROCESSES

By employing annual planning, NIFA distributed its workload more evenly over the year than in the past. Consequently, NIFA published RFAs on a predictable schedule, implemented four new programs and three COVID-19 supplemental programs (totaling 74 budget lines), processed 15% more awards than in FY2020, and obligated 100% of the \$1.078 billion one-year AFRI funds.

To support the total process, NIFA hired a new staff of data analysts who will help better track program performance and success. These vital positions will give us the strong evidence needed to share the impact of NIFA-funded programs across the nation.



2022 GOALS

PLANNING FOR THE FUTURE

SUPPORT PRIORITIES IN CLIMATE CHANGE AND CLIMATE-SMART AGRICULTURE AND FORESTRY

- Emphasize climate-smart agriculture across capacity and competitive programs with the Land-grant University System.
- Encourage capacity programs to address and emphasize climate-smart priorities and mitigation goals.

SUPPORT PRIORITIES IN ADVANCING RACIAL JUSTICE, EQUITY, AND OPPORTUNITY

- Support and funding opportunities under the Tribal/1994 Programs. NIFA will continue to strengthen its relationships with Tribal leaders and improve grant programs that specifically support Tribal communities.
- Provide support and funding opportunities for 1890 Programs. NIFA will continue to strengthen its relationships with 1890 leaders and improve existing specific grant programs.
- Provide support and funding opportunities for Hispanic-Serving Institutions via the Education Grants Program.

SUPPORT PRIORITIES IN CREATING MORE AND BETTER MARKET OPPORTUNITIES

- Enhance opportunities for urban agriculture projects.
- Emphasize integrated research, education, and Extension projects RFAs for the Organic Agriculture Research and Extension Initiative and the Organic Transitions Program, with an emphasis on projects that integrate research, education, and Extension projects to solve critical organic agriculture issues and improve competitiveness of organic livestock and crop producers.
- Enhance AFRI grant RFAs to encourage research projects in topics related to market development.
- Encourage directors of agricultural experiment stations and directors of Cooperative Extension Services at 1862, 1890, and 1994 Land-grant Universities to create more and better market development opportunities in their plans of work and annual reports of accomplishments for research and Extension capacity funds.
- Publish a competitive grant RFA for the Small Business Innovation Research program that supports creating or increasing market opportunities.



SUPPORT PRIORITIES IN TACKLING FOOD AND NUTRITION INSECURITY

- Publish RFAs for funding that enhance more than 20 programs that support nutrition security and ensure food safety.
- Incorporate language in the AFRI grant RFAs that encourages research to improve nutrition security and enhance food safety, including:
 - USDA Climate Hubs (a portion of this funding is reserved for nutrition security)
 - Food Safety and Defense
 - Food and Human Health
 - Diet, Health, and Chronic Disease
 - Novel Foods and Innovative Manufacturing Technologies
 - Dietary Biomarkers
- Encourage capacity program applicants to include food and nutrition security topics in their Plans of Work.

CONTINUE TO IMPROVE NIFA OPERATIONS

- Enhance support for these priorities through technical assistance, webinars, and other communications and outreach efforts.
- Enhance data, evaluation, and reporting systems to better measure the systemwide impact and achievements in these key priority areas.
- Enhance panel selection and management training to ensure optimal representation, efficiency and effectiveness of the review peer-review process.
- Continue technology modernization efforts across the agency to provide optimal customer service and user experience.