



U.S. DEPARTMENT OF AGRICULTURE

UNITED STATES DEPARTMENT OF AGRICULTURE'S

INNOVATIVE PRODUCTION AT A GLANCE

MARCH 2025





URBAN AGRICULTURE & INNOVATIVE PRODUCTION

If you grow – or are starting to grow – using innovative production methods, USDA can help you finance, plan, and protect your operation. USDA offers programs with financial and technical assistance as well as crop insurance to help you and your innovative operation. In addition, USDA experts including economists, agronomists, conservationists, researchers, and leaders in food safety, crop genetics, packaging, and plant breeding can support your operation with the latest research and connections to new markets and new opportunities. Visit our Innovative Production website at usda.gov/topics/urban/innovative-production.

USDA's Office of Urban Agriculture and Innovative Production

USDA's Office of Urban Agriculture and Innovative Production (OUAIP) coordinates across USDA agencies to serve the needs of urban and innovative producers, and manages grants, cooperative agreements, and the Federal Advisory Committee on Urban Agriculture and Innovative Production. Learn more at usda.gov/urban.

USDA and Other Federal Agencies Supporting Innovative Production

Agricultural Marketing Service (AMS)
Agricultural Research Service (ARS)
Economic Research Service (ERS)
Farm Service Agency (FSA)
Food and Nutrition Service (FNS)
National Institute of Food and Agriculture (NIFA)
Natural Resources Conservation Service (NRCS)
Office of Partnerships and Public Engagement (OPPE)
Office of Urban Agriculture and Innovative Production (OUAIP)
Risk Management Agency (RMA)
Rural Development (RD)
(non-USDA) Department of Energy (DOE)
(non-USDA) Environmental Protection Agency (EPA)
(non-USDA) Food and Drug Administration (FDA)

What is Innovative Production?

Innovative production is a diverse and dynamic area of agriculture that includes indoor controlled environment agriculture, rooftop farms, outdoor vertical production, green walls, high-tech vertical technology farms, greenhouses, and hydroponic, aeroponic, or aquaponic farms. These operations are creating new and better markets, economic opportunities, and developing the next generation of agricultural producers.

FUNDING AND TECHNICAL ASSISTANCE

Innovative Production financial and technical assistance is available for a wide variety of individuals and groups including producers, food system partnerships, and universities/researchers. Eligibility for each of these individuals or groups often varies. ***Please visit with the specific federal agency offering the program to determine if you or your group qualifies.***

- **Producers** – May include farms and systems managed by individuals, community organizations, school groups, non-profits, limited liability companies, limited partnerships, informal joint ventures, or other entities.
- **Food System Partners** – May include organizations and collaborative partnerships focused on food system issues, such as local governments, Tribal governments and organizations, school districts, and non-profits.
- **Universities/Researchers** – May include partners of the Land-Grant University System, which includes 1862 public universities; 1890 historically black colleges and universities (HBCUs); 1994 tribal colleges and universities; other institutions of higher education, community-based organizations and non-profits.

Direct Support

PROGRAM	AGENCY	TYPE	DESCRIPTION	PRODUCERS	FOOD SYSTEM PARTNERS	UNIVERSITIES/ RESEARCHERS
GOOD AGRICULTURAL PRACTICES (GAP) AUDITS	AMS	Voluntary Audit	Voluntary audits that verify fruits and vegetables are produced, packed, handled, and stored to minimize risks of microbial food safety hazards. Includes conventional, organic, greenhouse, aeroponic, hydroponic and aquaponics systems.	❖	❖	
PATRICK LEAHY FARM TO SCHOOL PROGRAM	FNS	Grants, training, technical assistance, research	Helps child nutrition program operators incorporate local foods into National School Lunch Program, Summer Food Service Program and Child and Adult Care Food Program. Training and guidance for producers seeking to sell to schools. Innovative agriculture practices like hydroponics, aquaponics, vertical gardens, and new technologies may be included in grants.	❖	❖	
DISASTER ASSISTANCE PROGRAMS	FSA	Financial Assistance	Programs to help farmers recover from natural disasters or build resilience to future disasters.	❖		
EMERGENCY LOANS	FSA	Loans	Loans to help farmers recover from natural disasters or build resilience to future disasters.	❖		
FARM LOAN PROGRAMS	FSA	Loans	Provides access to capital, either directly from FSA or through a third-party lender. Farm Ownership loans can help you purchase and improve land and Operating Loans can be used for shorter term expenses. Microloans may also be beneficial. Youth loans are available to those who are sponsored by a project advisor. Currently, non-profits are NOT eligible for these loans.	❖		
FARM STORAGE FACILITY LOANS	FSA	Loans	Provides low-interest financing for producers to store, handle, and/or transport eligible commodities. Includes cold storage structures and related equipment, refrigerator trucks, and more.	❖		

Direct Support *(continued)*

PROGRAM	AGENCY	TYPE	DESCRIPTION	PRODUCERS	FOOD SYSTEM PARTNERS	UNIVERSITIES/ RESEARCHERS
FOOD SAFETY CERTIFICATION FOR SPECIALTY CROPS PROGRAM	FSA	Financial Assistance	Provides assistance for specialty crop operations that incur eligible on-farm food safety program expenses related to obtaining or renewing a food safety certification.	❖		
NONINSURED CROP DISASTER ASSISTANCE PROGRAM (NAP)	FSA	Disaster Assistance	For commodities not covered by crop insurance, NAP helps producers manage risk through coverage for both crop losses and crop planting that was prevented due to natural disasters.	❖		
ORGANIC CERTIFICATION COST-SHARE PROGRAM	FSA	Financial Assistance	Reimburses up to 75% of cost of organic certification renewal under the National Organic Program (NOP).	❖		
BEGINNING FARMER DEVELOPMENT PROGRAM	NIFA	Grants for Technical Assistance	Provides grants to organizations for education, mentoring, and technical assistance initiatives for beginning farmers.	❖	❖	❖
COMMUNITY FOOD PROJECTS COMPETITIVE GRANTS PROGRAM	NIFA	Grants	Funds community food projects to increase food security and self-reliance. Projects are designed to increase food security in communities by bringing sectors within the whole food system together to assess strengths, establish connections, and improve access to food as a comprehensive strategy.		❖	
GUS SCHUMACHER NUTRITION INCENTIVE PROGRAM	NIFA	Grants	Funds projects that increase the purchase of fruits and vegetables by low-income consumers.		❖	
CONSERVATION PROGRAMS	NRCS	Financial Assistance, Free Guidance	Provides technical and financial assistance through the Environmental Quality Incentive Program and Conservation Stewardship Program for conservation practices, such as irrigation systems, roof runoff structures, and energy efficiency that may support innovative producers.	❖	❖	
URBAN AGRICULTURE AND INNOVATIVE PRODUCTION GRANTS	NRCS	Grants	Supports non-profits, local governments, tribes and schools to initiate or expand efforts to improve local food access, support farmer infrastructure, increase innovative production, and connect producers to markets.	❖	❖	
UNDERSERVED AND VETERAN FARMERS, RANCHERS, AND FORESTERS	OPPE	Grants to support technical assistance and agricultural outreach	Encourage and assist underserved, beginning, and veteran producers with owning and operating farms and participating equitably in the full range of programs offered by USDA. Eligible entities may compete for funding on projects that provide education and training in agriculture and agriculturally related services; connect producers to USDA programs and conduct outreach.		❖	❖

Direct Support *(continued)*

PROGRAM	AGENCY	TYPE	DESCRIPTION	PRODUCERS	FOOD SYSTEM PARTNERS	UNIVERSITIES/ RESEARCHERS
BUSINESS AND INDUSTRY GUARANTEED LOAN PROGRAM	RD	Loans to intermediary lenders who provide guaranteed loans to individuals	Provides guaranteed loans for developing land, buildings, equipment, supplies and infrastructure. Projects may be funded in either rural or urban areas under the Local and Regional Food System Initiative.	❖		
ECONOMIC IMPACT INITIATIVE GRANTS	RD	Grants	Funds development of community facilities – including community gardens, food pantries, food hubs, and greenhouses - in economically-distressed communities. Verify city, village, and township population size and unemployment rate to qualify.		❖	
RURAL BUSINESS DEVELOPMENT GRANT	RD	Grants	Supports workforce training and projects that benefit rural areas or towns outside the urbanized periphery of cities with a specific population size.		❖	
RURAL ENERGY FOR AMERICA PROGRAM RENEWABLE ENERGY SYSTEMS & ENERGY EFFICIENCY IMPROVEMENT GUARANTEED LOANS & GRANTS	RD	Grants	Provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or to make energy efficiency improvements. Agricultural producers may also apply for new energy efficient equipment and new system loans for agricultural production and processing.	❖	❖	
RURAL MICRO-ENTREPRENEUR ASSISTANCE PROGRAM	RD	Loans	This loan can be used to help start a business with 10 or fewer full-time employees.		❖	❖
FEDERAL CROP INSURANCE	RMA	Insurance	Manages risk from natural disasters through crop insurance policies. Whole-Farm Revenue Protection and Micro Farm are good options for innovative farmers. The Controlled Environment program is an inventory-based program that offers insurance for destruction orders for plant diseases and contamination introduced from the environment even though all biosecurity protocols were followed. Insurance is purchased through Approved Insurance Providers, not USDA.	❖		



Marketing and Selling

PROGRAM	AGENCY	TYPE	DESCRIPTION	PRODUCERS	FOOD SYSTEM PARTNERS	UNIVERSITIES RESEARCHERS
FARMER'S MARKET PROMOTION PROGRAM	AMS	Grants	Funds projects that develop, coordinate, and expand direct producer-to-consumer markets to help increase access to and availability of locally and regionally produced agricultural products.		❖	
GOOD AGRICULTURAL PRACTICES (GAP) AUDITS	AMS	Voluntary Audit	Voluntary audits that verify fruits and vegetables are produced, packed, handled, and stored to minimize risks of microbial food safety hazards. Includes conventional, organic, greenhouse, aeroponic, hydroponic and aquaponics systems.	❖	❖	
LOCAL FOOD PROMOTION PROGRAM	AMS	Grants	Funds projects that develop, coordinate, and expand local and regional food businesses and engage in producer-to-consumer marketing to increase access to and availability of local and regional agricultural products.		❖	
REGIONAL FOOD SYSTEM PARTNERSHIPS PROGRAM	AMS	Grants	Supports public-private partnerships that plan and develop local or regional food systems including production, processing, distribution, and eventual consumer consumption.		❖	❖
RESILIENT FOOD SYSTEMS INFRASTRUCTURE PROGRAM	AMS	Grants	To assist U.S. states and territories to build resilience in the middle-of-the-supply-chain and strengthen local and regional food systems by creating new revenue streams for their state's producers. Funding administered by states.	❖	❖	❖
HEALTHY MEALS INCENTIVES FOR SCHOOLS	FNS	Grants, Technical Assistance	Improve the nutritional quality of school meals through food systems transformation, school food authority recognition and technical assistance, the generation and sharing of innovative ideas and tested practices, and grants.		❖	
WOMEN, INFANTS, AND CHILDREN (WIC) FARMERS' MARKET NUTRITION PROGRAM AND SENIORS FARMERS MARKET NUTRITION PROGRAM	FNS	Financial Assistance	Provides coupons to WIC participants for eligible foods from state-approved farmers, farmers' markets, or roadside stands. Contact your state for eligibility and more information on how you can accept WIC as payment when selling products directly to consumers.	❖		
GUS SCHUMACHER NUTRITION INCENTIVE PROGRAM	NIFA	Grants	Funds projects that increase the purchase of fruits and vegetables by low-income consumers.		❖	
CONSERVATION INNOVATION GRANTS	NRCS	Grants	Supports development of new approaches, practices, and technologies to further natural resource conservation.	❖	❖	❖
URBAN AGRICULTURE AND INNOVATIVE PRODUCTION GRANTS	NRCS	Grants	Supports non-profits, local governments, tribes and schools to initiate or expand efforts to improve local food access, support farmer infrastructure, increase innovative production, and connect producers to markets.	❖	❖	
VALUE-ADDED PRODUCER GRANT PROGRAM	RD	Grants	Helps fund value-added activities related to processing and marketing new products, which increases marketing opportunities and producer income.	❖	❖	

Research and Development Support

PROGRAM	AGENCY	TYPE	DESCRIPTION	PRODUCERS	FOOD SYSTEM PARTNERS	UNIVERSITIES RESEARCHERS
CONSERVATION INNOVATION GRANTS	NRCS	Grants	Supports development of new approaches, practices, and technologies to further natural resource conservation.	❖	❖	❖
AGRICULTURE AND FOOD RESEARCH INITIATIVE	NIFA	Grants	Funds research that is vital to meeting food, fiber and fuel demands across the world, and helps develop new technologies and a trained workforce.		❖	❖
SPECIALTY CROP RESEARCH INITIATIVE	NIFA	Grants	Supports the critical needs of the specialty crop industry through the promotion of collaboration, the exchange of information, and the development of resources that accelerate application of scientific discovery and technology.		❖	❖
BIOTECHNOLOGY RISK ASSESSMENT RESEARCH GRANTS PROGRAM	NIFA	Grants	Supports research to help identify and analyze environmental effects of biotechnology and helps regulators develop policies concerning the introduction of such technology.			❖
SUSTAINABLE AGRICULTURAL RESEARCH AND EDUCATION	NIFA	Grants	Offers competitive grant and professional development programs to help promote environmental stewardship and more profitable farm incomes.			❖
ORGANIC AGRICULTURE RESEARCH AND EXTENSION INITIATIVE	NIFA	Grants	Supports research, education, and extension programs that enhance the ability of producers and processors who have already adopted organic standards to grow and market high quality organic agricultural products.			❖
SMALL BUSINESS INNOVATION RESEARCH AND SMALL BUSINESS TECHNOLOGY TRANSFER PROGRAMS	NIFA	Grants	Focus on transforming scientific discovery into products and services with commercial potential and/or societal benefit.			❖
URBAN AND CONTROLLED ENVIRONMENT AGRICULTURE TECHNOLOGIES	ARS	Technical Guidance and Research Assistance	Supports research, education, and outreach activities to extend development of urban, indoor, and other emerging agricultural production systems, including development of crop plants adapted to urban and controlled environment agriculture, hydroponics and aquaponics, artificial lighting, pest and disease management, postharvest, packaging, food safety and quality, and human nutrition.	❖	❖	

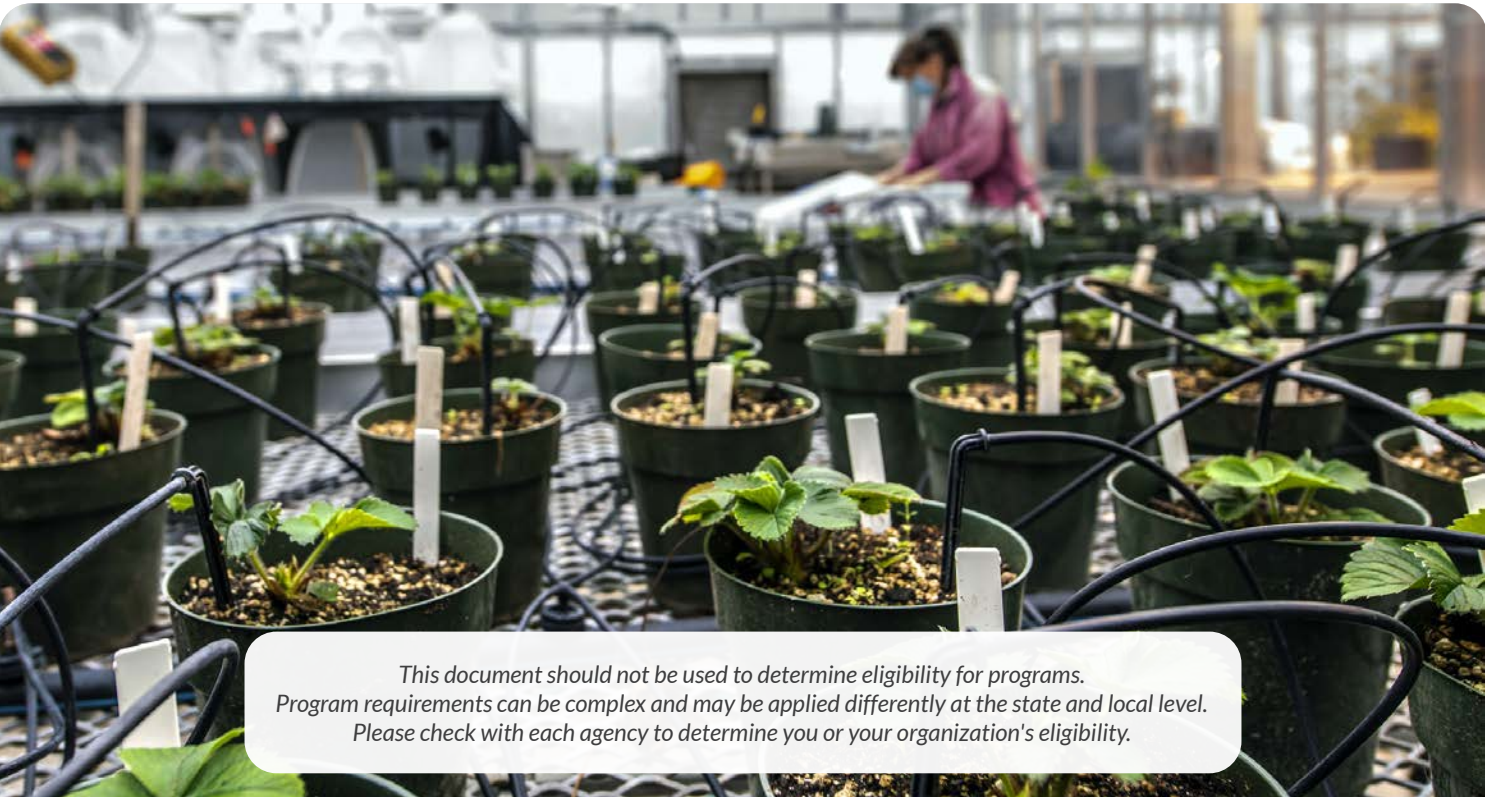
Technical Reports and Resources

PROGRAM	AGENCY	TYPE	DESCRIPTION
UNIFIED WEBSITE FOR BIOTECHNOLOGY REGULATION	USDA, FDA, and EPA	Policy Resource	Describes the federal review process for certain biotechnology products and allows users to submit questions.
TRENDS, INSIGHTS, AND FUTURE PROSPECTS FOR PRODUCTION IN CONTROLLED ENVIRONMENT AGRICULTURE AND AGRIVOLTAICS SYSTEMS	ERS	Technical Report	Examines recent innovations in the production process for CEA and AV systems, the extent to which they have been adopted, whether these are providing output for agricultural markets, and the types of crops or other agricultural goods the systems supply.
RESEARCH AND DEVELOPMENT POTENTIALS IN INDOOR AGRICULTURE AND SUSTAINABLE URBAN ECOSYSTEMS WORKSHOP REPORT	USDA and DOE	Technical Report	Identifies research and development challenges, opportunities, and needs relating to in six major areas: community services, economics, ecosystem services, plant breeding, pest management, and systems engineering.

More Information

For more information about USDA assistance for innovative production, visit farmers.gov/urban and usda.gov/urban.

USDA Service Centers are locations where you can connect with Farm Service Agency, Natural Resources Conservation Service, or Rural Development employees for assistance. To find yours, visit farmers.gov/service-center-locator. For other USDA agencies, check the agency and program website for contact information.



*This document should not be used to determine eligibility for programs.
Program requirements can be complex and may be applied differently at the state and local level.
Please check with each agency to determine you or your organization's eligibility.*



USDA is an equal opportunity provider, employer, and lender.