

Project Title	Grant Year	Grant End Year	Proj No	PD/PI	Institution	Program Code
Improving Plant Production and others						
More Bang for your Buckwheat	2024	2028	2024-51300-43049	Murphy, K.	Washington State University	11.3.A
Genotype, environment, and management effects on corn yield response to nitrogen fertilizer in the US Corn Belt	2026	2029	2026-67013-45725	Archontoulis, S.	Iowa State University	A1102
Upcycling of Nutrients from Poultry Slaughterhouse Solid Wastes into Black Soldier Fly Larvae Feed Rich in Antimicrobial Peptides	2026	2029	2026-67021-45697	Ramiah Shanmugam, S.	Auburn University	A1531
The role of pollen nutrition in bumble bee colony health and species foraging preferences	2026	2028	2026-67039-45662	Hines, H.	The Pennsylvania State University	A1113
Addressing the Emerging Threat of Soybean Cyst Nematode to Dry Bean: Yield Impact, Management Strategies, and Grower Education	2025	2028	2025-68008-44785	Yan, G.	state University	A1701
FIGHTBLIGHT: Bioengineering immune receptors for potato blight resistance	2025	2028	2025-67013-44496	Restrepo, S.	Boyce Thompson Institute for Plant Research Inc	A1153
Sustaining avocado production in the face of the lethal laurel wilt disease	2024	2028	2024-51181-43302	Rollins, J.	University of Florida	SCRI
Traversing the wild-crop interface to restore microbial partnerships that enhance plant defenses	2026	2030	2026-67039-45655	Enders, L.	Purdue University	A1402
Evaluating efficacy and specificity of multiplex-genome editing for broad and durable disease resistance in tomato	2025	2029	2025-33522-45304	Rodriguez Leal, D.	University of Maryland, College Park	HX
Assessing the Unpredictability of Chromosome Rearrangement Induced by Multiplex Genome Editing in Tomato	2025	2029	2025-33522-45288	Li, Y.	University of Connecticut	HX
Integrating Sensory, Genomic, and Metabolomic Data to Breed Blackberries for Improved Flavor	2023	2029	2023-67013-39448	Worthington, M.	University of Arkansas System	A1141
Engineering soybeans and pennycress for increased vitamin B2 contents using a mutant riboflavin kinase/FMN hydrolase	2024	2028	2024-67013-42713	Roje, S.	Washington State University	A1103
Harnessing Genetic and Genomic Resources to Develop Strawberry Cultivars Resistant to Multiple Fruit Rot Diseases	2024	2028	2024-67013-42591	Feldmann, M.	University of California, Davis	A1141
Insect associated nematodes as a biocontrol mechanism for Fig Endosepsis in the cultivated fig Ficus carica	2026	2028	2026-67039-45672	Van Goor, J.	University of Missouri	A1112
The billion-dollar pest strikes back: addressing European corn borer resistance to Bt corn	2026	2029	2026-67039-45821	Jurat-Fuentes, J.	University of Tennessee	A1112

Management of Insect Vected Plant Pathogens Using Microbiome-guided Modeling Optimization	2026	2031	2026-67039-45729	Enders, L.	Purdue University	A1112
Exploring The Feasibility Of End Of Production Regimens To Improve Leafy Green Nutritional Content, Appearance, And Post-Harvest Longevity	2023	2028	2023-68013-39640	Walters, K. J.	University of Tennessee	A1102
Improving Plant Production and others						
Cancer Risk By Unique Nutraceutical Anthocyanin-Enriched Bioengineered Tomatoes	2024	2029	2024-67017-42463	Wang, W.	Kansas State University	A1343
Maternal Intake of Eggs and Infant Neurodevelopment (MIND)	2025	2028	2025-67017-44743	Christifano, D.	University of Kansas Medical Center	A1811
Optimizing Prune Consumption for Late Peri-menopausal Health: A Two-Year Intervention	2025	2030	2025-67017-44725	Hooshmand, S.	San Diego State University	A1811
PARTNERSHIP: Cardiometabolic-Protective And Gut Microbiota Modulatory Effects Of Red Cabbage	2026	2029	2026-67017-45557	Johnson, S	Florida State University	A1343
Elucidating the effect of dietary stearic acid on the regional	2025	2028	2025-67017-44989	Matthan, N.	Trustees of Tufts College	A 1343
Determining the interrelationships for dietary intake of lipid	2024	2028	2024-67018-42494	Benninghoff, A.	Utah State University	A 1343
DSFAS: Harnessing the Power of Artificial Intelligence and Deep Eutectic Solvents to Boost Antioxidant Synergism	2024	2028	2024-67021-42520	Garcia, C. D.	Clemson University	A1541
Anti-Cancer Transcriptome Responses to Phytochemicals in Renal and Glioblastoma Cancer Cells	2025	2028	2025-38821-45454	Harris, R.	West Virginia State University	EQ
PARTNERSHIP: Elucidating Gut Microbiota-dependent Health Impacts of Haskap Berries to Inform Agricultural Production Practices that will Maximize Bioactive Potential	2024	2028	2024-67018-42493	Miles, M. P.	Montana State University	A1343
Bioactive Components of Macadamia Nut Protects Against Maternal Obesity-induced Complications	2023	2028	2023-67017-40223	NATARAJAN, S. K.	Saes - University of Nebraska	A1343
Agricultural Microbiomes in Plant Systems, Animals and Natural Resources						
Assessment of environmental impacts and ecological consequences associated with genetically engineered microbes in livestock production systems	2024	2028	2024-33522-43699	Fernando, S.	University of Nebraska	HX
Discovering disease-protective synergistic processes across endophytic microbiomes of banana	2024	2029	2024-67017-42482	Brown, A.	Texas Tech University System	A1402
Implementing cover crops and compost additions to improve soil microbiomes and mitigate stress in semi-arid cotton production systems	2024	2028	2024-67013-41943	Slaughter, L.	Texas Tech University System	A1811
Elucidating Transkingdom Microbial Community Assembly in the Barley Phyllosphere during Fusarium Infection	2025	2028	2025-67039-44778	Baldwin, T.	North Dakota State University	A1402

Quantifying The Role Of The Microbiome On Turkey Growth Through Cecal Microbiota Transplantation	2025	2028	2025-77045-45286	Johnson, T.	Purdue University	LHTR
Improved Production, Methods for Food Security and Safety						
Advancing Food Security And Capacity Building In Navajo Nation Through Research In Quantum Sensing	2026	2028	2026-38424-45578	Soundappan, T.	Navajo Technical University	ZY
POPBEANS SREP: Protein-rich Wholesome Popping Beans to Enhance Agricultural Production, Nutrition, and Sustainability	2024		2024-51181-43288	Gang, D.	Washington State University	SCRI
Improving Food Safety with In Vitro Human Digestive System Modeling: Assessing Novel Foods	2025	2030	2025-67017-44945	Chen, Y.	Trustees of Tufts College	A1364
Adapting and translating essential food safety protection principles to cottage food producers in Texas and Arkansas	2025	2028	2025-70020-45340	Taylor, T.	Texas A&m Agrilife Research	A4182
Cold plasma innovations in drying pretreatment of fruits and nuts: enhancing efficiency and reducing energy consumption	2025	2028	2025-67017-44836	Wang, Q	Oregon State University	A1364
PARTNERSHIP: Next-Generation Surface Dielectric Barrier Discharge Plasma Solutions for Improved Food Safety and Shelf-life Enhancement: From Electrode Design to Commercial Application	2025	2028	2025-67017-44830	Salvi, D.	North Carolina State University	A1364
2025 FARAD - Food Animal Residue Avoidance Database Program - UF Component	2025	2028	2025-41480-45257	Maunsell, F.	University of Florida	FARAD
Collaborative Education and Research in Micro-Nano-Plastics to Train a Diverse and Talented Workforce for Sustainable Agriculture	2024	2028	2024-77040-43102	Ren, J.	Texas a & M University Kingsville	NJ
Enhancing Sustainable And Smart Agriculture: Nanobubble-Enriched Hydrogels For Improved Water And Nutrient Delivery To Foster Plant Growth	2024	2028	2024-67021-42716	Zhang, W.	New Jersey Institute of Technology	A1511
Partnering with cottage producers to develop food safety tools and training to support small food businesses	2025	2028	2025-70020-45343	Ubbink, J.	Regents of the University of Minnesota	A4182
From egg to chicken: Improving poultry meat safety, performance and broiler health for small farms	2025	2029	2025-68006-45035	Amalaradjou, M.	University of Connecticut	A 1601
The heifer jumped over the ocean: Evaluating the impacts of air and ocean transport on nutrient mobilization	2026	2028	2026-67015-45702	Reichhardt, C.	University of Hawaii	A 1251
Driving Down Foodborne Illness Burden Through Realistic Healthy People 2030 Tools and Resources	2025	2030	2026-67017-45560	Chen, Y.	Tufts University	A 1332
Improving Food Safety with in Vitro Human Digestive System Modeling: Assessing Novel Foods	2025	2030	2025-67017-44945	Chen, Y.	Trustees of Tufts College	A 1364
Sustainable Production of Food Ingredients and Agrochemicals from Cactus(Opuntia Spp.): Bridging Rural Socio-Economic & Health Disparities	2025	2030	2025-68012-44232	Talcott, S.	Texas A&m University	A 9201

Diet, Nutrition and the Prevention of Chronic Disease						
Gut Microbiota-Bone Axis: A Randomized Clinical Trial Coupled with a Multi-omics Approach to Inform Precision Nutrition	2025	2029	2025-67018-45103	Chun, O.	University of Connecticut	A 1343
Purine Metabolism as a novel pathway mediating the anti-obesogenic effects of polyphenolic rich foods	2025	2028	2025-68015-44997	Bettaieb, A.	University of Tennessee	A 1344
Affordability, Nutrition, and Health - The Role of Dietary Protein in Healthy Dietary Patterns Across the Lifespan	2025	2028	2025-67017-44742	Baum, J.	University of Arkansas	A 1811
Health Effects Of Cottonseed Oil Versus Matched Composition Diets In Humans	2024	2028	2024-67017-42137	Cooper, J.	University of Georgia	A 1811
Integrating Beans into Western-Style Diet during Early Life to Promote Breast Health Later in Life	2025	2029	2025-67017-45104	Liu, Z.	University of Massachusetts	A 1343
Gus Schumacher Nutrition Incentive Program	2025	2028	2025-70415-45270	Gardner, N.	Indiana Department of Health	FLSP
Evidence-Based Classification of Processed Foods: Evaluation of Composition, Structural and Nutritional Properties	2025	2029	2025-67017-44835	Bornhorst, G.	University of California, Davis	A1364
Partnership: Targeting carbonyl stress to prevent metabolic diseases by Mediterranean-South diet	2025	2029	2025-69015-45100	Sang, S.	North Carolina Agricultural and Technical State University	A 1344
Integrating Beans into Western-Style Diet during Early Life to Promote Breast Health Later in Life	2025	2029	2025-67017-45104	Liu, Z.	University of Massachusetts	A 1343
Strengthening the Utah Diabetes Cook Along Program for Statewide Extension Delivery: Curriculum Refinement and Randomized Controlled Trial	2025	2028	2025-68015-45185	Durward, C.	Utah State University	A 1344
PARTNERSHIP: Increasing trout consumption in young children and families for cognitive and mental health benefit	2023	2028	2023-69015-39605	ROE, A.	Saes - University of Idaho	A 1344
Sustainable Agriculture and Food Research Initiatives						
Harnessing biochar-biologicals-compost interactions to maximize productivity and profitability of small- and medium-size transitioning vegetable production systems	2025	2029	2025-51106-45109	Wan, C.	University of Missouri	112.E
When Blue is Green: Sustainable Blue Food Systems Driven by Integrated Aquaponics	2023	2028	2023-68012-39001	Huang, J.	Purdue University	A 9201
Enhancing Sustainable And Smart Agriculture: Nanobubble-Enriched Hydrogels For Improved Water And Nutrient Delivery To Foster Plant Growth	2024	2028	2024-67021-42716	Zhang, W.	New Jersey Institute of Technology	A 1511
Climate resilient high-quality tomato varieties for sustainable production	2024	2028	2024-51181-43464	Patil, B.	Texas A&m Agrilife Research	SCRI
Physiological And Molecular Regulation Of Fruit Ripening In Blueberry	2026	2029	2026-67013-45706	Nambeesan, S.	University of Georgia Research Foundation, Inc.	A 1152

Washable essential oil emulsion coatings to extend the shelf life and enhance the safety of organic fruits and vegetables	2024	2028	2024-51300-43226	Zhong, Q.	University of Tennessee	113.A
Developing Non-leathery Crispy Skinned Berry Via Gene Editing for Strengthening Genomic Technologies and Promoting Muscadine Grape Consumption	2025	2028	2025-38821-45456	Ahmed, I.	Florida a & M University	EQ
Sustaining avocado production in the face of the lethal laurel wilt disease	2024	2029	2024-51181-43302	Rollins, J.	University of Florida	SCRI
Agricultural Mechanics, Robotics, and Automation Systems						
Economic Decision-Making Tools for Small and Mid-Sized Dairy Farmers for Business Resilience	2025	2029	2025-67023-45057	Paudyal, S.	Texas A&m Agrilife Research	A 1601
Labor, Efficiency, Automation, and Production: LEAP Nursery Crops Toward Sustainability	2024	2029	2024-51181-43291	Lebude, A.	North Carolina State University	SCRI
DSFAS: AI-based Fast Automated 3D Scene Reconstruction of Plants and Farms for Agricultural Robots	2024	2028	2024-67021-42528	Jawed, M.	University of California, Los Angeles	A 1541
Precision Livestock Management: Cattle Monitoring and Herding Using Cooperative Drones	2024	2029	2024-69014-42393	Sama, M.	University of Kentucky	A 1261
Innovative Production Processes for Food and Feed						
Integrate Meal Fermentation In Canola Oilseeds Processing To Produce High-Nutritional Animal Feed	2025	2028	2025-38624-45367	Hu, B.	Regents of the University of Minnesota	HW
Evaluation of agronomic traits, nutritional values, and promotion of quinoa as a climate-resilient forage for small ruminants	2026	2028	2025-38821-45469	Pathan, S.	Lincoln University	EQ
Alfalfa IS for Beef Cattle	2025	2028	2025-70005-45360	Tucker, J.	University of Georgia	AFRP
Harnessing alfalfa as a functional feed to combat fescue toxicosis and heat stress in cattle	2025	2028	2025-70005-45364	Davis, B.	Agricultural Research Service	AFRP
Enhancing Plant-Based Rainbow Trout Nutrition and with Algal-Derived Functional Foods: Integrating Metabolomic and Transcriptomic Approaches	2025	2029	2025-38821-45492	denyi, J.	West Virginia State University	EQ
Computational Decision-Support Models for Agricultural Systems						
Advancing Machine Vision Technology with Artificial Intelligence for High-speed Quality Grading and Sorting of Fresh Green Asparagus	2025	2029	2025-67023-45056	Lu, Y.	Michigan State University	A 1601
DSFAS: CropVista: Building Agricultural Resilience with Satellite Constellation Products for U.S. Farmers	2024	2028	2024-67021-42530	Souza Martins, V.	Mississippi State University	A 1541
PARTNERSHIP: Integrating crop growth models and genomic prediction to advance the development of heat tolerant potatoes.	2024	2028	2024-67013-42584	Resende, M.	University of Florida	A 1141
Economic Decision-Making Tools for Small and Mid-Sized Dairy Farmers for Business Resilience	2025	2029	2025-67023-45057	Paudyal, S.	Texas A&m Agrilife Research	A 1601

DSFAS PARTNERSHIP: Leveraging automation and AI to predict critical periods for managing insect pests	2024	2028	2024-67022-42525	Crossley, M.	University of Delaware	A 1541
AI-accelerated detection of microbial spoilage in juice processing for enhanced food quality and waste reduction	2025	2028	2025-67017-44834	Ma, L.	Oregon State University	A 1364
Economic Decision-Making Tools for Small and Mid-Sized Dairy Farmers for Business Resilience	2025	2028	2025-38821-45472	Feng, H	North Carolina Agricultural and Technical State University	EQ
Health-Supporting Nutrition (Technology & Monitoring)						
resistant/tolerant citrus varieties via a multi-tiered decision-making approach	2025	2029	2025-70029-44030	Wang, N.	University of Florida	ECDRE
Strong People Strong Hearts Digital: An Extension-delivered, mobile app-based cardiovascular disease prevention program for at-risk women	2025	2028	2025-68015-45033	Rethorst, C.	Texas A&m Agrilife Research	A 1344