

**Agriculture  
April 2015  
Proposal Submissions**

<b>Principal Investigator</b>	<b>Department</b>	<b>Sponsor</b>	<b>Title</b>	<b>Total Amount Requested</b>
Davis, Alison	Agr Economics	National Institute of Food and Agriculture	The Role of Social Capital in Building Vibrant Local Food Systems	\$499,392
Davis, Alison	Agr Economics	ORB Technologies LLC	SBIR: CEDIK ORB Technologies' Phase I	\$5,000
Freshwater, David	Agr Economics	National Institute of Food and Agriculture	Strategies For Supporting Innovative Rural Entrepreneurs	\$368,961
Tyler, Quentin	Agr Economics	North Carolina A&T State University	Mentoring Agriculture Students to Become Global Scholars for the 21st Century	\$10,380
Zheng, Yuqing	Agr Economics	National Institute of Food and Agriculture	Food Safety Standards and Certification: Implications for Consumers, Producers, and Certifiers	\$498,304
McNeill, Sam	Biosystems & Ag Eng	Kansas State University	Developing improved solar dryers for corn in Ghana	\$4,215
Montross, Michael	Biosystems & Ag Eng	National Institute of Food and Agriculture	Application of a CAN Based Data Management System For an Expert Decision Support System For Optimal Equipment and Harvest Timing From Grain Harvest to Grain Storage	\$500,000
Nokes, Sue	Biosystems & Ag Eng	University of Tennessee	Innovations in Lignocellulosic Pretreatment to Benefit Lignin Re-use and Process Sustainability	\$150,000
Stombaugh, Timothy	Biosystems & Ag Eng	National Institute of Food and Agriculture	Improved Chemical Application Accuracy with Nozzle Level Injection	\$499,049
Bailey, William	Plant & Soil Sciences	RJ Reynolds Tobacco Co	Effect of preharvest Debaryomyces hansenii application on nitrite and TSNA in dark tobacco	\$5,600
Bailey, William	Plant & Soil Sciences	RJ Reynolds Tobacco Co	Effect of Chloride-containing potassium fertilizer application on dark air-cured tobacco	\$9,800
Davies, H. Maelor	Plant & Soil Sciences	National Institute of Food and Agriculture	An Assessment of the Potential of a Novel, Externally Regulated Gene 'switch' to Regulate a Transgenic Plant Phenotype and Confine It to the Farm.	\$498,470
Hildebrand, David	Plant & Soil Sciences	National Institute of Food and Agriculture	Metabolomics of Increased Oil in Mutants and Engineered Soybean Embryos	\$495,282
Knott, Carrie	Plant & Soil Sciences	National Institute of Food and Agriculture	Improving canola analysis to enhance marketability and agronomic production in the Lower Midwest and Mid-South Regions	\$208,256

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McCulley, Rebecca	Plant & Soil Sciences	US Department of Agriculture	Gene Expression and Metabolomic Profiling For Stress Resistance in Tall Fescue Under Altered Climate Regimes in the Field	\$287,899
Smith, Samuel	Plant & Soil Sciences	University of Tennessee	Grazing Innovation: Improving Grassland Wildlife and Soil Health in Eastern Forage Production Systems	\$112,486
Smith, Samuel	Plant & Soil Sciences	University of Tennessee	Develop Science-based Recommendations to Efficiently Manage Forages, Herd Health and Productivity on Organic Dairies in the Southeastern US	\$476,803
Wendroth, Ole	Plant & Soil Sciences	University of Georgia	A Dynamic Variable Rate Irrigation Control System	\$94,788
Williams, David	Plant & Soil Sciences	South Dakota State University	Regional Biomass Feedstock Partnership	\$158,500
Zhu, Hongyan	Plant & Soil Sciences	National Institute of Food and Agriculture	Partner Choice in the Legume-rhizobial Symbiosis: Host Genetic Control of Nodulation Specificity in Medicago	\$500,000
Perry, Sharyn	RCTF-1-Plant Sciences-Agronomy	National Institute of Food and Agriculture	Gene Regulation Controlled by the MADS-factors GmAGL15 and GmAGL18 During Glycine Maxembryogenesis	\$500,000
Bewley, Jeffrey	Animal and Food Sciences	DairyNZ	Economics of automated estrus detection systems in New Zealand	\$14,000
Bridges, Phillip	Animal and Food Sciences	National Institute of Food and Agriculture	Selenium form-dependent regulation of testis function	\$498,118
Hennig, Bernhard	Animal and Food Sciences	National Institute of Environmental Health Sciences	Nutrition and Superfund Chemical Toxicity	\$14,173,158
Matthews, James	Animal and Food Sciences	Agricultural Research Service	ARS/SCA: Effect of Se form in free-choice mineral mix on metabolic parameters and gene expression of steers grazing endophyte-infected tall fescue	\$230,000
Pescatore, Anthony	Animal and Food Sciences	National Institute of Food and Agriculture	Impact of free-range egg production as required in the National Organic Program	\$450,493
Pescatore, Anthony	Animal and Food Sciences	University of Connecticut	Practical and environment-friendly strategies for improving food safety and shelf-life of organic poultry products	\$30,000
Pescatore, Anthony	Animal and Food Sciences	University of Nebraska	'Small and Backyard Flocks' and 'for Youth, for Life' CoPs	\$150,000
Suman, Surendranath	Animal and Food Sciences	University of Illinois	Effects of increased IGF2 expression and a novel myostatin mutation on muscle and adipose tissue deposition and muscle proteome in pigs	\$50,000

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Harper, Carl	Entomology	Slow the Spread Foundation	Monitor Gypsy Moth Populations for Slow the Spread Program	\$44,000
Lensing, Janet	Entomology	Animal and Plant Health Inspection Service	Gypsy Moth Survey	\$252,600
Lensing, Janet	Entomology	Animal and Plant Health Inspection Service	Pine Shoot Beetle Survey	\$11,290
Obrycki, John	Entomology	National Institute of Food and Agriculture	Evolutionary History of a Predatory Ladybird Beetle in North America: Implications for Biological Control	\$149,500
Palli, Subba	Entomology	National Institute of Health	NRSA Fellowship for Neetha Nanoth Vellichirammal: Maternal Signaling in Pea Aphid Wing Polyphenism	\$202,470
Palli, Subba	Entomology	National Institute of Food and Agriculture	Development of Methods to Improve Efficiency of RNAi in Insects	\$499,422
Abbott, Albert	Forestry	National Institute of Food and Agriculture	Abiotic stress and adaptive phenology in fruit and forest trees	\$478,446
Lhotka, John	Forestry	National Institute of Food and Agriculture	Summer Undergraduate Fellowships in the Science and Management of Appalachian Forest Ecosystems	\$286,132
Downie, A. Bruce	Horticulture	National Institute of Food and Agriculture	Superior Maize Stand Establishment Under Duress Through Greater Seed- And Seedling-Vigor.	\$411,800
Saha, Shubin	Horticulture	Monsanto Co	Triploid Watermelon Variety Evaluation	\$1,680
Snyder, John	Horticulture	National Institute of Food and Agriculture	Organic Tomato Breeding For Arthropod Resistance With A Focus On Protected Cultivation: A Planning Proposal	\$50,000
Williams, Mark	Horticulture	University of Iowa	Reinventing Sustainable Protection Systems for Cucurbit Production	\$188,000
Kachroo, Aardra	Plant Pathology	National Institute of Food and Agriculture	Determining the Role of Glycerol-3-phosphate in Regulating Specificity of Legume Rhizobium Symbiosis	\$499,673
Kachroo, Pradeep	Plant Pathology	National Institute of Food and Agriculture	Molecular and Biochemical Analysis of Glycerophospho Lipid-derived Signaling in Plants	\$499,999
Kachroo, Pradeep	Plant Pathology	National Institute of Food and Agriculture	Understanding How Plant Growth and Development Interfaces With Plant Stress	\$149,987

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Vaillancourt, Lisa	Plant Pathology	University of Vermont	Interactions Between Insects, Fungi, and Plants: an Innovative model System for Ecologically Based Management	\$164,462
Ricketts, Kristina	Community & Leadership Devel	eXtension Foundation	Virtual Education: Addressing Urban Food Insecurity through eXtension	\$150,000
Adams, Amanda	Veterinary Science	National Institute of Food and Agriculture	Immunosenescence And Duration Of Immunity In Horses: Important Implications For Vaccination?	\$452,875
Balasuriya, Udeni	Veterinary Science	US Department of Agriculture	Development of Genetically Defined Synthetic Genomic Vaccine(SGV) for Equine Herpesvirus-1	\$500,000
Horohov, David	Veterinary Science	National Institute of Food and Agriculture	Transcriptomic and Genomic Characterization of the Mechanism Responsible for Foal Resistance to Rhodococcus Equi	\$489,912
Carter, Craig	Veterinary Diagnostic Laboratory	Animal and Plant Health Inspection Service	Diagnostic Laboratory Support of NAHLN	\$55,000
Carter, Craig	Veterinary Diagnostic Laboratory	National Institute for Hometown Security	Animal Health Monitoring Field Testing	\$175,000
Ashurst, Kerri	Family & Consumer Sciences	Co for National Community Service	2015 September 11th National Day of Service and Remembrance Grant	\$300,000
Ashurst, Kerri	Family & Consumer Sciences	Purdue University	Reaching Rural Veterans: Engaging Faith-Based Food Pantries in Serving Low-Income, Homeless, and At-Risk Veterans in Rural Areas	\$33,935
Gustafson, Alison	Dietetics and Human Nutrition	National Institute of Food and Agriculture	Smart Shopping - Adolescent intervention to improve food shopping behavior	\$738,424
Easter, Elizabeth	Merchandising, Apparel & Textiles	Federal Emergency Management Agency	Firefighter Cleaning Research: Evaluating Used Firefighter's Gear to determine the level and hazards of soils and develop cleaning procedures to effectively remove these soils.	\$1,461,343