

**Agriculture
June 2016
Proposal Submissions**

Principal Investigator	Department	Sponsor	Title	Total Amount Requested
Davis, Alison	Agr Economics	Appalachian Regional Commission	CEDIK Downtown Revitalization Power Program	\$1,446,538
Halich, Gregory	Agr Economics	University of Georgia	Ecological Livestock Production--Integration of Nutrient Cycling, Pasture Management, Winter Feeding, and Watering Systems	\$58,000
Halich, Gregory	Agr Economics	University of Georgia	Pasture-Based Beef Finishing in the Upper South--Practical Systems that Work	\$59,000
Tyler, Quentin	Agr Economics	CHS Foundation	Kentucky Youth Seminar Cooperative Tour	\$4,400
Sama, Michael	Biosystems & Ag Eng	University of Nebraska	Next-generation Spray Drift Mitigation via Field-Deployable, Real-Time Weather Monitoring and Novel Spray Nozzle Control Technologies	\$50,070
Shi, Jian	Biosystems & Ag Eng	Sandia National Laboratories	Lignin Depolymerization and Separation in Ionic Liquids using Advanced Membranes	\$73,455
Goff, Ben	Plant & Soil Sciences	Kentucky Hemp Research Foundation	Predicting Quality-related Traits in Hemp Using Near-Infrared Spectroscopy (NIRS)	\$184,004
Haramoto, Erin	Plant & Soil Sciences	National Institute of Food and Agriculture	Integrated management techniques to combat potential shifts in horseweed emergence	\$324,945
Hildebrand, David	Plant & Soil Sciences	Kentucky Specialty Grains LLC	Chia Improvement through Plant Breeding and Seed Production	\$2,500
Knott, Carrie	Plant & Soil Sciences	Kentucky Soybean Promotion Board	Double Crop Project (Joint with USB)	\$0
Knott, Carrie	Plant & Soil Sciences	Kentucky Small Grain Growers Association	Can Fusarium Head Blight Vomitoxin Levels Be Reduced with Agronomic Practices?	\$35,750
McGrath, Joshua	Plant & Soil Sciences	Foundation for Agronomic Research	Do Critical Soil Phosphorus Concentrations Vary In Space and if so Why?	\$279,784
Miller, Robert	Plant & Soil Sciences	Philip Morris International Management SA	Initiation of Premature Flowering in Burley Tobacco	\$162,500
Moe, Luke	Plant & Soil Sciences	National Science Foundation	Impact of seed size history on root metabolome and root microbiome assembly and function	\$415,713

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Van Sanford, D	Plant & Soil Sciences	Kentucky Small Grain Growers Association	Breeding Improved SRW Wheat Varieties for Kentucky	\$67,000
Yang, Shengming	Plant & Soil Sciences	British American Tobacco	Molecular cloning of the Nic1 gene	\$370,165
Zhu, Hongyan	Plant & Soil Sciences	National Science Foundation	Elucidating the genetic and molecular mechanisms underlying symbiotic specificity in the Medicago-Sinorhizobium mutualism	\$891,242
Bridges, Phillip	Animal and Food Sciences	National Institute of Food and Agriculture	Selenium Form-Dependent Regulation of Fertility in Cows	\$498,982
Palli, Subba	Entomology	Animal and Plant Health Inspection Service	Development of New RNAi-Based Control Technologies for Use in Plant Health Emergencies	\$82,500
Rieske-Kinney, Lynne	Entomology	State University of New York	Multitrophic Interactions Among Non-target Insect Herbivores, Their Natural Enemies, and Transgenic Blight Resistant American Chestnut Trees	\$265,090
Villanueva, Raul	Entomology	National Institute of Food and Agriculture	Management of Sugarcane aphid (SCA), Melanaphis sacchari, infesting sweet sorghum in Kentucky	\$198,843
Cox, John	Forestry	KY Department of Fish and Wildlife	Survival, Cause-Specific Mortality, and Natality of White-tailed Deer in Southeast Kentucky	\$57,860
Price, Steven	Forestry	KY Waterways Alliance	Using Juvenile Freshwater Mussels as Bioindicators to Identify Causes and Sources of Stream Degradation Associated with Mussel Declines	\$0
Yang, Jian	Forestry	Forest Service	Estimating Kentucky's Forest Inventory at the County Level with Improved Precision by Combining FIA Data with Remote Sensing, GIS, and Small-Area-Estimation Techniques	\$25,000
Geneve, Robert	Horticulture	Horticultural Research Institute	Using light integrals to simulate irrigation scheduling for container nursery production	\$18,000
Geneve, Robert	Horticulture	Horticultural Research Institute	Developing a modified hydroponic stock plant system for minicuttings of difficult-to-root nursery crops	\$18,000
Wilson, Patsy	Horticulture	KY Department of Agriculture	UK Viticulture and Enology Research and Extension	\$416,301
Bradley, Carl	Plant Pathology	United Soybean Board	Compile Estimates of Soybean Yield Suppression by Diseases and Insect Pests in the U.S. During 2016	\$25,500
Gauthier, Nicole	Plant Pathology	KY Department of Agriculture	Can Diversifying Orchards Lead to Higher Disease Losses?	\$28,755

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Goodin, Michael	Plant Pathology	National Science Foundation	An atlas for virus-plant nucleome interactions: A USA and Brazil Collaboration	\$780,775
Kachroo, Aardra	Plant Pathology	National Science Foundation	Understanding the systemic signaling mechanisms that regulate specificity of legume-rhizobium interactions	\$967,815
Kachroo, Pradeep	Plant Pathology	National Science Foundation	Molecular and Biochemical Analysis of Glycerophospholipid-derived Signaling in the Innate Immune Response	\$1,187,573
Vaillancourt, Lisa	Plant Pathology	National Science Foundation	A Novel Function for the Highly Conserved Signal Peptidase in the Regulation of Biotrophy in a Plant Pathogenic Fungus	\$1,409,234
Adams, Amanda	Veterinary Science	Mars Horsecare UK Limited	Research on equine endocrine disorders of pituitary pars intermedia (#PPI#), equine metabolic syndrome/obesity/laminitis and geriatric horse healthcare/nutritional management.	\$220,000
Arnold, Laura	Veterinary Diagnostic Laboratory	National Institute of Food and Agriculture	Case-Based Distance Learning for Food Animal Veterinarians	\$250,000
Vail, Ann	Family & Consumer Sciences	KY Cabinet for Health and Family Services	UK SNAP Ed Program 2017	\$13,397,322
Pattanaik, Sitakanta	Kentucky Tobacco Research & Dev Ctr	British American Tobacco	NNK Engineering	\$485,748
Pattanaik, Sitakanta	Kentucky Tobacco Research & Dev Ctr	RJ Reynolds Tobacco Co	RNA-Sequencing Analysis to Capture Transcriptomic Landscape of Tobacco in Response to Systemic Suckercide Maleic Hydrazide	\$109,004
Zaitlin, David	Kentucky Tobacco Research & Dev Ctr	RJ Reynolds Tobacco Co	Alternative Strategies to Induce Early Flowering in Tobacco	\$48,970