

Colorado Agricultural Experiment Station

Active Research Projects

Project Number	Title	Multi State No.	Principal Investigator	Department Name	Acct. Dept.	CRIS Number	Budget Source	Begin Date	Term. Date	Note
1170 Soil and Crop Sciences										
COL00201B	Management and Utilization of Plant Genetic Resources and Associated Information	W006	Morris, G	Soil and Crop Sciences	1170	1011374	MS Hatch	11/1/2016	9/30/2021	
COL00235	Breeding Phaseolus Beans for Resilience, Sustainable Production, and Enhanced Nutritional Value	W4150	Munoz Amatriain,	Soil and Crop Sciences	1170	1024699	MS Hatch	10/1/2020	9/30/2025	New
COL00292D	Beneficial Use of Residuals to Improve Soil Health and Protect Public, and Ecosystem Health	W4170	Ippolito, J	Soil and Crop Sciences	1170	1020695	MS Hatch	10/1/2019	9/30/2024	
COL00608A	Management of Forages in Colorado for Improved Yield and Quality		Brummer, JE	Soil and Crop Sciences	1170	1010156	Hatch	7/1/2016	6/30/2021	
COL00609B	Precision Agriculture and Big-Data to Enhance Production; Nitrogen and Water Use Efficiency of Irrigated Cropping Systems		Khosla, R	Soil and Crop Sciences	1170	1012940	Hatch	7/1/2017	6/30/2022	
COL00612B	Determining the consumptive water use of crops in Colorado for efficient irrigation		Andales, AA	Soil and Crop Sciences	1170	1019719	Hatch	7/1/2019	6/30/2024	
COL00728A	Improving Cropping System Resilience through Diversification and Soil Conservation		Schipanski, M	Soil and Crop Sciences	1170	1019781	Hatch	7/1/2019	6/30/2024	
COL00737B	Molecular-Marker-Assisted Analysis of Quantitative Traits in Wheat and Dry Beans		Byrne, PF	Soil and Crop Sciences	1170	1012823	Hatch	7/1/2017	1/19/2021	Terminated
COL00738	Managing Soils and Agroecosystems for Long-Term Functioning and Multiple Ecosystem Services		Fonte, S	Soil and Crop Sciences	1170	1010074	Hatch	7/1/2016	6/30/2021	
COL00772	Developing Sensing Technologies for Smart Farming Practices in an Internet-of-Ag-Things World		Ham, J	Soil and Crop Sciences	1170	1013254	Hatch	8/2/2017	6/30/2022	
COL00786	Mutagenesis for Novel Trait Development in Wheat		Pearce, S	Soil and Crop Sciences	1170	1017671	Hatch	10/1/2018	6/30/2021	
COL00792	Sustainability Metrics and Tools for Promoting Climate Mitigation and Healthy Soils		Paustian, KH	Soil and Crop Sciences	1170	1020064	Hatch	7/1/2019	6/30/2024	
COL00795A	Improvement of Quality and Performance of Colorado Wheat		Esten, M	Soil and Crop Sciences	1170	1009899	Hatch	7/1/2016	6/30/2021	

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1171 Animal Science

COL00216B	Enhancing Microbial Food Safety by Risk Analysis	S1077	Yang, H	Animal Science	1171	1018217	MS Hatch	11/14/2018	9/30/2023	
COL00226B	National Animal Genome Research Program	NRSP8	Thomas, M	Animal Science	1171	1018190	MS Hatch	11/8/2018	9/30/2023	
COL00241A	Optimizing and Characterizing Sustainable Beef Cattle Production in Forage Based Systems on Western	W3012	Ahola, J	Animal Science	1171	1023073	MS Hatch	7/31/2020	9/30/2023	New

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COL00276A	Enhancing the Competitiveness and Value of U.S. Beef	W4177	Narayanan Nair, M	Animal Science	1171	1014701	MS Hatch	10/26/2017	9/30/2022	
COL00294C	Impacts of Stress Factors on Performance, Health, and Well-Being of Farm Animals (from W2173)	W3173	Engle, TE	Animal Science	1171	1011277	MS Hatch	10/1/2016	9/30/2021	
COL00607A	Genetic Improvement in Beef Management Systems		Enns, RM	Animal Science	1171	1006304	Hatch	7/1/2015	6/30/2020	Terminated
COL00607B	Genetic Improvement in Beef Management Systems		Enns, RM	Animal Science	1171	1022682	Hatch	7/1/2020	6/30/2025	New
COL00670B	Sustainable U.S. beef production		Archibeque, S	Animal Science	1171	1020229	Hatch	7/1/2019	6/30/2024	
COL00681A	National Genetic Evaluation of Beef Cattle		Enns, RM	Animal Science	1171	1010007	Hatch	7/1/2016	6/30/2021	

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1172 Agricultural and Resource Economics

COL00205A	Specialty Crops and Food Systems: Exploring Markets, Supply Chains and Policy Dimensions	S1067	Thilmany, DD	Agricultural and Resource Economics	1172	1008746	MS Hatch	10/22/2015	9/30/2020	Terminated
COL00205B	Specialty Crops and Food Systems: Exploring Markets, Supply Chains and Policy Dimensions	S1088	Thilmany, D	Agricultural and Resource Economics	1172	1024827	MS Hatch	10/30/2020	9/30/2025	New
COL00211D	Management and Policy Challenges in a Water-Scare World	W4190	Goemans, C	Agricultural and Resource Economics	1172	1021600	MS Hatch	12/5/2019	9/30/2024	
COL00215D	Enhancing Rural Economic Opportunities, Community Resilience, and Entrepreneurship	NE1749	Thilmany, DD	Agricultural and Resource Economics	1172	1016283	MS Hatch	7/1/2018	9/30/2022	
COL00217A	Multistate Agricultural Liberacy Research	W3006	Martin, M	Agricultural and Resource Economics	1172	2032239	MS Hatch	12/5/2019	9/30/2024	
COL00232A	U.S. Agricultural Trade and Policy in a Dynamic Global Market Environment	S1072	Countryman, A	Agricultural and Resource Economics	1172	1016945	MS Hatch	10/1/2018	9/30/2023	
COL00233A	Renewing an Agriculture of the Middle: Value Chain Design, Policy Approaches, Environmental and Social Impacts	NC1198	Jablonski, R	Agricultural and Resource Economics	1172	1014435	MS Hatch	10/4/2018	9/30/2022	
COL00234	Food systems, health, and well-being: understanding complex relationships and dynamics of change	NC1196	Berning, J	Agricultural and Resource Economics	1172	1023074	MS Hatch	7/23/2020	9/30/2021	New
COL00238D	Costs and Benefits of Natural Resources on Public and Private Lands: Management, Economic Valuation, and Integrated Decision-Making	W4133	Manning, D	Agricultural and Resource Economics	1172	1014436	MS Hatch	10/1/2017	9/30/2022	

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1173 Horticulture and Landscape Architecture

COL00202	Integrated Onion Pest and Disease Management	W3008	Uchanski, M	Horticulture and Landscape Architecture	1173	1014477	MS Hatch	11/8/2017	9/30/2022	
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Project Number	Title	Multi State No.	Principal Investigator	Department Name	Acct. Dept.	CRIS Number	Budget Source	Begin Date	Term. Date	Note
COL00218A	Water Management and Quality for Ornamental Crop Production and Health	NC1186	Bauerle, W	Horticulture and Landscape Architecture	1173	1008405	MS Hatch	10/1/2015	9/30/2020	Terminated
COL00218B	Water Management and Quality for Specialty Crop Production and Health	NC1186	Bauerle, W	Horticulture and Landscape Architecture	1173	1024826	MS Hatch	10/30/2020	9/30/2025	New
COL00405	Metabolism and Exudation of Cover Crops and Effects on Soil Health		Prezni, J	Horticulture and Landscape Architecture	1173	1023072	Hatch	7/1/2020	6/30/2025	New
COL00658A	Water Reuse, Saltgrass Selection, and Carbon Footprint of Urban Turfgrass Systems		Qian, YL	Horticulture and Landscape Architecture	1173	1009722	Hatch	7/1/2016	6/30/2021	
COL00713B	Introduction, Adaptability, Production and Survival of Landscape Plants in Colorado		Klett, J	Horticulture and Landscape Architecture	1173	1016129	Hatch	7/1/2018	6/30/2023	
COL00761	Phytochemical Diversity of Potato and Association to Human Nutrition and Health		Heuberger, A	Horticulture and Landscape Architecture	1173	1013251	Hatch	7/1/2017	6/30/2022	
COL00762	Certification of Potato Seed for the Improvement of the Potato Industry in Colorado		Houser, A	Horticulture and Landscape Architecture	1173	1013080	Hatch	7/5/2017	6/30/2022	
COL00764	Specialty Crops Production Research for Colorado Growers		Uchanski, M	Horticulture and Landscape Architecture	1173	1013252	Hatch	7/1/2017	6/30/2022	
COL00780A	Soil Health in Turfgrass Systems: Measurement, Assessment and Enhancement		Koski, A	Horticulture and Landscape Architecture	1173	1010240	Hatch	8/9/2016	6/30/2021	
COL00793	Carbon dioxide enrichment in controlled environments: Overcoming acclimation responses for enhanced		Craver, J	Horticulture and Landscape Architecture	1173	1022681	Hatch	4/17/2020	6/30/2024	New
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1177 Agricultural Biology										
COL00222C	Biological Control in Pest Management Systems of Plants	W4185	Hufbauer, R	Agricultural Biology	1177	1014792	MS Hatch	11/27/2017	9/30/2022	
COL00240	Industrial Hemp Production, Processing, and Marketing in the U.S.	S1084	McKay, J	Agricultural Biology	1177	1018158	MS Hatch	12/1/2018	9/30/2023	
COL00403	Development of molecular tools to study movement of Potato virus Y in susceptible and resistant varieties		Nalam, V	Agricultural Biology	1177	1023767	Hatch	7/22/2020	6/30/2023	New
COL00406	Exploring the hemp virome for monitoring insect vector-borne viruses and viroids		Nachappa, P	Agricultural Biology	1177	1023075	Hatch	7/1/2020	6/30/2023	New
COL00618B	Responding to critical issues involving insects associated with Horticultural Crops and Landscape Plants in Colorado		Cranshaw, W	Agricultural Biology	1177	1009893	Hatch	7/1/2016	6/30/2021	
COL00623A	Integrated Weed Management Strategies for Aquatic Plants and Winter Annual Grasses		Nissen, SJ	Agricultural Biology	1177	1006596	Hatch	7/1/2015	6/30/2020	Terminated
COL00645A	Support and Enhancement of the C. P. Gillette Museum of Arthropod Diversity		Kondratieff, BC	Agricultural Biology	1177	1006597	Hatch	7/1/2015	6/30/2020	Terminated
COL00645B	Support and Enhancement of the C. P. Gillette Museum of Arthropod Diversity		Kondratieff, B	Agricultural Biology	1177	1022866	Hatch	7/1/2020	6/30/2023	New

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COL00646A	Biology and management of arthropod pests of winter wheat in Colorado		Peairs, FB	Agricultural Biology	1177	1006599	Hatch	7/1/2015	6/30/2020	Terminated
COL00646B	Biology and management of arthropod pests of winter wheat in Colorado		Peairs, F	Agricultural Biology	1177	1022865	Hatch	7/1/2020	6/30/2025	New
COL00647A	Functional Global Weed Genomics and Sustainable Weed Management for Colorado		Westra, P	Agricultural Biology	1177	1010362	Hatch	8/18/2016	6/30/2021	
COL00680B	Evolutionary Ecology of Range Expansions, Pests, and Biological Control		Hufbauer, R	Agricultural Biology	1177	1012868	Hatch	7/1/2017	6/30/2022	
COL00732	Harnessing Ecology to Improve Management of Invasive Plants		Brown, CS	Agricultural Biology	1177	1009857	Hatch	7/1/2016	6/30/2021	
COL00734	A systems approach to understanding combined biotic and abiotic stress responses in plants		Leach, JE	Agricultural Biology	1177	1009898	Hatch	7/1/2016	6/30/2021	
COL00735	Identification of metabolic, morphological, and physiological factors that influence sorghum whole-plant preflowering drought response		Jahn, CE	Agricultural Biology	1177	1009895	Hatch	7/1/2016	6/30/2021	
COL00736A	Understanding the impacts of forest pathogens in western forests in the presence of increased drought and warming climates		Stewart, J	Agricultural Biology	1177	1020029	Hatch	7/8/2019	6/30/2022	
COL00743A	Combining High Throughput Phenotyping in the field and Genome-wide analysis to discover beneficial alleles for yield		McKay, JK	Agricultural Biology	1177	1006619	Hatch	7/1/2015	6/30/2020	Terminated
COL00743B	Combining High Throughput Phenotyping in the field and Genome-wide analysis to discover beneficial alleles		McKay, J	Agricultural Biology	1177	1023353	Hatch	7/1/2020	6/30/2025	New
COL00746B	Evaluating Yellow Toadflax Biological Controls		Norton, AP	Agricultural Biology	1177	1012869	Hatch	7/1/2017	6/30/2022	
COL00753B	Management of Arthropod Pests in Colorado Field Crops		Peairs, FB	Agricultural Biology	1177	1012870	Hatch	7/1/2017	6/30/2022	
COL00760	Exploring linkages between above and belowground diversity to maximize soil functional capacity in Dryland agricultural systems		Trivedi, P	Agricultural Biology	1177	1012941	Hatch	7/1/2017	6/30/2022	
COL00781	Chemical Priming of Plant Defenses for Increased Crop Protection		Argueso, C	Agricultural Biology	1177	1016247	Hatch	7/1/2018	6/30/2023	
COL00782	Impact of phytochemical nutrients on bumblebee health and longevity		Bjostad, L	Agricultural Biology	1177	1016270	Hatch	7/1/2018	6/30/2023	
COL00783	Understanding and Diagnosing Herbicide Resistance in Weeds		Gaines, T	Agricultural Biology	1177	1016207	Hatch	7/1/2018	6/30/2023	
COL00784	Biological control of <i>Lepidium draba</i>		Ode, P	Agricultural Biology	1177	1016267	Hatch	7/1/2018	6/30/2023	
COL00785	Metabolic Fate of Herbicides in Crops and Weeds		Dayan, F	Agricultural Biology	1177	1016591	Hatch	7/1/2018	6/30/2023	

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COL00699A	Changing sources of ammonia in NE Colorado		Collett, JL	Atmospheric Science	1371	1006307	Hatch	7/1/2015	6/30/2020	Terminated
COL00699B	Ammonia concentrations in agricultural and urban regions of NE Colorado		Collett, JL	Atmospheric Science	1371	1022587	Hatch	7/1/2020	6/30/2025	New
COL00703B	Monitoring Colorado's Climate for Applications in Agriculture and Natural Resources		Schumacher, R	Atmospheric Science	1371	1012863	Hatch	7/1/2017	6/30/2022	

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1372 Civil and Environmental Engineering

COL00682A	Modeling and Management of Salinity in Irrigated Regions Affected by Tile Drain Networks		Bailey, R	Civil and Environmental Engineering	1372	1015936	Hatch	7/1/2018	6/30/2020	Terminated
COL00755	Finding Ways to Mitigate Irrigation-Induced Uranium Contamination in an Irrigated River Valley while Sustaining Crop Productivity		Gates, T	Civil and Environmental Engineering	1372	1012864	Hatch	7/1/2017	6/30/2020	Terminated
COL00756	Impact of Riparian Vegetation on the Irrigation-Influenced Water Balance in the Lower Arkansas River Valley		Morrison, R	Civil and Environmental Engineering	1372	1012865	Hatch	7/1/2017	6/30/2020	Terminated
COL00757	Rewiring Anaerobic Digestion: Developing New Technologies for Production of Biofuel Intermediates and High-Value Chemicals for Cellulosic Wastes		De Long, S	Civil and Environmental Engineering	1372	1012866	Hatch	7/1/2017	6/30/2020	Terminated
COL00757A	Enabling Recovery of High Value Products from Manure: Advanced Anaerobic Digestion at Low pH		De Long, S	Civil and Environmental Engineering	1372	1023071	Hatch	7/1/2020	6/30/2023	New
COL00774	Recovery of Soluble Nitrogen Fertilizer from Manure and Animal Byproducts in Anaerobic Digesters		Sharvelle, S	Civil and Environmental Engineering	1372	1015938	Hatch	7/1/2018	6/30/2020	Terminated
COL00775	Effects of Urban Water Conservation on Agricultural Water Supply in the South Platte River Basin		Bhaskar, A	Civil and Environmental Engineering	1372	1015939	Hatch	7/1/2018	6/30/2021	
COL00787	Biological Sulfur Recovery from Agricultural Anaerobic Digestion Systems to Reduce Hydrogen Sulfide Emissions and Improve Process Performance		Carlson, KH	Civil and Environmental Engineering	1372	1020028	Hatch	7/1/2019	6/30/2021	
COL00788	Assessment of Acoustic Flow Measurement Devices used for Agricultural Water Management		Venayagamoorthy,	Civil and Environmental Engineering	1372	1020027	Hatch	7/1/2019	6/30/2022	
COL00794	Quantifying Salinity Controls and Crop Water Footprint in Irrigated Stream-Aquifer Systems		Bailey, R	Civil and Environmental Engineering	1372	1022683	Hatch	7/1/2020	6/30/2022	New
COL00796	Calibration and Evaluation of a Multi-Scale Spatially Distributed ET Algorithm		Chavez, J	Civil and Environmental Engineering	1372	1022588	Hatch	7/1/2020	6/30/2023	New
COL00797	Multi-Sensor Estimation of Daily Rootzone Soil Moisture at a Fine Resolution for Agricultural Regions		Niemann, J	Civil and Environmental Engineering	1372	1022589	Hatch	7/1/2020	6/30/2023	New
COL00798	Developing Best Practices for Managing Canal Seepage Using Biopolymer Sealants		Scalia, J	Civil and Environmental Engineering	1372	1022590	Hatch	7/1/2020	6/30/2023	New
COL00799	Assessing the Feasibility of Membrane-based Treatment of Oil and Gas Produced Water for Agricultural		Tong, T	Civil and Environmental Engineering	1372	1022591	Hatch	7/1/2020	6/30/2023	New

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Project Number	Multi State No.	Principal Investigator	Department Name	Acct. Dept.	CRIS Number	Budget Source	Begin Date	Term. Date	Note
1472 Forest and Rangeland Stewardship									
COL00400		Predicting bi-weekly forage quality from satellite imagery: Integrating plant phenology and forage quality to Ocheltree, T	Forest and Rangeland Stewardship	1472	1023430	Hatch	7/15/2020	6/30/2023	New
COL00401		Prescribed fire monitoring through UAS remote sensing in woodland and rangeland systems: characterizing Tinkham, W	Forest and Rangeland Stewardship	1472	1022679	Hatch	7/1/2020	6/30/2023	New
COL00402		Islands of Opportunity: Targeted restoration of degraded Colorado salt desert rangelands within remnant and Paschke, M	Forest and Rangeland Stewardship	1472	1022680	Hatch	7/1/2020	6/30/2023	New
COL00409		Establishing a co-produced rangeland restoration network: Testing techniques to increase native plant cover Havrilla, C	Forest and Rangeland Stewardship	1472	1025017	Hatch	1/1/2021	6/30/2023	New
COL00508		Identifying reservoirs and insect vectors of pine wilt disease in the Front Range Davis, T	Forest and Rangeland Stewardship	1472	1016206	McStennis	7/1/2018	6/30/2020	Terminated
COL00509		Tree regeneration niches and microsites are the keys to maintaining resilience of Colorado forests to disturbance Redmond, M	Forest and Rangeland Stewardship	1472	1016208	McStennis	7/1/2018	6/30/2020	Terminated
COL00511		Evaluation of UAV-Based Remote Sensing Techniques for Characterizing Individual Tree Parameters Tinkham, W	Forest and Rangeland Stewardship	1472	1016209	McStennis	7/1/2018	6/30/2020	Terminated
COL00516		A Neural Network Approach to Understand Forest Restoration Prioritization in Colorado Wei, Y	Forest and Rangeland Stewardship	1472	1022906	McStennis	7/1/2020	6/30/2022	New
COL00517		Restoration is in the eye of the bee-holder: The Influence of Ecological Restoration Treatments on Pollinator Davis, TS	Forest and Rangeland Stewardship	1472	1022907	McStennis	7/1/2020	6/30/2022	New
COL00518		Can Ponderosa Pine Keep Pace with Climate Change? Identifying Management Options to Overcome Redmond, M	Forest and Rangeland Stewardship	1472	1022908	McStennis	7/1/2020	6/30/2022	New
COL00767		Surveying biological and functional diversity of insect pollinators in rangeland habitats of Colorado Davis, T	Forest and Rangeland Stewardship	1472	1012942	Hatch	7/1/2017	6/30/2020	Terminated
COL00768		Building a basic science knowledge base for Gambel oak woodland management in Colorado Ex, S	Forest and Rangeland Stewardship	1472	1012943	Hatch	7/1/2017	6/30/2020	Terminated
COL00769		Intersectionality and Collaborative Adaptive Management in Rangeland Decision-making Fernandez-Gimene	Forest and Rangeland Stewardship	1472	1012944	Hatch	7/1/2017	6/30/2020	Terminated
COL00770		Shifting the conversation on poisonous plants: Toward a complex systems-based framework for managed grazing on rangelands with Geyer larkspur Ocheltree, T	Forest and Rangeland Stewardship	1472	1012945	Hatch	7/1/2017	6/30/2020	Terminated
COL00771		What does it take to kill a grass? Improving the resilience of ranching operations through a new understanding of drought-induced mortality of perennial grasses. Ocheltree, T	Forest and Rangeland Stewardship	1472	1013337	Hatch	7/1/2017	6/30/2020	Terminated
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1499 Natural Resource Ecology Lab									
COL00519		Promoting Forest Health and Resiliency through Forest Carbon Markets: Exploring New Technologies and Evangelista, P	Natural Resource Ecology Lab	1499	1022909	McStennis	7/1/2020	6/30/2022	New
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1570 Human Development and Family Studies

Project Number	Title	Multi State No.	Principal Investigator	Department Name	Acct. Dept.	CRIS Number	Budget Source	Begin Date	Term. Date	Note
COL00789	Dissemination of a Mindfulness Intervention for Prevention of Excess Weight Gain for High-Risk Teens Participating in a Mentoring Program									
1			Lucas-Thompson,	Human Development and Family Studies	1570	1019720	Hatch	7/1/2019	6/30/2021	
1571 Food Science and Human Nutrition										
COL00229A	EFNEP Related Research, Program Evaluation and Outreach									
	NC3169		Baker, S	Food Science and Human Nutrition	1571	1018030	MS Hatch	11/5/2018	9/30/2022	
COL00271D	Beneficial and Adverse Effects of Natural Chemicals on Human Health and Food Safety									
	W4122		Weir, T	Food Science and Human Nutrition	1571	1014571	MS Hatch	12/12/2017	9/30/2022	
COL00407	Edible Cricket: Good for the Globe and for the Gut?									
			Weir, T	Food Science and Human Nutrition	1571		Hatch			New-waiting on PD
COL00776	Microgreens: A Novel Food Crop for Sustainably Diversifying Food Systems and Promoting Human Health									
			Johnson, S	Food Science and Human Nutrition	1571	1016130	Hatch	7/1/2018	6/30/2020	Terminated
COL00777	Purple Majesty Potato Bioactive Compounds: Linking Nutrition to Beneficial Health Outcomes									
			Foster, M	Food Science and Human Nutrition	1571	1016259	Hatch	7/1/2018	6/30/2020	Terminated
COL00778	Development and Pilot Testing of a Series of Cooking Activities for Low Income 4th Graders									
			Cunningham-Sabo,	Food Science and Human Nutrition	1571	1016534	Hatch	7/23/2018	6/30/2020	Terminated
COL00790	Examination of Anti-obesogenic Mechanisms Associated with Common Bean Intake									
7			Foster, M	Food Science and Human Nutrition	1571	1019721	Hatch	7/1/2019	6/30/2021	
1574 Design and Merchandising										
COL00224A	Personal Protective Technologies for Current and Emerging Occupational and Environmental Hazards									
	NC170		Morris, K	Design and Merchandising	1574	1014572	MS Hatch	10/24/2017	9/30/2022	
COL00408	Cellulose Nanocrystals Derived from Hemp Waste for Developing Microbial-Sensing "Smart" Wipes for									
			Li, Y	Design and Merchandising	1574	1025289	Hatch	12/11/2020	6/30/2022	New
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1582 Health & Exercise Science										
COL00404	Aligning agricultural crops with the challenges of the aging global population: Plants for healthy brains									
1			Hamilton, K	Health & Exercise Science	1582	1025018	Hatch	11/17/2020	9/30/2022	New
1680 Biomedical Sciences										
COL00220C	Reproductive Performance in Domestic Ruminants									
	W3112		Hansen, T	Biomedical Sciences	1680	1011648	MS Hatch	11/21/2016	9/30/2021	
COL00293D	Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock									
	W4171		Winger, Q	Biomedical Sciences	1680	1021217	MS Hatch	1/1/2020	9/30/2024	
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3001 AES Director's Office										

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COL00299	Regional Research Coordination, Western Region	W106	Kelly, E	AES Director's Office	3001	0024381	MS Hatch	10/1/1999	9/30/2029	
COL00615B	Adapting to Challenges to Improve the Resilience of Farming in Southwestern Colorado		Russell, K	AES Director's Office	3001	1022867	Hatch	7/1/2020	6/30/2025	New
COL00773	Developing viable and sustainable cropping systems for western Colorado through adoption of conservation practices, diversification, and intensification		Keshavarz Afshar,	AES Director's Office	3001	1015937	Hatch	7/1/2018	6/30/2023	
COL00791	Management of foliar and soil-borne potato diseases in the San Luis Valley		Mattupalli, C	AES Director's Office	3001	1020030	Hatch	7/1/2019	6/30/2024	

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3040 Arkansas Valley Research Center

COL00717A	Vegetable Crop Management in the Arkansas Valley		Bartolo, ME	Arkansas Valley Research Center	3040	1006482	Hatch	7/1/2015	6/30/2020	Terminated
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3043 San Luis Valley Research Center

COL00711B	Development of Cultivar Specific Management Guidelines for New and Existing Potato Cultivars		Essah, S	San Luis Valley Research Center	3043	1019850	Hatch	7/1/2019	6/30/2024	
COL00712A	Development of New Potato Cultivars for Colorado Via Germplasm Enhancement and Evaluation		Holm, DG	San Luis Valley Research Center	3043	1009902	Hatch	7/1/2016	6/30/2021	
COL00716B	Postharvest Studies in Potatoes, Peppers, and Melons to Enhance Quality and Marketability		Jayanty, S	San Luis Valley Research Center	3043	1019849	Hatch	7/1/2019	6/30/2024	

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3044 Plainsman Research Center

COL00654A	Sustainable Farming Practices, Crop Management and Sorghum Improvement		Larson, KJ	Plainsman Research Center	3044	1006327	Hatch	7/1/2015	6/30/2020	Terminated
COL00654B	Sustainable Farming Practices, Crop Management and Sorghum Improvement		Larson, KJ	Plainsman Research Center	3044	1022585	Hatch	7/1/2020	6/30/2025	New

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3046 Western Colorado Research Center

COL00280A	Multi-state Coordinated Evaluation of Winegrape Cultivars and Clones	NE1720	Caspari, H	Western Colorado Research Center	3046	1014339	MS Hatch	10/1/2017	9/30/2022	
COL00285B	Improving Economic and Environmental Sustainability in Tree-Fruit Production Through Changes in Rootstock Use	NC140	Minas, I	Western Colorado Research Center	3046	1014340	MS Hatch	10/1/2017	9/30/2022	
COL00733	Management Strategies to Maximize Orchard Productivity and Quality Potential		Minas, I	Western Colorado Research Center	3046	1009721	Hatch	7/1/2016	6/30/2021	

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3050 Southwestern Colorado Research Center

Project Number	Title	Multi State No.	Principal Investigator	Department Name	Acct. Dept.	CRIS Number	Budget Source	Begin Date	Term. Date	Note
COL00615A	Research and Education to Enhance the Sustainability of Farming in Southwestern Colorado		Russell, K	Southwestern Colorado Research Center	3050	1006308	Hatch	7/1/2015	6/30/2020	Terminated

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