

# 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
COL00201C	Maximizing Conservation and Utilization of Plant Genetic Resources and their Information	W6	Morris, G	Soil and Crop Sciences	1170	7000953	MS Hatch	10/1/2021	9/30/2026	
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	
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	To be term/replaced
COL00211E	Management and Policy Challenges in a Water-Uncertain World	W5190	Goemans, C	Agricultural and Resource Economics	1172	7008594	MS Hatch	10/1/2024	9/30/2029	New
COL00215E	Sustainable and Inclusive Rural Economic Development to Enhance Housing, Health, Entrepreneurship, and Equity	NE2249	Thilmany, D	Agricultural and Resource Economics	1172	7003788	MS Hatch	10/1/2022	9/30/2027	
COL00216C	Enhancing Microbial Food Safety by Risk Analysis	S1077	Martin, J	Animal Science	1171	7006474	MS Hatch	12/6/2023	9/30/2028	
COL00217A	Multistate Agricultural Literacy Research	W3006	Enns, K	Agricultural and Resource Economics	1172	1021128	MS Hatch	12/5/2019	9/30/2024	To be term/replaced
COL00217B	CAM's Agriculture Academy Ag Literacy Project	W4006	Enns, K	Agricultural and Resource Economics	1172	7008596	MS Hatch	10/1/2024	9/30/2029	New
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	
COL00220D	W4112: Reproductive Performance in Domestic Ruminants	W4112	Hansen, T	Biomedical Sciences	1680	7004367	MS Hatch	2/13/2023	9/30/2026	
COL00222D	Biological Control in Pest management Systems of Plants	W5185	Hufbauer, R	Agricultural Biology	1177	7003695	MS Hatch	10/1/2022	9/30/2027	
COL00229C	EFNEP Related Research, Program Evaluation and Outreach	NC3169	Baker, S	Food Science and Human Nutrition	1571	7006176	MS Hatch	7/3/2024	9/30/2028	New
COL00232B	U.S. Agricultural Trade and Policy in An Uncertain Global Market Environment	S1072	Countryman, A	Agricultural and Resource Economics	1172	7006333	MS Hatch	12/5/2023	9/30/2028	
COL00233B	Enhancing the Resilience of Agriculture and Food of the Middle: Building for the Future	NC1198	Jablonski, B	Agricultural and Resource Economics	1172	7003707	MS Hatch	10/1/2022	9/30/2027	

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COL00240A	Industrial Hemp Production, Processing, and Marketing in the U.S.	S1084	Nachappa, P	Agricultural Biology	1177	7006762	MS Hatch	3/5/2024	9/30/2028	New
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	9/30/2024	
COL00245	A regional network of social, behavioral, and economic food systems research	NE2204	Cleary, R	Agricultural and Resource Economics	1172	7006479	MS Hatch	12/6/2023	9/30/2027	
COL00271E	Beneficial and Adverse Effects of Natural Chemicals on Human Health and Food Safety	W5122	Weir, T	Food Science and Human Nutrition	1571	7003802	MS Hatch	11/8/2022	9/30/2027	
COL00276B	Enhancing the Competitiveness and Value of U.S. Beef	W5177	Narayanan Nair,	Animal Science	1171	7003980	MS Hatch	11/16/2022	9/30/2027	
COL00280B	Multi-state Coordinated Evaluation of Grape Cultivars and Clones - Evaluate grape cultivars and clones better adapted to local climatic conditons	NE2220	Caspari, H	Horticulture and Landscape Architecture	1173	7003838	MS Hatch	10/26/2022	9/30/2027	
COL00292D	Beneficial Use of Residuals to Improve Soil Health and Protect Public, and Ecosystem Health	W4170	Borch, T	Soil and Crop Sciences	1170	1020695	MS Hatch	10/1/2019	9/30/2024	To be term/replaced
COL00292E	Beneficial Use of Residuals to Improve Soil Health and Protect Public and Ecosystem Health	W5170	Borch, T	Soil and Crop Sciences	1170	7008468	MS Hatch	10/1/2024	9/30/2029	New-Pending NIFA
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	To be term/replaced
COL00293E	Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock	W5171	Winger, Q	Biomedical Sciences	1680	7008469	MS Hatch	10/1/2024	9/30/2029	Rev-Pending RICRO
COL00294D	Impacts of Stress on Performance, Health, and Well-Being of Animals	W4173	Engle, T	Animal Science	1171	7008141	MS Hatch	8/28/2024	9/30/2026	New
COL00299	Regional Research Coordination, Western Region	W106	Kelly, E	AES Director's Office	3001	0024381	MS Hatch	10/1/1999	9/30/2029	
COL00405	Metabolism and Exudation of Cover Crops and Effects on Soil Health		Prenni, J	Horticulture and Landscape Architecture	1173	1023072	Hatch	7/1/2020	6/30/2025	
COL00406A	Exploring the Hemp Virome for Monitoring Insect Vector-Borne Viruses and Viroids		Nachappa, P	Agricultural Biology	1177	7005094	Hatch	7/1/2023	6/30/2026	
COL00410	Investigating the genes and molecular mechanisms involved in resistance and susceptibility to Wheat streak		Roberts, R	Agricultural Biology	1177	1026269	Hatch	7/1/2021	6/30/2025	

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COL00411		Szczepaniec, A	Agricultural Biology	1177	7001931	Hatch	7/1/2022	6/30/2027	
COL00414		Diddi, S	Design and Merchandising	1574	7002843	Hatch	7/25/2022	6/30/2024	Terminated
COL00415		Johnson, S	Food Science and Human Nutrition	1571	7002928	Hatch	8/29/2022	6/30/2024	Terminated
COL00416		Mueller, M	Food Science and Human Nutrition	1571	7002845	Hatch	8/17/2022	6/30/2024	Terminated
COL00421		Jia, G	Civil and Environmental Engineering	1372	7002934	Hatch	9/6/2022	6/30/2025	Extended
COL00422		Nelson, P	Civil and Environmental Engineering	1372	7001975	Hatch	7/1/2022	6/30/2025	
COL00423		Gates, T	Civil and Environmental Engineering	1372	7002935	Hatch	8/25/2022	6/30/2025	
COL00424		Venayagamoorth	Civil and Environmental Engineering	1372	7002936	Hatch	8/26/2022	6/30/2025	
COL00425		Morrison, R	Civil and Environmental Engineering	1372	7002851	Hatch	7/25/2022	6/30/2025	
COL00426		Chikh-Ali, M	AES Director's Office	3001	7002820	Hatch	7/7/2022	6/30/2027	
COL00427		Davidson, J	AES Director's Office	3001	7002937	Hatch	8/26/2022	6/30/2027	
COL00428		Tonnessen, B	AES Director's Office	3001	7002998	Hatch	7/1/2022	6/30/2025	
COL00430		Norton, AP	Agricultural Biology	1177	7003034	Hatch	7/26/2022	6/30/2027	
COL00431		Stackhouse-Lawt	Animal Science	1171	7004720	Hatch	7/1/2023	6/30/2028	
COL00432		Borowiec, M	Agricultural Biology	1177	7005007	Hatch	7/1/2023	6/30/2026	

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COL00433		Dao, P	Agricultural Biology	1177	7007223	Hatch	7/1/2024	6/30/2029	New
COL00434		Bailey, R	Civil and Environmental Engineering	1372	7005096	Hatch	7/1/2023	6/30/2026	
COL00435		Sharvelle, S	Civil and Environmental Engineering	1372	7004599	Hatch	7/1/2023	6/30/2025	
COL00436		Smith, R	Civil and Environmental Engineering	1372	7004883	Hatch	7/1/2023	6/30/2026	
COL00437		Baral, S	Forest and Rangeland Stewardship	1472	7004797	Hatch	7/1/2023	6/30/2026	
COL00438		Yovovich, V	Human Dimensions of Natural Resources	1480	7005005	Hatch	7/11/2023	6/30/2026	
COL00439		Boone, R	Natural Resource Ecology Lab	1499	7005093	Hatch	7/12/2023	6/30/2026	
COL00440		Graham, R	Human Development and Family Studies	1570	7004882	Hatch	7/1/2023	6/30/2025	
COL00441		Van Buiten, C	Food Science and Human Nutrition	1571	7004809	Hatch	7/1/2023	6/30/2025	
COL00442		Cabot, P	Western Colorado Research Center	3046	7005030	Hatch	7/1/2023	6/30/2028	
COL00443		Pinnamaneni, S	Soil and Crop Sciences	1170	7004905	Hatch	7/11/2023	6/30/2028	
COL00444		Nalam, V	Agricultural Biology	1177	7005018	Hatch	7/1/2023	6/30/2026	
COL00445		Ode, P	Agricultural Biology	1177	7005107	Hatch	7/1/2023	6/30/2028	
COL00446		Chavez, J	Civil and Environmental Engineering	1372	7007222	Hatch	7/1/2024	6/30/2027	New
COL00447		Weir, T	Food Science and Human Nutrition	1571	7007243	Hatch	7/1/2024	6/30/2026	New

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COL00448		Sustainable Design of Footwear by Utilizing Mycelium-based Biomaterials and 3D Printing Technology Li, V	Design and Merchandising	1574	7007380	Hatch	7/1/2024	6/30/2026	New
COL00449		Growing an Extension Network for Multisite Dissemination and Implementation of Intensive Health Behavior and Lifestyle Treatment Shomaker, L	Human Development and Family Studies	1570	7007909	Hatch	8/1/2024	6/30/2026	New
COL00450		Exploiting regulation of stress response genes for crop resiliency Leach, J	Agricultural Biology	1177	7007262	Hatch	7/10/2024	6/30/2029	New
COL00520		Leveraging tree-ring and geospatial data to understand the effects of multiscale climate variability on western spruce budworm outbreaks and manage for healthy f Hart, S	Forest and Rangeland Stewardship	1472	7002894	McStennis	7/1/2022	6/30/2024	Terminated
COL00521		Improving wildland fire hazard and risk assessment across scales through the development of next generation fuel mapping products here Hoffman, C	Forest and Rangeland Stewardship	1472	7002629	McStennis	7/1/2022	8/31/2024	Terminated
COL00522		Drivers of inequity in community wildfire risk mitigation capacity across Colorado forest landscapes Salerno, J	Human Dimensions of Natural Resources	1480	7002716	McStennis	7/1/2022	6/30/2024	Terminated
COL00523		Toward justice in wildfire restoration: Stakeholder perceptions of post-fire restoration project effectiveness in Colorado Albrecht, T	Ecosystem Science and Sustainability	1476	7007317	McStennis	7/1/2024	6/30/2026	New
COL00524		Transitions of semi-arid forests and woodlands in the face of wildfires and climate change Stevens-Rumann	Forest and Rangeland Stewardship	1472	7007510	McStennis	7/1/2024	6/30/2026	New
COL00525		Impacts of forest market on hazardous fuel reduction activities in federal forestlands of Colorado Baral, S	Forest and Rangeland Stewardship	1472	7007230	McStennis	7/1/2024	6/30/2026	New
COL00607B		Genetic Improvement in Beef Management Systems Enns, RM	Animal Science	1171	1022682	Hatch	7/1/2020	6/30/2025	
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	Terminated
COL00612C		Impacts of soil water deficits and salinity on consumptive water use of crops in Colorado Andales, A	Soil and Crop Sciences	1170	7007579	Hatch	7/1/2024	6/30/2029	New
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	
COL00654B		Sustainable Farming Practices, Crop Management and Sorghum Improvement Jenkins, ZJ	AES Director's Office	3001	1022585	Hatch	7/1/2020	6/30/2025	
COL00658B		Water Reuse, Organic Matter Recycle, Saltgrass Selection, and Carbon Footprint of Urban Turfgrass Systems Qian, Y	Horticulture and Landscape Architecture	1173	1026633	Hatch	7/1/2021	6/30/2026	

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COL00670B		Sustainable U.S. beef production Archibeque, S	Animal Science	1171	1020229	Hatch	7/1/2019	6/30/2024	Terminated
COL00670C		Sustainable U.S. Beef Production Archibeque, S	Animal Science	1171	7007229	Hatch	7/1/2024	6/30/2029	New
COL00680C		Arthropod biology, evolutionary ecology and management Hufbauer, R	Agricultural Biology	1177	7003033	Hatch	7/1/2022	6/30/2027	
COL00681B		National Genetic Evaluation of Beef Cattle Speidel, S	Animal Science	1171	1026628	Hatch	7/1/2021	6/30/2026	
COL00699B		Ammonia concentrations in agricultural and urban regions of NE Colorado Collett, JL	Atmospheric Science	1371	1022587	Hatch	7/1/2020	6/30/2025	
COL00703C		Climate Monitoring, Climate Research, and Climate Services for Colorado's Agriculture and Natural Resources Schumacher, R	Atmospheric Science	1371	7001967	Hatch	7/1/2022	6/30/2027	
COL00711B		Development of Cultivar Specific Management Guidelines for New and Existing Potato Cultivars Essah, S	Horticulture and Landscape Architecture	1173	1019850	Hatch	7/1/2019	6/30/2024	Terminated
COL00711C		Development of cultivar specific management guidelines for new and existing potato cultivars Essah, S	Horticulture and Landscape Architecture	1173	7007266	Hatch	7/1/2024	6/30/2029	New
COL00712B		Development of Potato Cultivars for Colorado Via Germplasm Enhancement and Evaluation Chitwood-Brown,	Horticulture and Landscape Architecture	1173	7000395	Hatch	7/1/2021	12/31/2023	Terminated
COL00716B		Postharvest Studies in Potatoes, Peppers, and Melons to Enhance Quality and Marketability Jayanty, S	Horticulture and Landscape Architecture	1173	1019849	Hatch	7/1/2019	6/30/2024	Terminated
COL00716C		Jayanty, S	Horticulture and Landscape Architecture	1173		Hatch			2bRev-waiting on PD
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	Terminated
COL00728B		Improving Cropping System Resilience through Diversification and Soil Conservation Schipanski, M	Soil and Crop Sciences	1170	7007509	Hatch	7/1/2024	6/30/2029	New
COL00732A		Harnessing Ecology to Improve Management of Invasive Plants Brown, C	Agricultural Biology	1177	1026320	Hatch	7/1/2021	6/30/2024	Terminated
COL00732B		Harnessing Ecology to Improve Management of Invasive Plants Brown, C	Agricultural Biology	1177	7007261	Hatch	7/1/2024	6/30/2027	New

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COL00734A		Understanding combined biotic and abiotic stress responses in plants Leach, JE	Agricultural Biology	1177	1026318	Hatch	7/1/2021	6/30/2024	Terminated
COL00735A		Identification of metabolic, morphological, and physiological factors that influence sorghum whole?plant preflowering Jahn, C	Agricultural Biology	1177	1026319	Hatch	7/1/2021	6/30/2022	Terminated
COL00736B		Characterizing and developing molecular tools to rapidly identify fungal pathogens within conifers in nurseries to reduce invasion during outplantings Stewart, J	Agricultural Biology	1177	7003065	Hatch	9/19/2022	6/30/2025	
COL00738A		Managing Soils and Agroecosystems for Long-Term Functioning and Multiple Ecosystem Services Fonte, S	Soil and Crop Sciences	1170	1026632	Hatch	7/1/2021	6/30/2026	
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	
COL00760A		Exploring linkages between above and belowground diversity to maximize soil functional capacity in Dryland agricultural system Trivedi, P	Agricultural Biology	1177	7003011	Hatch	9/7/2022	6/30/2027	
COL00762A		Certification of Potato Seed for the Improvement of the Potato Industry in Colorado Houser, A	Horticulture and Landscape Architecture	1173	7002671	Hatch	7/21/2022	6/30/2027	
COL00764A		Specialty Crops Production Research, Technical Support, and Coordination for Colorado Growers Uchanski, M	Horticulture and Landscape Architecture	1173	7003012	Hatch	11/21/2022	6/30/2027	
COL00781A		Molecular Mechanisms of Chemical Priming of Plant Defenses for Increased Crop Protection Argueso, C	Agricultural Biology	1177	7005085	Hatch	7/1/2023	6/30/2026	
COL00783A		Understanding and Diagnosing Herbicide Resistance in Weeds Gaines, T	Agricultural Biology	1177	7004906	Hatch	7/1/2023	6/30/2028	
COL00785A		Metabolic fate of herbicides in crops and weeds Dayan, F	Agricultural Biology	1177	7005022	Hatch	7/1/2023	6/30/2028	
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	Terminated
COL00792A		Sustainability metrics and tools for promoting climate mitigation and healthy soils Paustian, K	Soil and Crop Sciences	1170	7007801	Hatch	7/11/2024	6/30/2029	New
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	Terminated
COL00793A		Carbon dioxide enrichment in controlled environments: Overcoming acclimation responses for enhanced production Craver, J	Horticulture and Landscape Architecture	1173	7007234	Hatch	7/1/2024	6/30/2026	New

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COL00795B	Development of Winter Wheat Cultivars Adapted to Colorado		Mason, E	Soil and Crop Sciences	1170	1026631	Hatch	7/1/2021	6/30/2026	

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