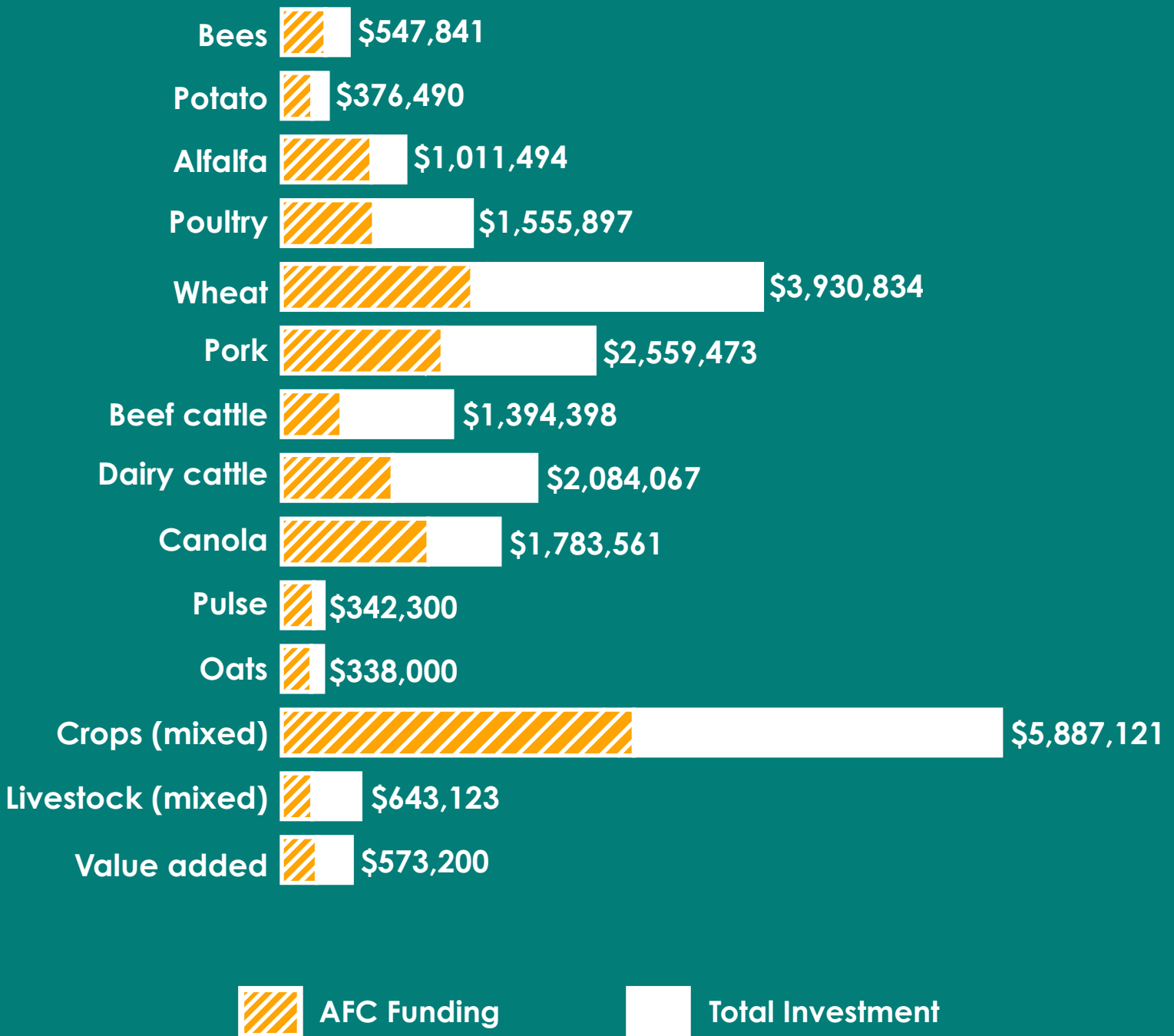


Research funded via the Agriculture Funding Consortium

2022/23



Commodity	Project	Organization	AFC Funding	Project Total
Bees	A Circular Economy Solution to Plastic Waste in the Beekeeping Industry	Northern Alberta Institute of Technology	\$182,793	\$267,993
Bees	Harnessing the power of pollen DNA metabarcoding to enhance pollinator health and honey value in cropping landscapes	Grande Prairie Regional College	\$174,944	\$279,848
Potato	Development and validation of molecular protocols for rapid detection of potato pests and pathogens in Alberta	University of Lethbridge	\$200,390	\$260,390
Potato	Screening potato cultivars for variation in water-use efficiency: use of stable isotope techniques	University of Lethbridge	\$49,450	\$116,100
Alfalfa	Diagnostic tools in support of alfalfa weevil, <i>Hypera postica</i> , management in alfalfa seed production fields	University of Alberta	\$462,044	\$663,294
Alfalfa	Characterization of abiotic stress tolerant alfalfa genotypes for beef and dairy production in a changing climate	Agriculture and Agri-Food Canada - Lethbridge	\$271,200	\$348,200
Poultry	Bioactive glucosamine-derived caramels to increase bone and gut health in broiler chickens	University of Alberta	\$233,230	\$330,230
Poultry	Use of oral probiotics to enhance immune response against infectious bronchitis in broiler chickens	University of Calgary	\$149,500	\$185,500
Poultry	A multicomponent plant-derived vaccine for poultry salmonellosis	University of Calgary	\$371,750	\$1,040,167
Wheat	Dissecting herbicide resistance in wild oat to design novel efficient molecular diagnostic tools	Canadian Food Inspection Agency	\$376,000	\$548,800
Wheat	Understanding the interactions of N fertilizer technologies, fungicides, and the soil microbiome to optimize sustainable agriculture	Agriculture and Agri-Food Canada - Lethbridge	\$425,865	\$827,261
Wheat	Field Sensing Phenocart Data Management and Image Analysis Pipeline Development to Improve Cereal Crops Characteristics	Agriculture and Agri-Food Canada - Lethbridge	\$468,300	\$2,158,200
Wheat	Glyphosate alternative Pre-harvest herbicide evaluation for spring wheat	University of Alberta	\$288,823	\$396,573
Pork	Non-antibiotic treatment for swine dysentery	University of Saskatchewan	\$150,650	\$350,124
Pork	Towards controlling ear-tip necrosis in pigs	University of Saskatchewan	\$200,100	\$438,900
Pork	A multi-platform for testing and validating non-antibiotic tools to mitigate diarrhea in pigs	University of Calgary	\$273,700	\$867,700
Pork	Benchmarking antimicrobial use on Alberta pork farms	Alberta Pork	\$525,000	\$606,100
Pork	Novel dietary strategy to control post-weaning diarrhea in pigs	University of Alberta	\$166,649	\$296,649
Beef cattle	Development of a mucosal vaccine against the bovine respiratory pathogen <i>Mannheimia haemolytica</i>	Agriculture and Agri-Food Canada - Lethbridge	\$317,000	\$1,142,000
Beef cattle	To explore conditions for improving the efficiency of water usage during sanitation	Agriculture and Agri-Food Canada - Lacombe	\$172,050	\$252,398
Dairy cattle	Investigating why current Digital Dermatitis treatments fail to prevent recurring and chronic digital dermatitis	University of Calgary	\$231,987	\$232,017
Dairy cattle	Investigating the utility of biomarkers to facilitate the selection of more efficient dairy cows	University of Alberta	\$308,660	\$639,260
Dairy cattle	Mitigating <i>Salmonella</i> Dublin infections in pre-weaned dairy calves	University of Alberta	\$136,390	\$320,390
Dairy cattle	Application of Methane Sniffer Technology for Dairy Cattle: Enhancing the Sustainability of Alberta's Dairy Industry	Lactanet Canada	\$230,000	\$892,400
Canola	Elevating canola yield and oil and protein content by altering cellular carbon partitioning	University of Alberta	\$334,725	\$526,225
Canola	Evaluation of the A genome genes for resistance to <i>Plasmodiophora brassicae</i> pathotypes, and their combined effect with the C-genome resistance	University of Alberta	\$368,230	\$666,180
Canola	A high-throughput and non-invasive method to screen nanostructure penetration in plant tissues as part of Smart Crop Technology (SCT) development	Agriculture and Agri-food Canada - Lethbridge	\$497,921	\$591,156
Pulse	Applications of the genome base-editing technology in dry pea to excavate novel agricultural traits	University of Calgary	\$263,300	\$342,300
Oats	Dissecting the association of flowering time and yield in oat	McGill University	\$242,763	\$338,000
Crops (mixed)	Integration of sequence-based omic and high throughput phenomic data for accelerating plant breeding under changing climate via automated pipelines	Agriculture and Agri-Food Canada - Lethbridge	\$498,700	\$1,308,000
Crops (mixed)	Regional Variety Trials - A Key in Driving Adoption of New Genetic Technologies	Alberta Wheat and Barley Commission	\$776,400	\$1,478,325
Crops (mixed)	Insect pest impacts on pea and canola in a pea-canola intercrop system	University of Alberta	\$302,411	\$444,406
Crops (mixed)	Identification of information required to reduce risks associated with post-drought fertilizer applications	University of Alberta	\$90,275	\$321,275
Crops (mixed)	Prairie Crop Disease Monitoring Network: Fostering further network development	Agriculture and Agri-Food Canada - Lacombe	\$151,896	\$151,896
Crops (mixed)	Optimizing yield, quality, and power consumption with full spectrum LED lights in greenhouse production systems	Lethbridge College	\$353,598	\$586,595
Crops (mixed)	Harmful algal blooms and associated cyanotoxins in Alberta's irrigation districts: Implications for irrigated crops	Agriculture and Agri-Food Canada - Lethbridge	\$397,386	\$967,125
Crops (mixed)	Assessing water and nutrient-smart farming practices under extreme climate events for improved crop and livestock productivity in Alberta	University of Alberta	\$310,000	\$629,500
Livestock (mixed)	Alternatives to antimicrobials: immunomodulation by mycobacterial cell surface biomolecules to protect against infections in beef and dairy calves	University of Saskatchewan	\$249,651	\$643,123
Value Added	Novel sanitation technologies for improved control of bacterial communities in meat processing plants for improved product shelf life and safety	University of Alberta	\$286,350	\$573,200