

**2018-19 BMBRI Grant Funding – BMBRI Technical Committee**

**A) CAP Barley Cluster Activities**

<b>Principal Applicant</b>	<b>Project Title</b>	<b>Funded Last Year?</b>	<b>BMBRI Funding</b>	<b>Other Funding</b>
Aaron Beattie U of S	CAP Barley Cluster  Breeding two-row malt, feed and food varieties	Yes continued from the GF2 Cluster	\$65,000 / 5 yrs	\$188,937 / 5 yrs ABC \$133,312 / 5 yrs SaskBarley \$178,286 / 5 yrs WGRF  Total of \$1,091,070 / 5 yrs (50% Government)
Ana Badea AAFC	CAP Barley Cluster  Breeding malting and food barley cultivars for western Canada	Yes continued from the GF2 Cluster	\$82,780 / 5 yrs	\$151,600 / 5yrs ABC \$300,000 / 5 yrs SaskBarley \$277,394 / 5 yrs WGRF \$31,128 / 5 yrs MWBGA  Total of \$1,685,804 / 5 yrs (50% Government)
Raja Khanal AAFC	CAP Barley Cluster  Breeding barley for high yield and resistance to Fusarium head blight for eastern Canada	Yes continued from the GF2 Cluster	\$28,639 / 5 yrs directed to the objective of testing the western varieties	\$172,910 / 5yrs GFO \$64,632 / 5 yrs PGQ \$139,813 / 5 yrs Secan \$3,278 / 5 yrs AGC \$67,500 CMC Total of \$1,041,101 / 5 yrs (54% Government)

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<p>Kelly Turkington AAFC</p>	<p>CAP Barley Cluster  Phenotyping barley breeding lines and germplasm for disease resistance</p>	<p>Yes continued from the GF2 Cluster</p>	<p>\$7,119 / 5 yrs</p>	<p>\$78,317 / 5 yrs ABC \$37,414 / 5 yrs SaskBarley  Total of \$409,500 / 5 yrs (70% Government)</p>
<p>Kelly Turkington AAFC</p>	<p>CAP Barley Cluster  Barley pathogen variation and surveillance: implications for managing disease via host resistance and fungicides</p>	<p>No</p>	<p>\$13,000 / 5 yrs</p>	<p>\$98,543 / 5yrs ABC \$75,003 / 5 yrs SaskBarley \$6,314 / 5 yrs MWBGA  Total of \$642,864 / 5 yrs (70% Government)</p>
<p>James Tucker AAFC</p>	<p>CAP Barley Cluster  Developing barley germplasm with improved resistance to Fusarium head blight and other biotic stresses for western Canada</p>	<p>Yes continued from the GF2 Cluster</p>	<p>\$90,000 / 5 yrs</p>	<p>\$95,500 / 5yrs ABC \$175,000 / 5 yrs SaskBarley \$230,740 / 5 yrs WGRF \$15,000 / 5 yrs MWBGA  Total of \$2,020,798 / 5 yrs (70% Government)</p>
<p>Yueshu Li CMBTC</p>	<p>CAP Barley Cluster  Study of Barley Quality and Process Factors that can produce Malt with potential Premature Yeast Flocculation</p>	<p>No</p>	<p>\$19,000 / 5 yrs</p>	<p>\$91,000 / 5 yrs SaskBarley  Total of \$220,000 / 5 yrs (50% Government)</p>

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Yueshu Li CMBTC	CAP Barley Cluster  Examination and definition of flavours and aromas and their precursors in malting barley cultivars	No	\$19,000 / 5 yrs	\$131,000 / 5 yrs SaskBarley  Total of \$300,000 / 5 yrs (50% Government)
Kelly Turkington AAFC	CAP Barley Cluster  In-crop management strategies to reduce the impact of Fusarium head blight in barley	Yes continued from the GF2 Cluster	\$8,600 / 5 yrs	\$71,930 / 5yrs ABC \$71,930 / 5 yrs SaskBarley  Total of \$508,200 / 5 yrs (70% Government)
Aaron Mills & BreanneTidemann AAFC	CAP Barley Cluster  The influence of preceding legumes and nitrogen management on malt barley yield and quality across Canada	No	\$20,000 / 5 yrs	\$68,000 / 5yrs ABC \$47,000 / 5 yrs SaskBarley  Total of \$450,000 / 5 yrs (70% Government)
Marta Izydorczyk CGC	CAP Barley Cluster  Application of modern techniques for identification and characterization of wort constituents to predict processing performance and beer quality	No	*\$40,000 – to be confirmed  *Committed but not included in approvals for the Cluster	*\$30,000 / 5yrs ABC *\$44,950 / 5 yrs SaskBarley *Committed but not included in approvals for the Cluster

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<p><b>Total CAP Barley Cluster (A)</b></p>			<p>\$369,623 (research/KTT) plus \$10,261 (admin)</p> <p><b>Total \$379,884/ 5 yrs</b></p> <p><i>*Does not include 11. Izydorczyk</i></p>	<p>Total Cluster (Projects/KTT/Admin)</p> <p><b>Total \$10,116,705 / 5 yrs</b></p> <p><i>*Does not include 11. Izydorczyk</i></p>
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**B) CAP Integrated Crop Agronomy Cluster (ICAC) Activities**

<b>Principal Applicant</b>	<b>Project Title</b>	<b>Funded Last Year?</b>	<b>BMBRI Funding</b>	<b>Other Funding</b>
<p>Smith University of Lethbridge</p>	<p>CAP ICAC - not funded under the Cluster</p> <p>Economic value of diversified cropping systems</p>	<p>No</p>	<p>\$10,000 / 5 yrs</p>	<p>\$180,096 / 5 yrs WGRF \$6,000 / 5 yrs APG \$14,000 / 5 yrs AWC \$15,000 / 5 yrs MPSG \$2,500 / 5 yrs POGA \$46,449 / 5 yrs SaskWheat</p> <p>Total of \$274,045 / 5 yrs</p>

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<p>Wang AAFC Fernando U of M</p>	<p>CAP ICAC Cluster - not funded under the Cluster</p> <p>The population structure of Fusarium pathogens of small grain cereals, their distribution and relationship to mycotoxins</p>	<p>No</p>	<p>\$20,000 / 5 yrs</p>	<p>\$1,004,704 / 5 yrs WGRF \$400,000 / 5 yrs AWC \$178,947 / 5 yrs MWBGA \$60,000 / 5 yrs SaskBarley \$90,675 / 5 yrs SaskWheat</p> <p>Total \$840,075 / 5 yrs</p>
<p>Bullock AAFC</p>	<p>CAP ICAC Cluster</p> <p>The population structure of Fusarium pathogens of small grain cereals, their distribution and relationship to mycotoxins</p>	<p>No</p>	<p>\$20,000 / 5 yrs</p>	<p>Total \$9M/ 5 yrs</p>
<p><b>Total CAP ICAC (B)</b></p>			<p><b>Total \$50,000/ 5 yrs</b></p>	

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### C) 2018-19 Grant Funding: Non CAP Cluster Projects

Principal Applicant	Project Title	Funded Last Year?	BMBRI Funding	Other Funding
Ludovic Capo-Chichi Alberta Innovates	Development of malting barley varieties with improved cold tolerance and malting quality.	Yes  3 <sup>rd</sup> year of a proposed 3-year project.  This project is also follow up from previous project funded from 2012-2015	Requested BMBRI funding for three years to support technician for field and lab work.  Funding from BMBRI with AITF support was used to get started with field trial at Vegreville in May 2016 field season.  \$9,000 in 2016 \$9,000 in 2017 \$15,000 in 2018	2018 additional funding from other sources as follows:  Innotech Alberta Cash: \$9,349
Aliaa El-mezawy Alberta Innovates	Genetic Improvement of Malting Barley through Mutation Breeding	Yes  Year 3 of proposed 3- year project	\$10,000 in 2016 \$20,000 in 2017 \$13,000 in 2018	Breakdown of budget/year: Personnel \$26,500 Materials and supplies \$3,500 \$10,000 from Innotech Alberta + in kind breeder work from FCDC

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Jaswinder Singh University of McGill		Yes  Year 3 of proposed 3- year project	\$10,000 in 2016 \$20,000 in 2017 \$20,000 in 2018	\$20,000 requested per annum in 2018 to cover a stipend for a Ph.D. student and materials and supplies including indirect costs.  BMBRI funding was matched with NSERC-CRD
Kelly Turkington (AAFC) / Marta Izydorczyk (CGC)	Post-harvest treatment of malt barley grain to limit the impact of Fusarium graminearum microorganisms during malting and brewing	No  One year project	\$22,000 in 2018	Budget: \$8,000 - CGC students \$9,000 - materials and supplies \$3,000 – transport of grain to Thermosteed \$2,000 - OH
Marta Izydorczyk (CGC)	The germinating seed microbe ecosystem of barley malt	No  Year 1 of proposed 2- year project	\$20,000 in 2018	Budget: \$8,000 materials/supplies \$14,000 coop student \$3,300 OH
<b>Total Non-Cluster Grants 2018 (C)</b>			<b>Total \$90,000 committed in 2018</b>	

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<p><b>Total BMBRI Grant Applications for 2018-19</b></p> <p><b>A. Barley Cluster</b> <b>B. ICAC Cluster</b> <b>C. Non-Cluster</b></p>			<p><b>A. Barley Cluster - \$379,500/5 yrs</b></p> <p><b>B. ICAC Cluster- \$50,000/5 yrs</b></p> <p><b>C. Non-Cluster – \$90,000 in 2018</b></p>	
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