February 22, 2022

RE: Request for Proposal (RFP) for Field Demonstrations to Highlight the Performance of Popular and Upcoming Wheat Varieties Grown Under Best Agronomic Management Practices in Various Regions of Alberta

Dear Extension Partner,

The Alberta Wheat Commission (AWC) is re-envisioning investments in extension and demonstration due to an evolving industry need and tighter alignment of AWC's research and extension initiatives. Historically, AWC invested in extension programs at Applied Research Associations (ARAs) and with other research and extension providers to transfer knowledge to Alberta's wheat farmers. Some of these investments included partial funding for local wheat variety trials. These local variety trials provided the opportunity for farmers to compare regionally popular varieties (based on AFSC insured acreage) with newly released varieties currently being tested in the provincial Regional Variety Trials.

AWC would like to re-envision these local variety trials to provide farmers with visual demonstrations on the performance of popular and upcoming wheat varieties (as reported in AFSC's most recently published *Yield Alberta* magazine) grown under different agronomic management scenarios. The demonstrations would target regionally relevant Genetics x Environment x Management (GxExM) concepts. We are suggesting that demonstrations include fewer varieties to accommodate agronomic management treatments. These agronomic management scenarios could include responses to different nitrogen fertilizer rates and sources, seeding rates, foliar fungicides or other agronomic practices commonly being used in various geographic regions.

We invite you to submit an Expression of Interest to document your plans for extension and demonstration field plots along with a communication plan and budget.

Statement of Need

AWC needs extension and demonstration field plots to highlight the performance of popular wheat varieties grown under best agronomic management practices in various regions of Alberta.

Scope of Work should provide details that address:

1. Demonstration title.
2. Specific geographic location(s) of the trial.
3. Names of the specific varieties which will be grown in the trial along with documentation of the varieties' seeded acreage in the specific AFSC risk area (as reported in AFSC's most recently published *Yield Alberta* magazine).

Alberta Wheat Commission ● 200 – 6815-8th Street NE ● Calgary, AB T2E 7H7
● Phone: (403) 219-7913 ● Email: sstrydhorst@albertawheatbarley.com

4. List of the specific agronomic practices to be demonstrated: i.e., different nitrogen fertilizer rates and sources, seeding rates, foliar fungicides or other agronomic practices commonly being used in your geographic region. This will include specific products used, rates and timing of applications. The AWC's Plot2Farm protocols and the examples in Appendix A can be helpful suggestions for developing treatments to be demonstrated. Please note these are suggestions only and we encourage groups to make these as regionally relevant as possible.
5. Numbered list of the demonstration treatments, following the format outlined in Appendix A
6. List of data collection and data presentation plans. If data collection is planned, please describe the number of replications and your data analysis protocol. Single replicate demonstrations without data collection are also acceptable.
7. Plot maintenance to be used on the demonstration field plots including specific details on seeding dates, seeding rates, nutrient management, weed control, plot maintenance, signage, etc.
8. Communication plan that documents the specific extension events where producers will visit the field trials, publication and distribution of the findings and the intended audience size. Preference will be given to groups that present a communication plan that includes bringing in a subject matter expert to speak at field days. Please list specific subject matter experts that will be invited. AWC and Alberta Barley are happy to help identify and secure speakers for various events.
9. List the completion dates for the various activities in the communication plan.
10. Costs for field demonstration plots, extension and communication events, publication of information.

Preference will be given to groups that collaborate, with alignment of agronomic treatments and cultivars (in similar geographic regions) and have a demonstrated ability to communicate findings to a large audience and a solid track record of high-quality extension events and timely reporting to funders. Preference will also be given to demonstrations that are relatively simple and do not include more than 12 treatments. Please note that the 12 treatments can be multiple varieties that all receive the same agronomic treatments or multiple varieties that receive multiple agronomic treatments.

Timelines:

Please submit an RFP that includes plans for work in the 2022 growing season. Please reply with your proposal by March 15, 2022 to dsimbo@albertawheatbarley.com.

Please direct questions about the agronomic treatments to be demonstrated in the plots to:

Jeremy Boychyn, MSc PAg
Agronomy Extension Specialist
D. 403.219.6261
jboychyn@albertawheatbarley.com

Expression of Interest

The AWC is looking to support multiple extension and demonstration field plot locations related to this topic for the 2022 growing season. The ideal candidate(s)/organization(s) would have a very good understanding of the local varieties being grown, local agronomic practices that producers are working with and strong communication skills that resonate with local commercial wheat farmers.

Please provide an Expression of Interest that includes responses the above ten points outlined in the Scope of Work. Please submit your Expression of Interest via email to David Simbo, Research Program Manager, AWC (dsimbo@albertawheatbarley.ca) by March 15, 2022.

1. Please provide a detailed plan (3 pages maximum) on how you would address the ten points described in the "Scope of Work" section above.
2. Please elaborate on collaborative plans (if any) you have with other groups to deliver this in multiple locations within a geographic area.
3. Please elaborate on your direct experience with communicating findings to local commercial wheat farmers and your track record of delivering high-quality extension events and timely reporting to funders.
4. Given the key output deliverables described in the 'Scope of Work' section above, please provide the funding you would require for this assignment.
5. The Expression of Interest should not exceed 5 pages total.

Thank you very much for your interest in submitting an Expression of Interest to demonstrate the performance of popular wheat varieties grown under best agronomic management practices in various regions of Alberta.

Sincerely,

Dr. David Simbo, Research Program Manager, AWC and Alberta Barley

Mr. Jeremy Boychyn, Agronomy Research Extension Specialist, AWC and Alberta Barley

Dr. Sheri Strydhorst, Agronomy Research Specialist, AWC and Alberta Barley

Dr. Lauren Comin, Director of Research, AWC and Alberta Barley

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Appendix A

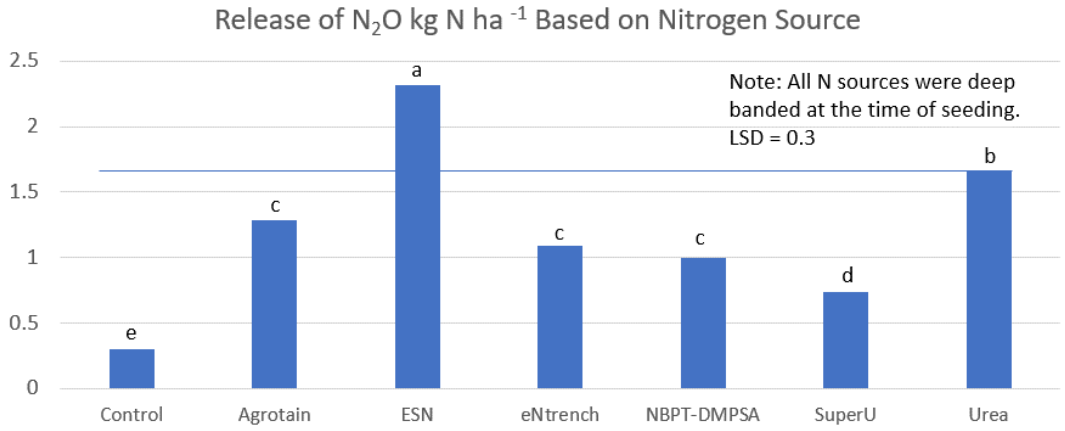
Three examples of possible demonstration plots. Note: These 3 lists are for example only and we encourage groups to adapt this list based on relevant local varieties and agronomic practices.

Example A: Demonstration of Genetics x Nitrogen Fertilizer Management

Demonstration Treatment	Variety	Agronomic Management	Justification
1	AAC Brandon, grown on x% of acres in yy area	100% of area average N fertilizer rate (side banded as urea at the time of seeding)	Standard Producer Practice
2	AAC Brandon	130% of area average N fertilizer rate (side banded as urea at the time of seeding)	Increasing higher fertilizer rates to increase yields and protein
3	AAC Brandon	130% of area average N fertilizer rate (side banded as SuperU at the time of seeding)	Achieving higher fertilizer rates while mitigating GHG emissions
4	AAC Viewfield, grown on x% of acres in yy area	100% of area average N fertilizer rate (side banded as urea at the time of seeding)	Standard Producer Practice
5	AAC Viewfield	130% of area average N fertilizer rate (side banded as urea at the time of seeding)	Increasing higher fertilizer rates to increase yields and protein
6	AAC Viewfield	130% of area average N fertilizer rate (side banded as SuperU at the time of seeding)	Achieving higher fertilizer rates while mitigating GHG emissions
7	AAC Wheatland VB, grown on x% of acres in yy area	100% of area average N fertilizer rate (side banded as urea at the time of seeding)	Standard Producer Practice
8	AAC Wheatland VB	130% of area average N fertilizer rate (side banded as urea at the time of seeding)	Increasing higher fertilizer rates to increase yields and protein
9	AAC Wheatland VB	130% of area average N fertilizer rate (side banded as SuperU at the time of seeding)	Achieving higher fertilizer rates while mitigating GHG emissions

10	AAC Penhold, grown on x% of acres in yy area	100% of area average N fertilizer rate (side banded as urea at the time of seeding)	Standard Producer Practice
11	AAC Penhold	130% of area average N fertilizer rate (side banded as urea at the time of seeding)	Increasing higher fertilizer rates to increase yields and protein
12	AAC Penhold	130% of area average N fertilizer rate (side banded as SuperU at the time of seeding)	Achieving higher fertilizer rates while mitigating GHG emissions

Nitrous Oxide Emissions from EEFs
(Lethbridge irrigated 2019 and 2020, Barrhead 2019, and Edmonton 2019 and 2020)



Dr. Brian Beres et al. 2021. Research interim report 2019F143R

Example B: Demonstration of Genetics x Seeding Rate Management

Demonstration Treatment	Variety	Agronomic Management	Justification
1	AAC Brandon, grown on x% of acres in yy area	25 plants/sqft target seeding rate	Standard Producer Practice
2	AAC Brandon	30 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
3	AAC Brandon	35 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
4	AAC Viewfield, grown on x% of acres in yy area	25 plants/sqft target seeding rate	Standard Producer Practice
5	AAC Viewfield	30 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
6	AAC Viewfield	35 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
7	AAC Wheatland VB, grown on x% of acres in yy area	25 plants/sqft target seeding rate	Standard Producer Practice
8	AAC Wheatland VB	30 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
9	AAC Wheatland VB	35 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
10	AAC Penhold, grown on x% of acres in yy area	25 plants/sqft target seeding rate	Standard Producer Practice
11	AAC Penhold	30 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits
12	AAC Penhold	35 plants/sqft target seeding rate	Increasing seeding rates for crop competitiveness, yield and maturity benefits

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Example C: Demonstration of Genetics x Fungicide Management

Demonstration Treatment	Variety	Agronomic Management	Justification
1	AAC Brandon, grown on x% of acres in yy area	Untreated check	Lowest input practice
2	AAC Brandon	Flag leaf timing (BBCH 39-45): Apply label rate of product A at flag leaf timing.	Fungicide application to control leaf spot diseases and increase yield
3	AAC Brandon	Heading timing (BBCH 61-63): Apply label rate of product B with 'Heading/Anthesis' on the label at heading timing.	Fungicide application to control leaf spot diseases, FHB and increase yield
4	AAC Viewfield, grown on x% of acres in yy area	Untreated check	Lowest input practice
5	AAC Viewfield	Flag leaf timing (BBCH 39-45): Apply label rate of product A at flag leaf timing.	Fungicide application to control leaf spot diseases and increase yield
6	AAC Viewfield	Heading timing (BBCH 61-63): Apply label rate of product B with 'Heading/Anthesis' on the label at heading timing.	Fungicide application to control leaf spot diseases, FHB and increase yield
7	AAC Wheatland VB, grown on x% of acres in yy area	Untreated check	Lowest input practice
8	AAC Wheatland VB	Flag leaf timing (BBCH 39-45): Apply label rate of product A at flag leaf timing.	Fungicide application to control leaf spot diseases and increase yield
9	AAC Wheatland VB	Heading timing (BBCH 61-63): Apply label rate of product B with 'Heading/Anthesis' on the label at heading timing.	Fungicide application to control leaf spot diseases, FHB and increase yield
10	AAC Penhold, grown on x% of acres in yy area	Untreated check	Lowest input practice

11	AAC Penhold	Flag leaf timing (BBCH 39-45): Apply label rate of product A at flag leaf timing.	Fungicide application to control leaf spot diseases and increase yield
12	AAC Penhold	Heading timing (BBCH 61-63): Apply label rate of product B with 'Heading/Anthesis' on the label at heading timing.	Fungicide application to control leaf spot diseases, FHB and increase yield