



Request for Expressions of Interest

Bulkley-Nechako & Fraser-Fort George Regional Adaptation Strategies

Project:

Selecting suitable and adaptive dryland forage crops and varieties

Issue Date: October 25, 2021

Closing Time: Proposal must be received before 4:00pm PT on ~~November 12, 2021~~ **EXTENDED:**
December 1, 2021

CONTACT PERSON: All enquiries related to this Request for Expressions of Interest (RFEI), including any requests for information and clarification, are to be directed, via email, to the address below. Please note: Inquires will only be answered between October 25, and ~~November 10, 2021~~ November 29, 2021. Information obtained from any other source is not official and should not be relied upon. Inquiries and any responses will be recorded and may be distributed to all Proponents at the Solicitor's option.

Email: Contracts@ClimateAgricultureBC.ca

Project Timeline

December 2021 – June 2022

Project Background

This project evolved out of the priorities identified in the strategies and actions within the 2019 [Bulkley-Nechako & Fraser-Fort George Adaptation Strategies](#) (Strategy 2.1: action 2.1b; and Strategy 3.3: action 3.3b). This plan identified suitable strategies and actions to assist agriculture with adapting to the impacts of climate change. Implementation is led through the Bulkley-Nechako & Fraser-Fort George Agricultural Adaptation Working Group¹.

Project Objectives

- Compile (sub-regional) information on current species/variety selections and adaptation priorities
- Identify new varieties with promise for regional adaptation

¹ The Bulkley-Nechako & Fraser-Fort George is a multi-stakeholder committee with representation from agricultural organizations, regional and provincial governments.



- Develop region-specific forage suitability resources
- Evaluate and share the Forage U-Pick (decision support tool) within the region
- Encourage producers to consider conducting variety trials

Project Oversight

This project will be collectively overseen through a Project Oversight Committee. The Committee is comprised of members from Bulkley-Nechako & Fraser-Fort George Agricultural Adaptation Working Group and other partners and stakeholders. The successful proponent will report regularly to this oversight committee and maintain communication with key designated contacts – including Climate & Agriculture Initiative (CAI) and BC Forage Council staff - who will provide regular direction and guidance throughout the project.

Project administration will be provided by the Eaglet Lake Farmers' Institute who will hold the project funds and enter into contract with the successful respondent.

Project Description

Climate change projections across Highway 16 include warmer and drier summer conditions and shifting precipitation patterns that include more extreme rain events. Both management practices and production decisions – such as selecting suitable and resilient crop types and varieties – will assist producers to manage through increasingly variable and extreme conditions.

A previous project (undertaken in 2020) in the Bulkley-Nechako and Fraser Fort-George region focused on providing [knowledge transfer for best practices for water management](#). An important element of this project was consultation with producers across the region about informational needs and priorities relating to water management. Seventeen interviews were conducted with producers across the sub-regions of Bulkley Valley, Lakes District, Nechako Valley, Fraser-Fort George and Robson Valley.

Identifying water management strategies for dryland farms was one of the top informational/knowledge transfer priorities identified during this project. In the Recommendations and Next Steps portion of the summary report, exploring suitable crops and varieties for dryland production – specifically deepening knowledge of species and variety performance within the region – was highlighted as an area for further work.

Producers are very familiar with the importance of selecting suitable forage crops but as conditions change, the species and varieties that have been reliable in the past, may be less productive or suitable for changing and variable future conditions.

Complicating crop selection is the constantly evolving process of variety development. Some of these varieties may prove more resilient to the changing or challenging conditions for producers in various areas of the Bulkley-Nechako and Fraser Fort-George region (BN/FFG). Information about varieties (suitability, performance, etc.) rests with the seed companies and must be



sought out. In addition, varieties haven't been tested in the region, which means local trials may be required to assess their productivity and reliability in BN/FFG.

There are some existing resources – including the [BC Rangeland Seeding Manual](#) and the more recently developed [Forage U-Pick](#) decision support tool – to aid producers with choosing suitable crops. [There is also a resource](#) (developed through an earlier CAI project) to support producers with establishing on-farm trials. These resources provide valuable background work to support the activities of this project.

The project will have three phases of activity. The first phase will include surveys, interviews and review of relevant resources. In partnership with the BC Forage Council, a survey will be developed and distributed to forage producers to gather information about the current species and varieties being grown in various parts of the region, along with future plans for seeding². Additional research will be conducted (via outreach to seed companies) about new varieties that may be suitable for the dryland production within the region/sub-regions. Existing (key) resources for supporting crop selection will also be reviewed to identify the most relevant and valuable content.

Following completion of the surveys and background research, a set of accessible and regionally specific informational resources will be created. These will build from existing resources but will be focused on creating content to address the most critical information gaps and on refining content for dryland production, including regional considerations and conditions. As part of this phase of activity, the Forage U-Pick tool will be tested with a small group of 3-5 producers to evaluate its application in various parts of the region – and to encourage producers to consider the key selection decision questions that inform the tool.

The final set of project activities will actively share suitability selection resources in a workshop setting and encourage producers to utilize them (e.g., promising varieties, U-Pick tool testing, on-farm research supports). These workshops may also be used to introduce producers to resources to support them with undertaking their own variety trials (and may link to other related Forage Council projects).

Project activities/services

The successful respondent will be required to perform, and be responsible for, the following services:

² A brief digital survey will be distributed to producers asking about current species/varieties and asking whether they have records of selections/performance and whether they are willing to provide more information, or have this information provided via their seed supplier. The goal is to begin to develop a picture of crop performance across the region.



*PHASE ONE: Project Initiation, background research and surveys
(December 2021 – February 2022)*

- 1) Project Initiation
 - Scope project and develop project work plan
 - Identify focus of producer survey & seed company questionnaire
 - Project kick-off meeting

- 2) Producer and seed company surveys
 - Work with BC Forage Council staff on the development and distribution digital survey to producers to gather information including:
 - Current species/variety selections in sub-regions
 - Current seed mix composition
 - Future variety/crop selection plans
 - How producers decide when to renew
 - Areas of interest for new varieties
 - Sub-regional resilience and adaptation priorities (e.g., climate conditions of concern)
 - Track survey uptake
 - Conduct follow-ups (if producers have consented) to fill information gaps
 - Compile and summarize survey results
 - Develop questions for seed companies including:
 - Commonly purchased species/varieties
 - New varieties of interest, particularly those developed for enhanced resilience and most suitable to BN/FFG
 - Data about any variety trials conducted
 - Conduct interviews with key seed company contacts
 - Analyze seed company information and trials data
 - Identify varieties likely to be of greatest/ most suitable for regional needs

- 3) Review relevant related resources
 - Review relevant related resources to assess transferability and key information including:
 - [British Columbia rangeland seeding manual](#)
 - [Alberta Forage Manual](#)
 - [Forage U-Pick Tool](#)

- 4) Develop resource recommendations
 - Develop draft short-list of topics for key regional resources (based on survey and resource review results)
 - Identify varieties with promise (for further evaluation)
 - Share survey results and short-list with POC
 - Refine topics based on POC input



*PHASE TWO: Regionally relevant dryland suitability resources
(February - April 2022)*

- 5) Sub-regional suitability (and shifting suitability) resources
 - Adapt and/or develop simple accessible information resources to provide (sub) regionally relevant information to support crop selection such as:
 - Soil climatic maps
 - Precipitation (historical/climate projections) maps
 - Summary table of (dryland relevant species) adaptation

- 6) Species/variety specific fact sheets (4-8)
 - Develop an outline to identify preferred information to be documented in each fact sheet, such as:
 - Use of crop
 - Summarize information on “upcoming” or new varieties of note
 - Sub-regional applicability
 - Grazing timing, recovery time
 - Palatability
 - Longevity
 - Tolerance/adaptability for conditions of concern (e.g. drought, saturated soil etc.)
 - Suitability for pasture vs. cropped hay
 - Adapt and/or develop accessible fact sheets about (sub) regionally suitable crops/varieties
 - Develop drafts, share with POC and key experts for feedback
 - Develop final resources

- 7) U-pick case studies
 - Develop methodology for case study evaluation
 - Identify producers interested in testing the U-Pick tool
 - Complete U-Pick selection process
 - Evaluate results/assess value for producer
 - Document process through case studies. This may include information on:
 - Types of questions asked (or missing) in process
 - Producer selections vs tool
 - Forage professional selections vs tool selections

*PHASE THREE: Sharing project findings
(April – May 2022)*

- 8) Dryland suitability selection workshops



- Work with the BC Forage Council to coordinate and host 2-3 (sub-regional) workshops to share key project findings and resources on crop selection; this could include:
 - Introduction of existing/new resources for crop selection
 - How to use the U-Pick tool case study examples
 - Producer-led on farm crop and variety trials: value of testing new crops to adapt to climate and resources to support trials

Project Deliverables

- Project work plan
- Questionnaires and survey summary
- Regional suitability resources
- Species/variety fact sheets
- U-pick case studies
- Workshops

Evaluation Criteria

The criteria below will be used by the project committee to assess and select a successful candidate.

- Applied knowledge of forage crop & variety selection (with strong preference for knowledge/experience in the Bulkley-Nechako and Fraser-Fort George regions)
- Experience working with the agriculture sector with preference for experience with project coordination, agricultural research and direct work with agricultural producers
- Strong interpersonal skills that enable positive and productive interaction and coordination between a range of project stakeholders
- Strong research skills including ability to: complete resources review, develop and circulate survey, and review and clearly summarize information
- Ability to synthesize information from a variety of sources/disciplines
- Experience developing resources (e.g. fact-sheets) for an agricultural audience; some graphic design experience preferred
- Ability to work both collaboratively (with project team) and independently
- Ability to manage and coordinate logistics

Contract Amount

\$32,000 - \$37,000 in fees (inclusive of all applicable taxes and contractor expenses)

Key Project Partners

Agricultural producers
BC Forage Council



Regional cattle groups

Bulkley-Nechako & Fraser-Fort George Agricultural Adaptation Working Group

BC Ministry of Agriculture, Food and Fisheries

Agriculture and Agri-Food Canada

Regional Districts

Submission Requirements

All submissions are required to include the following:

- A. Cover letter or statement of interest
- B. Résumé outlining the respondent's experience and clearly responding to the evaluation criteria
- C. Two (2) professional references

Submission requirements should be submitted as one complete PDF package to

Contracts@ClimateAgricultureBC.ca

Applications must be received no later than ~~November 12, 4:00pm~~ **December 1, 4:00pm** Pacific Time.