5/7/2021

Re: Living Lab Partner Request

To whom it may concern:

The Federal Government recently announced the Agricultural Climate Solutions (ACS) program through Agriculture and Agri-Food Canada. Its goal is to support the development and implementation of farming practices that store carbon and reduce greenhouse gases.

Farming Smarter is leading an application focused on enhancing C sequestration in crop production systems in southern Alberta. We believe that a regional approach focusing on the local issues will bring the most success. We know that farmers have made amazing strides towards a sustainable system and we want to expand and build on that success together.

The ACS program proposes a Living Laboratories Initiative for agriculture innovation. Farming Smarter strongly favours this approach as it operates in a very similar manner. Living Labs’ core principles of focusing on the farmer’s needs, collaborate with partners of diverse expertise and testing in real-life context are in line with our apply-adapt-adopt approach that encourages farmers’ participation and includes field testing through our field-tested program. This makes us a perfect fit to lead this initiative in southern Alberta. We are excited to see a systems approach employed for innovation development in agriculture.

We are applying for Phase 1 ($100,000) designed to support building capacity, developing a network of participants, and drafting comprehensive project proposals for Phase 2. Below, we briefly explain our initial thoughts for the phase 2 ($10 million) core 5-year program. However, we want to be clear that not all project ideas and objectives will remain constant. This is because the whole theory behind a living lab is that it is cyclical and responsive to partner input. We will do our best to employ proven extension / knowledge and technology transfer (KTT) approaches as well as building research-based solutions to problems and barriers.

We intend to lead this program by creating a strategic plan with input from all collaborating partners. In this strategic plan, we will work collaboratively to create goals, strategies, actions to achieve and measures of success. We will reevaluate this living document annually and adapt as needed A timeline of the following steps will be utilized towards achieving the objectives of this program:

1. Build a network of organizations sharing a set of common goals and objectives for this program.
2. Generate research-based new knowledge and identify gaps in the adoption of existing knowledge.
3. Identify key opportunities and barriers to the adoption of new and existing knowledge including economic, agronomic, environmental, social and cultural.
4. Determine the approaches to address the identified barriers through extension / KTT, adaptive on-field and small plot research-based solutions, policy recommendations etc.
Initial research and dialogue have led us to identify the following goals that focus on regional agricultural priorities and address the major objective of increasing carbon sequestration goals:

1. Increase ground cover and plant diversity.
   a. Winter cover cropping for grain and forage production.
   b. Conversion of marginal land to permanent cover.
   c. Production of perennial grasses, legumes and cover crops in the areas affected with salinity.
   d. Increase use of perennial crops and high biomass producing crops in crop rotations.
   e. Elimination of summer fallow.

2. Reduce reliance on synthetic chemicals (fertilizers, pesticides).
   a. Increase pulse and legume acres.
   b. 4R nutrient management strategies.
   c. Precision agriculture strategies.
   d. Integrated pest management strategies for tackling herbicide resistance.

3. Best management practices for enhancing soil health and/or energy efficiency.
   a. Irrigation management strategies (including variable rate and reduced volume methods) for reducing GHG emissions and maximizing C sequestration.
   b. Reduce (strip tillage) or eliminate tillage including irrigated cropland where tillage is frequent.
   c. Management practices for enhanced soil conservation in root crops including potatoes and sugar beets.
   d. Reduce soil erosion with practices including shelterbelt establishment, cover crops, stripper headers and ultra-low disturbance openers.

While there are other potential C sequestration opportunities such as the integration of livestock on croplands, we believe that a focused approach on crop production systems will allow for the greatest success at this time. Nevertheless, these potential opportunities may be considered if the program is extended to a second term.

As collaboration is a key component of the living lab model, we will approach the following organizations to partner with us in this effort:

- AAFC Lethbridge Research Center
- Alberta Agriculture and Forestry
- Alberta Beekeepers Commission
- Alberta Canola
- Alberta Conservation Association
- Alberta Irrigation Districts Association
- Alberta Potato Growers
- Alberta Pulse Growers
- Alberta Sugar Beet Growers
- Alberta Wheat Commission
- Alfalfa Seed Commission
• Blood Tribe Agricultural Project
• Canada’s Premier Food Corridor
• Consulting Agronomists
• Ducks Unlimited Canada
• Farming Smarter members, subscribers, clients, and Smart Partners
• FMC Canada
• Lethbridge College
• Innotech Alberta
• Results Driven Agriculture Research
• The Association of Alberta Agricultural Fieldman
• University of Alberta
• University of Lethbridge
• Western Grains Research Foundation

What we look for from partners includes but is not limited to:

• Expertise to help guide the program
• Access to your networks for communication and feedback
• Research capacity
• Extension and KTT delivery
• Matching contributions including cash and in-kind
• Contributions to application development
• Letter of support for the application (see suggested template below)

We hope this provides you enough information to support our application. Please contact me should you require additional information. We are excited for this opportunity and look forward to a successful application.

Sincerely,

Ken Coles M.Sc., B.Sc., P.Ag.
Executive Director - Farming Smarter
Email: ken@farmingsmarter.com
To Whom it may concern:

Re: Letter of support for Farming Smarter Living Labs application

Farming Smarter builds relationships, drives research, provides grower education and delivers innovative and adoptable farming practices to southern Alberta growers. Its work adds value and economic return to farming operations. Its apply-adapt-adopt approach to research and bridging grower needs with innovative solutions is unique and proven.

We, your organization, genuinely support its application to lead a living labs application that will increase ground cover and plant diversity, reduce reliance on synthetic chemicals, encourage practices to enhance soil health and energy efficiency.

As a partner we will contribute... (Staff expertise, time, labor, farmer connections, money, etc.) to ensure the success of this project.

We strongly encourage your support and are excited to be part of this application.

Sincerely,