



Climate Action Initiative

BC AGRICULTURE & FOOD

Vancouver Island Pest and Pollinator Assessment

Vancouver Island Adaptation Strategies Implementation

Request for Expressions of Interest

Project Timeline

October 19, 2020 – January 29, 2021

Project Background

This project evolved out of the priorities identified in the strategies and actions within the 2020 [Vancouver Island Adaptation Strategies](#) (strategy 2.1, action 2.1A; strategy 2.3, action 2.3B). This plan identified suitable strategies and actions to assist agriculture with adapting to the impacts of climate change. Implementation is led through the Vancouver Island Agricultural Adaptation Working Group¹.

Project Objectives

- Review and summarize Vancouver Island- pest², pollinator, and beneficial species knowledge, resources, and research (including climate change considerations)
- Summarize existing monitoring activities of agriculturally relevant species
- Identify gaps, opportunities, and priorities to:
 - Expand and/or improve existing monitoring (collaborative and farm-level),
 - Improve knowledge and management of pests, pollinators and beneficials
- Develop Phase 2 implementation plan

Project Oversight

This project has been defined and will be collectively managed through a local multi-stakeholder sub-committee comprised of members from the Vancouver Island Agricultural Adaptation Working Group and other partners and stakeholders. The successful proponent will be expected to report regularly to this Working Group sub-committee and maintain communication through the duration of the project. The committee will also take an active role in providing direction and guidance.

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

¹ The Vancouver Island Agricultural Adaptation is a multi-stakeholder committee with representation from agricultural organizations, municipal and provincial governments.

² This includes insects, diseases and other species considered pests (e.g. nematodes, other arthropods). Wildlife (e.g. waterfowl & cervids) are not included.



Climate Action Initiative

BC AGRICULTURE & FOOD

Project Description

With climate change, shifts in the distribution, lifecycles, and prevalence of agriculturally relevant pest, pollinator and beneficial species are anticipated. Increasing annual temperatures – in particular winter minimums – are already magnifying pest impacts and management complexity and costs. Extreme and variable weather conditions are likely to increase pest pressure in the Vancouver Island region and impact pollinator and beneficial species populations. Changes to crops and adjacent landscapes, resulting from climate change and other factors, will also have impacts on these agriculturally significant species.

Vancouver Island agriculture is characterized by a wide range of production types, although forage is the predominant land use. A recent outbreak of true armyworm demonstrated the potential economic impact of the arrival of new pest species on common crops. Pollinator and beneficial species have value to a range of farm types and may be of increased significance to agriculture as honeybee colony health is threatened and new pests become prevalent (e.g. Asian giant hornet).

At present, there is limited monitoring of these agriculturally significant species on Vancouver Island. Collaborative monitoring of a handful of notable pests (true armyworm, spotted wing drosophila, Western corn rootworm) has been conducted through joint efforts of government and industry, but continued funding for these activities has not yet been secured and its scope/extent may be limited in 2021. Some producers conduct their own farm-level monitoring for relevant species and make management decisions based on these efforts.

This project is the first phase of two-part project and will include engagement and outreach with relevant stakeholders, a research and resource scan and the development of an implementation plan. The implementation plan will form the foundation of the Phase 2 of the project which will be initiated in Spring 2021 to support expansion/improvement of monitoring and knowledge transfer for Vancouver Island producers.

Key individuals will be interviewed to document current activities and to identify priority gaps and opportunities to improve monitoring (collaborative and farm-level), knowledge and management of pests, pollinators and beneficial species. A research and resource scan will also be completed to summarize the existing pest/pollinator/beneficial research and resources relevant to Vancouver Island agriculture with a specific consideration for the implications of climate change.

The final element of this project will be the development of an implementation plan for Phase 2. This will include a plan for implementation of monitoring (collaborative or farm-level) of specific prioritized species or in support of specific production systems and/or crops. A plan for delivery of knowledge transfer activities of existing relevant resources will also be included, as well as a proposed project budget, timeline and scope for Phase 2.



Climate Action Initiative

BC AGRICULTURE & FOOD

Project activities/services

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

1) *Stakeholder outreach and engagement [October 2020]*

- Develop outreach and engagement plan (including proposed interviewees and interview questions), share with project oversight committee and incorporate committee input
- Identify key agencies, organizations and individuals currently engaged in activities relevant to this project. Including, but not limited to:
 - Ministry of Agriculture pest monitoring
 - Agricultural organizations
 - BC Honeybee Producers' Association
 - Environmental Farm Plan
 - Agricultural operations conducting monitoring/management
 - Non-profit organizations (e.g. Pollinator Partnership Canada, Habitat Acquisition Trust)
 - IPM and other crop/pest management for-profits
- Conduct 15-20 phone interviews with stakeholders to collect information on current activities, resources, gaps and areas of interest for expanded work.
- Engage with/attend any existing industry meetings/committees (e.g. current Ministry of Agriculture pest monitoring steering committee) to gather input for this project and, potentially, to share preliminary findings

2) *Research and resource scan [October 2020]*

- Review existing research and results from past and current research relevant to this project, this could include:
 - Data from current and historical pest monitoring
 - Species specific research and information
 - Broader studies on pollinator and/or beneficial insect populations
- Review existing resources on ID and management of pests, pollinators and beneficials to identify those with transferability to Vancouver Island. Resources could include:
 - Existing integrated pest management guides/resources
 - Fact sheets/resources developed through relevant CAI projects in other regions (Fraser Valley and Cariboo)
 - Production guides and Ministry of Agriculture fact sheets
 - Current FAIP project *Implementing pest management practices on small-scale farms*
 - Local resources (e.g. "Natural Insect, Weed & Disease Control – Linda Gilkeson")
- Identify any climate changes linkages or potential impacts
- Engage with project oversight committee to review work plan and approach for project activities 1 & 2



Climate Action Initiative

BC AGRICULTURE & FOOD

3) *State of knowledge and resources summary [October - November 2020]*

- Document results of stakeholder outreach and engagement:
 - Document and summarize collaborative and farm-level pest, pollinator and beneficial monitoring and management activities
 - Identify gaps in current activities
 - Identify specific species of concern, particularly “emerging” species (e.g. wireworms, Asian giant hornet)
 - Identify crop types or production systems with specific needs (e.g. cranberries, garlic)
 - Opportunities to expand/initiate monitoring activities
- Document results of research and resource scan:
 - Document and summarize results/data from monitoring activities
 - Document and summarize research on relevant species/production systems
 - Identify gaps in knowledge base
 - Identify existing resources with potential transferability to Vancouver Island agricultural producers
- Engage with project oversight committee (and other relevant stakeholders) to identify implementation priorities (to shape Phase 2 implementation plan)

4) *Phase 2 implementation plan [December 2020]*

- Develop an implementation for Phase 2 of this project that includes:
 - Priority opportunities to initiate/expand pest, pollinator, and beneficial monitoring activities (both collaborative and farm-level), including high-level methodology where relevant
 - Priority opportunities for knowledge transfer of existing resources for farm-level management of pest, pollinator and beneficial species, including preferred/effective methods for VI producers (e.g. field days, fact sheets, webinars, etc.)
 - Proposed budget, timeline and project scope

Project Deliverables

- Project work plan
- Outreach & engagement plan and draft interview questions
- Project meeting #1 (review work plan, outreach & engagement plan)
- Stakeholder outreach and engagement
- Research and resource scan
- State of knowledge summary
- Project meeting #2 (review state of knowledge summary and confirm implementation priorities)
- DRAFT Phase 2 implementation
- FINAL Phase 2 implementation plan



Climate Action Initiative

BC AGRICULTURE & FOOD

Evaluation Criteria

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

- Applied knowledge of agricultural pests and/or pollinators and beneficial species issues (with preference for knowledge/experience on Vancouver Island)
- Experience working with the agriculture sector with preference for experience with project coordination and agricultural research related to pests, pollinators/beneficials
- Knowledge of the impacts of climate change on pests and/or agricultural management issues
- Formal education in entomology or a related field
- Strong interpersonal skills that enable positive and productive interaction and coordination between a range of project stakeholders
- Strong research skills including ability to: complete literature/resource review, conduct consultations, and review and clearly summarize input
- Ability to synthesize information from a variety of sources/disciplines.
- Ability to work both collaboratively (with project team) and independently
- Ability to manage and coordinate logistics

Contract Amount

\$12,500 in fees (inclusive of all applicable taxes and contractor expenses)

Key Project Partners

Comox Valley Farmers' Institute
Vancouver Island Agricultural Adaptation Working Group
BC Ministry of Agriculture
Agriculture and Agri-Food Canada
Local Governments

Submission Requirements

All submissions are required to include the following:

- A. Cover letter or statement of interest
- B. Resumé outlining the respondent's experience and clearly responding to the evaluation criteria
- C. A high-level (maximum 2-page) work plan including timeline, proposed dates for key project milestones, and budget allocation
- D. Two (2) professional references



Climate Action Initiative

BC AGRICULTURE & FOOD

Submission requirements should be submitted as one complete PDF package to VancouverIsland@bcagclimateaction.ca

Enquiries regarding this posting should also be directed to the above mail address. Applications must be received no later than October 9, 2020, 4:00pm Pacific Time.