Possibility grows here.

REQUEST FOR PROPOSALS: Soil Health Specialist and Support

The Greenbelt Foundation:

The Greenbelt Foundation stewards Ontario's Greenbelt, two million acres of protected land that provides clean air, fresh water, climate resilience, and a reliable local food source to help Ontario thrive. The Foundation was established in 2005 with a mandate to support the long-term viability of agriculture, strengthen rural economies, and restore and enhance natural features. We are the only charitable organization solely dedicated to the health and prosperity of Ontario's Greenbelt. The Foundation coordinates, funds, and supports activities that bolster the Greenbelt through a grant program, research, and public engagement. Since 2005, we have invested and leveraged matching dollars totaling more than $47 million through investment in farming, environmental protection and tourism projects.

What We Are Seeking: Soil Health Specialist and Support

The Foundation is currently seeking to recruit a Soil Health Specialist as further outlined below. However, as an alternative approach to an internal Foundation staff role, we would welcome expressions of interest from leading farming and agricultural organizations with experience in recruitment and engagement of farmers in research programs involving soil health or other best management practices. A lead individual would be required, but organizations may wish to identify a small team or networks that could fulfill the functions outlined below.

If you would like any clarification or additional background, please contact us as identified below.

Project Background:

The Greenbelt Foundation is leading a 4-year project (January 2023-December 2026) to establish reliable soil health tests and benchmarks for different soil types across the Greenbelt's counties and regions. Research has shown that healthy soils not only strengthen food security, build productivity and profitability for farmers but also provide co-benefits for biodiversity and climate change mitigation and adaptation. Yet today, less than 18% of the Greenbelt's farmland is managed using the basic soil health practice of cover cropping. To bring these on-farm and environmental benefits to scale, this foundational work will provide farmers with the information they need to know when adopting management systems to improve soil health.

Soil health and carbon benchmarks will represent soil health levels that are achievable under optimal management. Once benchmarks are identified and soil tests are conducted by individual farmers, management targets outlining a producer's innovation space (i.e., how much healthier their soil can become by adopting beneficial management practices [BMPs]) can be communicated quickly and effectively. The project will integrate the benchmarks into existing outreach programs and use the power of farmer-to-farmer social networks through local grassroots farmer organizations and trusted advisors to encourage more farmers to adopt ecologically-based BMPs. Benchmarks move soil health from being a concept to a manageable issue, where farmers can evaluate and measure the impact of different BMPs leading to much greater adoption.

The project will be implemented through an innovative collaboration between key farm and soil organizations in Ontario (e.g., Ontario Soil and Crop Improvement Association, Ontario Ministry of Agriculture and Rural Affairs, Soils at Guelph, Ontario Certified Crop Advisors Association) and the US-based Soil Health Institute who has developed a methodology for establishing soil health benchmarks and has demonstrated the efficacy of using benchmarks to increase the adoption of BMPs. In parallel, OMAFRA and the University of Guelph have developed the Soil Health Assessment and Plan system that is in early trials. This project will unite these approaches and rapidly advance innovation in the use of soil tests, benchmarks, and education and outreach to increase the uptake of BMPs across the Greenbelt.

The targeted BMPs include cover crops, 4R Nutrient Management and crop diversification. The project is structured around three high-level activities:

1. **Consensus Building:** The project will convene partners to share expertise and build consensus on establishing soil health benchmarks across the Greenbelt. This technical process will establish the tests, data collection processes, and laboratory analysis methods required for the second phase of the project. This activity will also include establishing how the benchmarks will be integrated into existing stewardship programs across Ontario.
2. **Establish Soil Health and Soil Carbon Benchmarks:** This will bring together the work of the Soil Health Institute in the establishment of groups of soils with similar soil health potential and associated reference sites that represent optimal soil health expressions for each soil group, with Ontario soil inventory data and soil health indicators identified in the Ontario Ministry of Agriculture and Rural Affairs' "Soil Health Assessment and Plan" system. This will include significant logistical work in the identification and securement of sampling sites, conducting the sampling, and lab analysis.
3. **Develop and Implement Outreach Programs and Communication Strategies:** Develop and implement social network-based outreach programs that inform and train farmers and their advisors on using soil health tests and benchmarks, and the soil improvements possible on each farm. This will include on-farm events, one-on-one listening sessions, and building the project into other programs across the Greenbelt. The project will be supported by an effective communication strategy to recruit farmers not currently engaged with stewardship programs, as well as a public campaign promoting the positive role of farmers in supporting biodiversity and climate change actions.

Scope of Work:

The Greenbelt Foundation is seeking a Soil Health Specialist to assist with our soil health assessment initiative. This multi-year project has a dynamic team of soil scientists, researchers and educators, working together to assess and promote BMPs on Greenbelt farms to increase climate resilience, improve biodiversity, and build productivity and profitability for farmers. The project will develop practical, effective measurements for assessing the status of a farm's soil health and provide a way to evaluate progress over time. To do so, soil health benchmarks will be established for soil groups across the Greenbelt. Soil sampling to establish the benchmarks will be conducted by the Soil Health Specialist in 2023 and 2024, which requires coordinating sites, conducting sampling and documenting management

practices for approximately 135-225 sites.[1] Securing sampling sites will require extensive engagement with local and provincial farm organizations, as well as leading major on-farm events to garner attention.

Once the benchmarks are established, the program will be promoted to additional farmers (75-125 farmers annually) through on-farm events and online campaigns in 2025 and 2026. The Soil Health Specialist will be responsible to conducting the sampling, documenting management practices, and shipping samples to the laboratory. All farmers participating in the program will require the outcomes of their soil health tests communicated to them and be provided materials on relevant BMPs to encourage adoption. This will include one-on-one listening and education sessions, large on-farm events, and integrating the benchmarks into partner organizations ongoing programming. The Soil Health Specialist will lead these efforts and conduct surveying with all project participants to evaluate BMP adoption to ensure at minimum 25% of participants each year make plans to implement BMPs. By 2026, it is expected that 3000-7000 new acres are using BMPs (and 150-300 new farms have adopted BMPs) due to the outcomes of this program.

The project requires extensive coordination with agricultural organizations (e.g., Soil Health Institute, Ontario Soil and Crop Improvement Association, Ontario Ministry of Agriculture, Food and Rural Affairs, Ontario Certified Crop Advisors Associations, and the University of Guelph), landowners (e.g., farmers, conservation authorities), and Greenbelt Foundation staff. The Soil Health Specialist will report directly to the Greenbelt Foundation's Research and Policy Analyst and the Soil Health Institute's Lead Soil Scientist. The candidate will also sit on project committees including an advisory committee, scientific committee, and stewardship committee. This project requires an individual comfortable with soil sampling, farmer outreach and education activities.

Activities include but are not limited to:

- Contacting farmers and landowners, as well as individuals/organizations that engage with land managers (e.g., OSCIA, OFA, CAs) to identify soil sampling locations, coordinate sampling logistics, and conduct brief interviews on management practices for 300-500 sites.
- Communicating with landowners about timing of sampling and site access and collecting management history data.
- Traveling within the Greenbelt's counties and regions to conduct soil sampling.
- Assessing suitability of sampling locations with respect to project sampling design (i.e., fit within priority soil health groups and management systems) using maps and in-field assessments.
- Recording and managing metadata on soil samples and site characteristics.
- Collecting soil samples for soil health analyses using slide hammers, core samplers, and push probes/augers.

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[1] The number of soil groups will be established by the scientific committee in 2023, and 50% of those groups must be benchmarked in 2023 and the remaining 50% in 2024 (each soil group requires approximately 45 sites from a combination of business-as-usual farms, regenerative ag systems, and perennial sites). A minimum of 75 sites/year must be farms that are interested in participating in the program.

- Shipping soil samples to laboratory for analysis.
- Project reporting, data management and conducting surveys.
- Develop and contribute to written educational materials and communication campaigns.
- Develop and coordinate virtual and in-person educational programs that include listening sessions, field days, and soil health events for a diversity of farming communities.
- Providing educational materials to farmers and landowners participating in the programs on relevant BMPs and incentive programs available in their region.
- Reporting regularly to the Greenbelt Foundation's Research and Policy Analyst and the Soil Health Institute's Lead Soil Scientist, as well as ongoing engagement with project committees (e.g., advisory committee, scientific committee, and stewardship committee).

The ideal candidate(s) should possess the following skills:

- Bachelors or Master's degree in soil science, agronomy, soil conservation, natural resource management, or a related field is desired. Candidates with field-based research experience is an asset. Soil sampling and safety training will be provided.
- Demonstrated written and verbal communication skills; directly relatable experience in effective communication with a diversity of agricultural stakeholders is preferred.
- Desire to foster effective partnerships with farmers, landowners, extension educators, researchers, government staff, commodity organizations, and industry partners.
- Enthusiasm for meeting landowners/farmers and to learn about soilscapes and management practices. Understanding of agricultural management practices is required.
- Organizational skills and attention to detail.
- Knowledge of soil formation and soil-landscape relationships is desired (e.g., soil mapping).
- Ability to characterize basic soil morphology in the field.
- Experience in translating technical information regarding soil health principles and practices into accessible recommendations for what producers can do to improve the health of their soils.
- Ability to complete physically demanding work in adverse environmental conditions, including intense summer heat and humidity.
- Valid G driver's license.
- Ability to lift 35 lbs.

Proposals must be received by email no later than January 22, 2023

Please contact us early to discuss your interest and how to apply:

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