

# The Power of Soil

A Plan for Change to Benefit Farmers and Climate Resilience.

All farmers aspire to good stewardship of farmland and soils. That aspiration is challenged by extreme weather, fluctuating markets, debt and the many demands on farmers' time and resources.

Thriving soil ecosystems build productivity, fertility and biodiversity, resulting in better water retention, greater yield stability, reduced need for inputs and improved long-term margins for farmers. In order to realize these benefits, however, shifts are required in farm practices.

A new report, entitled "The Power of Soil: An Agenda for Change to Benefit Farmers and Climate Resilience" illustrates how healthy soils will help the country's farmers maintain and build productivity, sustain environmental quality, adapt to extreme weather, improve margins and play a role in addressing climate change. It also makes recommendations for how society and governments can help make this happen.

"We know from farmers how important soil health is and that there are often barriers to adopting new practices that address current challenges," says Edward McDonnell, CEO of Greenbelt Foundation.

"Voluntary implementation of new practices can involve investments by farmers, specialized knowledge and understanding of the business case for an individual farm operation. Through this project, we've identified public policy and funding solutions for governments that will help Ontario and Canadian agriculture be a leader in production, profitability and climate resilience." Building on previous work, the Power of Soil report offers a comprehensive review of Canada's current agri-environmental policy, provides practical solutions for improved policy and bridges existing knowledge gaps.

Report findings result from hard work, wisdom and consensus-building among leading agricultural organizations, advisory committees and other actors from two of Canada's most important food-producing regions: Ontario and Quebec. Contributors include representatives from the Christian Farmers Federation of Ontario, the Ontario Federation of Agriculture, the National Farmers Union-Ontario, Ontario Soil and Crop

Improvement Association, as well as academics from the University of Guelph and other leading groups and individuals.

## Challenges and Solutions

Be it extreme weather, resistance to herbicides and pesticides or debt, the challenges are numerous and mounting for farmers. Extreme weather events, like the 2001 and 2002 droughts, the 2010 and 2011 floods and the cold, wet spring of 2019, had devastating impacts on crop yields. Future events could lead to significant reductions in annual yields. Change is not only preferable; it is necessary – and soil health should become a catalyst for that change.

The report highlights innovative policies and programs, like the creation of a "National Soil Health Network," a national soil health check-up tool, soil health training programs for advisors and farmers and significantly increasing public funding for these efforts. Some best management practices are already common in Canada: reduced tillage, planting diverse cover crops and keeping living roots in soil all year round. The challenge now is to get many more farmers to use these techniques and support ongoing innovation and knowledge-sharing.

"Managing for and investing in soil health allows producers to work with the land to reduce erosion, maximize water infiltration, improve nutrient cycling, save money on inputs and ultimately improve the resilience of their farmland," says Alan Kruszal, farmer and past-chair of the Soil Conservation Council of Canada. "Federal and provincial governments are starting to recognize the importance of this issue, and this project is suggesting the right kinds of policy changes that are needed."

For the full report, visit [greenbelt.ca/the\\_power\\_of\\_soil](https://greenbelt.ca/the_power_of_soil)

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