



Bonnefield

FARMLAND *for* FARMING

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Cultivating Change with Regenerative Agriculture

Sustainability has become an increasingly prominent theme in many industries, and the same is true of agriculture. Agriculture and agrifood system sustainability has drawn attention from both sector participants as well as policymakers and other stakeholders. As a notable and recent example, a full day of 2023's UN Climate Change Conference COP28 conference in Dubai was dedicated specifically to food and agriculture, representing a landmark first for any COP.¹

When we consider where and how the world's food will be grown for future generations, there is a clear impetus to ensure a sustainable global food system that will provide continuity of supply for a growing global population, while preserving – and improving – the land resources that are required to produce food. Initially coined in the early 1980s by U.S.-based organic research center the Rodale Institute, the term “regenerative agriculture” has been in the spotlight in the media, politics, academia, and the global business community in recent years.² This might bring a few questions to our readers' minds:

- How is “regenerative agriculture” defined?
- Why is it relevant?
- What are the associated challenges and opportunities?
- Where does Canada stand compared to its global peers?

Defining Regenerative Agriculture

Despite recent widespread use of the phrase, there is no singular,

universally accepted legal or regulatory definition for “regenerative agriculture”³. This sets the idea of regenerative agriculture apart from a conceptually similar, but distinct phrase “organic”, and the related descriptive prefixes “bio-” and “eco-”, which are legally defined and protected in Europe, amongst other jurisdictions.⁴

Instead, the term “regenerative” is used to refer to various practices (e.g., the use of cover crops, or reducing or eliminating soil tillage), desired outcomes (e.g., better soil quality, or more biodiversity), or some combination of the two.³ Despite the lack of consensus as to what exactly regenerative agriculture entails, there is some agreement that the main principles and objectives of regenerative agriculture are to promote a holistic view of the global food system to improve soil health, the broader environment, human health, and economic prosperity.⁴

Similarly, McCain Foods – a Canadian leader in the global food industry that produces one in every four French fries consumed across the world⁵ – concisely defines regenerative agriculture as:

“... an ecosystem-based approach to farming that aims to improve farmer resilience, yield, and quality by improving soil health, enhancing biodiversity, and reducing the impact of synthetic inputs.”⁶

Outlined in McCain Foods' Regenerative Agriculture Framework is a set of six principles that can be applied to growing potatoes. Many of those principles can also be applied in the context of growing crops such as wheat, corn, soy, peas, or higher-value fruits and vegetables.

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McCain Foods' Regenerative Agriculture Principles⁷

PRINCIPLE	DESCRIPTION
Ensure farm resilience	Improve farmer livelihoods by restoring natural processes that support soil health, biodiversity, reduce inputs, improve yields and climate resilience.
Enhance crop and ecosystem diversity	Increase diversity of crops grown and small and large habitats on farm to promote biodiversity.
Armour soils, preferably with living plants	Ensure soils are covered by living plants and residue year-round to reduce soil erosion, increase nutrient cycling and carbon sequestration.
Minimize soil disturbance	Reduce tillage to maintain soil structure and keep carbon in the soil.
Reduce agrochemical impact and optimize water use	Use decision-support systems and technology to precisely manage pesticides, fertilizer, and water applications. Promote the use of low-impact control products and natural enemies to control pests and diseases.
Integrate organic and livestock elements	Incorporate green manure and livestock elements (animals, manure or compost) to increase soil fertility and organic matter.

At a glance, some of these principles may seem different than what many would think are incorporated into conventional farming practices. However, based on Bonnefield's decade-plus experience managing portfolios of high-quality Canadian farmland properties, we have observed that many Canadian crop farmers have employed practices that align with these concepts for years, and often seek opportunities to further improve. Anecdotally, Canadian farm operators acknowledge that sustainable practices can enhance yields and crop quality, while also enhancing and supporting farmland values and long-term production.

Why is Regenerative Agriculture Important?

Global food production has had to scale significantly to support rapid population growth. In the second half of the 20th century, crop yields increased at an unprecedented pace; cereal yields increased by 207% over the five decades between 1961 and 2021 while the total land area used for cereal production increased by just 14%.⁸

This agricultural intensification – or increased crop production on a relatively similar amount of land – has largely been achieved through the strategic use of chemicals (e.g., fertilizer, pesticides, fungicides, and herbicides), crop irrigation, mechanization and technology (e.g., improved and more-efficient farm machinery, precision agriculture technology), and improved seed genetics that have improved seed genetics that has strengthened plant resilience plants' resilience to disease, drought, and other material risks.⁸

The global population is expected to reach 8.5 billion by 2030 and grow even further to 9.7 billion 2050⁹, meaning that the world's demand for food will continue to increase. However, this growth also means that land that is currently uninhabited or used for other purposes – like farming – will face additional pressure (and, likely, decline) as cities expand to accommodate more people.

A delicate balance must be struck between the need for sufficient, nutritious food and the need for housing, both at home in Canada

and across the world. From an agricultural perspective, this underscores the need to employ practices to increase production, while also supporting the sustainability of this finite resource will be critical over the coming decades.

Opportunities & Challenges

As we consider future demand for crop production in a world with declining arable land, the idea that agricultural practices should shift to incorporate increasingly sustainable practices may seem daunting but necessary. On one hand, it may take several years for farmers that currently rely on less-sustainable farming practices such as sustained mono-cropping (i.e., planting the same crop type for multiple consecutive years) to successfully transition to more regeneratively-minded practices. This transitional period requires an investment of capital, inputs, and time that will impact crop production for at least one to two growing seasons.¹⁰ However, those with a multi-generational view of farming acknowledge that without sustainable practices, the long-term feasibility of the farm operations will be negatively impacted.

In addition to the costs of transition, some question whether regenerative agricultural practices will allow farmers to maintain current production levels. A three-decade field study conducted by the Rodale Institute found that, following the initial transition period, there is typically little if any difference in crop yields on conventional farms vs. regenerative farms.¹⁰ In addition, the study found that the regenerative fields studied outperformed their conventionally-farmed counterparts during stressful conditions, particularly droughts, as the regenerative fields were better able to retain water¹⁰. Beyond the lack of long-term impact to crop yields and fact that regenerative practices also contribute positively to global climate change initiatives, the potential benefits include:

- Reduced costs over time resulting from decreased need for raw inputs
- Enhanced soil quality, moisture retention, and nutrient balance which can support strong yields and high-quality crops
- Increased on-farm water availability for non-irrigation usage, or an overall reduced need for water
- Potential access to financial assistance through grants or other non-governmental programs

How is Canada Positioned?

As consumers and other stakeholders have begun to demand increased sustainability and accountability across the entire agrifood value chain, value-added processors have demonstrated a meaningful desire to work with farmers who are sustainability-minded.

Large processors are already positioning themselves to meet growing demands for sustainably-sourced agrifood products. As one recent example, McCain has made an ambitious commitment to source 100% of its potatoes from regenerative farms by the end of 2030.⁷ While definitions of regenerative farming may differ between enterprises, we believe that this approach is broadly reflective of the industry's overall tone and direction looking ahead. This means that for Canadian farmers to remain competitive, they will likely need to incorporate (or continue to utilize) regenerative farming practices in their operations.

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The importance of innovation and the role of regenerative farming practices in ensuring the sustainability of Canada's agriculture industry is not new to farmers. The most recent Census of Agriculture found that while the area of farms across the country declined by approximately 3% between 2016 and 2021, many Canadian farmers implemented precision technologies designed specifically to enhance efficiency and yields, and nearly 65% of operators reported that they engaged in sustainable farming practices.¹¹ This data points to farmers' understanding that leveraging these advancements is crucial and, while the field of regenerative agriculture will keep evolving, we believe that Canadian farm operators will continue to demonstrate the adaptability and resilience for which they have become known.

A Supportive Partner for a Sustainable Future

Recognition of Canadian agriculture's role in the context of global food security, water scarcity, and climate change has underpinned Bonnefield's business model since the firm's founding over a decade ago. This includes playing a role as a supportive, non-controlling, partner to progressive Canadian farmers and agribusiness operators as they consider how best to grow for the future.

As one example of our inherent support for agricultural sustainability practices, Bonnefield's Standards of Care – a set of agronomic best practices developed in conjunction with industry experts to preserve and enhance farmland through sound

land management principles – are an integral part of each of Bonnefield's farmland lease contracts. This hallmark component of our farmland sale-leaseback model includes parameters that are designed to protect and enhance soil health, ensure responsible resource usage, and to generally promote good land stewardship. At a high level, the Standards of Care align to some of the core principles of regenerative agriculture, with a view to both ensuring the long-term productivity of the farms owned by our funds and their long-term value.

Beyond the Standards of Care, Bonnefield actively contributes to the enhancement of Canada's agricultural industry and long-term sustainability. We have been active participants in the ongoing development of Canada's National Index on Agri-Food Performance and in August 2023, Bonnefield joined Farm Credit Canada, Manulife Investment Management, and McCain Foods to launch the Canadian pilot of Leading Harvest – a third-party audited Farmland Management Standard designed to promote sustainable agricultural practices.

It is clear that weaving sustainable principles into the fabric of the industry will be an essential part of Canadian agriculture's growth story, particularly as it becomes more essential than ever in a global context. As a trusted partner to farmers and agribusiness operators, Bonnefield will continue to support progressive farmers and value chain participants as we build a brighter, and sustainable, future for Canadian agriculture. 

About Bonnefield Financial

Bonnefield is a leading Canadian farmland and agriculture investment manager, providing financing to progressive farmers and agricultural operators through land-lease and non-controlling equity solutions. Bonnefield is dedicated to preserving farmland for farming, and the firm partners with growth-oriented operators to help them grow, reduce debt, and finance retirement and succession. The firm's investors are individuals and institutional investors who are committed to the long-term future of Canadian agriculture. www.bonnefield.com

Sources

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