Farms of the Future.

Regenerative Agriculture in Practice

At McCain's Farms of the Future, we are committed to demonstrating how regenerative agriculture can deliver reliable, high-quality potatoes each year while strengthening the foundations of farming, specifically soil health, water resources, biodiversity, climate resilience, and GHG reduction.

These farms serve as real-world, commercial-scale testing grounds that bring practical learnings to McCain's network of 4,400 farmers in support of McCain's commitment to implement regenerative agriculture across 100% of its potato acreage by 2030.

In 2025, both farms continue to gather proof that regenerative agriculture is able to strengthen climate resilience across continents. By taking on the early risk, proving what works, and engaging farmers through field days and on-farm demonstrations, the farms focus on enabling adoption with credible, regionally relevant insights.

How We're Making It Happen:

- A clear roadmap, our McCain Regenerative Agriculture Framework
- Trusted science, backed by leading research experts
- Practical innovation born from on the farm research and built for growers

OUR REGENERATIVE AGRICULTURE FRAMEWORK PRINCIPLES

- Armour soils, preferably with living plants
- Minimize soil disturbance
- Enhance crop and ecosystem diversity
- Reduce agro-chemical impacts and optimize water-use
- Integrate organic and livestock elements
- Ensure farm resilience

LEARNINGS FROM 2025:

Innovation Empowering Growers

FARM OF THE FUTURE CANADA
Florenceville, New Brunswick

FARM OF THE FUTURE AFRICA
Lichtenburg, South Africa

With support from scientific partners, a grower-friendly tool to create management zones is being accelerated using free satellite data, a DNA-powered Soil Health Intelligence Platform, as well as potato storage quality mapping, real time crop nutrient sensing and spot spraying technologies. McCain is dedicated to creating new solutions for the unique challenges of modern farming.

Farm Performance: Resilience Across Climates

Despite operating in two very different environments – temperate Canada and semi-arid South Africa – both farms show that regenerative agriculture practices can improve farm resilience and reduce climate risk over time.

FARM OF THE FUTURE CANADA
Florenceville, New Brunswick

- **Stronger yields, even in high temperatures and drought conditions:** The 2024 season was hotter than Florenceville has seen in 30[1] years yet Caribou Russet and King Russet still delivered 12% higher yields on average than nearby fields[2].
- **Improved quality over time:** Defect rates were generally lower than both local field[1] averages and historical farm benchmarks.

FARM OF THE FUTURE AFRICA
Lichtenburg, South Africa

- **Greater yield stability, despite extreme rain:** Fields produced roughly 5% more than the regional average[3] and avoided flooding while neighboring conventional fields did not.
- **Lower operating costs:** Controlled Traffic Farming led to 33% less diesel use, 24% lower labour needs, and a 20% smaller tractor fleet by confining heavy machinery traffic to roughly 15% of the field.

[1]Growing degree days from May through September were 16% above the 30-year Florenceville average - Climate Atlas of Canada
[2]Local farms supplying McCain in the Florenceville area including McCain's Valley Farms.
[3]All growers who source potatoes to McCain in South Africa
[4]Covering the period from Jan 2018 through Dec 2024, soil organic carbon was modelled every 10 days at a soil depth of 30 cm and at a 10×10 m spatial resolution using Downforce Technologies' ISO 14064-1 validated methodology which employs a functional land classification model based on key input factors (soil, terrain, topography, etc.) that integrates remote-sensing signals from multiple satellite platforms with ground-truthed data.

OUR IMPACT ACROSS FOUR KEY AREAS

Water

FARM OF THE FUTURE CANADA
Florenceville, New Brunswick

Improving water absorption: Controlled traffic farming keeps heavy equipment on set lanes, which helps alleviate soil compaction. This could contribute to improved water infiltration by as much as 117% and reduced soil and nutrient loss by 20 – 60%.

FARM OF THE FUTURE AFRICA
Lichtenburg, South Africa

Prevent floods with soil structure: Better soil structure and crop residue availability helped fields avoid flooding, visually demonstrated in 2025 when severe rainfall drained from our fields but pooled in neighboring conventional fields.

Biodiversity

FARM OF THE FUTURE CANADA
Florenceville, New Brunswick

- **Linking crop diversity to richer soil life:** DNA data indicates links between a more diverse crop rotation and more diverse soil ecosystems.
- **Building benefits with cover crops:** Multi-species cover crops have the potential to boost the potato crop in the following year by supporting nutrient and disease management.

FARM OF THE FUTURE AFRICA
Lichtenburg, South Africa

- **Expanding habitats for biodiversity:** Crop diversity and natural habitat areas were expanded, supporting farm biodiversity.
- **Controlling pests naturally:** Fodder radish nearly eliminated nematode pressure in select fields, reducing the need for chemical treatments.

Soil Health

FARM OF THE FUTURE CANADA
Florenceville, New Brunswick

- **Building soil carbon for the future:** Soil organic carbon increased by an average of 1.4 T/ha per year from a 134 T/ha baseline to 136 T/ha, with potential to increase levels by another 71.5 T/ha under current conditions[4].
- **Boosting soil vitality with cover crops:** The use of multi-species underseeded crops has shown the potential to increase soil organic carbon over time with increases in labile organic carbon.

FARM OF THE FUTURE AFRICA
Lichtenburg, South Africa

- **Reducing tillage, protecting soil:** Controlled Traffic Farming will reduce tillage intensity by up to 65% over a four-year rotation and improved soil structure, as evidenced by better water infiltration under extreme rainfall.

Climate

FARM OF THE FUTURE CANADA
Florenceville, New Brunswick

- **Lowering potato-growing emissions:** Greenhouse gas emissions[5] reduced by 30% in 2024 (62 kg/t) compared to the regional average.[6]
- **Leveraging cover crops:** Emissions were lower in more diverse crop systems suggesting multispecies mixes improve nutrient cycling thus reducing losses to the atmosphere.
- **Supporting renewable energy:** Solar panels have been online for two years, offsetting >$16,000 in annual energy costs.

FARM OF THE FUTURE AFRICA
Lichtenburg, South Africa

- **Lower emissions:** Greenhouse gas emission[4] reduced by 20% in 2024 (218 kg/t) compared to the regional average[7] and was maintained in 2025 (211 kg/t).
- **Leveraging cover crops:** No-till planting of soybean and maize into rolled cover crop residue lowered CO_2 and N_2O emissions (measured by North-West University).

The Farms of the Future embody McCain's deep commitment to innovation, collaboration, and rigorous environmental stewardship. We are dedicated to paving the way for shared progress, working towards a more sustainable future, for generations to come.

[5]Based on carbon dioxide equivalent (kg/t), a value that compares the global warming potential of carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) to the reference molecule CO2 as measured by the Cool Farm Tool
[6]Compared to McCain growers in New Brunswick excluding McCain owned Farms (89 kg/t)
[7]Compared to McCain growers in South Africa (266 kg/t)