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# CropX to supply digital agronomy technology for 8-Year regenerative potato farming Study in New Zealand

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**The collaboration with Lincoln University and McCain Foods will use continuous soil, weather and satellite data to compare regenerative and conventional farming systems across a full potato rotation**

CropX Technologies will provide digital agronomy and soil-monitoring technology for an eight-year research programme at the Lincoln University McCain Foods NextGen Regenerative Farm in New Zealand, supporting a long-term comparison of regenerative and conventional farming practices.

The project will examine how different approaches to cultivation affect soil health, crop performance, water and nutrient use, climate resilience and long-term productivity under New Zealand growing conditions. By combining commercial farming experience with scientific research and continuous field data, the programme aims to build an evidence base for assessing the performance of regenerative agriculture across a complete potato rotation.

CropX will contribute its AI-powered digital agronomy platform, soil-moisture monitoring equipment, actual evapotranspiration and weather-monitoring capabilities, alongside ongoing technical and agronomic support.

**Continuous field data to measure farming outcomes**

Long-term studies can help distinguish the effects of farming practices from seasonal variation and local growing conditions. At the Lincoln University McCain Foods NextGen Regenerative Farm, researchers will compare regenerative and conventional systems over eight years, using continuous field intelligence to assess how the approaches perform across the potato rotation.

CropX's latest soil-moisture monitoring Apex probes, installed at depths of 60 or 90 centimetres depending on the crop, will be deployed across the crops in the rotation. Measurements will be complemented by weather information and satellite imagery, allowing researchers to assess soil-moisture differences between treatments and examine the relationship between field conditions and crop performance.

The CropX platform will integrate and analyse the resulting data to help researchers evaluate changes in water use, irrigation requirements and other agronomic indicators over time.

For growers, the potential value lies in understanding how regenerative practices perform under commercial conditions—not simply whether they improve selected sustainability measures, but whether those gains can be achieved alongside reliable yields and crop quality.

Professor Alison Bailey, head of department, Farms, at Lincoln University, said research of this scale depended on continuous, high-quality data collected over many years. She said the programme would combine scientific rigour, commercial relevance and digital innovation to improve understanding of regenerative farming under New Zealand conditions.

**Irrigation efficiency and crop protection**

Water management will be a key area of focus. Soil-moisture monitoring can help growers understand variations in field conditions and make irrigation decisions based on crop requirements rather than relying solely on fixed schedules. CropX technology will support variable-rate irrigation management and provide real-time insights into soil-moisture differences between research treatments.

The platform's disease-warning capabilities will also support decisions on spray timing. Together, these tools are intended to help researchers and farm operators assess how digital agronomy can improve input-use efficiency while maintaining crop performance.

McCain Foods said the collaboration would help strengthen its work on irrigation efficiency, crop quality and environmental stewardship.

The research programme also aligns with McCain's commitment to implement regenerative agriculture practices across all acreage used to grow potatoes for the company by 2030. Long-term demonstration sites can help test practices under local conditions and share findings with growers, although the effectiveness of individual interventions will depend on the farming system, soil characteristics and seasonal conditions.

**Building evidence for regenerative agriculture**

Regenerative agriculture has attracted growing interest as food companies and farmers seek to improve soil health, use inputs more efficiently and strengthen resilience. Its results, however, can vary with climate, soil type, crop rotation and management practices. Long-duration, side-by-side trials offer a way to evaluate those outcomes across changing seasons.

Eitan Dan, chief revenue officer at CropX Technologies, said long-term commitment and credible evidence from real farming conditions would be essential to advancing regenerative agriculture.

The company will provide the digital agronomy infrastructure needed to turn continuous field measurements into insights for researchers, growers and the wider agricultural industry.

Beyond the Lincoln University McCain Foods NextGen Regenerative Farm, the programme is expected to contribute evidence to broader discussions about the role of digital agriculture in sustainability initiatives. Its findings could help inform future decisions on irrigation, input management and regenerative practices in potato production and other cropping systems.

The central test will be whether long-term field data can identify which practices deliver measurable improvements in resource efficiency and resilience without compromising productivity. For CropX, McCain Foods and Lincoln University, the eight-year programme offers an opportunity to connect digital monitoring with practical, science-based decisions on the farm.