

AFSC SOIL ORGANIC CARBON BEST MANAGEMENT PRACTICE PILOT 2025/2026

Overview

Agriculture Financial Services (AFSC) has begun a pilot project exploring how improving soil organic carbon (SOC) can reduce production risks and boost drought resilience on farms.

The project is part of the Sustainable Canadian Agricultural Partnership between the federal government and the province. AFSC's project is one part of a national initiative focusing on best management practices that could influence how crop insurance evolves.

What is Being Piloted?

What is it? The pilot project uses satellite-derived data to evaluate SOC in fields at the quarter-section level. SOC is the measurable component of soil organic matter (SOM) making up 50 to 60 per cent of its composition.

Why is it helpful? SOM improves soil structure, water retention, and drought resilience – critical benefits in Alberta's variable climate. Preliminary AFSC analysis showed that above average SOC levels reduced crop insurance indemnities by \$25/ac.

What do producers need to do? Nothing. AFSC has partnered with the Food Water & Wellness Foundation, an organization that collects SOC data. The pilot will compare SOC levels to wheat yields in Risk Area 13 (Vermilion/Vegreville).

What have we discovered so far? Fields with higher SOC relative to the area demonstrate lower production risk and therefore qualify for a premium discount. These findings could support more accurate and equitable premium setting in the future on a provincial scale.

Why It Matters?

This pilot project reflects AFSC's commitment to fostering innovation and sustainability. By integrating environmental data into risk assessment, AFSC is exploring more equitable and precise premium structures that reward sustainable practices.

What's Next?

2025: AFSC has analyzed historical and current SOC alongside crop insurance results for previous crop years. Actuarial assessments have recommended a premium reduction schedule to be applied in the 2026 crop year for wheat in Risk Area 13. The maximum premium discount applied will be 3 per cent.

2026: New SOC readings will be compared to wheat yields reported for the 2025 crop year and analysis of the premium reduction schedule will be repeated. Consideration will be given to the inclusion of additional commodities and future applications.

Summary

The SOC best management practices pilot project represents a forward-thinking approach to align crop insurance with sustainable farming practices. By leveraging existing satellite data and actuarial analysis, AFSC is taking a low-burden, high-impact step toward more accurate risk assessment and premium setting.

AFSC continues to engage with producers, industry partners, and government stakeholders throughout the pilot to ensure transparency, gather feedback, and refine the approach. The outcomes of this project will help shape future product development and may lead to additional or alternative adoption in existing crop insurance programs.