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How proprietary technology has transformed institutional farmland investment

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How Proprietary Technology is Transforming Institutional Farmland Investment *Part 2 of 3: Inside Omnigence's TerraFIRST Platform and Quantitative Edge*

Read Part 1 *"Why Institutional Investors turn to Canadian farmland in an uncertain macro environment" here.*

While farmland has been cultivated for millennia, applying institutional-grade quantitative analysis and real-time monitoring technology to farmland investment represents a genuinely novel approach. Omnigence Asset Management's Farmland Fund has spent nearly two decades building what may be the most sophisticated farmland investment platform in Canada - a proprietary system called TerraFIRST that powers every stage of their investment process from deal sourcing through ongoing portfolio management.

In an asset class traditionally dominated by local farmers making decisions based on personal knowledge and relationships, Omnigence's systematic, data-driven methodology represents a fundamental reimagining of how institutional capital can access farmland opportunities. The results speak for themselves: **consistent returns exceeding 10% annually with zero down quarters since 2008,** all while maintaining a non-operated model that avoids commodity and operational risk.

The Productivity-Adjusted Pricing Framework

At the core of Omnigence's approach lies a deceptively simple but powerful insight: not all farmland acres are created equal, yet the market often prices them as if they were. Traditional farmland pricing tends to be heavily influenced by local comparables and recent transaction data, without adequately adjusting for underlying productivity differences that can vary dramatically even within the same region.

"We granularly measure productivity-adjusted prices to filter deals and capture asymmetric information that drives returns," explains Jonathan Plante, Director at Omnigence. "The market sees acreage. We see production capacity."

Omnigence's framework converts every potential acquisition into a standardized metric: cost per ton of wheat production capacity. This seemingly simple transformation requires sophisticated analysis of dozens of variables including soil type, historical yield data, climate patterns, water availability, and agronomic practices. The result is a metric that enables true apples-to-apples comparison across Canada's vastly different agricultural regions.

When Omnigence identifies farmland trading at $3,200 per ton of wheat production capacity in Saskatchewan while similar productivity land in Ontario trades at $16,000, they've found the type of systematic mispricing their model is designed to exploit. These discounts aren't temporary dislocations - they represent persistent inefficiencies in a fragmented, under-institutionalized market where information asymmetry remains significant.

Four Pillars of the TerraFIRST Platform

The TerraFIRST system integrates proprietary technology across four critical stages:

1. Deal Sourcing: Proprietary Flow from Deep Networks

After 18+ years of operation, Omnigence has cultivated relationships with over 3,000 farmers across Canada. This network generates an annual deal flow exceeding $800 million, with more than 40% of opportunities coming directly from existing tenants and farming relationships - proprietary deal flow that never reaches the broader market.

"We've been the first farmland fund in Canada since 2007," notes Stephen Johnston. "That first-mover advantage has compounded over time into a network that's extremely difficult to replicate." The platform tracks every interaction, monitors regional market dynamics in real-time, and uses predictive analytics to identify farmers likely to consider selling in the coming years.

2. Portfolio Construction: Systematic Capture of Mispricings

Once opportunities are identified, Omnigence employs a multi-factor validation model that analyzes over 10 distinct variables across four categories: weather patterns, cash flow characteristics, liquidity metrics, and comparability data.

Weather analysis goes far beyond simple climate data. The system evaluates historic yield trends (looking for consistent positive slopes), yield volatility (targeting volatility of 10% or less of historic averages), and long-term climate trajectories. Properties in regions with improving growing conditions due to climate change score higher than those in regions facing increased stress.

Cash flow analysis examines not just current rental rates but lease structures, rental market depth, and the ability to negotiate favorable escalation clauses. Liquidity metrics ensure that acquisitions are made only in regions with sufficient tenant depth to avoid becoming a price-taker, and where land turnover data suggests strong exit liquidity when the time comes to dispose of assets.

The result is a portfolio optimization model that balances productivity-adjusted value, risk metrics, and inflation correlation across Canada's provinces. Omnigence's current allocation deviates significantly from Canada's farmland distribution: 59% in Saskatchewan (+28% overweight), 39% in Alberta (+19% overweight), 5% in Manitoba (-24% underweight), and just 1% in Ontario (the highest-priced market, at -32% underweight). These allocations shift dynamically as relative mispricings change.

3. Risk Management: Ex-Ante and Ex-Post Controls

Before acquisition, Omnigence's system applies rigorous filters to mitigate weather and operational risks. The non-operated model immediately eliminates the largest source of farmland risk - crop failure and commodity price exposure. But Omnigence goes further, focusing exclusively on annual row crops (avoiding permanent crops like orchards that have much higher long-term weather risk) and requiring upfront cash rent payments that eliminate fall payment default risk.

Geographic diversification is systematically enforced. The current portfolio spans 56 distinct geographic regions with 62 different operators, all acting independently with different crop rotations. No single weather event, regional drought, or operator failure can materially impact portfolio returns.

After acquisition, the platform provides unprecedented monitoring capabilities. Satellite imagery tracks crop health during growing seasons, allowing early identification of any concerning patterns. Farmer reporting systems collect field-level, self-reported data annually to validate farming practices. Agrology reporting conducts soil testing across 26 different variables for every 160-acre field on a 3-to-5-year rotation cycle, ensuring long-term soil health is maintained.

4. Portfolio Monitoring: Real-Time Visibility and Control

Perhaps most remarkably, every legal document, transaction record, satellite image, soil test, and farmer report for all 900+ fields across 140,000 acres is integrated into a single platform that provides real-time visibility. Property-level dashboards display current lease terms, upcoming renewal dates, historical rental rates, soil quality trends, and satellite-derived crop health metrics - all in one place.

"This level of operational transparency simply doesn't exist elsewhere in the farmland space," notes Stephen Johnston. "Limited partners can log into dashboards and see exactly what's happening across the entire portfolio in real-time. It's the kind of reporting infrastructure you'd expect from a hedge fund, applied to farmland."

The monitoring system generates automated alerts when any metric falls outside acceptable parameters: concerning crop health patterns, lease renewals approaching, soil tests showing declining fertility, or rental market comparables suggesting repricing opportunities. This transforms farmland management from a periodic, relationship-driven process into a continuous, data-driven operation.

The Competitive Moat

Technology platforms are only valuable if they create sustainable competitive advantages. In Omnigence's case, the moat is multifaceted:

First, the network effects are powerful. Every farmer relationship, every transaction, and every crop cycle generates additional data that makes the platform smarter. With 18+ years of operating history, Omnigence has accumulated a dataset on Canadian farmland productivity, pricing, and performance that would take competitors nearly two decades to replicate.

Second, the capital requirements create barriers to entry. Building TerraFIRST required millions in development costs and years of iterative refinement. The team includes dedicated data scientists and continuous improvement specialists - infrastructure that only makes economic sense at scale.

Third, the first-mover advantage in deal flow compounds over time. When farmers in Omnigence's target regions consider selling, they call Omnigence first because of the firm's established presence and reputation. This proprietary deal flow means Omnigence sees opportunities before they reach the broader market, and can often negotiate off-market transactions without competitive bidding.

From Art to Science

What Omnigence has accomplished is the systematic industrialization of farmland investment - taking what was historically an artisanal, relationship-driven business and transforming it into a scalable, quantitative strategy suitable for institutional capital. This doesn't mean relationships don't matter; they remain crucial for deal sourcing and farmer relations. But the investment decisions themselves are driven by data, not gut feel.

For institutional investors, this transformation is critical. Allocating significant capital to farmland requires confidence in the repeatability and scalability of the strategy. A quantitative, technology-enabled approach provides that confidence in a way that traditional, relationship-dependent farmland investing simply cannot.

As the farmland asset class continues to attract institutional attention, the distinction between technology-enabled platforms like TerraFIRST and traditional approaches will likely become increasingly important. In an era where data and analytics have transformed nearly every other alternative asset class, farmland's digital transformation has only just begun.

In Part 3 of this series, we'll examine Omnigence's track record in detail, including performance attribution, the fund structure designed for institutional investors, and key considerations for portfolio allocation.

Join Us for an exclusive Investor Workshop on Canadian Farmland Investing

Learn directly from the Omnigence team about their 18+ year track record of farmland investing and how institutional investors can access this differentiated alternative asset class.

The live and interactive session will cover:

- Detailed analysis of the macro drivers supporting farmland valuations
- How Veripath's proprietary TerraFIRST platform identifies systematic mispricings
- Portfolio construction methodology and risk management framework
- Fund structure, liquidity terms, and investor considerations
- Live Q&A with the investment team

Register now to secure your spot.

Space is limited to ensure interactive discussion. This Investor Workshop is intended for qualified institutional investors and investment professionals only. On-demand access to the webinar recording for 30 days after the event.

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