



Biostimulants & Digital Agronomy: The Next Input Stack for Ag Retail

*How Retailers Can Use Data-Driven
Biostimulants to Increase Margins
& Defend Market Share*



TABLE OF CONTENTS

Part 1: Recap: The CEO's Guide to Biostimulants	3
Part 2: The Biostimulants Impact on Digital Agronomy	5
Part 3: Why Ag Retailers Need a Biostimulants Offerings	7
Part 4: The Farmers Edge Advantage: Biostimulants, AI, & Risk-Free Adoption	8
Part 5: Hear from the Expert: Sangeeta Verma on Why Retailers Need a Biostimulants Strategy	10
Part 6: Conclusion: The Biostimulants Sales Strategy for Retailers	11



Recap: The CEO's Guide to Biostimulants

PART 1

The Biostimulants Market is No Longer a Niche – It's the Next Input Shift

The CEO's Guide to Biostimulants established that biostimulants are moving from uncertainty to precision, from a promise to an expectation. The key drivers behind this shift:

Biostimulants are now an extension of agronomy, not an *alternative*

- AI-driven screening has cut R&D timelines from 10 years to 3-5 years, increasing the number of validated, high-performance products.
- Biostimulants are being integrated into precision ag platforms, aligning them with existing fertility, crop protection, and input strategies rather than competing with them.

AI is making biostimulants predictable and *scalable*

- Biomarker tracking is eliminating the broad, unverified plant health claims that once defined biostimulants, replacing them with measurable, targeted agronomic solutions.
- AI is optimizing where, when, and how biostimulants are applied, ensuring they are used in high-value situations that deliver ROI.

Biostimulants are following the same adoption curve as *synthetic inputs*

- AI-powered rebate & bundling programs are helping biostimulants reach critical mass in the input stack, much like how precision fertilizer and crop protection programs evolved.
- Retailers who embed biostimulants into their agronomic programs now will control the market before it commoditizes.





The biostimulants market will surpass

\$30B by 2030

Why This Matters for Ag Retailers

Growth alone won't determine winners—the key question is: Who can sell biostimulants profitably, at scale, with verifiable ROI?

Retailers must shift from selling biostimulants as an input to selling biological-backed agronomy. The winners will be those who can:



Track & verify biological performance using precision data



Bundle biostimulants into larger input programs to drive repeat purchases



De-risk adoption through warranties, rebates, and digital monitoring



The Biostimulants Impact on Digital Agronomy

Biostimulants Solve Key Retailer Problems – But Only If Sold with Data & AI

Despite rapid growth, biological adoption among retailers remains uneven. Here's why:

Retailer Challenge	Why It's a Problem	What's Needed
Trust Gap	41% of ag retailers say farmers don't trust biostimulants due to lack of verifiable field performance.	AI-powered agronomic tracking & third-party validation
No Clear ROI	20% of farmers say biostimulants are too expensive and are skeptical of impact on yield.	Performance-based warranties & rebate structures
Difficult Positioning	Biostimulants don't fit neatly into the traditional input stack	Digital agronomy integration—pairing biostimulants with crop protection & fertility strategies
Lack of Sales Data	Sales teams don't have clear agronomic recommendations for biostimulants	AI-driven placement models based on field conditions & input timing

How Biostimulants Fit into the Digital Agronomy Ecosystem

Biostimulants cannot be sold as standalone products, they need to be embedded into real-time agronomic intelligence to drive adoption and profitability.



Soil Health Sensors & AI Models: Track microbial activity, pH, and nitrogen cycling to determine where biostimulants will be most effective

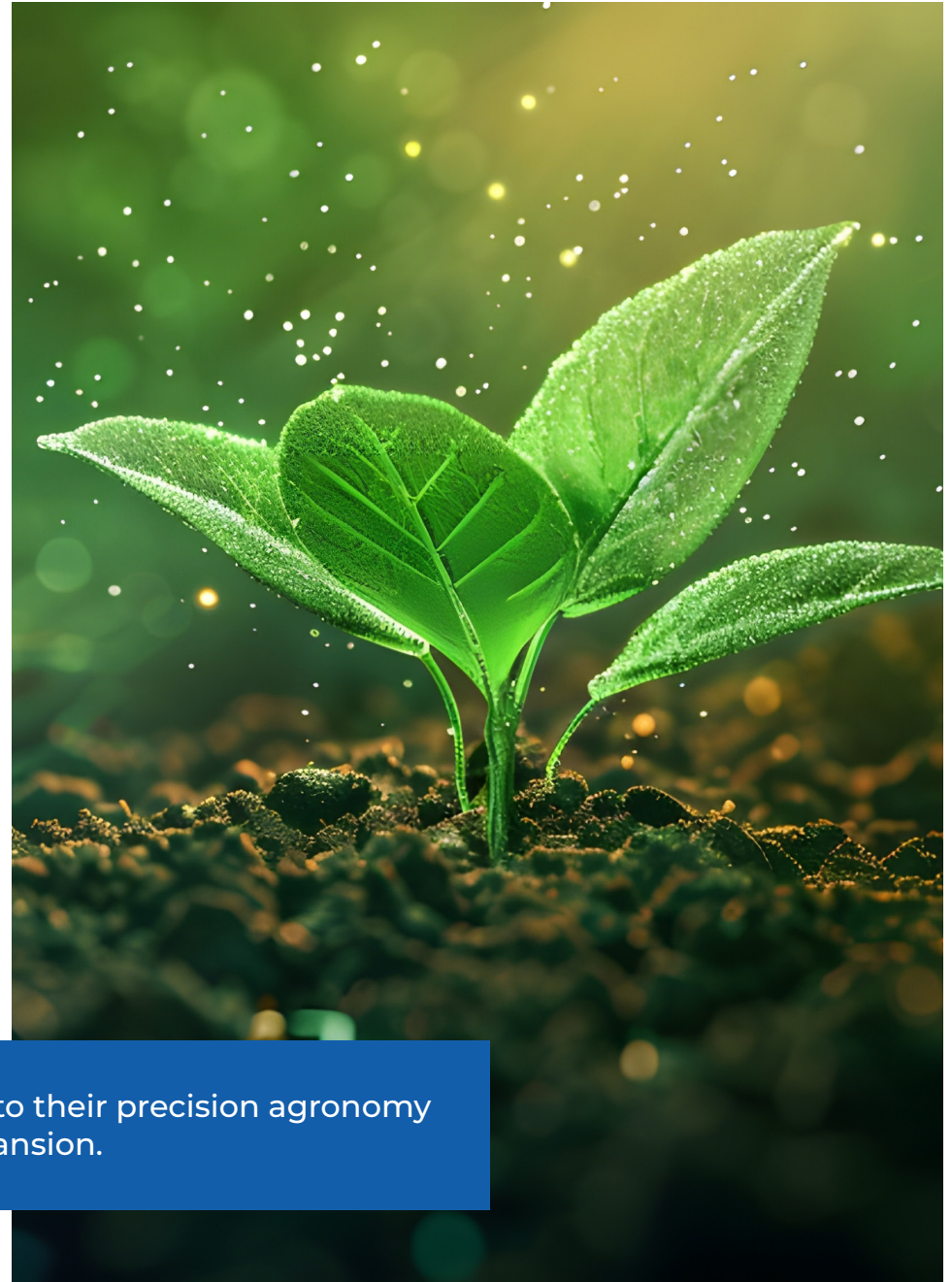


Remote Sensing & Yield Monitoring: Measure real-world crop response, ensuring biostimulants deliver measurable agronomic ROI



Warranty-Backed Sales: Offer data-backed guarantees, if a biological product doesn't meet performance benchmarks, retailers can offer automatic rebate activation

Retailers who integrate biostimulants into their precision agronomy stack will win the long-term margin expansion.



Why Ag Retailers Need a Biostimulants Offering

PART 3

Biostimulants Are Not Optional – They Are a Competitive Differentiator

Retailers face four major structural pressures that biostimulants can help solve:

Challenges	Solutions
Margin Compression on Traditional Inputs	<ul style="list-style-type: none">• Synthetic fertilizer & crop protection margins are tightening due to increased competition, regulatory pressure, and price transparency.
Demand for Sustainability-Linked Inputs	<ul style="list-style-type: none">• Scope 3 supply chain pressure is forcing major agribusinesses to prove sustainability reductions at the field level.• Biostimulants lower nitrogen reliance, reduce carbon intensity, and improve regenerative farming metrics—making them critical for sustainability-driven purchasing decisions.
Shift from Selling Inputs to Selling Agronomic ROI	<ul style="list-style-type: none">• Retailers must sell solutions, not just products. AI-driven digital agronomy models are determining input decisions based on ROI optimization.• Biostimulants must be positioned within total crop input plans, not as an add-on.
Retailers Need a Digital-First Differentiation Strategy	<ul style="list-style-type: none">• Retailers who use digital tracking, AI recommendations, and real-time biological verification will build customer stickiness and command pricing power.• Without a biostimulants + digital agronomy integration, retailers risk losing control of the category to data-driven competitors.

Ag retailers who build biostimulants into a digitally-verified, agronomy-first offering will create a defensible, high-margin position before the category commoditizes

The Farmers Edge Advantage: Biostimulants, AI, & Risk-Free Adoption

How Farmers Edge Helps Retailers Scale Biostimulants Profitably

Farmers Edge eliminates the three biggest barriers to biostimulants adoption—trust, tracking, and ROI verification—by offering:



White-labeled FarmCommand platform

Track biological performance under different agronomic conditions, aligning them with existing fertility, crop protection, and input strategies rather than competing with them

AI-powered biological product recommendations

Optimize biological application based on real-time field conditions

Automated performance-backed warranties

If a biological doesn't meet its performance benchmark, Farmers Edge technology verifies claims & triggers payouts



Carbon Intensity scoring & sustainability tracking

Quantifies GHG reduction benefits, enabling premium pricing & sustainability-linked input programs

Retailers who partner with Farmers Edge gain a turnkey biostimulants strategy—AI-powered recommendations, field tracking, and risk-free adoption models

Trial Support

TRIAL SUPPORT

Platform on-farm trials of biostimulants, gather data on efficacy under a variety of conditions.

Precision tools could track the performance of biostimulants.

HOW

Trial support would involve using Farmers Edge precision tools to vet and verify on farm data from trials

OUR ROLE

Farmers Edge could provide data collection and analysis services, compiling the results into comprehensive reports to be used by biostimulant companies for marketing, regulatory submissions, or internal product development.



Sangeeta Verma
Director of Strategic Partnerships
Farmers Edge

Hear from the Expert: Sangeeta Verma on Why Retailers Need a Biostimulants Strategy

Biostimulants Are the Missing Profit Driver in Retail—If Sold Correctly

Sangeeta Verma, Director of Strategic Partnerships at Farmers Edge, has spent over a decade developing revenue growth strategies in agribusiness, supply chain, and e-commerce. Here's her perspective on why ag retailers must act now to integrate biostimulants and biologicals into their core sales model:

"Rather than treating biostimulants as an add-on input alongside synthetic chemicals, retailers need to recognize that this category works differently. Biostimulants succeed when they are tracked, verified, and bundled into a retailer's precision agronomy offering."

Right now, too many retailers struggle to answer a simple question: 'Why should a farmer trust this biostimulant over another—or choose it over synthetic alternatives?' The answer lies in data-backed recommendations, AI-driven placement models, and performance warranties that reduce risk for farmers while simplifying their decision-making."

"Retailers who embed biologicals into a precision agronomy framework—rather than selling them as standalone products—will win this market before it becomes commoditized."

Conclusion: The Biostimulants Sales Strategy for Retailers

Winning in Biostimulants Requires a Digital-First, Agronomy-Integrated Approach



Retailers must move beyond selling biostimulants as a product—they must sell biological-backed agronomy.



The retailers who integrate AI, digital tracking, and warranty-backed sales will dominate the biostimulants market before it commoditizes.



Farmers Edge provides the infrastructure, verification tools, and digital intelligence to make biostimulants a scalable, profitable category.

Get in touch with Farmers Edge today to transform your biostimulants sales strategy.



Partners@FarmersEdge.ca
FarmersEdge.ca