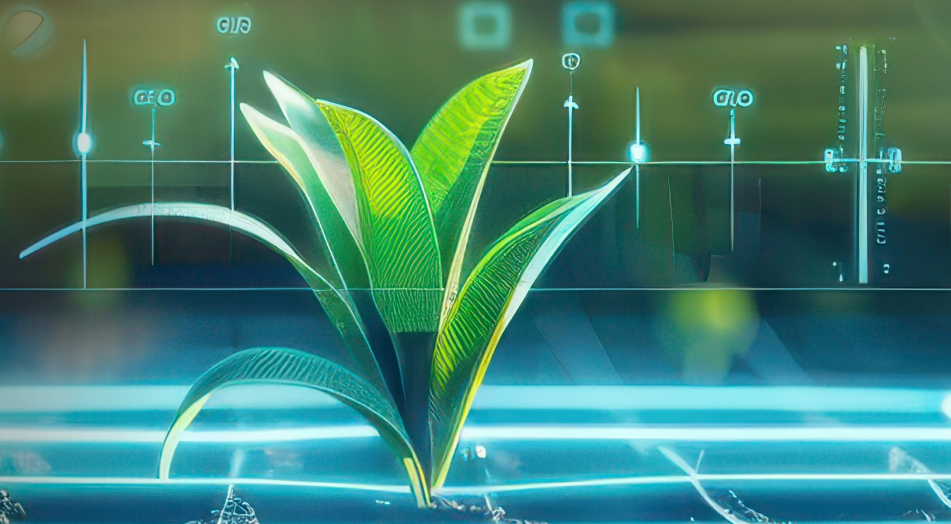




# Technology's Impact on Crop Insurance Stakeholders





# Market Solutions, Challenges, Gaps and Opportunities

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# Executive Summary

Crop insurance is at a turning point. The industry, **valued at \$42.74 billion in 2023**, is projected to nearly double by 2032, **reaching \$85.3 billion**. Growth is being driven by the urgent need for better risk management, cost control, and streamlined claims processing.

Technology is the key enabler. AI-driven analytics, satellite imagery, and automation are revolutionizing underwriting, claims, and risk assessment—delivering faster, more scalable, and more transparent insurance products. Insurers who fail to embrace digital transformation risk falling behind.

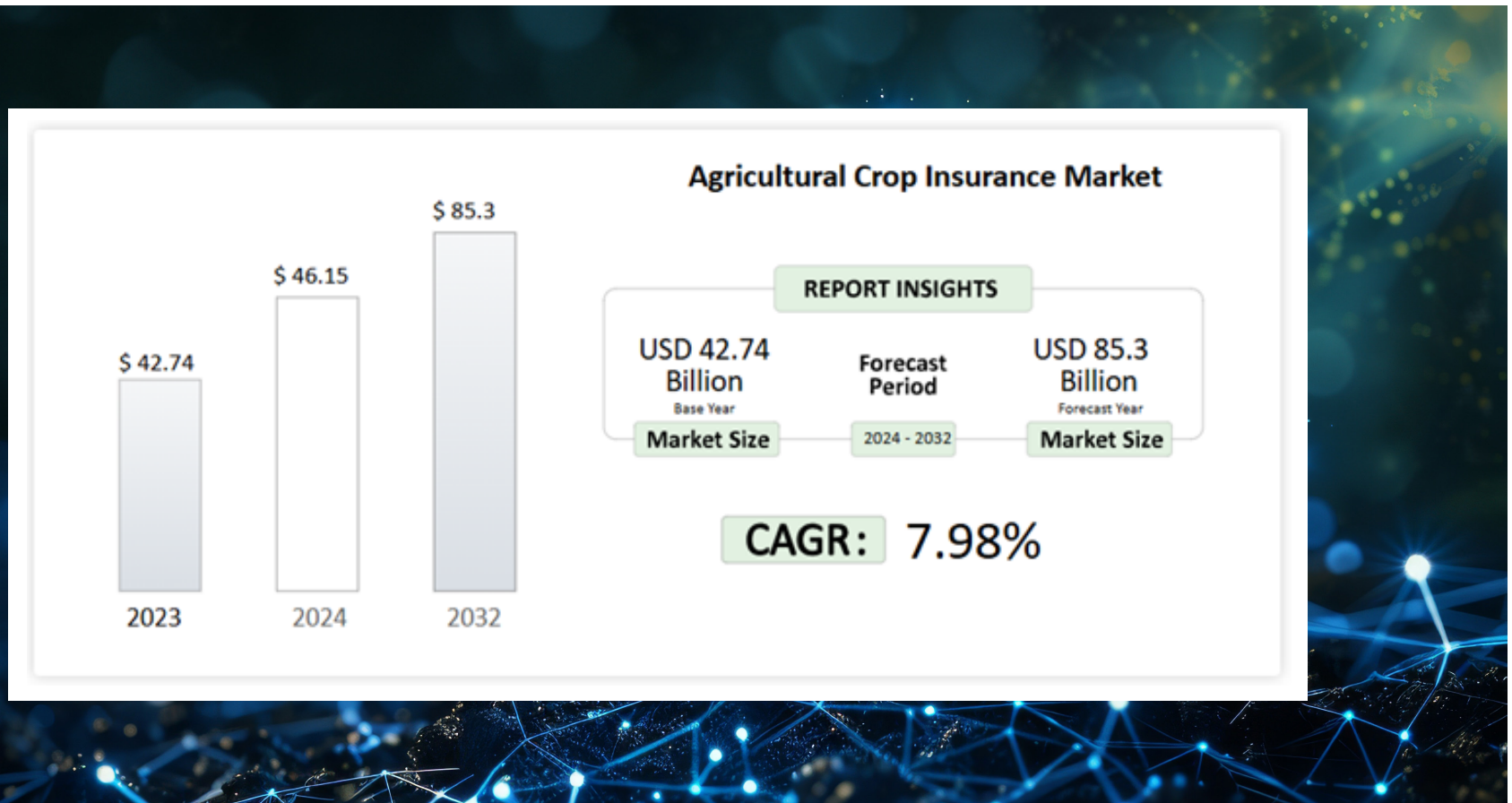
## Key Takeaways

- **The \$85B Market Shift**  
What's leading the transformation
- **From Delays to Payouts**  
How tech is reshaping claims experience
- **Turning Risk into Opportunity**  
Strategies for growth and scalability



## Macro Landscape

The value of the global crop insurance market is projected to reach **\$85.3 billion by 2032**, growing at a **CAGR of 7.98%**.





FARMERS EDGE SMART CLAIM

Technology and data management are at the forefront rapid growth in insurance. Tools like satellite imagery, drones, and predictive analytics are enabling faster, more accurate risk assessments.

Claims processing, a historically slow and cumbersome task, is now being streamlined, cutting processing times significantly through automation and enhanced data management. New innovations like Parametric Insurance simplify payouts by using pre-set triggers, offering greater reliability and ease for farmers and insurers alike.

**For insurers, partnering with companies that can provide data to enable parametric products, such as on-farm weather data, can better position their business for growth and scalability.**

A hand is shown in the foreground, pointing towards a digital data stream of blue binary code (hexadecimal characters) that recedes into the distance, creating a sense of depth and digital flow.

## Stakeholder Impact

The digital transformation of crop insurance affects every player in the value chain—farmers, agents, reinsurers, and carriers. Adapting to new technologies isn't just an advantage; it's a necessity for efficiency, scalability, and profitability.



KEY COMPONENT 1

# Farmers

The end users of crop insurance, relying on it to safeguard against financial losses.

## Challenges

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**Delayed Claims and Disputes** – Manual assessments and slow payouts leading to poor experience.

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**Transparency** – Limited visibility into claim evaluations and payouts.

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**Administrative Burden** – Complex reporting distracts from operations

## Market Solutions

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**Training Claims Adjusters** – Employee training and improving adjuster guidelines.

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**Claims Status Updates** – Real-time tracking and transparent claim evaluations.

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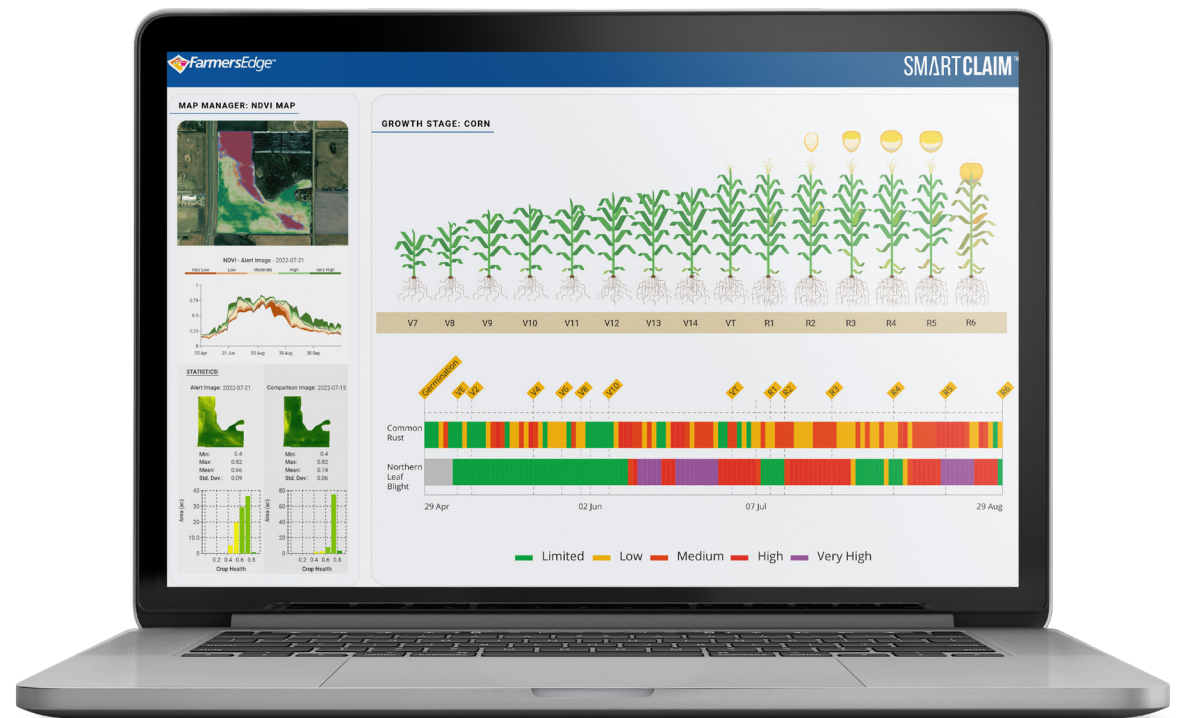
**Emphasis on Precision Ag Reporting** – Gathering precision ag data on the farm level.

## Opportunity

1. Predictive analytics - pre-fill reports, saving time and improving accuracy.
2. Data-driven customer experience - Real-time data for context and increased transparency to loss assessments.

## Forensic Field Data Report

- Attached to any claims file to provide relevant crop performance and weather insights.
- Includes analytics including: Growth Stage, Crop health change, damage severity & Pest/disease prediction.
- Provide confidence to the grower/producer on the loss assessment.







KEY COMPONENT 2

# Agents

The link between farmers and insurers providing risk assessments, managing coverage selection, and compliance.

## Challenges

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**Manual Workflows & Siloed Data** – Slow, manual processes and fragmented data impact efficiency.

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**Limited Tools for Client Management** – Inefficient systems make policy tracking and updating difficult.

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**Managing true risk** – Growing complexity of client portfolios limit engagement time.

## Market Solutions

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**Agent Management Systems** – Consolidate data and simplify workflows.

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**Ag Data Portal** – Carrier-provided tools enhance policy accuracy and efficiency.

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**AI-Powered Sales Tools** – Ensure adherence to crop handbooks and regulatory requirements.

# Opportunity

1. A one-to many platform connector that integrates with an agency's management system to reduce complexity, consolidate customer data, and save time.
2. In-season monitoring and analytics to optimize customer outreach and improve portfolio performance.



Farmers Edge can custom develop intercommunication data framework between the parties.



KEY COMPONENT 3

# Reinsurers

Reinsurers - Financial backing to carriers, shouldering risk across diverse portfolios.

## Challenges

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**High Costs Managing Diverse Risk Portfolios** – Balancing exposure across regions is expensive.

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**Limited Real-Time Risk Assessment** – Delayed insights hinder proactive risk mitigation.

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**Expanding Market Access** – Currently stuck in status-quo risk analysis.

## Market Solutions

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**AI-Driven Risk Scoring Models** – Predict and manage exposure across diverse portfolios.

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**Real-Time Portfolio Analytics** – Enable dynamic risk assessment and decision-making.

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**Parametric insurance** – Highly simplistic offerings that haven't seen market uptake.







## Opportunity

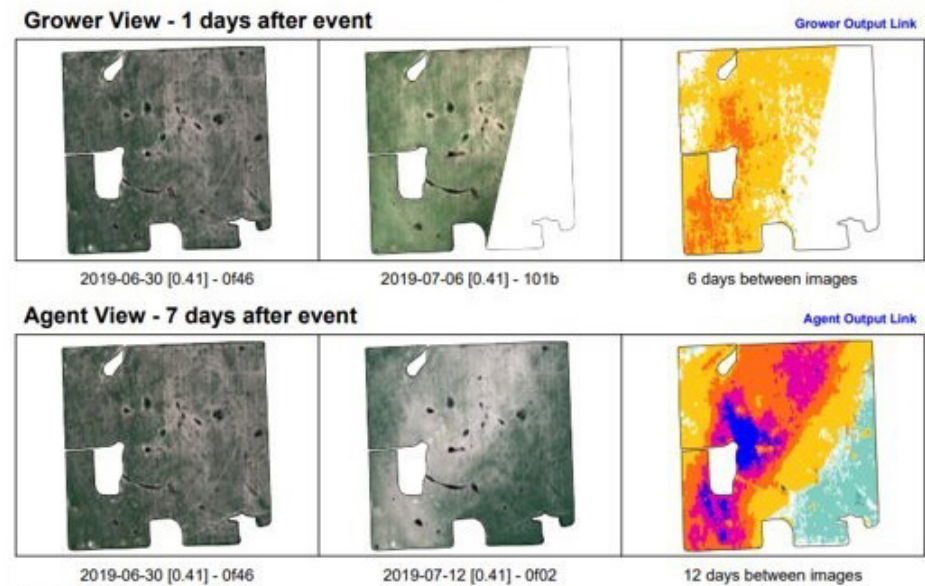
1. Reinsurers primary leverage over carrier performance is setting the cost of purchasing reinsurance. This leaves limited options for working with carrier partners to improve performance. By collaborating with technology partners who can work alongside the carriers, reinsurers can provide proactive solutions to help optimize their portfolio.
2. With interest in parametric insurance solutions on the rise, real-time field-level data capture mechanisms are needed to help validate the performance of those products and the overall portfolio and enable capacity in regions and crops that currently are left exposed.

## SWITCH Model

(Severe Weather Induced Trend of Crop Health)

- Macro shift is to a more precise hybrid model that includes validation.
- SWITCH model provides spatial quantitative analysis to quantify weather-related crop damage.
- Data-driven approach reduces uncertainty, accelerates claims validation, and improves capital allocation.

Color	Change Description	Grower View Area (ac)	Adjuster View Area (ac)
	Severe	0	30
	Large	0	104
	Moderate	52.9	153.4
	Minor	261.9	159.4
	No Change	81.8	16.9
	Growth	0.9	118.3





KEY COMPONENT 4

# Carriers

Carriers deliver crop insurance products, handle underwriting of private products, and manage and settle claims.

## Challenges

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**Rising Tech Costs & Legacy Systems** – Maintaining outdated infrastructure is expensive and inefficient.

**Inconsistent Decision-Making** – Variability in underwriting and claims processing affects profitability.

**Talent & Training Gaps** – Upskilling new employees in specialized agri-insurance is slow and costly.

## Market Solutions

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**Staffing Up Internal Resources** – Applying human/labor solutions to technology focused problems.

**Fragmented and Insufficient Analytics** – In house and external data and analytics for insight generation.

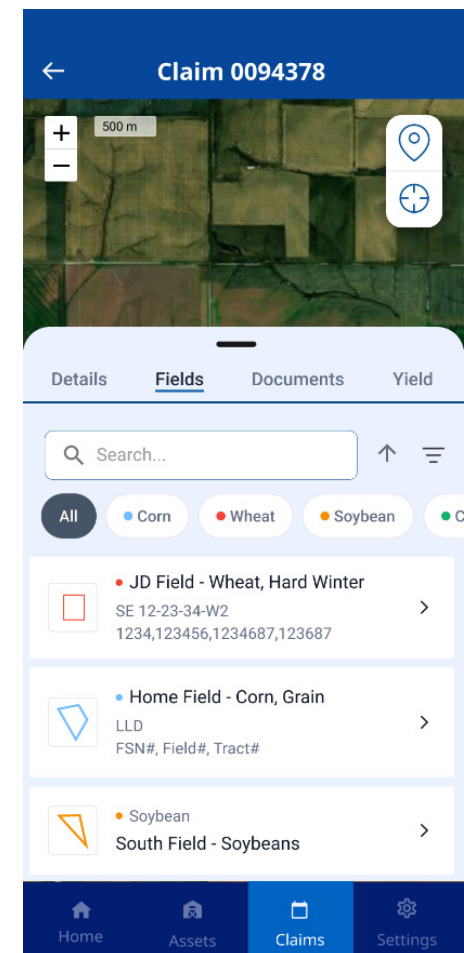
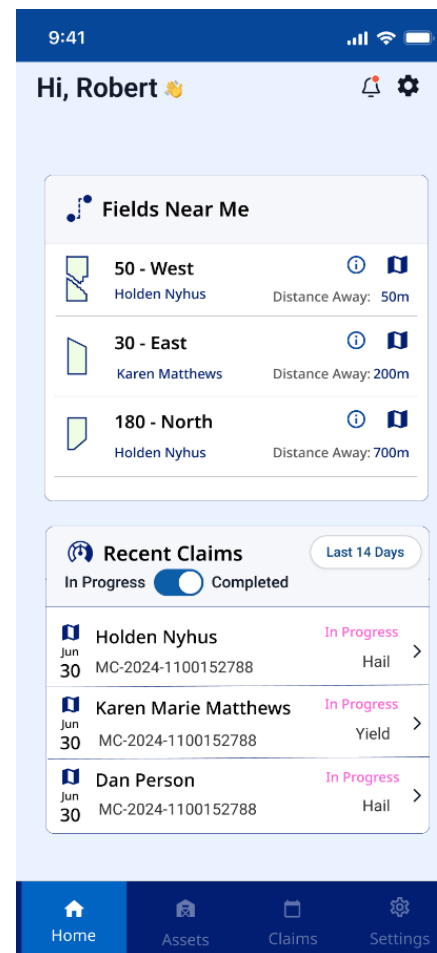
**Apprenticeships and Junior Staff Training** – Information sharing within the company to facilitate transfer of knowledge.

## Opportunity

1. Managed Technology Services - With a lack of specific solutions in the market, many carriers have taken it upon themselves to build and customize their technology stack internally. Partnering with experience technology providers, carriers can reduce tech costs by 30-50%.
2. Travel spend for claims adjustments continues to be one of the largest expenses for carriers. Digital platforms and analytics for optimal adjuster routing and in-field data capture can reduce costs by 25%-30%.

## Mobile Adjusting Application

- Integrates directly with claims management platforms eliminating repetitive data entry
- Includes geospatial location recording technology and field specific agronomic crop data.
- Assessment forms and documents can be uploaded and viewed from anywhere.



Reduction in manual processing by

**50%**

Technology development cost savings of

**30%**

Accelerated loss detection by up to

**3 months**

## The Future of Crop Insurance

### Why Act Now?

The market is shifting. Insurers and reinsurers who invest in technology today will define the future of crop insurance tomorrow. Data-driven underwriting, automated claims, and AI-powered analytics are no longer optional—they're necessary for competitive advantage.

### Farmers Edge: Your Digital Insurance Partner

Farmers Edge is the best digital builder in agriculture. For over 20 years, the Company has been at the forefront of ag technology.

**Let's talk about how we can help your business navigate this shift.**

**Contact us:** [Partners@FarmersEdge.ca](mailto:Partners@FarmersEdge.ca)

**Learn more:** [FarmersEdge.ca](https://FarmersEdge.ca)



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