CONFIDENTIAL RESEARCH REPORT

Ag Tech Competitive Landscape

February 2026 Market Analysis

Prepared for Elm Lake Labs

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1. Market Overview & Size

Global Ag Tech Market

- **Total market (2025):** $26.27 billion (Precedence Research)
- **Projected (2034):** $74.03 billion — **CAGR 12.2%**
- **VC funding (2025):** $4.8B across 735 deals (down from $5.1B/913 deals in 2024)
- Investors shifting toward **AI, precision ag, and robotics** — away from biologicals

Precision Agriculture

- **Market size (2025):** ~$9.5–11.2 billion (multiple estimates)
- **Projected (2035):** $25.5–27.3 billion — **CAGR 9.3–10%**
- **North America (2025):** $4.1 billion, projected to $6.5B by 2032
- **Fastest growth application:** Precision spraying (CAGR 15.4%)

Farm Management Software / SaaS

- **Market size (2025):** $2.8–4.2 billion (estimates vary by scope)
- **Projected (2030):** $5.1–10.6 billion — **CAGR 11–17.3%**
- Precision farming segment = 43% of FMS market
- Cloud computing adoption is the primary growth driver

Agricultural Drones

- **Market size (2025):** ~$4 billion
- **Projected (2032):** $8.65 billion
- North America holds ~45% market share

Farming-as-a-Service

- **U.S. market (2025):** $1.53 billion
- **Projected (2034):** $6.15 billion — **CAGR 14.9%**

2. Leaders by Category

A. Precision Agriculture — Autosteer, Guidance, GNSS

COMPANY	HQ	KEY PRODUCTS	MARKET POSITION
John Deere	Moline, IL	AutoTrac, StarFire, Operations Center	Market leader. 500K+ farms on Operations Center. Acquired Sentera and GUSS Automation in 2025.
PTx Trimble (AGCO/Trimble JV)	Westminster, CO	Autopilot, GFX displays, Precision Planting	Formed April 2024. AGCO owns 85%. Serves mixed-fleet market.
CNH Industrial	Racine, WI	AFS guidance, AccuGuide, PLM Intelligence	Acquired Raven Industries (2021) for autonomous tech.
AGCO Corporation	Duluth, GA	Fuse Smart Farming, Precision Planting	Via PTx Trimble JV, enhanced precision ag capabilities.
Ag Leader Technology	Ames, IA	SteerCommand Z2, InCommand, SMS Software	Indie precision ag leader. Data-focused. Strong in yield monitoring.
FJD Dynamics	Shenzhen, China	AT2, AT2 MAX, AS2 Steer Ready	**Key disruptor.** Affordable autosteer (sub-$10K). Sub-inch RTK accuracy.
CHCNAV	Shanghai, China	NX610, NX612	Chinese challenger. Multi-GNSS. ±2.5cm accuracy. Growing dealer network.
Hexagon / NovAtel	Calgary, Canada	Ag guidance, high-precision GNSS	INS/GNSS positioning specialist. Investing in autonomy partnerships.
Topcon Positioning	Livermore, CA	Horizon, AES-35 autosteer	Major global player. Strong in Japan and Asia-Pacific.

B. Farm Management Software / SaaS

COMPANY	HQ	PRODUCT	NOTES
Climate LLC (Bayer)	San Francisco, CA	Climate FieldView	Dominant digital ag platform. ML-driven yield prediction. Global reach.
Traction Ag	—	Traction, Conservis, Granular Business	Acquired Granular (Corteva) and Conservis. Advanced FMS for large farms.
Bushel	Fargo, ND	Bushel Farm, Bushel Network	3,500+ grain/ag retail facilities connected.
Farmers Business Network	San Carlos, CA	FBN Platform	117K+ member farms, 187M acres. AI-powered platform.
John Deere	Moline, IL	Operations Center	500K+ connected farms. De facto standard for JD equipment owners.

C. Drone / Aerial / GIS

COMPANY	HQ	NOTES
DJI Agriculture	Shenzhen, China	Global drone leader. Faces US government scrutiny.
Sentera	Minneapolis, MN	Acquired by John Deere (2025). Multispectral imaging + aerial scouting.
DroneDeploy	San Francisco, CA	Cloud-based drone mapping & analytics platform.
XAG	Guangzhou, China	Autonomous drones for spraying, seeding, surveying.
Hylio	Houston, TX	US-based spray drone manufacturer. Growing as DJI faces restrictions.

D. AI / Data Analytics in Agriculture

COMPANY	HQ	NOTES
Indigo Ag	Boston, MA	Sustainability + carbon marketplace. Microbial crop protection.
CropX	Tel Aviv, Israel	Soil intelligence platform. IoT sensors + analytics.
Taranis	Tel Aviv, Israel	AI-powered crop intelligence. Ultra-high-res aerial imagery.
Solinftec	São Paulo, Brazil	AI-driven predictive analytics. Strong in Latin America.
Pivot Bio	Berkeley, CA	Microbial nitrogen fixation. AI-designed biologicals.

E. Scouting / IPM — Competitors to Pinpoint

COMPANY	PRODUCT	NOTES
FarmQA	FarmQA Scouting	Mobile scouting app for agronomists. Variable rate prescriptions.
Farm Dog	Farm Dog Scout	IPM-focused. Used by Costco, Walmart, McDonald's suppliers.
Farmable	Farmable platform	Smartphone-based IPM scouting. AI-powered pest/disease tracking.
ecoation	ecoation IPM	AI-driven yield + IPM forecasting for greenhouse growers.
OneSoil Scouting	OneSoil app	Satellite-based field health maps + offline mobile scouting.
Plantix	Plantix app	AI photo-based disease/pest ID. Popular with smallholders globally.

3. Winning Strategies

3.1 Vertical Integration (Hardware + Software)

- **John Deere:** The gold standard. Owns machines, guidance, autonomy, Operations Center software, and now aerial scouting (Sentera). End-to-end farmer experience.
- **PTx Trimble / AGCO:** Created JV specifically to combine hardware with Trimble's precision ag technology. Factory-fit + retrofit for mixed fleets.
- **CNH Industrial:** Acquired Raven Industries ($2.1B, 2021) to bolt on autonomy and autosteer.

3.2 Data Moats

- **John Deere Operations Center:** 500K+ farms. Machine telemetry + agronomic data creates massive switching costs.
- **Climate FieldView (Bayer):** Dominant digital platform. Field-level data accumulation makes it sticky.
- **FBN:** 117K member farms, 187M acres of agronomic data. Network effects create value.
- **Bushel:** 3,500+ grain facilities = transaction data moat.

3.3 Distribution / Dealer Networks

Key insight: Dealer networks are the **#1 distribution advantage** in ag tech. Startups without dealer relationships struggle to reach farmers. John Deere has 4,000+ dealer locations globally. AGCO has ~3,150. CNH has ~3,600.

3.4 AI / Autonomy Bets

- **John Deere:** Autonomous tractors (CES 2025), AI-based sensors. SpaceX Starlink connectivity partnership.
- **Carbon Robotics:** AI-powered laser weeding. $70M Series D (Oct 2024).
- **Ecorobotix:** AI-powered crop protection. $150M raise (Oct 2025).
- **Emerging trend:** "Physical AI" — companies building ML into chips/systems for ag robots.

3.5 Affordable Disruption (Chinese Manufacturers)

> *FJD Dynamics, CHCNAV, SMAJAYU, and Sveaverken are driving autosteer costs down dramatically. Incumbents like Ag Leader and Teejet openly acknowledge they "cannot compete" on price with Chinese systems. This is the biggest market disruption in precision ag hardware.*

4. Geographic Distribution

Major Ag Tech Hubs

Silicon Valley / Bay Area (CA)

Home to Climate Corp (Bayer), DroneDeploy, FBN, Pivot Bio. ~26% of global ag startup activity concentrated in top 5 hubs. Challenge: disconnected from farming reality.

St. Louis, MO — "Silicon Valley of Ag Tech"

Danforth Plant Science Center, BioSTL, Yield Lab Institute. Deep collaboration between startups and ag researchers. Historical home of Monsanto.

Midwest / Corn Belt

Ag Leader (Ames, IA), IntelinAir (Champaign, IL). **Proximity to customers is the key advantage.**

Colorado

2nd largest ag tech ecosystem in US — 73+ startups. PTx Trimble (Westminster), Agribotix (Boulder).

International Hubs

- **Tel Aviv, Israel:** CropX, Taranis — strong in IoT/AI/sensors
- **China:** FJD, CHCNAV, DJI, XAG — dominant in affordable hardware + drones
- **Brazil/LatAm:** Solinftec — largest biologicals market; major growth region
- **Australia:** Loam Bio, SwarmFarm Robotics, AgriWebb

> *Key Takeaway: Ag tech is NOT concentrated in Silicon Valley. The most impactful hardware disruption is coming from China.*

5. Opportunity Gaps

Gap 1: Affordable Autosteer — The FJD Disruption

SYSTEM	PRICE RANGE
John Deere AutoTrac	$15,000–$25,000+
Trimble Autopilot	$10,000–$20,000+
FJD Dynamics AT2	~$5,000–$8,000
SMAJAYU	~$3,000–$5,000

ELL opportunity: Become a dealer/distributor for affordable autosteer systems to underserved mid-size farms. Or build integration software that bridges affordable hardware with premium farm management.

Gap 2: Mobile-First Scouting

No dominant mobile-first scouting platform exists that combines AI-powered pest/disease ID, agronomist-grower workflow, offline-first sync, and integration with cheap hardware sensors. **ELL/Pinpoint opportunity:** Build the "Slack of field scouting."

Gap 3: AI-Powered Farm Management

Most FMS platforms are essentially digital record-keeping with analytics bolted on. No platform delivers predictive yield forecasting, automated VR prescriptions, AI-generated spray recommendations, or natural language query of farm data. **ELL opportunity:** AI-native farm management for specialty crops.

Gap 4: Fragmented Tech Stack

Farmers use 3–7+ different apps that don't talk to each other. "One source of truth" is the holy grail. **ELL opportunity:** Integration layer / middleware. API-first approach.

Gap 5: Specialty Crop Neglect

Most precision ag is built for broad-acre row crops. Specialty crops (cranberry, berry, orchard, vineyard) are underserved. **ELL opportunity:** Deep specialty crop expertise is a defensible moat.

Gap 6: Dealer Network Disruption

No independent precision ag dealer network exists. Many farmers discover FJD and CHCNAV on YouTube/Reddit, not from dealers. **ELL opportunity:** Build or join a dealer/distribution channel for independent precision ag tech.

Gap 7: Financing Innovation

Upfront costs remain the #1 barrier to precision ag adoption. **ELL opportunity:** Offer affordable systems with financing, leasing, or subscription models.

6. Key Takeaways

> *The Landscape in One Sentence: John Deere is building a vertically-integrated monopoly, Chinese manufacturers are democratizing hardware access, and there's a massive gap in affordable, AI-native, specialty-crop-focused farm management that nobody is filling.*

For ELL Specifically

1. **The autosteer market is ripe for disruption.** FJD and CHCNAV have proven that $5–8K systems can match $15–25K incumbents. ELL could be a trusted dealer/integrator.
2. **Scouting + IPM is fragmented and ripe for consolidation.** No dominant mobile-first platform exists. Pinpoint could be the category winner.
3. **Specialty crops are underserved.** All the big players build for corn/soy. Cranberry, berry, orchard, vineyard farmers are an afterthought. This is ELL's natural moat.
4. **AI is the connective tissue.** The winning platforms in 2026-2030 will use AI to turn fragmented farm data into actionable intelligence.
5. **Dealer networks matter more than tech.** Distribution is the #1 competitive advantage. ELL's existing relationships could be leveraged.
6. **The venture market is cooling but not dead.** $4.8B in ag tech VC in 2025. Investors want AI + proven traction.
7. **China is the wildcard.** Chinese ag tech is advancing rapidly with government backing. Creates both opportunities and risks.

Sources

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