

# **Agri-Inputs and Supply Chain Technology Market Forecasts to 2032 – Global Analysis By Input Type (Seeds, Fertilizers, Crop Protection Chemicals and Farm Machinery and Equipment), Supply Chain Stage (Pre-Production, Production & In-Field Management, Post-Harvest & Logistics, Processing & Value Addition, Distribution, Wholesale, and Retail, and End-Consumer), Technology, Application, and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Agri-Inputs and Supply Chain Technology Market is accounted for \$14.09 billion in 2025 and is expected to reach \$29.26 billion by 2032 growing at a CAGR of 11% during the forecast period. Agri-inputs and supply chain technology market includes seeds, fertilizers, crop protection, farm machinery, and the digital and physical systems that move these inputs to farms and produce to market. Growth is driven by precision agriculture, data-driven logistics, and demand for efficiency and traceability, which reduce costs and waste. Investments in IoT sensors, blockchain tracking, and automated warehousing accelerate adoption, enabling higher yields and lower emissions while improving farm-to-fork visibility and resilience.

According to the UN Food and Agriculture Organization (FAO), the global area planted with genetically engineered (GE) crops has seen sustained growth for over two decades, reaching over 200 million hectares across nearly 30 countries.

## **Market Dynamics:**

### Driver:

#### Rising global food demand and higher-yield farming pressures

Global population growth, dietary shifts toward protein and shrinking arable land are intensifying pressure on farmers to raise yields, which directly fuels demand for advanced agri-inputs and supply-chain technologies. Producers are investing in higher-efficiency fertilizers, improved seed genetics and precision application tools to extract more output per hectare while reducing input waste. Input manufacturers and technology providers respond with tailored formulations, sensors and data platforms that improve nutrient use efficiency and crop performance. This dynamic mobilizes R&D, private investment and targeted government programmes that strengthen market momentum for the sector.

### Restraint:

#### Supply chain volatility

Disruptions to shipping, port congestion, fertilizer feedstock shortages and sudden regulatory changes increase lead times and force buffer inventories that raise working capital needs for suppliers and distributors. Farmers facing unpredictable delivery schedules may shift to local substitutes or delay purchases, reducing predictable demand. Smaller dealers lack resilience to absorb shocks, slowing technology diffusion. Consequently, stakeholders must invest in redundancy, local sourcing and digital visibility tools to rebuild buyer confidence rapidly.

### Opportunity:

#### Digitalization of post-harvest & logistics

Smart cold chains, IoT-enabled warehouses, blockchain-based traceability and route-optimization platforms allow perishable produce to reach markets faster and maintain quality, boosting farmer incomes and demand for integrated services. Logistics-as-a-service and data monetization create new revenue streams for platform providers and input firms, while financiers gain confidence from verified performance records. Additionally, scaling digital tools brings transparency that attracts buyers and supports rapid commercial adoption, lowering environmental footprint through optimized routing, waste reduction.

Threat:

Climate extremes and water scarcity

Climate extremes and water scarcity pose systemic risks that can quickly undermine input effectiveness, supply reliability and farmer livelihoods. Frequent droughts, erratic rainfall and heat waves disrupt planting windows, reduce nutrient uptake and diminish yield potential, increasing demand volatility for fertilizers and crop protection products. Scarcity of freshwater forces shifts toward irrigation investments and drought-tolerant inputs but also raises operational costs for supply chains. Financial stress from repeated climate shocks deters long-term investments in technology and infrastructure.

### **Covid-19 Impact:**

COVID-19 disrupted input supply chains, labour availability and demand patterns, exposing vulnerabilities across farming and distribution networks. Lockdowns and transport bottlenecks delayed shipments of fertilizers and seeds while labour shortages affected harvesting and post-harvest handling, raising food loss and costs. Many firms accelerated digital adoption to manage orders and logistics, and policymakers introduced emergency measures to stabilise markets. Although markets gradually recovered, the pandemic accelerated structural changes toward resilience, local sourcing and technology-driven logistics solutions.

The fertilizers segment is expected to be the largest during the forecast period

The fertilizers segment is expected to account for the largest market share during the forecast period. Fertilizers deliver immediate yield gains across staple and cash crops, prompting widespread, repeat purchase behaviour among farmers. Enhanced-efficiency formulations and micronutrient blends meet precision farming demands, while input financing and targeted subsidies sustain affordability. Distributors and agro-retailers strengthen last-mile reach, and advisory services improve correct application, reducing wastage. These combined commercial, policy and agronomic factors make fertilizers the primary revenue driver across agri-input markets, globally significant.

The post-harvest & logistics segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the post-harvest & logistics segment is predicted to witness the highest growth rate. Investment in cold chains, automated warehouses and digital

freight solutions is accelerating to cut high post-harvest losses and improve market access for perishable crops. Affordable cooling and aggregation platforms help smallholders reach urban buyers while real-time inventory and routing tools lower costs for traders. Donor-funded pilots and private rollouts demonstrate return on investment quickly, scaling commercial rollouts and yielding faster CAGR versus conventional input segments.

### **Region with largest share:**

During the forecast period, the Asia Pacific region is expected to hold the largest market share. Asia Pacific combines a large agricultural base, rising food demand and ongoing fertilizer use intensification across countries such as China, India and Indonesia, underpinning dominant market volumes. Rapidly expanding retail and cold-chain infrastructure, plus government programmes that promote productivity and input subsidies, sustain demand for agri-inputs and logistics technologies. Strong private sector activity and venture investments in agtech further accelerate adoption of precision and post-harvest solutions, and regional trade.

### **Region with highest CAGR:**

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. Rapid investments in cold chains, rural electrification and digital agricultural services are concentrated across emerging economies in the region, enabling quick scaling of post-harvest and logistics solutions. Growing middle-class demand, urbanisation and stronger farm-to-market linkages create favourable unit economics for technology providers, prompting accelerated rollouts. Furthermore, supportive policy frameworks, public-private partnerships and active venture funding reduce entry barriers, scaling commercial deployments compared with mature markets, and improved finance access.

### **Key players in the market**

Some of the key players in Agri-Inputs and Supply Chain Technology Market include Syngenta Global AG, Bunge Global SA, Olam International Limited, Origin Enterprises plc, Indigo Ag, Trimble Inc., John Deere, IBM Corporation, Trellis LTD, AgriDigital, Bext Holdings Inc. (bext360), GrainChain, Inc., Proagrica, Eka Software Solutions, Mori (Formerly Cambridge Crops), ecoRobotix, Agreeena, FarmInsec, AgroStar, and DeHaat.

### **Key Developments:**

In October 2025, Syngenta Crop Protection, LLC, a global leader in agricultural innovation, and Taranis, a global leader in AI-powered crop intelligence, have announced a new strategic partnership to scale their proven digital crop management model across the Midwest. Building on successful 2025 pilot results, the companies will jointly equip agricultural retailers with advanced AI technology and agronomic expertise to deliver faster, more data-driven decisions for growers.

In February 2025, John Deere announced the enhancements farmers will find available on model year 2026 combines, including an array of automation and efficiency updates. The new features are focused on helping farmers harvest in more diverse conditions, requiring less operator intervention and providing more operational insights that help improve farm efficiency and productivity.

In September 2024, Global commodity leader Olam Agri is investing around \$60 million in a multi-input bio-ethanol plant in Rajgoli, Maharashtra. Olam already operates a sugar factory there with a crushing capacity of 4,000 tonnes per day. “Given the recent government policies on mixed fuels and the shift from B10 to B20, we believe that integrating forward into bio-ethanol production is the right move. We are investing close to \$60 million in a multi-input capability distillery, which means that if the cane production is low, we can substitute that with corn and vice-versa,” Muthukumar Neelamani, Group CFO of Olam Agri, told Businessline at the Samunnati FPO Conclave in Hyderabad.

#### Input Types Covered:

Seeds

Fertilizers

Crop Protection Chemicals

Farm Machinery and Equipment

#### Supply Chain Stages Covered:

Pre-Production

Production & In-Field Management

Post-Harvest & Logistics

Processing & Value Addition

Distribution, Wholesale, and Retail

End-Consumer

#### Technologies Covered:

Hardware

Software & Platforms

Connectivity & Services

#### Applications Covered:

Yield Optimization & Farm Analytics

Crop Health Monitoring & Input Management

Inventory & Warehouse Management

Traceability, Provenance, and Quality Control

Financial Services & Insurance

Market Linkage & E-Commerce Platforms

#### Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

**What our report offers:**

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

**Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

#### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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