AgroSpectrum ASIA
Envisaging Future | Updating Present

John Deere acquires Orchard AI to expand precision agriculture for high-value crops

23 November 2026 | News

The acquisition brings AI-powered plant-level monitoring and yield estimation technology into John Deere's agricultural equipment portfolio, supporting more targeted spraying, crop management and harvest planning.



John Deere has acquired Orchard Robotics, operating as Orchard AI, a San Francisco-based agricultural technology company specialising in artificial intelligence-driven crop monitoring for orchards, vineyards and other high-value crops. Announced on 19 November 2026, the acquisition will combine Orchard AI's plant-level crop intelligence technology with John Deere's precision agriculture equipment and digital farming systems.

The transaction is intended to help growers make more informed decisions about crop protection, labour allocation, pruning, thinning and harvesting by connecting detailed field data with agricultural machinery. Financial terms of the acquisition were not disclosed.

AI-powered cameras provide plant-level crop intelligence

Orchard AI develops vehicle-mounted camera systems that capture and analyse images of individual trees, vines and plants throughout the growing season. The technology uses artificial intelligence to process hundreds of images per tree during field operations, generating information on crop conditions, estimated yields, fruit counts, fruit size and colour, and canopy characteristics.

The resulting data is available through FruitScope, Orchard AI's software platform, which enables growers to monitor crop development and identify variations between individual plants and production blocks. This information can support more targeted crop management decisions and help growers allocate labour and agricultural inputs according to field conditions. The technology is particularly relevant to high-value crops, where variations in fruit development, plant health and harvest readiness can affect production costs and marketable yields.

Integration to support precision spraying and harvest decisions

John Deere plans to connect Orchard AI's crop intelligence capabilities with its agricultural equipment and digital technologies. The integration could enable growers to translate plant-level observations into field management recommendations, including targeted crop treatment applications and adjustments to orchard operations. For example, areas with higher bloom counts could be identified through camera-based monitoring and used to generate recommendations for spray applications.

These recommendations could be accessed through mobile devices or delivered to John Deere's in-cab G5 displays to support field operations. The companies also see opportunities to improve decisions about tree pruning, fruit thinning and harvest scheduling, allowing growers to respond to differences in crop development across their farms.

Tim Marquis, Director of Farm Systems Innovation at John Deere, said the acquisition would help connect detailed crop information with machinery capable of carrying out precision agricultural operations.

Expanding John Deere's agricultural technology portfolio

Founded in 2022, Orchard AI develops crop intelligence solutions designed to improve decision-making in specialty crop production. Its technology has already been deployed in commercial vineyard operations, where growers use crop scans to monitor plant conditions and improve visibility into field performance. Charlie Wu, Chief Executive Officer of Orchard AI, said joining John Deere would support the company's efforts to expand access to AI-powered crop monitoring technology.

John Deere intends to retain Orchard AI's customer-focused approach to technology development while drawing on its own equipment, engineering and commercial capabilities to support wider adoption. Justin Rose, President of John Deere's Worldwide Agriculture and Turf Division, Small Ag and Turf, said the acquisition would strengthen the company's ability to address operational challenges faced by specialty crop growers.

The transaction adds plant-level monitoring capabilities to John Deere's existing precision agriculture portfolio, supporting its broader strategy of integrating field data, artificial intelligence and machinery. While the company has not announced a timeline for wider deployment or specific Asia-Pacific commercial plans, the technology has potential applications in fruit and horticultural production systems where timely crop monitoring and precision input management are important to profitability.