# John Deere showcases advanced autonomous machines at CES 2025



John Deere has unveiled a series of advanced autonomous machines and technologies during a press conference at CES 2025, aimed at addressing labour shortages across agriculture, construction, and commercial landscaping industries. The announcement took place on January 6, 2025, in Moline, Illinois, with the machines set to be on display from January 7 to 10 in the West Hall of the Las Vegas Convention Center.

The focus of these innovations centres around a second-generation autonomy kit that integrates advanced computer vision and artificial intelligence (AI) with sophisticated camera systems to help machinery navigate complex environments. This comes in the context of significant labour shortages; the American Farm Bureau Federation estimates 2.4 million farm jobs go unfilled every year, while 88% of construction contractors report difficulties in finding skilled labour. In the commercial landscaping sector, 86% of business owners similarly struggle to fill positions.

"Autonomy can help address this challenge," noted Jahmy Hindman, Chief Technology Officer at John Deere. He emphasised the critical nature of timely task completion in these sectors, stating, "Our agriculture, construction, and commercial landscaping customers all have work that must get done at certain times of the day and year, yet there is not enough available and skilled labour to do the work."

The new autonomous products include several notable models:

**Autonomous 9RX Tractor**: Designed for large-scale agricultural use, this tractor is equipped with 16 cameras to deliver a comprehensive 360-degree view of fields, allowing farmers to step away from the machinery and focus on additional tasks during busy seasons like tillage.

**5ML Orchard Tractor**: Targeting crop protection through air blast spraying, this model will initially be available as a diesel engine. A battery electric variant is expected to follow, designed to navigate the challenging conditions of dense orchard canopies.

**460 P-Tier Autonomous Articulated Dump Truck**: Engineered for quarry operations, this truck automates repetitive material transportation tasks essential for extracting and processing raw materials used in construction and infrastructure development.

**Autonomous Battery Electric Mower**: Aimed at the commercial landscaping sector, this mower operates quietly thanks to a sizeable 21.4kWh battery. It employs stereo camera systems for 360-degree visibility, enhancing operational efficiency and allowing for earlier job initiation without disturbing surrounding areas. The mower's introduction comes alongside the expectation that it may replace some human labour.

The broader technological framework also includes a cloud-based management tool, John Deere Operations Center Mobile, allowing users to manage machine operations, view live video feeds, and receive alerts on job quality or machine health remotely.

At CES 2025, John Deere will also participate in various panel discussions, addressing topics related to the integration of technology in farming and the importance of embracing AI in agricultural practices. Notable speakers include Deanna Kovar, President for the Worldwide Agriculture & Turf Division, and Sarah Schinckel, Director of Emerging Technologies in the Intelligent Solutions Group.

John Deere is recognised globally for its impact in manufacturing agricultural, turf, construction, and forestry equipment, shaping sustainability and productivity in these sectors.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.dairyproducer.com/john-deere-to-unveil-next-generation-autonomous-machines-at-ces-2025/> - Corroborates the unveiling of John Deere's next-generation autonomous machines at CES 2025, including details on the autonomous 9RX Tractor, 5ML Orchard Tractor, 460 P-Tier Autonomous Dump Truck, and Autonomous Battery-Electric Commercial Mower.
* <https://www.synkd.io/synkd-news/john-deere-reveals-new-autonomous-machines-technology-at-ces-2025> - Supports the announcement of new autonomous machines by John Deere at CES 2025, highlighting the second-generation autonomy kit and its integration with AI and computer vision.
* <https://www.synkd.io/synkd-news/john-deere-reveals-new-autonomous-machines-technology-at-ces-2025> - Provides details on the press conference in Moline, Illinois, and the display of machines at the West Hall of the Las Vegas Convention Center from January 7 to 10.
* <https://www.dairyproducer.com/john-deere-to-unveil-next-generation-autonomous-machines-at-ces-2025/> - Explains the role of the second-generation autonomy kit in navigating complex environments using advanced computer vision and AI.
* <https://www.synkd.io/synkd-news/john-deere-reveals-new-autonomous-machines-technology-at-ces-2025> - Quotes Jahmy Hindman, Chief Technology Officer at John Deere, on the importance of autonomy in addressing labor shortages.
* <https://www.dairyproducer.com/john-deere-to-unveil-next-generation-autonomous-machines-at-ces-2025/> - Details the specific models of autonomous machines, including the Autonomous 9RX Tractor, 5ML Orchard Tractor, 460 P-Tier Autonomous Dump Truck, and Autonomous Battery Electric Mower.
* <https://www.synkd.io/synkd-news/john-deere-reveals-new-autonomous-machines-technology-at-ces-2025> - Describes the cloud-based management tool, John Deere Operations Center Mobile, for managing machine operations and receiving alerts.
* <https://www.dairyproducer.com/john-deere-to-unveil-next-generation-autonomous-machines-at-ces-2025/> - Mentions the participation of John Deere in panel discussions at CES 2025, focusing on technology integration in farming and AI in agricultural practices.
* <https://www.synkd.io/synkd-news/john-deere-reveals-new-autonomous-machines-technology-at-ces-2025> - Highlights the global recognition of John Deere in manufacturing agricultural, turf, construction, and forestry equipment.
* <https://www.dairyproducer.com/john-deere-to-unveil-next-generation-autonomous-machines-at-ces-2025/> - Provides additional context on the labor shortages in agriculture, construction, and commercial landscaping industries.
* <https://www.synkd.io/synkd-news/john-deere-reveals-new-autonomous-machines-technology-at-ces-2025> - Details the specific features of the Autonomous Battery Electric Mower, including its quiet operation and stereo camera systems.