# John Deere showcases innovative autonomous machinery at CES 2023



During a press conference at the Consumer Electronics Show (CES) held in Las Vegas, John Deere presented an array of autonomous machinery designed specifically to assist industries such as agriculture, construction, and commercial landscaping. The event highlighted the ongoing challenges these sectors face, particularly in the area of skilled labour availability.

Jahmy Hindman, chief technology officer at John Deere, addressed this issue, 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. Autonomy can help address this challenge. That’s why we’re extending our technology stack to enable more machines to operate safely and autonomously in unique and complex environments. This will not only benefit our customers, but all of us who rely on them to provide the food, fuel, fibre, infrastructure, and landscaping care that we depend on every day,” as reported by Industrial Vehicle Technology International.

Building upon the previous year's advancements in autonomous technology revealed at CES, John Deere introduced its second-generation autonomy kit, which incorporates enhanced computer vision, artificial intelligence, and a novel camera system that allows machines to navigate efficiently within their work environments.

One of the standout exhibits was the autonomous 9RX tractor tailored for large-scale agricultural operations. This tractor, equipped with the new autonomy kit, features 16 cameras that work in conjunction to create a comprehensive 360-degree field view. As a result, operators can step away from the machinery, enabling them to focus on other essential tasks, while the tractor also boasts improved depth calculations over significant distances to support heavier loads and faster operations.

The autonomous 5ML orchard tractor was also presented, specifically designed for air blast spraying in orchards with dense canopies. This machine utilizes the latest autonomy kit, which includes Lidar sensors to effectively navigate the intricate orchard environments.

In a move towards sustainable farming, John Deere unveiled the E-Power prototype, identified as an autonomy-ready tractor with zero tailpipe emissions, aimed at specialty crop producers as well as those involved in dairy and livestock. This eco-friendly tractor is capable of delivering a consistent output of 130 horsepower.

In the competitive realm of commercial landscaping, having sufficient staff is crucial for managing various bids. To address this need, John Deere introduced an autonomous commercial mower that applies similar camera technology as its other autonomous models, albeit in a more compact design. It is equipped with cameras positioned to ensure 360-degree coverage, thus allowing personnel to concentrate on critical aspects of their work.

For industries like quarrying, where the mining, processing, and transportation of raw materials are intricate, the unveiling of the 460 P-Tier Autonomous Articulated Dump Truck (ADT) is significant. This machine will undertake the repetitive logistics of transporting materials within quarries, thereby streamlining operational processes.

The autonomy kit from John Deere can be purchased pre-installed on new machines or as retrofit kits for selected existing models.

Management of these autonomous machines is facilitated through the John Deere Operations Centre Mobile, a cloud-based platform. Users can initiate operations with a simple swipe on their mobile devices once the equipment is placed correctly. Moreover, the app provides access to real-time video, images, data analytics, and performance metrics, along with the ability to modify aspects like speed. The system also offers remote notifications for job quality discrepancies or machinery health issues, enabling timely interventions.

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

## Bibliography

1. <https://igrownews.com/john-deere-latest-news/> - Corroborates the introduction of new autonomous machines by John Deere at CES 2025, including the autonomous 9RX tractor, 5ML orchard tractor, and autonomous commercial mower.
2. <https://www.youtube.com/watch?v=HDzlPrPRBKU> - Supports the details of John Deere's autonomy journey and the presentation of autonomous machines at CES 2025, including the autonomous 9RX tractor and its capabilities.
3. <https://igrownews.com/john-deere-latest-news/> - Provides information on Jahmy Hindman's statement about labor shortages and the benefits of autonomy in agriculture, construction, and commercial landscaping.
4. <https://www.youtube.com/watch?v=HDzlPrPRBKU> - Details the second-generation autonomy kit and its integration of enhanced computer vision, AI, and camera systems for efficient navigation.
5. <https://igrownews.com/john-deere-latest-news/> - Describes the autonomous 9RX tractor's features, including 16 cameras for a 360-degree field view and improved depth calculations.
6. <https://igrownews.com/john-deere-latest-news/> - Explains the autonomous 5ML orchard tractor's design for air blast spraying in dense orchard canopies using Lidar sensors.
7. <https://www.youtube.com/watch?v=HDzlPrPRBKU> - Mentions the introduction of the E-Power prototype, an autonomy-ready tractor with zero tailpipe emissions, aimed at specialty crop producers and those in dairy and livestock.
8. <https://igrownews.com/john-deere-latest-news/> - Describes the autonomous commercial mower and its camera technology for 360-degree coverage, helping personnel focus on other tasks.
9. <https://igrownews.com/john-deere-latest-news/> - Details the 460 P-Tier Autonomous Articulated Dump Truck (ADT) and its role in streamlining logistics in quarry operations.
10. <https://www.youtube.com/watch?v=HDzlPrPRBKU> - Explains the management of autonomous machines through the John Deere Operations Centre Mobile, including real-time monitoring and control.
11. <https://www.ivtinternational.com/news/autonomous-vehicles/john-deere-highlights-autonomous-machines-at-ces-2025.html> - Please view link - unable to able to access data