

# Cutting-Edge Technologies in Agricultural Mechanization

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China Association of Agricultural Machinery Manufacturers

October 25 , 2025    Wuhan

## Brief Overview of CAAMM



est1990

National Non-  
Profit Social  
Organization

over 1,800  
members

Agricultural machinery  
and parts manufacturers

19 branches

Branches by  
products

**Mission: To Support the Government, Lead the Industry, and Serve Our Members**

## Industrial Exchange Platforms

- Organizing Exhibitions (5/y)
- AM Technological Conference (1/y)
- AM Purchasers Summit (1/y)
- AM Entrepreneurs Summit (1/y)
- -----

## Driving Industrial Upgrading

- Smart Manufacturing
- Standardization Development
- Science and Technology Awards
- Innovative Product Awards/Selection
- -----

## Promoting Technological Progress

- New Energy AM R&D(electric and hybrid)
- New Material Applications(plough etc)
- New inhouse Technologies and Processes
- China Emission Standard Upgrades
- -----

## Guiding Industry Self-Regulation

- Credit Rating Evaluations
- To set benchmarks and establish models
- Industry-wide Joint Initiatives
- AM Big Data Platform-----

## **1.Revenue**

In 2024, the total operating revenue of agricultural machinery enterprises reached 260 billion yuan, representing a year-on-year increase of 5.2%. The total profit was 14 billion yuan, up by 0.5% compared to the previous year.

## **2. Mechanization Rate**

The comprehensive mechanization rate for crop planting, cultivation, and harvesting reached 75% in 2024. The three major grain crops—wheat, rice, and corn—have essentially achieved full mechanization. In 2024, their respective comprehensive mechanization rates reached 97.8%, 88.0%, and 91.7%.

## ➤ **National Development and Reform Commission (NDRC)**

- National Key Technological Equipment R&D Program (2021-2023)
- Three-Year Action Plan for Enhancing the Core Competitiveness of the Manufacturing Industry (2015-2017, 2018-2020)

## ➤ **Ministry of Industry and Information Technology (MIIT)**

- Special Project for Addressing Weak Links in the Supply Chain
- Special Project for High-Quality Development
- Insurance Compensation Mechanism for the First Set of Major Technical Equipment

## ➤ **Ministry of Agriculture and Rural Affairs (MARA)**

- Pilot Project for the Integrated Development of R&D, Manufacturing, and Application of Agricultural Machinery
- Project to Address Weak Links in Agricultural Machinery Equipment
- Initiative to Build Pilot Zones for the R&D, Manufacturing, and Application of "One Large, One Small" Agricultural Machinery Equipment

## Key Achievements In AM



- **Power Shift and CVT launched into the market in volume.**
- **Hybrid and e-tractors enabling the sector to "overtake on a new track"—gaining a competitive edge through technological leapfrogging.**
- **Grain combine with feeding capacities of 18 kg/s are making significant technological breakthroughs.**
- **6-row cotton pickers with round bales now are popular in XJ and exported in volume.**



# Key Challenges



1. A significant gap remains compared to the international advanced level in high-horsepower, intelligent, and combined implements.
2. No substantial breakthrough has yet been achieved in agricultural machinery tailored for hilly and mountainous areas.
3. Obviously deficiencies in equipment for the production of fruits, vegetables, tea, and edible fungi.



CASE-Stiger715



NH-CR11(775hp/18.3m)

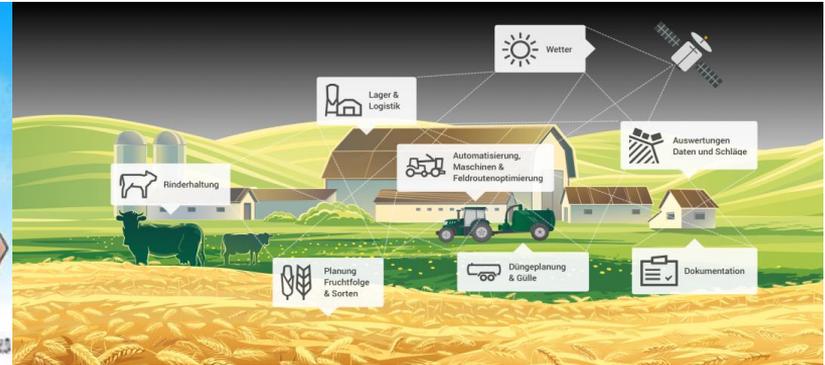


Deere-S7(334-625hp)



Horsh implements

- **Deep Integration of Agronomy and Machinery:** It is crucial to develop crop varieties and cultivation practices that are machine-adaptable. Focusing on practical application scenarios and ensuring sufficient operational utilization time are key.
- **Bridging the Gap Between Research and Application:** A genuine pipeline must be established where universities and research institutions provide foundational support for agricultural machinery product innovation.
- **Empowering the Core of Innovation:** Enterprises must intensify their innovation efforts, as a strategy solely based on imitation is not sustainable.



## New technology

 Competition by 21 tractors from 16 manufactures (including electric tractors and hybrid tractors)

 More support policy from local government e.g. Jiangsu, Anhui, XJ.....

- ✓ Time: 11-18 April , 2025
- ✓ Location: Tacheng district, XJ
- ✓ Organizer: Agricultural Mechanization General Station of the Ministry of Agriculture and Rural Affairs



# High Performance Tractors on field demonstration



**YTO Group participated with 5 intelligent tractor models in the operational demonstrations and 13 models on display**



**The tractors that participated in the demonstration were:**

**HB2204 (Hybrid)**

**LW2404 (CVT)**

**LW3204 (CVT)**

**LF2204 (Power Shift)**

**LZ2604 (Power Shift)**

- ✓ Time: 10 Sep. , 2025
- ✓ Location: Hulunbuir Farming and Reclamation Group
- ✓ Organizer: Agricultural Mechanization General Station of the Ministry of Agriculture and Rural Affairs





谢谢  
Thanks