

Orchard Autonomous Sprayer

S500

Unmanned Driving · RTK Positioning · Intelligent Operation



COMPANY PROFILE

Jiangsu Lanjiang Intelligent Technology Co., Ltd. (referred to as "LJ Tech") is China's first vertically integrated agri-robotics solution provider. We own three revolutionary product lines: Orchard Robotics, Field Patrol & Management Robots, SAAS Digital Agriculture Platform. By owning every layer of technology - embedded hardware, AI algorithms, and cloud systems -we make farms work smarter, ensuring seamless coordination between machines, data, and workflows.

LJ Tech has taken a significant step in exporting agricultural robots to a dozen countries. We contribute to the global shift towards a green, unmanned, and intelligent future in agriculture.



PRODUCT STRUCTURE



APPLICATION SCENARIO



Convenient Structure

- Side opening design
- Easy to maintain core components

Long Endurance

- 500L water tank, longer spraying cycle
- Hybrid Power, diesel engine + super capacitor
- 6 Hr Endurance



Automated Driving System

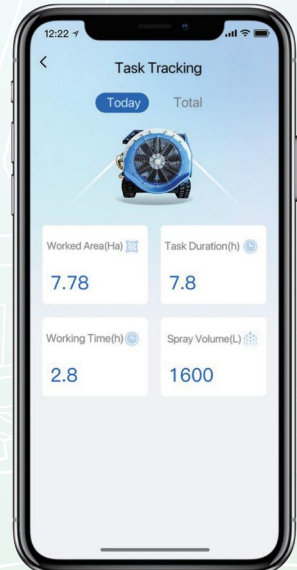
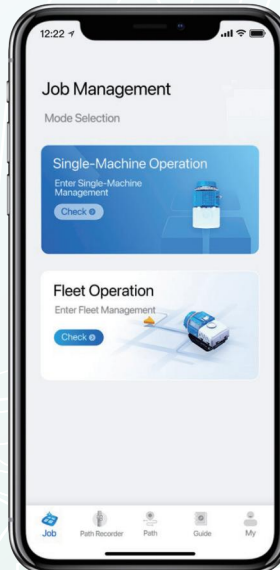
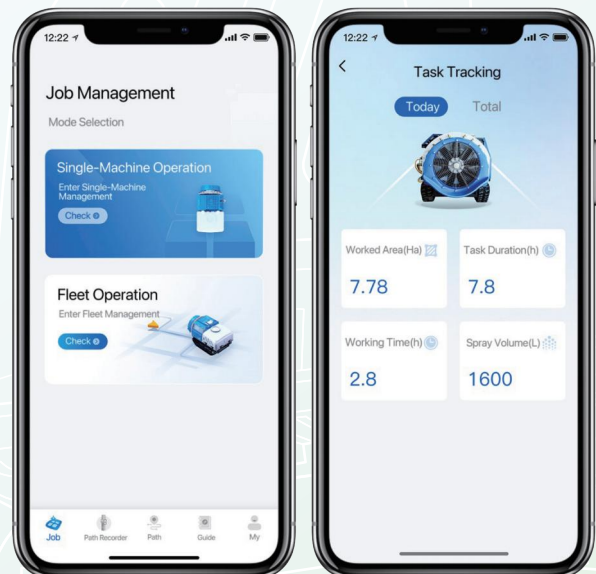
- **Multiple Mapping Ways**
Machine memory, path recorder, discrete point marking, drone mapping
- **CM-Level Accuracy**
RTK technology supports $\pm 5\text{cm}$ accuracy. Inertial navigation ensures continuous operation during brief signal loss
- **Human Safety**
Distance prevents pesticides poisoning
Night work becomes easy as day work
Machine work lowers labor intensity
- **Machine Safety**
Millimeter Wave radar, weak-signal stop, low-liquid-level stop, lateral-offset stop

Digital & Intelligent Features

- **Spray Cutoff During Turns**
Saves chemicals by automatically stopping spray during turns
- **Smart Monitoring**
Real-time device status & operation data tracking via mobile APP
- **Smart-Refill**
AI-powered algorithm calculates optimal refill points for maximum efficiency
- **Fleet Management(Optional)**
One-person can manage multiple machines via "Orchard Mate" APP

High ROI

- 3 times efficiency VS traditional machines
- Algorithm-driven, boosts consistency and output



DATA PARAMETERS

Basic Configuration	
Overall dimensions	2634mm(L)*1200mm(W)*1365mm(H)
Unloaded weight	1050kg
Power type	Range-extended Electric Powertrain
Endurance time	≥6h
Power System	16kW / 21Hp diesel engine(Euro 5), 40V-67.2V Super Capacitor
Generator power	8kW
Chassis type	Track chassis
Ground clearance	18cm
Travel speed	0-3.2km/h
Climbing angle	≤10° for constant slope
IP Rating	IP55
Spray System	
Water tank capacity	500L + Recirculation mixing system
Rated pressure	0-3.5MPa
Flow range	0-42 L/min
Number of Nozzles	12
Spray radius	15m wide, 5-7 m high
Atomization effect	80-200 μm
Autopilot System	
Ways of navigation	GNSS + RTK (Base Station/ CORS Net) + IMU(Inertial Navigation)
Positioning accuracy	± 5 cm
Safety	Milimeter Wave Radar/ Low-liquid-level Stop/ Weak-signal Stop/ Lateral-offset Stop
Intelligence	Path Sharing/Stop spraying during turning/ Smart Refilling Alert/Fleet Management(optional)
Smart Remote (Optional)	Path Tracking; Real-time Data Monitoring ; Video-transmission Display
Interactive System	PC, Big data management platform, APP of Smart phone



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