Tracked Self-Propelled Air-Assisted Sprayer？No Soil Damage, No Charging Downtime – One Operator, One Orchard

Xian, Shaanxi May 20, 2026 (Issuewire.com**)** - Tracked Self-Propelled Air-Assisted Sprayer integrates pure electric drive, rapid battery swapping, precision mist spraying, an optional mowing module, and intelligent navigation into one platform. It is specifically designed to solve key industry pain points such as difficult operation on complex terrain, tight crop protection windows, low equipment utilization, and rising labor costs. Whether for small **Orchard**s racing against short farming windows or large-scale plantations pursuing around-the-clock operation, this system provides a stable, efficient, and worry-free solution.**Rubber Tracks Instead of Wheels: Enter the Field Earlier After Rain While Protecting Soil Structure**Traditional wheeled equipment often slips, sinks, or compacts the soil in soft, wet, or sloped orchards, delaying critical spraying windows. The Tracked Self-Propelled Air-Assisted Sprayer adopts a rubber tracked chassis with a larger ground contact area, allowing stable operation across hillsides, muddy ground, and rocky terrain without slipping or getting stuck.More importantly, the tracks are highly friendly to topsoil and shallow root systems — they do not compact the soil or damage roots. Growers can enter the field earlier after rainfall and seize every crop protection window before diseases spread. This feature is especially valuable for small and medium-sized orchards and growers operating in hilly regions.**Rapid Battery Swapping: No Waiting for Charging — "Operators Rest, Machines Keep Working"**A common concern with electric agricultural equipment is charging downtime. The Tracked Self-Propelled Air-Assisted Sprayer solves this problem through a rapid battery swapping system. When the battery is depleted, the operator can replace it with a fully charged spare battery in approximately two minutes and immediately continue operation — no need to wait for charging in the field. Combined with night operation capability, a single robot can achieve true 24-hour continuous operation — workers rotate shifts while the machine keeps running.For large orchards requiring continuous operation, fewer interruptions mean larger daily coverage, faster return on investment, and the ability to fully utilize short crop protection windows.**Mist Spraying System + Autonomous Driving: Uniform Coverage, Reduced Chemical Use, Better Protection**Effective crop protection requires precision, uniformity, and minimal waste. The Tracked Self-Propelled Air-Assisted Sprayer is equipped with an air-assisted mist spraying system combined with autonomous driving along preset routes, generating fine droplets capable of penetrating both the inner and outer canopy, including difficult-to-cover leaf undersides. Accurate spray overlap prevents missed spraying areas that may lead to disease outbreaks while also avoiding excessive spraying that wastes chemicals and damages crops.Higher chemical utilization directly reduces operating costs. For cost-conscious orchard owners, this spraying system transforms crop protection expenses into a controllable competitive advantage.**Multi-Purpose Platform: Optional Mowing Module for Both Spraying and Weed Control**Traditional sprayers often remain idle for much of the year, reducing return on investment. The Tracked Self-Propelled Air-Assisted Sprayer supports an optional tow-behind mowing module with three available configurations:Inter-tree mowing – Precisely removes weeds between fruit trees without damaging trunks.Row mowing – Quickly clears orchard lanes and keeps pathways clean and accessible.**Flail mowing – Suitable for thicker weeds and crop residue.**One machine = Crop Protection Robot + Orchard Mower. From spring orchard cleaning and seasonal crop protection to summer weed management, the Tracked Self-Propelled Air-Assisted Sprayer remains useful throughout nearly the entire year, greatly reducing idle time and significantly improving equipment utilization and ROI.**Intelligent Navigation + Multi-Robot Coordination: One Operator Can Manage an Entire Orchard**The Tracked Self-Propelled Air-Assisted Sprayer supports autonomous navigation. An even more powerful feature is multi-robot collaborative operation: through centralized backend scheduling, growers can deploy one unit for primary spraying while another handles edge-area

spraying or mowing operations — all machines operating simultaneously.For labor-constrained orchards, this delivers genuine cost reduction and efficiency improvement — one operator can manage tasks that previously required an entire team.**Suitable for a Wide Range of Crops and Terrain**This robot is primarily designed for high-value orchard crops, including grapes, goji berries, apples, kiwifruit, citrus, and other perennial orchard crops in hilly regions. The Tracked Self-Propelled Air-Assisted Sprayer can easily adapt to slopes, muddy fields, and rocky terrain.**Summary: One Machine Solves Three Major Orchard Challenges**Terrain Adaptability – Rubber tracks provide strong climbing ability without damaging soil or root systems.Continuous Operation – Pure electric drive with 2-minute battery swapping and night operation capability support true 24/7 operation.**Precision Spraying – Uniform mist coverage reduces chemical use while improving disease prevention.**Multi-Function Capability – Optional mowing modules keep the machine productive year-round.Intelligent and Efficient – Autonomous driving and multi-robot coordination allow one operator to manage an entire orchard efficiently.

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