The Agras MG-1S integrates a number of cutting-edge DJI technologies, including the new A3 Flight Controller and a Radar Sensing System that provides additional reliability during flight. The spraying system and flow sensor ensure accurate operations. When used with the MG Intelligent Operation Planning System and the DJI Agriculture Management Platform, a user can plan operations, manage flights in real-time, and closely monitor aircraft operating status. The MG-1S is a high-performance aircraft capable of offering comprehensive solutions for agricultural care.
With a dedicated smartphone App, the portable Droplet Analyzer can take pictures of droplets on water-sensitive test paper, giving the operator feedback of ongoing operations.

The high-precision RTK System provides centimeter-level accuracy, making it ideal for precise, targeted spraying. It also supports precision field mapping and enhanced flight reliability. When flown single pilot, waypoint information can be uploaded to the MG Intelligent Operation Planning System, so it is very easy to use.

A specially designed Charging Hub connects up to 6 batteries, and each intelligent balancing charger can connect 2 charging hubs. In total 12 batteries can be connected and charged in sequence, saving you the trouble of replacing batteries for charging. It can balance the voltages of each battery when charging, allowing longer battery life.

The MG-1S controller includes a bright 5.5 inch/1080p display that is visible even under strong sunlight. With a built-in operation planning system, users can use the controller to increase working efficiency. The battery of controller supports a working time up to 5 hours, enabling long-time outdoor operations.

The frame arm of the MG-1S is detachable, and the landing gear is optimized, lowering potential maintenance costs. A water-resistant film has been added to protect the ESCs. The liquid valve has been placed on the side of delivery pump, and the delivery pump is located above the spray tank, making liquid injection, demounting and cleaning more convenient.

Three high-precision, microwave radars are placed on the front slope, rear slope and the bottom of the spray tank. Radars on front and rear slopes detect the terrain, allowing the aircraft to adjust its height approximately. The downward radar then provides high-precision height. As the radars scan, the MG-1S is able to perceive the change of terrain, adjust its altitude and maintain its altitude above the crops.

A new spraying system enables more accurate spraying. With two compatible pumps controlling the front pair and rear pair of nozzles separately, there are now three spraying modes available: forward spraying, backward spraying and full spraying. A new pressure sensor and flow sensor monitors the spraying rate in real-time, realizing dynamic control over spray speed and amount during operation. Nozzles with extended spray booms have been used to make better use of downward airflows. This spraying system now responds more accurately to commands, adding accuracy and effectiveness to spraying operations.

DJI provides a comprehensive spraying management platform along with the MG-1S. Use the platform to supervise the flight status of every aircraft, master spraying status and manage your spraying team to improve working efficiency. You can also assign fields to each operator and check deployed fields. By sharing intelligent planning to operators, management for spraying operations will be more efficient and economic, as operators can avoid repetitive spraying.

A new Intelligent Flight Battery is available. The battery of 12000mAh can hover for 22 minutes* without load. A high-strength protective shell and dampers are applied outside the battery, and the cables are also well-protected for safety and reliability. In addition, the battery provides more stable voltage, extending its lifespan.

DJI Agriculture Management Platform

The MG-1S uses an intelligent battery with a capacity of 12000mAh, it can hover for 22 minutes* without load. A high-strength protective shell and dampers are applied outside the battery, and the cables are also well-protected for safety and reliability. In addition, the battery provides more stable voltage, extending its lifespan.

Professional Controller

The MG-1S controller includes a bright 5.5 inch/1080p display that is visible even under strong sunlight. With a built-in operation planning system, users can use the controller to increase working efficiency. The battery of controller supports a working time up to 5 hours, enabling long-time outdoor operations.

ACCESSORIES

High-precision RTK System

The high-precision RTK System provides centimeter-level accuracy, making it ideal for precise, targeted spraying. It also supports precision field mapping and enhanced flight reliability. When flown single pilot, waypoint information can be uploaded to the MG Intelligent Operation Planning System, so it is very easy to use.

Droplet Analyzer

With a dedicated smartphone App, the portable Droplet Analyzer can take pictures of dropplets on water-sensitive test paper, giving the operator feedback of ongoing operations.

Battery Charging Hub

A specially designed Charging Hub connects up to 6 batteries, and each intelligent balancing charger can connect 2 charging hubs. In total 12 batteries can be connected and charged in sequence, saving you the trouble of replacing batteries for charging. It can balance the voltages of each battery when charging, allowing longer battery life.

*Hovering time acquired around sea level, with wind speeds lower than 3m/s.

*DJI's A3 Flight Controller is capable of high levels of reliability. Its algorithm has been optimized for agricultural utilizations, ensuring stable flight even with sloshing liquids. In addition, the redundant design of the A3 includes dual compasses. If an error occurs in one sensor, the A3 is able to perceive the change of terrain, adjust its altitude and maintain its altitude above the crops.