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Corbet Scientific launches Hydrovant ULV adjuvant for agricultural drone and aerial spraying

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The water-based polymer formulation is designed to improve spray deposition, canopy coverage and tank-mix stability during low-volume crop protection applications.



US-based agricultural technology company Corbet Scientific has launched Hydrovant ULV, a water-based, multi-polymer spray adjuvant developed for low-volume crop protection applications using agricultural drones, fixed-wing aircraft and helicopters. The product was introduced on 17 November 2026 during the National Agricultural Aviation Association's Ag Aviation Expo in Savannah, Georgia.

Hydrovant ULV is designed to address challenges associated with aerial spraying operations, particularly the increased concentration of crop protection products when reduced volumes of carrier water are used. According to Corbet Scientific, the formulation helps improve spray deposition, maintain tank-mix stability and support more uniform coverage of crop canopies.

Formulation targets low-volume spraying challenges

Agricultural aerial application systems operate with varying amounts of carrier water depending on equipment, crop conditions and application requirements. Corbet Scientific noted that fixed-wing aircraft commonly apply approximately two to five gallons per acre, while some agricultural drones operate at volumes as low as one gallon per acre.

When pesticide application rates remain unchanged but carrier water volumes are reduced, tank mixes become more concentrated, potentially creating challenges involving product compatibility, spray distribution and deposition. Hydrovant ULV uses a water-based polymer system intended to improve the behaviour of concentrated spray mixtures during application. The company said the formulation helps maintain spray uniformity and supports the delivery of active ingredients into crop canopies without requiring operators to unnecessarily increase droplet size.

Polymer technology supports deposition and retention

Hydrovant ULV incorporates multiple polymers designed to interact with crop protection ingredients and plant surfaces. According to Corbet Scientific, the formulation acts as a deposition aid, helping spray droplets reach and remain on their intended targets.

The company also claims that its polymer technology improves the retention of active ingredients on foliage, supports rainfastness and helps maintain conditions favourable for plant uptake. Tom Zangrillo, Vice President and Director of Agronomy at Corbet Scientific, said the product was developed to help aerial applicators maintain effective coverage while using concentrated tank mixtures.

The formulation is oil-free and designed to support crop protection applications without independently contributing to leaf injury, according to the company. However, Corbet Scientific has not disclosed quantified performance improvements or comparative field-trial results specifically for the new product.

Designed for aircraft and agricultural drones

Hydrovant ULV can be used with fixed-wing aircraft, helicopters and agricultural spraying drones, subject to pesticide label requirements and applicable regulations. The product is manufactured in the United States and is formulated without alkylphenol ethoxylates (APE) and nonylphenol ethoxylates (NPE), according to Corbet Scientific. Its introduction expands the company's existing Hydrovant agricultural polymer technology portfolio, which focuses on improving the delivery and retention of crop protection inputs.

As agricultural drone adoption expands, the development of compatible spray adjuvants is becoming increasingly relevant to application efficiency and operational performance. Corbet Scientific has not announced specific Asia-Pacific distribution arrangements or regulatory approvals associated with Hydrovant ULV. The launch adds another technology option for aerial applicators seeking to manage concentrated tank mixtures and improve spray deposition, although performance will depend on the crop protection products used, application equipment and field conditions.