AgroScout and the newly launched DJI Mavic 3 Multispectral enterprise series bring a new era to precision agriculture

DJI's new M3M bringing data collection to the extreme. But collecting data is not enough. That's where AgroScout comes in.

ISRAEL, December 14, 2022 /EINPresswire.com/ -- DJI's new M3M enables data collection X10 with longer flight time, faster image capture, and multi-spectral sensors, bringing data collection to the extreme. But collecting data is not enough. That's where AgroScout comes in.
We analyze the data using AgroScout's artificial intelligence and deep agronomy know-how to bring meaningful insights and recommendations faster.

DJI together with AgroScout, is a formidable team helping farmers grow more with less. We're available globally.

Variable spraying maps that can be uploaded straight to DJI spraying drones

"The launch of DJI Mavic 3 Multispectral will help farmers around the world to improve the quality and efficiency of their production, reduce costs, and increase income, all while promoting the development of modern agriculture," said Ronnie Liu, Regional Representative of North America at DJI Agriculture.

With DJI Agriculture's ongoing commitment to opening more possibilities to users, Mavic 3 Multispectral represents a new realm of portability. Based on the design of DJI's flagship consumer drone, Mavic 3 Multispectral weighs just 951 grams to easily fold and fit into an ordinary bag, helping users to carry out operations anytime, anywhere.

AgroScout Platform

The AgroScout platform collects data to create analytics for actionable insights in crop management. AgroScout monitors the crop from emergence stand count, through canopy coverage estimates, and plant biomass, throughout the season. The platform also continuously monitors for pests and disease, decreasing pesticide use by early detection when infestation levels are low and curative treatments are highly effective, predicting regional outbreak tendencies.

DJI together with AgroScout, is a formidable team helping farmers grow more with less

AgroScout delivers precision agriculture solutions that help food production companies build more profitable and more sustainable operations. Combining advanced analytics and high-resolution aerial imagery, it provides a full picture of crop health and helps to transform the food production supply chain and improve margins with greater visibility.

RGB and Multispectral Imaging System

Mavic 3 Multispectral – also known as Mavic 3M – uses a two-in-one camera system to view and collect a wide array of information that users can turn into results on the field.

An RGB camera is equipped with a 4/3-inch CMOS and 20MP image sensor and mechanical shutter with a maximum speed of 1/2000. It manages high-speed continuous filming at the fastest interval of 0.7 seconds and can quickly collect image information, greatly improving the efficiency of operations over the fields.

In addition to the RGB camera, four multispectral cameras provide more accurate directional information, helping users gain a deeper understanding of crop conditions by sensing details that the human eye cannot detect. Each of the four multispectral cameras of can capture 5 million pixels and scan for the following wavelengths:

Green (G): 560nm ± 16nm
Red (R): 650 nm ± 20 nm
Red edge (RE): 730 nm ± 20 nm
Near-infrared (NIR) 860 nm ± 26 nm

By combining RGB camera and multispectral narrow-band cameras, Mavic 3M realises applications such as high-precision aerial surveys, crop growth monitoring, and natural resource surveys.

RTK Centimeter-Level Positioning

Mavic 3M includes an RTK module that achieves centimetre-level positioning. The drone, its camera, and the RTK module are synchronised at the microsecond level to accurately obtain the position information of the imaging centre of each camera. This allows Mavic 3M to perform high-precision aerial surveying without the use of ground control points. And with a battery life of up to 43 minutes, Mavic 3M can complete the surveying and mapping operations of an area as vast as 2 square kilometres in a single flight.

Variable spraying map

Working with the DJI agriculture product team AgroScout has developed the ability to produce variable spraying maps that can be uploaded straight to DJI spraying drones such as Agras T-10, T-30, and the new T-40.
Using M3M will enable us to cover more area with the high capacity battery and produce much more accurate variable spraying maps and save money for the farmer.

We have launched a case study for potatoes with the new Mavic 3 multi-spectral in China, Israel, and South Africa, and will focus on the ROI and the insights for the grower over this growing season.

Simcha Shore
Agroscout
+972 52-925-6266
email us here
Visit us on social media:
Facebook
Twitter
LinkedIn
Other
