

Esri partner Pollen Systems to develop advanced Agriculture Analytics tools

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Esri, the global market leader in geographic information system (GIS) software, has partnered with advanced data analytical company Pollen Systems to develop a analytical tool PrecisionView® Mobile to assist farmer to capture a 360-degree digital twin of their farm.

The novel tool by Pollen Systems can arrange drone or satellite aerial data capture anywhere in the world to fuel their PrecisionView® Platform. Built entirely on, and powered by, Esri's ArcGIS system, the PrecisionView® Platform maps out spatially accurate farm blocks and provides precise locations of IoT devices, integrating data from moisture, irrigation, and climate sensors. The tool can also be used in aerial imagery, soil maps, topography, and more.

Data and images are managed in Pollen's PrecisionView® Platform. Using powerful analytic capabilities, data is segmented and tracked at the individual plant, partial or full row, or block level, highlighting crop vigor and variability, water stress, and pest and disease pressure on any sized farm. Farm Managers receive detailed reports and recommendations to help their farms be as efficient, productive, and profitable as possible.

With the addition of PrecisionView® Mobile powered by the ArcGIS Maps SDK for Swift, farm workers equipped with iOS devices can download and use maps offline, address tasks, and provide annotations that synchronize when network access is available.

By using drones and satellites to scout issues, Pollen Systems cuts the high labor cost and time for the detection of pests and diseases by up to 90%. For instance, a drone flyover over 100 acres takes less than an hour, while it could take days to inspect by hand.