

# AQUATEK Reinvents the Agriculture Industry with Digital Farming Solutions



## Enabling farmers to make data-driven decisions about irrigation and crop management.

The Monsanto Corporation provides agricultural products to farmers all around the world, and it fully understands the challenges of resource management, especially water and energy. Several years ago, Monsanto established AQUATEK™, which aims to help farmers use water more efficiently while improving the health and yield of their crops.

AQUATEK then developed a business vision – a simple, cost-effective tool that farmers can use for real-time field management and decision-making. This digital tool would track water usage and set accurate, precise irrigation plans – without having to install a costly irrigation management system. It would also help farmers monitor the health of their fields via satellite allowing them to take action before there is a problem. Plus, it would be mobile, allowing the farmer to use it from anywhere, at any time.

We were chosen to design and implement the solution on the strength of its successful track record with Monsanto, its strong suite of skills and capabilities, and its well-conceived execution approach.

The result is an easy-to-use application that farmers can use on numerous smart devices. Some 300 farmers began using it in 2016, and trials in Europe have delivered promising

### AT A GLANCE

AQUATEK, a Monsanto brand, needed an easy-to-use digital application that farmers could use to manage water use and maintain the health of their crops. The company selected us for its successful track record with its parent company, Monsanto, and for its approach to the design and implementation of the solution.

### OUTCOMES

At the end of 2016, the multi-language application was in use with more than 300 farmers in Europe. The client is projecting an additional 1,000 in 2017. The solution is:

- Empowering farmers to track crop water usage and develop accurate irrigation plans.
- Providing satellite data to monitor crop health.
- Providing irrigation prescriptions to support cost-effective crop production.
- Our welcome video on the [AQUATEK website](#), “The Digital Future for Farmers,” received an award at the prestigious Telly Awards competition.

results including significant crop yield increases, 17% savings in water use, and improvements of 17% or more in both irrigation water productivity and fuel cost efficiency.

As one customer says, "Thanks to AQUATEK, we have total control of our fields. It's like having our land always in our hands."

## FROM VISION TO SOLUTION

For this engagement, we worked with AQUATEK™ to convert the company's business vision into a digital solution.

The ultimate goal was to help farmers "listen to their fields." To do that, our designers listened closely to farmers already working with AQUATEK and utilized an intuitive UX design process.

There are three primary components to the solution: water use tracking, crop health tracking, and irrigation advice. To make this work efficiently, soil moisture probes are placed throughout the fields. These probes are linked to a satellite service that monitors daily water use and estimates future requirements, providing irrigation alerts and recommendations.

The system also generates crop health maps, which highlight areas of crop stress within each field and suggest early investigation of possible pest, disease or other environmental problems. A third-party solution linked to AQUATEK provides data from a network of local weather stations to help adjust irrigation plans as conditions change.

The engagement proceeded through a requirement analysis, design, development and testing. We employed a responsive web design approach that provides optimal viewing across a wide range of devices, and utilized support around the globe for development and testing. Plus, we created an animated video to educate farmers about AQUATEK's innovative service providing accurate irrigation forecast and real-time field status.

Today, AQUATEK is "listening" to crop fields in several European countries, delivering short alerts and e-mails to farmers who are using the service on smart devices of their choice.

The original vision for AQUATEK was to help make farming more sustainable from an economic and environmental perspective. The new AQUATEK application is the practical realization of that vision.

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