

U.S.-based SmartBee Controllers has recently released its wireless hydroponic monitoring system onto the market, which it says acts as a 'watchdog' in hydroponic greenhouses to maximize resource efficiency and avoid any damage to crops.



The system uses a variety of sensory devices spread throughout the greenhouse that are capable of measuring key environmental factors like temperature and humidity, along with light and water content.

The sensors all connect with a central processor - 'The Hive' - and inform the user in real-time via a smart mobile device connected to the Internet exactly what is going on with their hydroponic setup.

SmartBee Controllers marketing director Jason Hadley told www.freshfruitportal.com the system's main purpose was to make successful greenhouses by monitoring the users' garden when they weren't there.

"Often times what can happen is growers will be surprised by certain events that take place in their room, because they can't be there 24/7," Hadley said.

"So what we're all about is minimizing downtime and making sure that you know what's going on in your greenhouse in real-time."

Along with providing the user with up-to-date information, the SmartBee system can also be preconfigured to take action should it detect anything unusual.

"Using products like our water content sensors we can set up a sort of if-then scenario where, for example, let's say your plant hasn't dried down to the point where it requires watering, it will intuitively be able to cut off the watering in order to make sure that you don't overwater your plants," Hadley said.

"So it's basically a watchdog for your garden that's acting on your behalf all the time and requires little learning of any new technology. It can also fit into any pre-existing space as far as the sensor installment is concerned."

Hadley added another benefit of the system was how it could act as a safety net for people who wanted to begin hydroponics cultivation, but were worried about not having enough farming knowledge to grow successful crops.

"For the newer gardener who may be a little bit more tech savvy than garden savvy, it definitely helps to isolate those variables that can really be discouraging to a new farmer who wanted to get started within the industry," he said.

Marketing focus not on technology

The development of these products has been 'years in the making', and Hadley explained how a lot of it came from the shortfalls of competitors in the market.

"In some cases they're not necessarily iPad compatible, or maybe their customer service wasn't as friendly as they wanted - so there's a component of not just developing the technology but making everything accessible to the average user and the average retailer," he said.

The SmartBee Controllers were officially launched at Maximum Yield's Indoor Garden Expo in California at the end of July, and the company is now looking to increase the number of hydroponics retail stores selling its products.

Hadley said the company was not marketing the products to retailers with focus on the technological aspect of the system, but rather highlighting it as a solution to avoid mishaps in greenhouses.

"Rarely do people come in and say 'I want to automate my garden' - what they tend to come in and say is 'my lights didn't turn off and when I came in in the morning I walked into a room of straw'," he said.

"So really it's about damage control and about mitigating downtime and crop loss.

Ultimately when you make a more successful gardener for the retailers that carry us, it actually makes for a more long-term customer.

"It's the guys that are successful that are going to keep coming back to our retailers and buying more nutrients and buying more grow medium and all of the products and services that they need to continue gardening, versus the one-time gardener who tried it for a couple of cycles and couldn't get the hang of it."

The future of hydroponics

Positively for the company, Hadley said he had noticed significant growth in the hydroponics industry over recent years, adding its environmental benefits over traditional farming methods would see the sector make substantial progress throughout the world.

"Hydroponics is a multi-billion dollar industry globally, and with the loss of quality farmland, let alone just the real estate itself, we're building a more efficient means of growing larger quantities of crops," he said.

"As well, it's an efficient use of water, for ecology. If you're using your lighting and your irrigation as efficiently as possible, then you're growing the most you can using the smallest amount of resources."

Photo: [SmartBee Controllers](#)

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