Ushering in the era of digital agriculture

Business, Industries

Technological inputs in modern-day farming will not just increase farm efficiency, but will also yield a higher quality end product.

The world population is constantly growing. That accounts for nearly 7. 5 billion people who need to be fed at least three meals a day for a basic, healthy living. As per experts from the UN, at this rate the population will grow to nearly double the current figure by the year 2050. Moreover, the looming shadow ofclimate changeand less predictable weather will continue to develop and persist for the foreseeable future. All these factors and more are the reason why the supply offoodcrop often falls short of the demand.

While it's true that farm produce relies on a lot of factors, it remains a challenge to look at. There is a greater need to increase crop yield and crop quality to keep pace with the demand. Thisresponsibilityfalls on the shoulders of the common farmer. The best solution for the farmer to keep pace with the demand is digital agriculture.

Digitizing farms is the answer to an ever-growing demand

In the 20th century, it was advances totechnologythat made it possible to feed a staggering population. Advances to irrigation techniques, fertilization methods, machine-driven farm technology and a lot more were at the core of these advances. The growing challenge of climate change and larger population looms over the farmer's field once more. It's at this point of evolution in mankind's timeline that digital agriculture needs to take center stage.

The market value of digital agriculture is estimated to be worth over $4. 5 billion come 2020. In fact, it has consistently been growing over the last five to seven years, albeit out of the limelight. Digital agriculture addresses the challenge of drastically improving crop yield through techniques. Modern computer vision, precision sensors and machine-learning technology will aid farmers in a progressively greater yield. A greater yield will ensure a larger population can be fed out of the same portion of crop land, with lesser effort on the part of the farmers themselves.

Organizations are already making an effort to drive digital agriculture. The Climate Corp. is working on a digital analytics hub as a core-tool for farmers. Now under the banner of agri-giant Monsanto, Climate Corp. strives to use satellite imagery and soil readings to gather critical crop-data. This crop data can pave the way for predictive algorithms that guide farmers on precise application of seeds, irrigation, fertilization and pesticide use. At this point the integrity of data and its access needs to dealt with diligently, while allowing adequate ease-of-use for farmers. To address this, the likes of the American Farm Bureau Federation come in. Industry groups such as the Farm Bureau ensure farmers understand how data is generated and stored, as well as raise awareness of industry rules and data-sharing policies. Prospera based out of Tel-Aviv strives to use sensor data and machine-learning to identify crops being plagued by issues like improper irrigation and disease. The numbers from machine-driven technology can gradually aid farmers in areas like efficient pesticide usage, reduced runoff into soil and ground water, optimum water usage and a lot more.

Technology driven agriculture will transform the way we look at food

Digital technology in agriculture will definitely bring more fresh food to the table. Moreover, it will also gradually bring down the adverse effects of technology used on farms on theenvironment. In the future, farmers will transition to simply crunching numbers as machines takeover on-field operations entirely. Until then however, digital agriculture ensures more income for farmers, greater yields and a higher quality end-product on the table. This leaves us with no doubt that digital-agriculture is the next wave of tech that can clash against the rise of newer socio-economic problems.