Farm to Fork, the Hi-Tech Way

By BINDU GOPAL RAO

The lockdown has created a new food chain for both the urban farming community growing produce on home terraces and agriculturists on conventional farms. Artificial Intelligence and new machinery are making it efficient and progressive. For example, an IIT Madras app offers a seed-to-plate supply chain. NeerX Technolabs's low-cost sensors are even used by ISRO and IARI to replace expensive imported remote sensors.

CLOUD CUES

From red tape bureaucracy to ignorance, prevents data across categories. Cloud Cues, a project led by IIT Mandi, brings data on a single platform to be distributed according to need. "Small-scale farmers benefit by sharing resources such as weather prediction, irrigation, soil nutrition, seed selection, disease and pest control, surveillance and market access and credit.

WATER SAVER

Bengaluru-based Gourmet Garden focuses on improving water and nutrient use in sustainable farming sensor-based technology. It automatically assesses nutrition delicacy and auto-fertilises soil thereby reducing water use by over 90 percent. It can be controlled through a mobile phone or computer. "All plants will get uniform nutrition," says Arjun Balaji and Vishal Narayanswamy, Co-founders, Gourmet Garden, a company that deals with hydroponics.

ARTIFICIAL INTELLIGENCE

Hyderabad-based Simply Fresh has commissioned India's largest high-tech 'plant factory', spread across 140 acres. "We use AI-based precision farming, climate e-engineering and hydroponics. From growing to processing, it's cheaper than expensive US operations," says Sachin Darbarwar, CEO. The company has developed proprietary software for farm management.

Greens from Simply_Fresh; Crop protocols being explained to a farmer by AB InBev

SUPPLY CHAIN SOLUTION

Smart Barley: AB InBev, the world's leading brewer, works with KisanHub, an agri-food supply chain company, to empower farmers to manage their supply chain, identify and resolve risks, make large-scale supply planning decisions and improve sustainability.

MACHINE LEARNING

Agrojay platform: The horticulture app implemented in Nashik, Maharashtra, is used by more than 22,500 people for online consultation for predictions, crop patterns and sales to highly rated traders via AI and Machine Learning.