

A 'lab in a pocket' to check veggies' quality in a jiffy

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For horticulture farmers who spend hours and even days to sell their produce after laboratory tests, two young IIT-M alumni have come up with a "lab in a pocket" solution that can perform the work of a laboratory within seconds and provide results that will be a quality assurance for their produce.

The IITians - Amit Srivastava and Ankit Chauhan - have set up an agtech firm InfyU that builds gadgets which can digitally inspect fruits and vegetables at source with much less human dependency, errors, and wastage.

Thus, their "lab in a pocket" solution is based on IoT to provide the results for fruits and vegetables produced by farmers.

How the device works

"We have a mouse-like device that scans the fruits in four seconds, processes and



Amit Srivastava

provides results. An infrared light source penetrates the surface of the fruits, interacts and comes out. The signal is passed to our cloud servers via a smartphone application to get the results," Srivastava, one of the two founders, told *BusinessLine*.

Buyers such as wholesalers and aggregators pick up 6-8 apples that can weigh between one and 1.5 kg for testing the quality from, say, a tonne of apples. They cut and use different apparatus to test the fruits' quality. "It doesn't make sense to determine the quality in such a way. That's where our device helps as it



Ankit Chauhan

scans the whole lot without any restriction," said Srivastava.

Chauhan, the other founder, comes from a farmer background and both the founders are concerned over food wastage. "This was the reason why both of us looked at created portable devices that can test the internal quality of fresh fruits without cutting them," said Srivastava.

Spectroscopy principle

The mouse-like device works on the principle of spectroscopy powered by artificial intelligence created on an IoT-based platform. Though the

number of apples taken from the lot could be 0.1 per cent only from a statistical point of view, "it accounts for a lot of wastage", he said, adding that their device scans the whole lot without any restriction.

The InfyU founders say their device is a win-win solution for all. "We tell the customers that anyone can do the testing and that too quickly. Farmers also stand to benefit since quality assurance ensures a better price for them," he said, adding the devices helps in taking a "better and transparent" decision that will be fair to all the parties.

Currently, InfyU, which received funding from India Angel Investors, is going through its first phase. It is working in Shimla in Himachal Pradesh, Noida in Uttar Pradesh and Bhiwandi in Maharashtra.

InfyU had worked on fine tuning its technology over the last three years and this has resulted in the startup working with some popular clients.