Indoor-grown veggie system is prepared for salad days

November 9 2015, by Nancy Owano

It's sad when shoppers in some urban centers have to cross their fingers when buying packaged food in supermarkets. They hope the brand they choose won't make tomorrow's headlines, not because of health tips but

because of product warnings related to disease outbreaks.

Here's a concept that is likely to sit well with the supermarket-wary, an intelligent indoor garden—the kind that in theory makes buying overpriced packages of salad greens seem silly. A Massachusetts startup called Grove Labs has a Grove Ecosystem where you grow your own fruit and veggies.

Also, through the mobile app, Grove OS, you control and automate the Ecosystem. You also gain access to indoor growing knowledge.

Ben Schilller in *Co.Exist* described it as "a.bookshelf-shaped growing cabinet."

The weight is 130 pounds empty and 400 pounds full.

Gabe Blanchet and Jamie Byron are Grove Labs' founders. The group describe themselves as a team which includes engineers, inventors, farmers, biologists and designers.

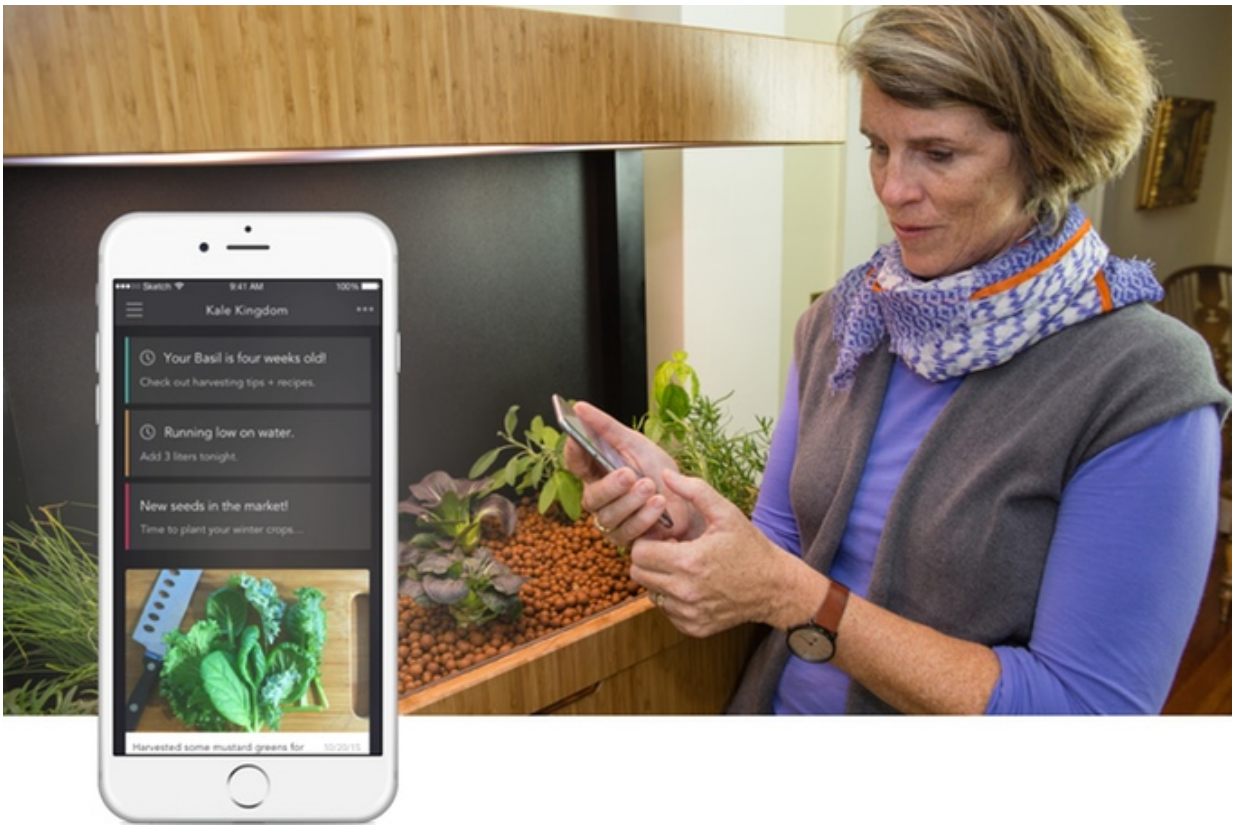
They have delivered over 50 prototypes to early adopters in Boston. With that feedback, said the founders, they iterated up to the product which is now seen on Kickstarter. They are prepared to launch nationally and they ask for help to make that happen.

"We can kickstart a revolution, they said. "Let's bring food home again."

The system involves clay pebbles as the growing medium. Just what can you transport from your shelf to your dinner table? The system can grow a third of a large lettuce clamshell a day, said *Co.Exist*, and herbs, greens and small fruits.

(Arugula, watercress, mustard greens, bok choy and Swiss chard are some of the greens that are possible candidates. Fruits include ground cherries and strawberries.)

Fish, plants and bacteria get along swimmingly. You feed the fish in the aquarium. The fish process the food into waste. Helpful bacteria convert the waste into nitrate, an optimal plant fertilizer.



In this design, the three layers work together. "On top, there's a growing platform with a horticultural LED that moves up and down, depending

on the height of the plant. In the middle is a shelf for seedlings and micro-greens, like wheatgrass. And on the bottom is an aquarium," said *Co.Exist*.

This is a 25-gallon aquarium, said the company, with integrated lighting. Goldfish and tetras are recommended. The plants return clean water to the tank again, in a continuous loop, and it's not necessary to replace the water at any stage.

How soon do you eat food that comes from your Grove? They answered, "Before you can grow the best crops, you have to grow the best bacteria. Plants will grow from the start, but they will be a little slow. The bacteria take about three weeks to establish and will keep improving with time. If your first crop is microgreens, you can expect to be garnishing salads within 15 to 20 days."

The Grove Ecosystem will retail for an estimated $4,500 starting in 2016. Through Kickstarter, a pledge of $2,700 gets a Grove system with estimated delivery in May. They have a $100,000 goal; they raised $256,791 with 30 days to go at the time of this writing.

More information: grovelabs.io/ecosystem

www.kickstarter.com/projects/g … h-food-in-your-home/

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