

Taking Root and Growing

'Lost' Entrepreneur Finds His Mission



Keira Amstutz

Instead of a planned summer internship in Hawaii, Scott Massey ended up building Section 8 housing in Texas – and thanks to that fateful change, you might soon grow and harvest produce in your own kitchen.

And because Massey, a 2017 Purdue University mechanical engineering technology graduate, has always appreciated good design ... and recently read a biography of Steve Jobs ... and previously interned with an oil and gas company ... and became more aware of food insecurity and water shortages while in Texas. ... Well, because of these influences and more, you likely will grow that produce in a sleek, high-efficiency appliance with an affordable price tag.

Today, Massey's varied experiences have merged into a future, but they weren't always so aligned. In fact, having a mind that's as committed to the arts and humanities as it is to engineering once created a challenge.

"I went to Purdue unsure of what career to pursue," the Evansville native says. He felt like a round peg in a square hole.

Changing course

But two experiences in food production helped him find his way: First, he worked a campus job for a NASA-funded project that used cutting-edge technology to try and create life support systems for future space colonies to grow their own food. He wanted to see that technology in action so he lined up that internship in Hawaii.

After that fell through, he found himself instead in El Paso, Texas, across the border from Juarez, Mexico. Massey says he noticed how much federal HUD (United States Department of Housing and Urban Development) money was spent to replace apartment refrigerators in areas defined as food deserts – and how they and the stoves that sat beside them weren't getting used. At the same time, he became aware of how much produce is farmed in that region, and how susceptible that area – and therefore that produce – is to drought.

Further research into water and agriculture yielded more troubling insights. He learned that Yuma, Arizona, and Salinas, California, account for much of our nation's produce production, and the availability of that produce could be depleted from a severe drought or other environmental catastrophes in these areas. He also learned that agriculture accounts for about 80% of America's water consumption and contributes mightily to the 70% of contamination that comes from runoff. Finally, Americans throw away 40% of the produce we buy (and which has been transported across the country), because it spoils before we can eat it.

With these factors swirling in his mind, Massey became aware of the impact a single catastrophe could have on a great chunk of humanity. Soon, he found himself blending his humanitarian instincts, design sensibilities, recent immersion in Apple history, engineering acumen and more in an effort to find a path to affordable, nutritious food that didn't rely so heavily on fragile water supplies.

Developing a solution

His answer? Gropod.

The product of Hydro Grow LLC, the company Massey and collaborators launched earlier this year, Gropod might sound like something from a science fiction novel, but it's very real and very close to being market ready. With Gropod, you could harvest an array of green edibles in a refrigerator-like appliance in your own kitchen. The plants would grow on a column inside the appliance, each sprouting from its own "pod," allowing you to have various plants at various stages of growth at all times.

Here's how Massey says it would work when the company reaches full-scale production: Say you get up in the morning and decide you would like to have a mini bell pepper and basil omelet. You open the door to the Gropod, pluck a few basil leaves from a plant growing there, allow the column to rotate to find the



Scott Massey (right) and members of the Hydro Grow LLC team have earned several top finishes in pitch competitions.

pepper plant and pick one. If you deplete a plant, you remove the pod and the unit automatically orders another from your supplier, with automatic billing and shipping.

The plants you order will already be germinating, so they'll be ready to sprout when they get to your house. Soon, they'll produce food, just steps from your dinner table. "It will be truly locally grown," Massey says.

Getting the Gropod from pencil sketch to prototype has been a collaborative process. A quick glance at the Hydro Grow web site underscores the fact that Massey's core teammates – James Carlson, Ivan Ball and John Kissel – are all current Purdue students with skills in, respectively, software design, electrical and computer engineering, and business management.

Hydro Grow already has received attention and support from beyond this team. Interest and the firm's budget have been helped by victories in business plan competitions, including a \$20,000 win in Purdue's Burton D. Morgan Business Plan Competition and \$5,000 from

Continued on page 41



AUTHOR: Keira Amstutz is president and CEO of Indiana Humanities. This is the fourth of a series in BizVoice® focusing on individual Hoosiers who are making a difference by merging STEM and the humanities. Learn more at www.indianahumanities.org/QuantumLeap

Guest Column: Taking Root and Growing

Continued from page 8

the Innovation Connector Big Idea Pitch competition.

These have helped the team get meetings with corporate, university and government leaders (including Purdue President Mitch Daniels and Indiana Gov. Eric Holcomb), as well as financial supporters. The company has also received recognition through entities like AgriNovus Indiana.

So far, the team has raised more than \$80,000 and attracted interest from a well-known appliance manufacturer that might underwrite development of the next Gropod prototype. If things progress at a quick pace, Gropod could be in homes within two years, Massey says, with a cost comparable to a refrigerator.

For Massey, this quick dive into entrepreneurship has not only helped to resolve his left brain-right brain tension; it's also touched his heart, helping him feel he not only has a future, but also a purpose.

"I think I kind of realized that you only get one life," Massey says. "And I saw this as a once-in-a-lifetime opportunity to make a difference in the world."