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El Segundo-based Beyond Meat builds plant-based protein for meat eaters



Brent Taylor is a co-founder of El Segundo-based Beyond Meat, a company that makes food from plant material that can replace meat. The company is striving to make a product that has the flavor and texture of meat. March 19, 2015. (Steve McCrank / Staff Photographer)

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Beyond Meat makes food from plant material that can replace meat. The El Segundo company is striving to make a product that has the flavor and texture of meat. March 19, 2015. (Steve McCrank / Staff Photographer)

A food startup in El Segundo is trying to save California from the drought, one grilled chicken strip at a time.

Beyond Meat, co-founded in 2012 by a graduate of Mira Costa High

School in Manhattan Beach, has developed a process that turns pea and soy proteins into [products](#) that taste and — more importantly — have the texture of real beef and chicken.

The company's chicken strips taste so much like the real thing that Whole Foods customers reportedly [didn't notice](#) when the store accidentally used them in a salad that was supposed to contain real chicken. An earlier version of that product even [fooled New York Times](#) food writer Mark Bittman.

Backed by tech investors like Bill Gates and Twitter founder Biz Stone, Beyond Meat's aspirations go beyond the tofu section at Whole Foods.

The company is targeting the general population, including the [39 percent of Americans](#) who are trying to reduce their meat consumption for health and environmental reasons.

"It's not about taking away, it's about providing more options," said Brent Taylor, a Manhattan Beach native who co-founded Beyond Meat with vegan entrepreneur Ethan Brown.

Beyond Meat is trying to change the conversation around meat substitutes, which have traditionally targeted vegetarian consumers. In the same way that soy and almond milk can be found in the milk section, Beyond Meat hopes to have its new "raw beef" product, slated to debut later this year, displayed in the meat section.

Re-creating the taste of meat is relatively easy, Taylor said. The real challenge is texture, or "bite density," which is why most meat substitutes never go mainstream.

"When someone goes to a BBQ expecting a ground beef burger, the level of expectation is very high," Taylor said. "There's a lot of nostalgia that you have to tap into when building new meat products."

Beyond Meat has given away its "beef" sliders to players and fans of the [New York Mets](#) and reportedly contacted the Golden State Warriors, Seattle Seahawks, Los Angeles Clippers, New York Giants,

New York Yankees, and New England Patriots to arrange taste tests.

The company has gotten ultra-marathon champion Brendan Brazier to endorse the company's "Beast Burger," a pea-based patty that boasts as much protein as beef, more omega-3s than salmon, and more antioxidants than blueberries.

Beyond Meat's secret formula came out of the University of Missouri, where researchers spent years developing a process that combines plant proteins in a way that mimics animal muscle tissue.

The process involves heating and pressurizing the plant material at different intervals and sending it through a machine called an extruder, which looks like a giant pasta maker.

"That's our steer," Taylor said during a tour of the company's research and development facility in El Segundo, near the company's corporate headquarters. Commercial production is in Missouri.

Beyond Meat's sales grew 250 percent in 2014. Its burger patties, crumbled beef and chicken strips are available in at least 6,000 stores, including mainstream outlets such as Safeway, Target and Vons.

While the \$394 million market for frozen and refrigerated meat substitutes is tiny compared to the real thing, Taylor attributes some of Beyond Meat's success to a critical mass of conscientious consumers searching for more sustainable and healthy sources of protein.

The general consensus in Silicon Valley is that the industrialized food chain is broken and technology could be used to fix it, Taylor said. When he meets with stakeholders in the food industry, the response is often, "Oh, that's not possible." With Gates and Twitter's Stone, the conversation is different.

"They think without any sort of boundaries," he said.

Environmental effects of meat consumption:

- Meat production accounts for more than half of our greenhouse-gas

emissions, according to a study from the Worldwatch Institute, which tallied up the methane gas and CO₂ emissions from livestock and the energy used in processing and distributing meat products.

- Livestock use up 80 percent of the world's agricultural land and consume 40 percent of global cereal production, which includes corn, wheat and rice.
- Eighty percent of U.S. water use is for agriculture, which means reducing meat from your diet can have a much bigger impact on the environment than taking shorter showers or installing a more efficient toilet.
- It takes 1,850 gallons of water to produce 1 pound of beef, 520 gallons per pound of chicken, and 43 gallons per pound of vegetables.
- A British study found that 2,000 calorie diet that includes high meat consumption produces 2.5 times as many greenhouse gas emissions as a vegan diet and twice as many as a vegetarian diet.