

# BLOOM:

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The privately funded tech company uses the gunk Algix sucks out of polluted lakes and other freshwater sources to replace some of the petrochemicals typically used to make plastic foams in products ranging from yoga mats to industrial insulation.

It was the startup's incorporation of algae, those plantlike organisms which are nearly ubiquitous in Earth's bodies of water and occasionally muck them up, that convinced VIVOBAREFOOT to use materials made by BLOOM in a limited-edition version of its Ultra shoe.

## More-Sustainable Foam

Effekt CEO **Rob Falken** and Algix CEO **Mike Van Drunen** teamed up to launch BLOOM.

Van Drunen opened a factory in Mississippi in late 2014 to make products using the algae Algix was harvesting, and Falken — a fourth-generation San Diegan with a background in foam-based inventions — requested a sample of the material to see if he could use it to make more-sustainable foam. He could.

Today, Algix sucks up 30 million pounds of algae yearly, as measured when dry, from its primary source, Lake Tai, China's third-largest freshwater body. The company also harvests from sites in the United States.

Once harvested, the algae dries in solar greenhouses before being turned into pellets and used by BLOOM in the manufacture of products with foam components.

## Harmful Algae Blooms

Collecting pond scum isn't just a cheap way to get a manufacturing material. Falken also sees it as a way to benefit the environment by reducing the effects of the



**Rob Falken**



**Mike Van Drunen**



**Asher Clark**



**Abby Miller**

harmful "blooms" of algae from which the company gets its name. Such blooms — the term for sudden, out-of-control growth of algae typically caused by an overabundance of nutrients that make up common agricultural fertilizers, such as nitrogen and phosphorus — can erupt unpredictably, rapidly reducing the amount of oxygen in the water to the detriment of fish, shellfish, marine mammals and birds.

"We can't stop this from happening until the use of those phosphorus and nitrogen compounds is reduced or regulated more ... the best thing anyone can do is try and remove the nutrients and the algae and turn it into something, because otherwise it's going into a landfill," said Falken, BLOOM's managing director.

Last year, BLOOM announced it would partner with Los Angeles-based AECOM, the world's largest engineering design firm, to offer trailer-mounted algae harvesting units for use by municipalities, local governments and state agencies fighting algae blooms. The company has also developed flame retardant foam and an algae-based antimicrobial powder.

## BLOOM On Boards

It was the first product BLOOM produced — a traction pad for surfboards designed by professional surfer **Kelly Slater** — that led to last year's talks with VIVOBAREFOOT, which advertises its thin-soled running shoes as the next best thing to going without.

VIVOBAREFOOT co-founder **Asher Clark** said he reached out to BLOOM after coming across news of the collaboration online.

"We want to make sure that we allow people to really connect to their feet and to nature and to tread as lightly as possible, so the sustainable aspect part of that is obviously materials," Clark said. "The Ultra shoe we designed is sustainable in the sense in that it's made using as minimal components as possible ... but of course with (ethylene vinyl acetate) and expanding foams it's petrochemical-based, basically." (Asher and other members of the Clarks family, of the eponymous British shoemaker and retailer, own 80 percent of VIVOBAREFOOT's shares, but the businesses have no formal relationship.)

VIVOBAREFOOT will produce 1,200 pairs using BLOOM material for the outsole and tongue. The shoes will be priced at \$75, the same cost as the shoe produced with traditional materials. Algae will make up about 25 percent of the final product.

Later, the company plans to make a full shoe from BLOOM materials, including the rubber sole, Clark said — and potentially roll out versions of its other shoes incorporating algae-derived foams, too.

"We're going to be using it in every product we can because the quality and performance is as good if not better and environmental savings are significantly

## BLOOM HOLDINGS LLC

**Founded:** 2015

**CEO:** Mike Van Drunen

**Headquarters:** Solana Beach

**Revenue:** \$500,000 to \$1 million in 2017 (estimated)

**No. of local employees:** 5

better," he said. "For someone to turn up with a general alternative that has these types of environmental advantages is completely game-changing in the footwear industry."

## Environmental Impact Label

Reaching deals with global players in the footwear industry — Van Drunen wouldn't name names, but said the company is working with 30 brands — would mean filtering billions of gallons of water and sequestering significant amounts of carbon dioxide.

Products made using the foam are imprinted with a visual marketing concept developed by BLOOM design director **Abby Miller** to depict the impact of using the sustainable material: Each has a tally of the number of gallons of water cleaned through the algae harvesting process and the number of helium birthday balloons the carbon dioxide being sequestered would fill per product.

A typical pair of men's shoes made by VIVOBAREFOOT equates to 57 gallons of water cleaned and 40 balloons-worth of greenhouse gas removed from the atmosphere.

"Imagine if you get 50 million pairs converted to BLOOM foam," Falken said. "We're a for-profit company, we want that to happen — but we also want to do a lot of good."