

ADVERTISEMENT

09-08-15

What If Your Sneakers And Yoga Mats Were Made From Algae Instead Of Plastic?

There's a lot of algae we need to find a use for, and now we can turn it into your workout gear.



1/12 A new business called Bloom Foam plans to use algae to make the ubiquitous flexible foams that are found in yoga mats, sneakers and sandals, luggage, and even bath toys.

BY JESSICA LEBER

1 MINUTE READ

Algae is already being used to make [clothing](#), power [buildings](#), suck up [highway pollution](#), and feed [farmed animals](#). Soon you may be hitting the gym with algae-based products too.

A new business called [Bloom Foam](#) plans to use algae to make the ubiquitous flexible foams that are found in yoga mats, sneakers and sandals, luggage, and even bath toys.



Bloom Holdings is joint venture between Algix, a algae biomass harvesting company based in Mississippi, and Effekt, a product and material design and development firm. Using mobile harvesting machines, Algix collects algae from fish farms, lakes, and wastewater facilities and converts it into a dense slurry that is dried and converted into pellet-shaped polymers. These are further processed into a foam that performs on par with today's products.

Algae-based foams can be more sustainable in several ways. Like all plastics, usually these foams are made from petroleum. Bloom's algae-based product would consist of about 40% algae-derived polymers on average, lowering the carbon footprint. In addition, Bloom harvests algae found in waste streams, helping water authorities deal with increasing algae blooms that usually hurt fish and other wildlife.

"There's way more algae than we can shake a stick at," Rob Falken, managing director of Bloom, told Co.Exist.



Algae is attractive for bioplastics because of its high growth rate and high protein content. Unlike using algae to make biofuel, it also doesn't matter what strain or species is used—so algae can be harvested directly from ponds or wastewater facilities where it is a nuisance.

Another advantage, says Falken, is that algae has anti-microbial properties. Bloom is currently doing third-party testing that will validate these properties, which, if successful, could allow Bloom's customers to market yoga mats or sneakers made from an "anti-odor" material. Currently, anti-odor products usually contain silver compounds. But while silver is effective at killing germs, [it can potentially harm](#) human and environmental health.

Falken says the company has manufacturing facilities in Mississippi and outside Beijing, China (where there are many aquaculture farms with waste algae), and it is considering facilities in Cambodia as well. He estimates that footwear is the company's biggest opportunity. Bloom hopes to ramp up production starting next year.

ABOUT THE AUTHOR

Jessica Leber is a staff editor and writer for Fast Company's Co.Exist. Previously, she was a business reporter for MIT's Technology Review and an environmental reporter at ClimateWire [More](#)

You Might Also Like:

[The phenom of Big Pharma says 'self-disruption' is key to success as a CEO](#)
