

Saving Our Plates: How Hydroponics Can Rescue Food Production from Soil Destruction

By Kat Eftink. 4.12.2024

We are destroying our soil. The topsoil we rely on for 95% of our agriculture can only be found on 7.5% of Earth's surface but that number [is decreasing](#).

Soil is its own ecosystem, made up of 50,000 living organisms, all working together to keep their environment healthy. Each of these environments is a different type of soil. And the slim amount that can be used for food is being destroyed by human activity with the biggest threat being intensive farming.

So how do we keep up with our food demands?

The University of Memphis's Kemmons Wilson Culinary Institute (KWCI) proposes a solution. Hydroponics. It is a way to grow food without soil, without weather. Chef William Mullins has been a chef for 25 years and a teacher for half of that time. He says the KWCI has partnered with the University of Pennsylvania, and they're looking into hydroponics, specifically how ultraviolet light affects plants.

"They're finding out different plants respond differently to different light frequencies," Mullins said.

Hydroponics is a type of horticulture used to grow plants using water and light. This way the plants can grow in a controlled environment. Another method the KWCI is using to grow plants is aeroponics where the plants hang in the air, leaving the roots suspended. The roots get directly sprayed with water, and the plant receives its energy by UV light.

"We'll grow basil, cilantro, parsley," Mullins said. "Will also grow things with lighter root stems, like butter head lettuces and things like that, can all be grown through here."

The KWCI is not only responsible for aiding in environmental restoration, but they advance culinary knowledge and skill within their students, and have a white tablecloth restaurant, The Blue Room.

The Blue Room is a southern fine dining restaurant where the only two things in the air are the classic spices from the south and blues music. For lunch you'll eat dishes like the Cajun steak rice bowl with juicy diced steak over jambalaya rice and vegetables drizzled with the house steak sauce. And for dinner you'll find dishes like oxtail dumplings or honey glazed salmon with the seasonal risotto and salmon skin crunch. They also have a full-service bar.

While The Blue Room offers a taste of the South's bounty, the KWCI's research into hydroponics shows promise for a future where our favorite dishes can be enjoyed regardless of the state of our soil.

