Could open source indoor farming help us feed 10 billion people?

Paul Gauthier, a plant physiologist at Princeton University, took a short drive up the New Jersey Turnpike to try to figure out whether the biggest vertical farm on the east coast is succeeding. The answer isn't as clear as you might think.

•••

Gauthier studies the science and the economics of growing food indoors, and he wants it to work. But the indoor farms getting glamour-puss investments refuse to release their numbers. And after touring several of them, digging into their methods to weigh the costs and the benefits, he's suspicious about whether the numbers add up.

...

The danger, Gauthier thinks, is that many indoor farms will fail, because anyone who tries the things he thinks would best serve the industry — crop diversity within the same indoor space, research into lower-margin staples like wheat that are threatened by climate change won't appeal to funders who expect too much too soon.

• • •

Gauthier envisions a much broader ecosystem: a future of thousands upon thousands of farms, in basements and bedroom corners, growing strawberries and basil and lettuce and tomatoes, uploading data to central servers that help cottage growers all over the world as well as larger-scale indoor farmers. "Everybody has a basement or a corner," Gauthier says And if the climate isn't perfect and the lighting is not custom-tailored for one plant, well, people's gardens in real life aren't so tailored either.

Read full, original article: Trouble in the High-Rise Hothouse