

Chinese researchers claim electroculture works as theorized

January 14 2022, by Bob Yirka

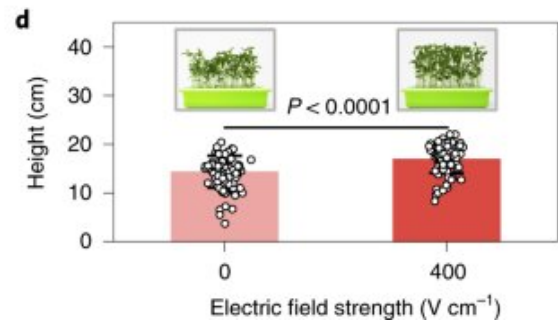
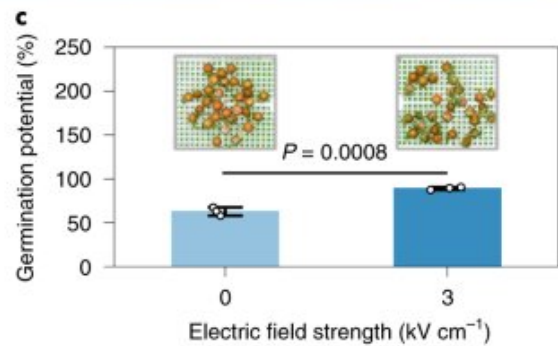
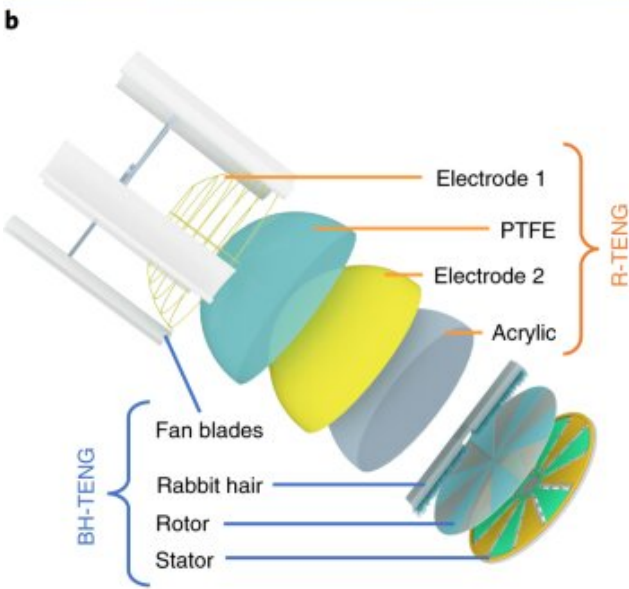
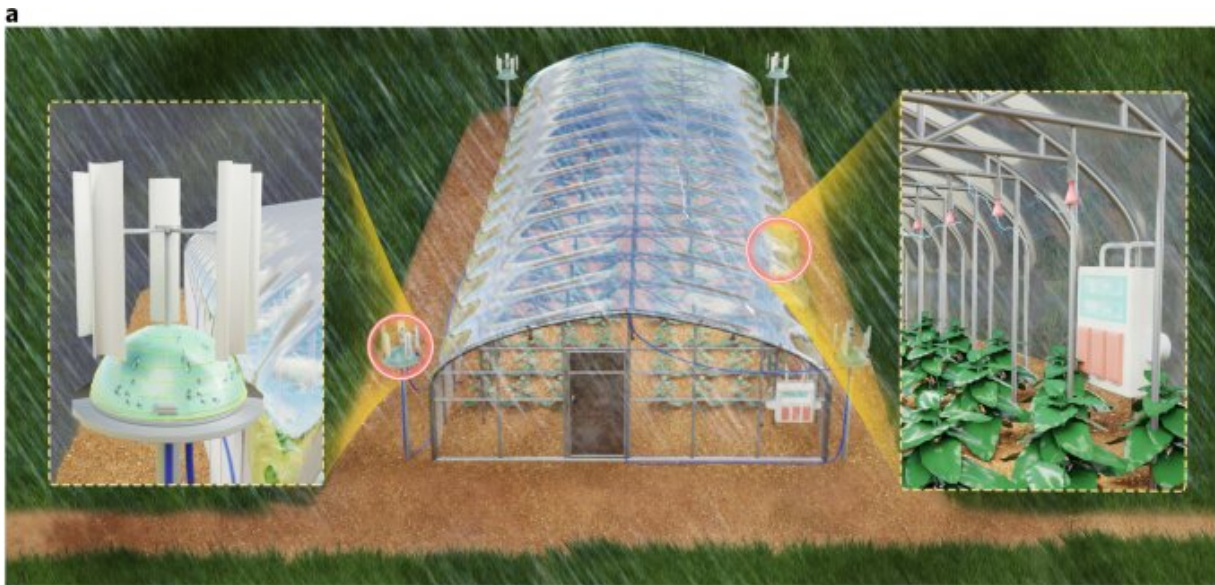


Fig. 1: SESS for enhancing crop production. Credit: DOI: 10.1038/s43016-021-00449-9

A team of researchers affiliated with multiple institutions in China reports that electroculture can increase agricultural yields. In their paper published in the journal *Nature Food*, the group describes growing peas using traditional methods while applying electric shocks to other pea crops.

Electroculture has been suggested as a possible means for increasing crop yields. The idea is to apply an electric current to growing plants; doing so, for some unknown reason, may increase yields. Multiple studies have tested the idea, but thus far, all of them have been tainted by claims of methodological flaws. Now, similar claims are being made about the research by the team in China. For as-yet unknown reasons, the team chose not to use a double-blind approach in the study. This has led critics to note that their results could have come from some other factor.

The work by the team in China was simple and straightforward. They planted two plots of peas from the same sample pods in a greenhouse. They then tended to the crops under nearly identical conditions except for one—the plants in one of the plots were grown in an electric field. When the plants matured and produced new peas, the researchers found that those grown in the electric field produced approximately a fifth more product. The researchers claim their results prove that electroculture works as theorized, though they had no explanation as to why.

Notably, the researchers took a new approach to generating the electric

field in the pea patch. Instead of pulling it from the grid, they generated it on site using a triboelectric nanogenerator powered by harvested energy from wind and rainfall—an approach, they noted, that cost only US \$40. They suggest that their technique could be used right away as a means of increasing the food supply for a growing world population. They do acknowledge, however, that there may be some hesitancy by consumers worried about possible health impacts of the electric field on the crops.

More information: Xunjia Li et al, Stimulation of ambient energy generated electric field on crop plant growth, *Nature Food* (2022). [DOI: 10.1038/s43016-021-00449-9](https://doi.org/10.1038/s43016-021-00449-9)

© 2022 Science X Network

Citation: Chinese researchers claim electroculture works as theorized (2022, January 14) retrieved 27 April 2024 from <https://phys.org/news/2022-01-chinese-electroculture-theorized.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.