

From a year down to two weeks: Chinese scientists create efficient plant gene editing tool that leapfrogs over ‘tedious’ steps

“Even primary school students and old farmers can master gene editing,” says [Southern University of Science and Technology, or SUSTech] scientist Zhu Jian-Kang, who has helped develop a new approach that could greatly simplify the difficult and time-consuming process of editing genes in plants.

...

While conventional methods of heritable gene editing in plants often take months, and in some cases up to a year, this innovative approach could reduce the process to about two weeks, according to [Cao Xuesong, a scientist at SUSTech and a member of Zhu’s team], who is also the first author of the study.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other ‘disruptive’ innovations. Subscribe to our newsletter.

[SIGN UP](#)

After years of trying and searching, Zhu’s team has developed a new method called “CDB”, short for “cut-dip-budding”, which skips some of the tedious steps, including tissue culture.

In the three CDB steps, a part of the plant that is more likely to regenerate, such as a leaf or root, is first cut to create a “wound” and then ‘dipped’ into a solution containing a bacterium called Agrobacterium to help deliver the gene editor enzyme into the plant cells. Finally, the edited or modified cells are regenerated.

...

Cao said the team had tested the technology on more than 20 plant species, and “it has the potential to become a general-purpose approach”.

[**This is an excerpt. Read the original post here**](#)