Tomatoes ready for harvest in 40 days? Gene edited prototypes could transform one of the world's most popular fruits

Scientists <u>have just</u> genetically modified cherry tomatoes to make them easier to grow, and the future applications could include making them more viable for indoor farming and even space travel, their creators say.

The scientists, working out of Cold Spring Harbor Laboratory, <u>used</u> a gene-editing <u>technology</u> called CRISPR to make changes to three key genes within the cherry tomatoes' DNA. Two of those genes are responsible for when the plant stops growing and starts flowering and fruiting. The third controls the length of the plant's stem.

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The end result is a more compact cherry tomato plant that grows in clusters, like grapes, and also more quickly than unmodified cherry tomatoes, in only around 40 days. These changes make the tomatoes easier to grow in smaller, controlled spaces, like indoor farms, urban rooftop farms, and even spaceships. The scientists published their results in a paper in Nature Biotechnology.

"This demonstrates how we can produce crops in new ways, without having to tear up the land as much or add excessive fertilizer that runs off into rivers and streams," plant biologist Zach Lippman, one of the scientists behind the project, said in a <u>statement</u>. "Here's a complementary approach to help feed people, locally and with a reduced carbon footprint."

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