

'Mars Garden - Martian Gardens' helps scientists find ways to grow vegetables on Mars

Simulation of Martian gardens helps NASA scientists learn about plants that astronauts can grow on Red Planet.

NASA has made many bold plans for the future of the **Mars** program, adding self-propelled ships to the Martian surface by 2020 and sending manned spaceships in 2030. But it will be a long time ago. when people can live on these barren continents. Therefore, scientists around the world want to study the methods that can **sustain human life** and the source of food is one of them.



Simulation of "*Mars Garden* " helps NASA scientists test plants that can be grown on Mars.This image is the result of a preliminary study of lettuce.From left to right: lettuce seeds are grown in soil pots, plants grown on Mars with nutrients and plants grown without nutrients.(Photo: NASA / Dimitri Gerondidakis).

Simulation of "*Mars Garden* " helps NASA scientists learn about plants that astronauts can grow on Red Planet.

The human journey to Mars can take up to two and a half years and the major challenge for these extended tasks is how to make enough food available to astronauts for a period of time. that time. Thus, scientists are studying ways to help astronauts grow their own food and expand their food supply, because seeds do not occupy much space and are capable of being preserved during the Long time on spacecraft than fully developed plant sources.

Simulation of " *Mars Garden* " was conducted at NASA *Space Center (Kennedy Space Center)* of NASA and Florida Tech Buzz Aldrin Institute of Aerospace, helping researchers overcome the challenge of producing aerial food sources. arid space of Mars.

According to a statement from NASA, **Martian cultivation** differs greatly from cultivating on Earth. The soil on Mars consists of a volcanic rock shell with no organic matter, making plants almost impossible to survive.

"*We are using scientific advances to learn about increasing crop yields, to supplement the diet for astronauts,*" **Trent Smith** , project manager for Vegetable Production Systems (Veggie).) experiments at NASA's Kennedy Space Center, said in a report. The **Veggie** experiment allows astronauts to enter the garden in space and conduct experiments on plant biology on the International Space Station.

The soil being used in "Mars Garden" comes from Hawaii and is chosen because it simulates almost the same type of soil found on Mars. Using this **Hawaiian soil** , the researchers tested out how much soil and nutrients should be used for soil, for different crops to achieve optimal growth. .



For example, researchers have tested how **lettuce** grows on Mars - along with soil stimulants. They compared the results with growing lettuce plants in soil stimulants and supplemental nutrients, and lettuce grown in normal soil pots. This experiment shows that lettuce is grown on Mars - similar to a soil-stimulating substance without added nutrients, taste unchanged but weak roots and slower germination rates (*in other words, they lose a lot*). *time to develop more* , according to NASA's announcement.



In the future, researchers plan to experiment with crops such as radish, rainbow radish (Swiss chard), kale kale, Chinese cabbage, peas, peppers and tomatoes on the substance. like soil in Mars.

" The discovery made on Earth - based on Mars gardens will pave the way for other future research and develop effective, reliable food production technology - a long way from Planet Earth We are seeing the benefits of this study, " said **Ralph Fritsche** , senior project manager in food production at the Kennedy Space Center, in the report.

You finished reading the article **"Mars Garden - Martian Gardens' helps scientists find ways to grow vegetables on Mars"** edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.