

## Drought resistant farming breakthrough: GMO corn survives nearly two months without water thanks to tomato genes, in field study

The intense desert to the south of the Coquimbo Region in Chile makes molecular biologist Simón Ruiz think about how to take advantage of the more than two million hectares of arid and semi-arid lands that Chile has.

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“Many plant species cannot survive salinity, drought and constant temperature changes. We [are beginning] to test Chilean native plants that can withstand these conditions and produce transgenic seeds,” he says.

Ruiz explains that a transgenic (GMO) crop is an organism that receives one or more genes from another species. .... To illustrate what such a crop is, he describes his work with a tomato variety that grows in the Atacama Desert, between 2,500 and 3,000 meters above sea level. The selected seed, *Solanum chilense*, is so resistant to lack of water, that it produces tomato fruits throughout the year.

The crop only receives water from the Bolivian winter rains, if they come, and absorbs what it can .... Ruiz’s team isolated .... 78 genes that confer tolerance to drought, salinity and cold.

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With all the genes identified, he says, they wanted to modify a food that could really address the problem of hunger. “We chose corn because it is widely used in the world,” he says.

**[Editor’s note: This article was originally published in Spanish and has been translated and edited for clarity.]**

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