

## Argentine scientists develop non-browning potatoes using CRISPR gene editing

Researchers of the INTA [Instituto Nacional de Tecnología Agropecuaria] Balcarce [in Argentina] edited the genome that causes enzymatic browning in potatoes, alters the nutritional properties and quality of the tubers. It is an achievement for South America....

***Editor's note: This post has been translated from Spanish and lightly edited for clarity***

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"We verified that we are capable of generating, within a potato cell, a gene editing machinery that specifically targets the chosen gene and changes its genetic sequence," explained Sergio Feingold, director of the INTA's Agrobiotechnology Laboratory.

"The technique used was gene editing," Feingold said of the technology used, also known as "gene scissors" or CRISPR / Cas9.

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When applying this technique, the team led by Feingold focused on a polyphenol oxidase gene, whose enzyme causes browning in tubers when they are cut and exposed to air.

"The cutting or peeling of the tubers, as well as the mechanical damages suffered during the harvest, transport and storage, lead to the generation of brown or black stains caused by oxidation, which generates losses for consumption and industry," he said.

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"This achievement is the basis of new breeding techniques that allow us to do the same thing that was done for years through conventional breeding, but more quickly and accurately," Feingold said.

**Read full, original post:** [Modifying the gene that causes the potato to turn black](#) (Google translate from Spanish)