

## Tomatoes Grow Well In Diluted Seawater And Produce More Natural Antioxidants

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With critical water shortages looming in some parts of the world, scientists in Italy are reporting that diluted seawater can be used to grow tomatoes and actually results in fruit with significantly higher levels of healthful antioxidant compounds.

"The controlled use of alternative water resources, such as diluted seawater, could be a valid tool to face drought in the Mediterranean region," the researchers say in a report scheduled for the April 4 issue of ACS' *Journal of Agricultural and Food Chemistry*, a bi-weekly publication. "Our results show that the antioxidant-related nutritional value of tomatoes is significantly improved when the fruits are picked at the red-ripe stage and when the plants are exposed to moderate salinity stress conditions, such as those determined by the application of diluted seawater (10 percent)."

In the study, Riccardo Izzo and colleagues set out to determine if the combined effects of diluted seawater and ripening could improve the beneficial nutritional properties of tomatoes, long recognized as a rich source of natural antioxidant compounds. They grew various types of tomatoes, including those commonly used for salads, under different levels of salinity and analyzed the fruit for nutrients. The higher antioxidant levels in tomatoes grown in 10 percent seawater probably resulted from the plants' response to salt-related stress, the researchers suggest.

ARTICLE #3 The Influence of Diluted Seawater and Ripening on the Content of Antioxidants in Fruits of Different Tomato Genotypes

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