



## **Molecular research improves the flavor of greenhouse fruits and vegetables**

**LOCATION:** Almería

**DURATION:** 1'42''

**SUMMARY:** Improving the taste of fruits and vegetables cultivated in greenhouses is the objective of a developing project at the Center for Research in Intensive Mediterranean Agro-systems and Agro-food Biotechnology at the University of Almería. By adjusting some of the parameters of the traditional cultivation system, such as shade or ventilation, researchers study how those variables affect the molecules associated with flavor. The molecular analysis is done using nuclear magnetic resonance.

### **VTR:**

Creating greenhouse fruits and vegetables with more flavor. This is the objective of a developing project at the Center for Research in Intensive Mediterranean Agro-systems and Agro-food Biotechnology at the University of Almería. It combines traditional cultivation techniques with the study of the molecules that affect the taste of the products.

**IGNACIO FERNÁNDEZ**  
**University of Almería Researcher**

*"We are observing how certain practices, for example, shading, increase the percentage of certain metabolites or molecules, closely associated with the taste of that vegetable."*

These researchers are adjusting the parameters associated with the traditional cultivation practices and later observing in the laboratory their effect on the taste of fruits and vegetables.

**IGNACIO FERNÁNDEZ**  
**University of Almería Researcher**

*"We are employing spectroscopic methods based on nuclear magnetic resonance that allow us to decide, through observed signs, if a metabolite or a molecule has grown more or less, if its concentration has increased or decreased."*

It is being tested on papayas, tomatoes and zucchini, but it serves as a model for any fruit or vegetable. The best thing is that it will not require any additional cost for farmers, and is a great benefit to the customer.

**DIEGO VALERA**  
**Project Director**

*"It is simply improving the cultural management, systems, increase in ventilation or shade modification in order to make tomatoes or any other product improve certain compounds with favorable organoleptic properties, such as taste."*

Science in the service of agriculture, the driving force of the province of Almería: the so-called garden of Europe.

### **BACKGROUND**

*"This tastes good."*

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