

New tolerant accessions of **Pepper**



for water and salt stress

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Introduction

Increa salinity scar tempera	Increase of salinity, water scarcity, temperatures			
			Increase plant	

- One of the most important vegetables of the world.
- Spain is the 6th most important producer.
- Moderately sensitivesensitive to salt and water stress.
- Some pepper plants have mechanisms to combat stress.
 Grafting technique of: commercial varieties onto tolerant rootstocks.
 Improve tolerance to abiotic stress and productivity can be restored.



The «Comunidad Valenciana» produces 11 % of the total production (about 680 ha and 46 300 tn, 70 million euros).

Objectives

- Explore genetic pepper variability: looking for new tolerant accessions to water and salt stress.
- Obtain new tolerant hybrids by crossing tolerant accessions.
 Identify physiological responses and genetical mecanisms of tolerance of grafted plants onto tolerant accessions or hybrids.
 Evaluate the agronomical behaviour of the combinations, accessions and hybrids under real conditions of water or salt stress.

Stages of the thesis



Expected results and potential profits



New tolerant accessions to water and salt stress, in order to improve pepper tolerance by grafting commercial varieties onto these tolerant accessions

New tolerant hybrids to water and salt stress, more efficient than tolerant accessions when they are used as rootstocks







New insights about physiological and genetic mechanisms of water/salt stress tolerance



Improving the availability of commercial rootstocks which are used for abiotic stresses

Improvement of pepper yield by grafting commercial varieties onto tolerant rootstocks

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