



Centre name:

Research Centre on Mediterranean Intensive Agrosystems and Agrifood Biotechnology

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Name of the contact person: Diego Valera-Martínez

Position: Director

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The research programmes of your centre

Specie: Pepper

Person of contact for this programme: Tomás Cabello-García

Email: tcabello@ual.es

Vegetal material	Integrated protection	Agrobiology
<ul style="list-style-type: none"> - Plant materials available by the collaborating companies in joint research projects. 	<ul style="list-style-type: none"> - Assessment and mathematical modelling of pest dynamics in greenhouse-grown pepper cropping systems. - Evaluation of oxamyl against homoptera pests in greenhouse-grown pepper. - Biological invasion by <i>Tuta absoluta</i>: Ecology, geographic expansion and prospects for biological control. - Predation of <i>Bradysia</i> sp, <i>Liriomyza trifolii</i> and <i>Bemisia tabaci</i> by <i>Coenosia attenuata</i>. 	<ul style="list-style-type: none"> - Technical efficiency of plant protection. - Economic and environmental impact of plant protection strategies in greenhouse cropping systems.

Specie: Zucchini

Person of contact for this programme : Manuel Jamilena-Quesada

Email: mjamille@ual.es

Vegetal material	Technical itinerary	Agrobiology
<ul style="list-style-type: none"> - In-house genetic material available at the research centre's own seed bank. - Seed materials available by the 	<ul style="list-style-type: none"> - Cell wall metabolism and chilling injury during postharvest cold storage. - Postharvest quality traits. - Sources of parthenocarpy for Zucchini breeding. 	<ul style="list-style-type: none"> - Interaction of breeding and genetic data with phenotypic traits. - Relationships between abiotic factors during postharvest and physiological variables in

collaborating companies in joint research projects.	- Differential response of zucchini varieties to low storage temperature.	zucchini breeding programmes.
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Specie: Tomato

Person of contact for this programme : Rafael Lozano-Ruiz

Email: rlozano@ual.es

Vegetal material	Technical itinerary	Agrobiology
<ul style="list-style-type: none"> - In-house genetic material available at the research centre's own seed bank. - Seed materials available by the collaborating companies in joint research projects. 	<ul style="list-style-type: none"> - Genetic and molecular assessment of flower formation and fruit development. - Physiology and genetic and hormonal interaction with fruit development. - Tomato breeding for fruit quality: flavor, parthenocarpy, nutritional qualities. 	<ul style="list-style-type: none"> - Relationship between biotic and abiotic stress factors and physiological variables in joint breeding programmes. - Interaction of breeding and genetic data with phenotypic traits.

Specie: Tomato

Person of contact for this programme: Diego Luis Valera-Martínez

Email: dvalera@ual.es

Vegetal material	Integrated protection	Technical itinerary
<ul style="list-style-type: none"> - Plant materials available by the collaborating companies in joint research projects. - In-house vegetable material available at the research centre's own seed bank. 	<ul style="list-style-type: none"> - Microclimate evaluation of new designs of insect-proof screens. - Effect of insect-proof screens on pest population dynamics in Mediterranean greenhouses. - Interactions between physical barriers, pest dynamics and crop productivity and quality. - Effects of microclimatic conditions and crop protection methods in Mediterranean greenhouses on fruit yield and quality. 	<ul style="list-style-type: none"> - Effects of the optimisation of greenhouse ventilation parameters on plant phenotypic traits. - Impact and modelisation of climate-control strategies on crop productivity and sustainability variables. - Analysis of cooling ventilation efficiency in naturally ventilated greenhouses and its effect on fruit quality and productivity.

Specie: Green bean + watermelon

Person of contact for this programme: Francisco Camacho-Ferre

Email: fcamacho@ual.es

Technical itinerary	Integrated protection	Agrobiology
<ul style="list-style-type: none"> - Differential response to environmental and nutritional factors of high-quality tomato varieties. - Effect of genetic and phenotypic factors on the composition of commercial tomato varieties. - Vegetable development of grafts. 	<ul style="list-style-type: none"> - Household processing factors of acrinathrin, fipronil, kresoxim-methyl and pyridaben residues in green beans. - Influence of plant density on yield and quality in soil infested with necrotic spot Virus. - Effect of the application of monosilicic acid fertilizer on yield and quality. 	<ul style="list-style-type: none"> - Diversity and health traits of local landraces of bean varieties. - Grafting as an alternative to soil disinfection with methyl bromide. - Evaluation of different rockwool fiber in greenhouses: effects on production and quality. - Effect of dose and kind of compost on the quality of seedlings.

Specie: Tomato

Person of contact for this programme: Rodney Thompson

Email: Rodney@ual.es

Vegetal material	Technical itinerary	Agrobiology
<ul style="list-style-type: none"> - In-house plant material available at the research centre's own seed bank. - Plant materials available by the collaborating companies in joint research projects. 	<ul style="list-style-type: none"> - Decision support system based on a comprehensive simulation model to calculate nitrogen and water requirements for tomato in greenhouse conditions. - Simulation model of daily crop growth, nitrogen uptake, evapotranspiration and nitrate leaching. - Threshold values of canopy reflectance indices and chlorophyll meter readings for optimal nitrogen nutrition of tomato. - Simulation of tomato growth, water and N dynamics using the EU-Rotate-N model in greenhouses with drip irrigation and fertigation. 	<ul style="list-style-type: none"> - Effect of N uptake concentration on nitrate leaching from tomato grown in free-draining soilless culture under Mediterranean conditions. - Effects of salinity on fruit yield and quality of tomato. - Effects of increasing salinity on fruit development and growth of tomato grown in soilless culture.

Specie: Green bean

Person of contact for this programme: María-Teresa Lao-Arenas

Email: mtlao@ual.es

Vegetal material	Technical itinerary	Agrobiology
<ul style="list-style-type: none">- In-house plant material available at the research centre's own seed bank.- Plant materials available by the collaborating companies in joint research projects.	<ul style="list-style-type: none">- Proline, Betaine, and Choline Responses to Different Phosphorus Levels in Green Bean .- Biomass production and yield of green beans in response to phosphate fertilization.- Influence of salinity and fertilization level on yield and quality.- Nutrient solution and nutrient soil solution parameter evolution in tomato with dynamic fertigation under saline conditions.	<ul style="list-style-type: none">- Effect of controlling the leaching fraction on the fertigation and production under soilless culture.- Influences of nitrogen and potassium fertigation on nutrient uptake, production, and quality.- Dry-matter allocation and nutrient uptake dynamic by different nitrogen and potassium rate.- Phosphorus levels influence plasma membrane H⁺-ATPase activity and K⁺, Ca²⁺, and Mg²⁺ assimilation in green bean.

Specie: Sweet pepper

Person of contact for this programme: Miguel Guzmán-Palomino

Email: mguzman@ual.es

Vegetal material	Technical itinerary	Agrobiology
<ul style="list-style-type: none">- In-house plant material available at the research centre's own seed bank.	<ul style="list-style-type: none">- Determination of nutrient diagnostic parameters in crop production.- Effects of saline stress and Ca²⁺/K⁺ interaction on biomass and mineral contents.- Daily rhythmic model for pH and volume from xylem sap.- Effect of evolution in the increase the nutrient solution E.C. on quality parameters of plant seedlings.	<ul style="list-style-type: none">- Influence of nitrate and calcium increments on development, growth and early yield in sweet pepper plants.- Comparison of qualitative and quantitative productivity parameters between a sweet pepper crop growing on different soil systems.

Current partnership with other research centres (national or international)

SHORT SELECTION OF CURRENT PARTNERSHIPS

Specie: Tomato

Nature of the project: 7FP

Length of the project: 2008-2014

Partner names and countries: Universidad Politécnica de Valencia, Spain

Specie: Green bean

Nature of the project: Spanish Research Plan

Length of the project: 2010-2014

Partner names and countries: Misión Biológica de Galicia, Spain

Specie: Tomato + watermelon

Nature of the project: 7FP

Length of the project: 2009-2014

Partner names and countries: University of Evora, Portugal

Specie: Tomato

Nature of the project: 7FP

Length of the project: 2010-2013

Partner names and countries: UR Wageningen, Netherlands

Specie: Pepper

Nature of the project: Iberoeka

Length of the project: 2010-2014

Partner names and countries: Universidad Pontificia de Valparaiso, Chile

Specie: Corn

Nature of the project: Spanish International Cooperation Framework

Length of the project: 2010-2012

Partner names and countries: National Agricultural University La Molina, Peru

Are you searching for more European partnerships with other research centres?

On what species: Tomato

What kind of projects are you searching for: H2020 Societal Challenges (SC2) RIA and IA projects

What kind of partners are you searching for? Both public research centres and companies

From which countries? EU-wide

On what species: Protein crops

What kind of projects are you searching for: H2020 Societal Challenges (SC2) RIA and IA projects

What kind of partners are you searching for? Both public research centres and companies

From which countries? EU-wide

On what species: Tomato

What kind of projects are you searching for: Public-private market-oriented R&D cooperation projects.

What kind of partners are you searching for? Companies

From which countries? EU-wide, Israel, Turkey

On what species: Pepper

What kind of projects are you searching for: Public-private market-oriented R&D cooperation projects.

What kind of partners are you searching for? Companies

From which countries? EU-wide, Israel, Turkey