

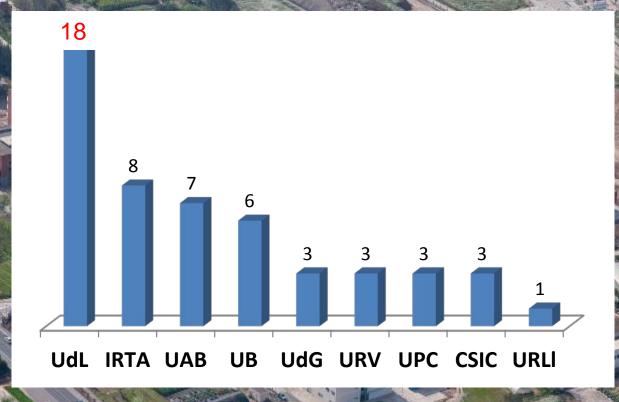




The Higher Technical School of Agrarian Engineering.



AGRICULTURE, FOOD, FORESTRY AND THE ENVIRONMENT Consolidated Research Groups, 2015





The Higher Technical School of Agrarian Engineering.



Consolidated Research Groups

- ► Agronomy and Quality of Extensive Crops.
- ► Agricultural Biotechnology
- ► Integrated Pest Management of Crop and Forest Insects
- Weed Science and Plant Ecology
- Research Group in AgroICT and Precision Agriculture
- ► Agronomy and environment in Agricultural Systems of Mediterranean Zones.
- ► Forestry, Plant Breeding and Ecophysiology.
- ► Plant-microorganism-vector interaction
- ► Multiscale analysis and management of biodiversity and environmental services to forest and agricultural systems under global change

- ► Factors that affect fertility and the maintenance of gestation in cows
- **▶** Swine breeding.
- ► Physical Environment
- ► Soil and Water
- ► Fluvial Dynamics Research Group
- ► Hydraulic Engineering, Hydrology and Rural Environment



- **▶** Postharvest
- ► Technology Plant Products Unit
- Innovative technologies for obtaining ingredients and food products

Consolidated Research Groups.



► Agronomy and Quality of Extensive Crops.

- Identify the key attributes that determine ecophysiological crop yield and quality of the species studied.
- Evaluate different management strategies to optimize performance, minimize risk of environmental damage and maximize the economic benefit for crops and pastures.

Contact researcher: Dr. Gustavo Slafer.

Tel. 973003659-Fax 973702690. E.mail: slafer@pvcf.udl.cat

► Agricultural Biotechnology

- Production of seed corn with proteins that can prevent transmission of the AIDS virus.
- Production of rice grains with vitamins for people with nutritional deficiencies.
- Production of drought-tolerant crops or to other hostile environmental circumstances.

Contact researcher: Paul Christou

el. 973702831. E.mail:paul.christou@pvcf.udl.cat

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► Integrated Pest Management of Crop and Forest Insects

- Improving the efficiency and effectiveness of control programs for insect pests and acari in agriculture and forests with a special interest in reducing pesticide use.

Contact researcher: Dr.Ramon Albajes.

Tel. 973 702571. E.mail: ralbajes@pvcf.udl.cat

Weeds Science and Plant Ecology.

- Advances in the study of biology and ecology of weeds
- Establishment of integrated control strategies.
- Evaluation of the ecological role of plants in agroecosystems.

Contact researcher: Dr. Jordi Recasens.

Tel. 973702549-Fax 973238264. E.mail: jrecasens@hbj.udl.cat

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- ► Research Group in AgroICT and Precision Agriculture
 - -Electronic characterization of vegetation and weeds
 - -Geostatistical analysis and mapping of variables at a field level
 - -Variable dose rate of plant protection products in tree crops
 - -Development of autonomous vehicles for field sampling

Contact researcher: Dr. Joan Ramon Rosell Polo. Tel. 97370 28 61. E.mail: jr.roselleagrof.udl.cat

- ► Agronomy and environment in Agricultural Systems of Mediterranean Zones.
- -Assessing the impact of climate change and changes in land use in the degradation of soils in the Mediterranean area.
- -Soil erosion.
- -Soil-water-plant relationships

Contact researcher: Dr. Carlos Cantero

Tel. 97370 28 61. E.mail: jr.roselleagrof.udl.cat

Consolidated Research Groups.



- ► Forestry, Plant Breeding and Ecophysiology.
- -Ecophysiological and adaptive characterization of forest trees and herbaceous plants under Mediterranean conditions.

Contact researcher: Dr. Jordi Voltas

Tel. 973702855 . E.mail:jvoltas@pvcf.udl.cat

- ► Plant-microorganism-vector interaction.
- Plant-virus-vector interaction and epidemiology of cereal viruses in Spain.
- Research on pathology of fruit and vegetables, mainly tomato, peach and fig.
- Phytopathology of fir and chestnut.
- -Studies on mycorrhizae and black truffle.

Contact researcher: Dr. Vicente Medina.

Tel. 973702830-Fax 973702830. E.mail: medinap@pvcf.udl.cat



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► Multiscale analysis and management of biodiversity and environmental services to forest and agricultural systems under global change

-Drivers of biodiversity, structural patterns and functional processes in grasslands, forests and other agro-ecosystems to develop ecological models and establish the basis for a sustainable management in the context of global change.

Contact researcher: Dr. Teresa Sebastià

el. 973702515 . E.mail:sebastia@hbj.udl.es

Consolidated Research Groups.



▶ Swine Breeding.

- Genetic selection and management of pigs to improve productive efficiency, product quality and sustainability.
- Creation and maintenance of information systems and databases for analysis of technical, economic and environmental efficiency of pig farms.

Contact researcher: Dr. Joan Estany.

Tel. 973 702893. E.mail: jestany@prodan.udl.cat

- ► Factors that affect fertility and the maintenance of gestation in cows.
 - Reproductive efficiency of cows in lactation
 - Epidemiological studies of the factors of non-infectious origin affecting fertility and gestation of the cow.
 - Studies of anatomical and functional aspects of the genital tract of the cow
 - Studies of the parasitic disease neosporosis.

Contact researcher: Dr. Fernando López.

Tel. 973702563-Fax 973702874. E.mail: flopez@prodan.udl.cat

Consolidated Research Groups.



▶ Plant Products Technology

- Development and improvement of food processes, in terms of quality and food safety.
- Improving the quality of olive oil.
- Functional foods.
- Applied mycology: fungi and mycotoxins.

Contact researcher: Dr. Vicente Sanchis Almenar

Tel. 973702535-Fax 973702596. E.mail: vsanchis@tecal.udl.cat

- Innovative technologies for obtaining ingredients and food products.
 - Development of new food processing techniques, especially non-thermal techniques like pulsed electric fields.

Contact researcher: Dr. Olga Martín.

Tel. 973702593-Fax 973702596. E.mail: omartin@tecal.udl.cat



Consolidated Research Groups.



▶ Postharvest Unit

- Postharvest Physiology, Technology and Pathology
- Microbiology of fresh and processed fruits and vegetables.

Contact researcher: Dr. Inmaculada Viñas.

Tel. 973702535-Fax 973238301. E.mail: ivinas@tecal.udl.cat



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► Soil and Water

- Development of tools for sustainable management of soil and water in agricultural systems.

Contact researcher: Dr. Josep Maria Villar Tel. 973702538 E.mail: jmvillar@macs.udl.cat

▶ Physical Environment

- Study of the physicochemical processes governing the dispersal, availability and nutritional or toxic properties of metals in the environment.

Contact researcher: Dr. Jaume Puy.

Tel. 973702529-Fax 973238264. E.mail: jpuy@quimica.udl.cat

Consolidated Research Groups.



► Fluvial Dynamics Research Group

-Field monitoring by means of advanced automatic sampling stations, measuring sediment transport and hydraulic parameters continuously in order to improve the scientific understanding of not only the physical processes governing sediment transport but its temporal dynamics.

Contact researcher: Dr. Ramón Batalla

Tel. 973702613-. E.mail: rbatalla@macs.udl.cat

► Hydraulic Engineering, Hydrology and Rural Environment

- -Design, evaluation and programming of micro-irrigation systems.
- -Improvement of the estimation methods of flow rates in pressure irrigation networks with distribution on demand.

Contact researcher: Dr. Javier Barragan

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