

The UdL AgroBank Chair rewards a thesis on the quality assurance of fruit and vegetable products

- ***Researcher Irina Torres, who holds a PhD from the University of Córdoba, has won the fourth edition of the award for the best doctoral thesis in the agri-food sector.***
- ***The runner-up grant, which has been awarded for the first time, went to a thesis on irrigation automation in cherry trees, undertaken by Victor Blanco, from the Technical University of Cartagena.***
- ***The University of Lleida AgroBank Chair on Quality and Innovation in the agri-food sector acknowledges the outstanding research that is being conducted and champions the transfer of knowledge in the sector.***

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The University of Lleida (UdL) AgroBank Chair of Quality and Innovation has granted an award for a thesis on the quality assurance of vegetable products. Researcher Irina Torres, from Córdoba, who holds a PhD from the University of Córdoba (UCO), is the winner of the fourth edition of this award – with a 5,000-euro prize – which seeks to reward outstanding research in the agri-food sector. The 1,000-euro grant, given for the first time, has been awarded for a thesis on the automation of irrigation in cherry trees, undertaken by Víctor Blanco of the Technical University of Cartagena (UPCT).

The jury has chosen the thesis, entitled "Near-infrared spectral sensors for the characterisation, authentication, and quality and safety assurance of vegetable products", from among a total of 37 nominations; a 16% rise on last year, according to the head of the AgroBank Chair, Antonio Ramos. Andalusia was the autonomous community with the most theses submitted (8), followed by Catalonia (7), and Madrid (5). The Universities of Zaragoza and Córdoba are the leading centres in terms of candidacies, with 4 each.

The research, which proposes the application of infrared spectral sensors to control the traceability, safety and quality of vegetable products, was headed by UCO professors María Teresa Sánchez and Dolores Pérez.

The thesis proposes the use of near-infrared reflectance spectroscopy sensors (NIRS) in the vegetable sector for the "reliable control of quality, traceability, and aspects related to food safety throughout the entire production chain". Furthermore, avoiding "the destructive nature of current analyses", states Antonio Ramos, head of the AgroBank-UdL Chair

The study proposes the implementation of NIRS sensors "at different stages in the production chain, thus, ensuring process control and product integrity from the field to the consumer". "The system would enable, for example, the nitrate level to be monitored, which is regulated by European standards", Ramos adds.

The winning thesis of the runner-up prize, "Agronomic and physiological basis for the automation of controlled deficit irrigation in cherry trees, analyses various strategies for "Mediterranean climate areas, highly vulnerable to climate change, where water is a limiting factor". The work of Víctor Blanco, lead by UPCT professors Rafael Domingo and Alejandro Pérez, "proposes a model for estimating the water status of trees using wireless networks of soil and weather sensors that can be easily automated".

The organisers of the UdL AgroBank Chair awards have announced that the runner-up grant is confirmed for the upcoming editions of the awards.

The core goals of the UdL AgroBank Chair on Quality and Innovation in the agri-food sector, founded in 2016, feature recognition of the outstanding research that is being conducted in the agri-food sector, championing the transfer of scientific and technical knowledge among researchers, sector professionals and customers of the financial institution, and fostering quality and innovation in the agri-food sector. AgroBank, CaixaBank's business line specialising in the farming and agri-food sectors, funds this University of Lleida Chair, which will initiate the application submission term in autumn for the fifth edition of this award for doctoral theses.

Throughout its five-year existence, AgroBank has consolidated its leadership in this segment and its customers include one in four Spanish farmers. The AgroBank value proposal blends the development of better products and services adapted to suit the specific characteristics of the sector's farmers, livestock breeders, and cooperative members, together with personal and comprehensive advice, not only with financial support but also through joint planning, and support in training and specialisation in order to offer a truly useful service.

AgroBank has almost 1,000 branches, 3,000 professionals with extensive knowledge of the sector and it conducts industry-driving actions, such as technical events and signing agreements with relevant organisations.