

THE SUMMARY.

Several entities and companies have undertaken an ambitious project to improve the production of the conference pear of the PDO Peras de Rincón de Soto, with the aim of improving its production and nutritional qualities. These organisations have formed an operational group and are finalizing a project that has consisted of studying the nutritional, mineralogical and conservation behavior of the conference pears of the Rincón de Soto Designation of Origin.

The operational group of the project has analysed the possibilities for improvement both in the pre-harvest and after harvest, looking for a solution to the increased incidence of brown heart in conference pear. During the research, **the experience of important fruit and vegetable producing countries such as Belgium and the Netherlands which have developed solutions adapted to their local conditions has been studied first.** Based on this experience, work was carried out on the improvement and optimization of the control protocols to adapt them to the edaphoclimatic and production conditions of La Rioja. Prediction systems for sensitive lots were also developed both at harvest and at the beginning of preservation to carry out a rigorous monitoring of the plots and help in the decision-making of the production plants.

The research carried out has led to deepen the knowledge of the etiology of the brown heart and optimize the control systems. In summary, it first highlights the role played by certain minerals play in the development of the brown heart. Also the role played by initial maturity is shown. And finally, the interest in two control systems that have been optimized for local production conditions: the pre-cooling technique and the delay in putting into a controlled atmosphere. Precooling allows to partially reduce the incidence on brown heart, depending on the initial state of the fruit. On the other hand, the technique of delaying conservation in controlled atmosphere chambers has proven to be very satisfactory in the incidence of brown heart, reducing disorders by up to 90%, without modifying the quality of the fruits.

In view of the results obtained from this project, the operational group has developed protocols of action in fields and warehouses that will serve to prevent the appearance of brown heart in successive campaigns, as well as to improve the quality of production.

The entities that are part of this operational group are the **PDO Peras de Rincón de Soto as project coordinator, FER in collaboration with Arifrut, the SAT Frutas y Verduras Valle de Rincón, the companies Carmelo Beltrán, Agroalimentaria de La Rioja 2001, Frutas Montecillo, Ricardo Fernández Fernández and the Institute for Agrifood Research and Technology (IRTA).**

The project is financed by the **Ministry of Agriculture of the Government of La Rioja, the Ministry of Agriculture, Fisheries and Food and the European Agricultural Fund for Rural Development (EAFRD, FEADER in Spanish).**

The production and commercialization of conference pears represents the third position by economic value in the Riojan agrofood sector, only behind the wine and the mushroom industry.

Currently, the conference pear area in La Rioja exceeds 2,500 hectares, with an average production of about 30,000 tons. In the sweet fruit subsector, the conference pear is the only product that has increased its cultivation area in the last two decades, due in part to a significant conversion of traditional varieties towards the conference pear, which already represents 80% of the total pear production in La Rioja.

CONTACT:

Project Coordinator: PDO Peras de Rincón de Soto Regulating Council

Sixto Cabezón Largas

General Manager at PDO PERAS DE RINCON DE SOTO REGULATING COUNCIL

Telephone: +34 941 141 954

sixto@perasderincondesoto.com

Business Federation of La Rioja (FER) – ARIFRUT.

Sheila Argáiz

Head of the International Department at FER. General Secretary of ARIFRUT

Telephone: +34 941 271 271

Sheila.sectorial@fer.es

IRTA

Larrigaudière, Christian

Research Director

Telephone: +34 93 467 40 40

Christian.Larrigaudiere@irta.cat