

European goji berries

Identifying cultivars, crop production processes, ideal soil and climatic conditions for this “new” product



***Lycium barbarum* L, commonly known as the Goji berry, is a perennial species that grows in many regions of the world, but only in China is there a significant cultivation for commercial purposes. Demand in Europe for this “superfood” is increasing and yet there are very few fresh berries or leaves for herbal tea available on the European market. An Operational Group in Portugal has started work to find out the best production processes and climatic conditions for growing goji berries.**

“Since 2013, Portugal has started to see the production of this crop in different farms across the country and interest has been growing, with the gradual increase of knowledge and experience of growers” Says Rita Rijo from CONSULAI the project coordinator. “However, the specific production processes are almost unknown.” Furthermore, there are two main cultivars of *Lycium barbarum*, “Short Leaf” and “Long Leaf”, each requiring different production techniques and varying in terms of quality of the fruit. Growers are also still in the early stages of understanding the differences between the two cultivars in the European context.

The GojiBerries Operational Group aims to develop knowledge regarding production processes so as to increase the number of farms growing this crop. Rita explains the objectives: “We want to increase supply to the market for good and consistent quality fresh and dehydrated goji berries meeting the requirements of the European market, to also decrease the import of dehydrated goji berries and promote the use of herbal tea leaves as one of the by-products.”

In phase 1 of this project, based on the farm involved in the partnership, the project will monitor the two cultivars of *Lycium barbarum* in organic production. Monthly analysis and measurements will allow early detection of changes in potential productivity and the impact of different types of environmental stress. In phase 2, the partners will focus on the production, collecting samples of leaves and fruits (fresh and dehydrated) for the quantification of their main components. Finally, phase 3 is to compare the nutritive and antioxidant value of leaves and goji berries for each cultivar.

The project will identify best agricultural practices and the regions in Portugal most suited to the crop, considering the soil and climatic conditions. This knowledge will be disseminated to



goji berry producers, creating a network of specialists to support farmers in a critical first phase of decision-making and crop establishment. The knowledge will also include the results of the comparison between the two cultivars, classifying them according to the objective being the productivity, rusticity, quality or organoleptic characteristics of the berries. This will help to produce more and better goji berries in Portugal.

The partners will participate in relevant events and organise a farm field-trip in order to demonstrate the results. They are also aiming to participate in cross-visits looking for synergies with other operational groups, promoting this crop to small farms and young farmers.

"We have set up a web page (<https://www.gogojiberries.com/>), making all of our results and resources available to anyone who wants to know more about this crop. We will also take photographs and videos developed throughout this project. A goji berry production manual will be developed to show the farmer the advantages of cultivating Goji berries, identifying some important parameters, such as cost of production, market price, and possibility of use in marginal soils."



The partners consist of an advisory company in the agro-industrial sector, a scientific university, a young farmers' association and a producer of goji berries. This collaboration reflects a multi-actor approach by focusing on the real problems that goji berry producers face in Portugal. The group of partners represents multidisciplinary and complementary knowledge, from scientific and practical backgrounds. The field and laboratory monitoring will be developed through close collaboration between the university and the farmer. The resulting practical information will be displayed in

easily understandable formats to end users by the advisory company and the dissemination to farmers exponentiated by the participation in the partnership of a young farmers' association.

The project began in 2018, so far, the field and laboratory tests have been carried out with the inoculation of both species with *Piriformospora indica* and subsequent evaluation of physiological parameters.

More information

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<https://www.gogojiberries.com/>

EIP-AGRI database: <https://ec.europa.eu/eip/agriculture/en/find-connect/projects/gojiberries>

This Operational Group was present at the AIS 2019, more information on this event here: <https://www.reseaurural.fr/Sommet-agri-innovation-2019>