

Call: LIFE Environment and Resource Efficiency

Newsletter 5- Semester 2, 2017

Recycling of citrus industry scrap into natural additives for food industries

THE PROCESS

The optimization of the LIFECITRUS process has already been achieved. According to the established planning, 18 tests (5 + 13) have been carried out in order to establish a process protocol, using lemon, orange and clementine byproducts to obtain the new natural ingredient. Throughout these tests it has been possible to reduce the water consumption per Kg of by-product processed. With the first tests, the pH of the citrus scraps was neutral and this was achieved by reducing the particle size of the citrus scraps to microns in order to extract the soluble compounds more easily, but in the optimization process it has been observed that it is necessary to reduce the size of the mash after the extraction stage in order to have a product with greater properties.

FOOD TESTED

27 new foods have been developed with the new ingredient where it has been proven that the characteristic taste of citrus fruits, such as lemon, can be lost during the LIFECITRUS process, but not so much in citrus fruits as orange and clementine. In addition, the typical orange coloration of citrus fruits such as orange and clementine is not lost during the LIFECITRUS process, which affects the coloration of the new food products developed. In conclusion we can say that the new ingredient from citrus byproducts has similar nutritional characteristics among them, but the coloring provided by orange and clementine can be a determining factor in its application.

SOCIOECONOMIC IMPACT

We continue working on the evaluation of the socioeconomic impact of the project in the Region of Murcia, and for this a survey has been drawn up and is available on the project website. Do not hesitate and collaborate with LIFECITRUS filling the survey in:

http://www.lifecitrus.eu/index.php/es/proyecto/documentos

DEMONSTRATIONS

In this second semester the other two workshops planned for the citrus / other fruit and food industries of the Region of Murcia have been developed. In July and October we met with companies interested in learning about the LIFECITRUS project activities and developing specific demonstration actions. To date we have worked on obtaining the food ingredient from citrus and other fruit byproducts, but also in the development of new foods, such as a vegetable drink.

At national and international level, in October and November, we met with citrus and food companies in general, taking advantage of the Fruit Attraction 2017 Fair and the Food for Life technology platform promoted by FIAB. In addition, in November, trying to encourage the development of demonstration actions in the plant located in Murcia, we organized an international meeting in Rome bringing together companies in the sector.







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DISSEMINATION AND TRANSFER

The dissemination of the project to interested staff is continuous. Until the end of October, the demonstration plant has been visited by 260 people in 35 visits organized for technicians, journalists, students and technicians of public organizations. Among them are the 85 technicians from agro-food companies and 15 technicians from public bodies. In addition, coinciding with the Week of Science and Technology of the Region of Murcia 2017, from 6 to 10 November visits to the demonstration plant of secondary students were organized, in order to promote science, research and technology among the most young people, providing them with the technological knowledge that today gives solutions to problems in the agri-food sector, but especially on the environment and industry. Therefore, this number has been increased by more than 200 students.



A special dissemination action was the participation in the SeCyT'17 event organized by the Seneca Foundation of the Region of Murcia and held in the Malecón Garden from November 10 to 12. On this occasion, the LIFECITRUS project partners organized a demonstration workshop to bring the actions of our project closer to the population through the informative video.





The Curiosity Program (7 Television Murcia Region) lets us know on December 5, 2017

A relevant action has been the diffusion of our project through the interview granted by technical staff of the CTC to the Curiosity Program of the 7 Television Region of Murcia. This program, included among the morning news, has as main objective the promotion of technological and scientific advances of companies in the Region of Murcia and has the collaboration of the Institute of Development of the Region of Murcia. In the interview, the CTC highlighted its lines of work and indicated the LIFECITRUS project as a project of interest to agrifood companies.



NETWORKING

We are still working to maintain contact with staff from other LIFE projects. This second semester we have been able to learn more about the LIFE GISWASTE project, but also to establish contact with the LIFE Baqua and LIFE Citruspack projects, which aim to establish a new circular economy model.

In addition, we work with food research and innovation centers to find synergies in the agri-food sector.



C Centro Tecnológico Nacional de la Conserva y Alimentación All information can be found on our website: <u>www.lifecitrus.eu</u>



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