



LIFE14 ENV/ES/000326



Call: LIFE Environment and Resource Efficiency

**Newsletter 4- Semester 1, 2017**

## **Recycling of citrus industry scrap into natural additives for food industries**

### **THE PROCESS**

The optimization of the LIFECITRUS process is nearing completion. So far 12 tests have been carried out where lemon, orange and clementine byproduct have been processed to obtain the new natural ingredient. In the different tests, we have worked to adjust the water consumption and to observe the differences between the different items of raw material received. The new ingredient obtained has been characterized in the physical-chemical, microbiological and instrumental laboratories of the CTC.

### **DEMONSTRATIONS**

Work has been done in the planning of information workshops for companies in the Region of Murcia. On February 1, 2017, the first workshop was organized with companies related to lemon. On this day we talked about the LIFE program of the European Union and the activities of the LIFECITRUS project were presented to the attendees. In addition, the invited companies were able to know the process line installed in the CTC pilot plant.

It is intended to carry out two other workshops with companies related to citrus and food production in the Region of Murcia and later with national and international companies. These workshops are intended to encourage the development of tests in the LIFECITRUS process plant.

### **FOOD TESTED**

The ingredient has been used in the preparation of different foods to evaluate the effectiveness of the process. To date, 24 products have been processed, including products such as pisto, sponge cake, vegetable cream, tea pastes, jam, paparajotes, orange cakes, salmorejo, hamburger, almond drink and quince candy. For these novel foods a nutritional analysis has been carried out, in accordance with EU Regulation 1169/2011 on food information provided to the consumer. In addition, sensory analyzes have been performed to evaluate the acceptability of food through a panel of scavengers.

### **VIABILITY OF THE LIFECITRUS PROCESS**

After carrying out a feasibility study we can highlight that the location of the recovery plant can be a fundamental factor. Companies with a high production of citrus by-products are the potential beneficiaries of the LIFECITRUS process.

On the other hand, from the market research it can be observed that the potential consuming companies of the puree product show a lack of knowledge about other currently marketed natural ingredients, which could be substitutes for pectin. This fact guarantees the success of the placing on the market of an ingredient as the proposed pure once disclosed its characteristics and properties.

### **SOCIOECONOMIC IMPACT**

We continue to work on the evaluation of the socio-economic impact of the project in the Region of Murcia, and for this a survey has been prepared and is available on the project website. Do not hesitate and collaborate with LIFECITRUS by filling out the survey at:

<http://www.lifecitrus.eu/index.php/en/proyecto/documentos>





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### DISSEMINATION AND TRANSFER

In accordance with the practices planned at the beginning of the project, it has been disseminated to different interest groups.

Guided visits have been organized to the demonstration plant of students of the 2nd course of dietetics and nutrition of the IES Miguel de Cervantes of Murcia and students of the Master of PRL of the UPCT.



On the other hand, on February 24 the LIFECITRUS project was present at the III Conference on Food Science and Technology held at the University of Murcia.

In addition, in March meetings were held with technicians related to organic farming in Bratislava. Through these meetings the project LIFECITRUS has been sent to Nepal, Costa Rica and Barbados.

Also companies from the Region of Murcia like MOYCA, Coato and Membrillo Emily have been able to know more about the LIFECITRUS project.

Coinciding with the World Day of Creativity and Innovation, on April 21, the doors of the LIFECITRUS plant were opened to all those interested in getting to know us.

Finally, the video of the project is now available on our website.



### 8th FOOD TECHNOLOGY INTERNATIONAL SYMPOSIUM and Murcia Food Brokerage Event 2017. 9-10 May 2017

It is an international event where the latest developments in Food Technology have been cited. LIFECITRUS participated in presenting the overall results of the project which also included the presentation of the innovative process and the product specifications obtained. In addition, bilateral meetings were held with different companies and research centers for the transfer of technology.



### NETWORKING

We are still seeking to maintain contact with staff from other LIFE projects and research groups. This year we were able to learn more about the LIFE WOGAnMBR project, but also to establish contact with LIFE AQUEMFREE project; LIFE M3P Material Match Making Platform; LIFE FOODPRINT; and LIFE FOOD WASTE STAND UP.

In addition, we work with CITOLIVA to find synergies in the agri-food sector.

