

PhD course in Mediterranean Agricultural, Food and Forest Systems (SAAFM)

Seminar June 11th 2021

MILK AND PLANTS: USE OF SEED IN DAIRY PRODUCTION

Microbes are the most common cause of food spoilage and, among them, it is estimated that losses of in cheese production due to spoilage fungi reach figures around 5 to 10%, causing significant economic losses. As control fungal spoilage tools in cheeses it is extended the use of FDA and EU authorized chemical preservatives like weak acids and their salts (sorbic, benzoic and propionic acids), as well as the antibiotic natamycin. But several studies pointed out that it is increasing fungal resistance to chemical preservatives and suggested the development of new biopreservatives. To this is added the current consumers concerns about the consumption of “natural” products which demand new approaches much more sustainables. In this sense, the use of agri-food or agroforestry products and by-products as sources of potentially antimicrobial compounds represent a promising option aligned with the Sustainable Development Goals (SDGs). This seminar is focused on the main results obtained by the Food Quality Team (University of Castilla-La Mancha) in the study of the use of plant sources as potential antimicrobials for dairy products, with two different approaches, by feeding dairy sheep with aromatic plants (seeds and leaves) as a source of antimicrobial compounds transferable to cheese through milk, and by using plant extracts (seeds and by-products) as antifungal solutions on cheese rinds.

Speaker:

María Isabel BERRUGA FERNÁNDEZ

Full professor of Animal Science (Agricultural Engineering School at the Castilla-La Mancha University) since 2019. Director of the Institute of Regional Development-UCLM, since 2017. Member of the Food Quality Team (IRD-UCLM, 2006-2017; <http://www.idr-ab.uclm.es/idr2016/index.php/es/grupos-de-investigacion/calidad-alimentaria>). Born in Quart de Poblet (Valencia) in 1971. PhD in Veterinary Medicine (1999) and DVM (1994) at Complutense University of Madrid. Veterinary Consultant at Cuartero Salud Ambiental S.A. (2000). Coordinator of the European project FP7-SME-2008-2-TECheese (<http://www.techeese.eu>). Visiting professor at University Politécnica of Valencia (2003), University of Tuscia (2004) and University of Sassari (2005, 2007). Supervisor of 5 PhD students. 49 SCI articles and more than 60 international congress communications. h-index: 16. Member of several scientific national and international committees and associations (FIL; FACE-European Network of Farmhouse Cheesemakers; SEOC-Society Spanish of Sheep and Goat; BIOATLAS; QueRed). Areas of interests include general food quality, with particular emphasis in milk and dairy products. Research approach at the study of food applications of natural antimicrobials, and the occurrence of residues and contaminants in dairy products. A second line focus on new dairy products promotion, design and development, especially cheese and other products from small ruminant milk's

The seminar will be held on June 11th via Microsoft Teams from 3 PM to 4 PM at the following link:
<https://teams.microsoft.com/l/channel/19%3ad28e45aab85d4d27b01438ecfee5f96d%40thread.tacv2/June%252011th-BERRUGA%2520FERN%25C3%2581NDEZ?groupId=d5893b88-db47-4831-a8c2-b0a3d09ae7ac&tenantId=bf17c3fc-3ccd-4f1e-8546-88fa851bad99>