

CEFood Congress



Food Chain Integration

BOOK OF ABSTRACTS

INFLUENCE OF DIFFERENT PROCESSING PARAMETERS IN PHYSICAL AND SENSORIAL PROPERTIES OF SERRA DE ESTRELA CHEESE

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Abstract

Cheese is a classical dairy product, which is strongly judged by its appearance, flavour and texture. Processing parameters that could affect cheese structure play a dominant role upon the features exhibited by the final product. Serra da Estrela cheese is a Protected Denomination of Origin (PDO) cheese manufactured from raw ewes' milk and curdled with thistle flowers. The study aimed to evaluate cheeses physicochemical, microbiological and sensorial properties, produced with two thistle flowers ecotypes added in different quantities to milk, sheep bread, salt quantity and ripening moisture.

Two dairies were involved in this study, named as A and B, both with certification. The sheep milk chemical composition (moisture, protein, fat, solids-non-fat, lactose, solids, density, freezing point), and microbial analysis (coliforms and total enumeration of microorganism at 30 °C) were determined, using respectively a Lactoscan equipment and norms ISO 4832:2006 and 4833-1:2013. The clotting time, the evolution of weight loss and colour, the texture (texturometer TA-XT Plus) and sensorial characteristics of cheeses were evaluated.

Both dairies presented similar chemical sheep milk composition and clotting time for the same thistles flower, varying from 36-47 minutes. The loss of weight showed similar decreasing and tendency. Generally, the thistle flower ecotype didn't influence the L, a* and b* colour parameters, during the ripening process and in the final product there was a significant influence on a* parameter. The textural analysis revealed significant differences between the two dairies for the same thistle flower ecotype, considering the inner firmness, stickiness and adhesiveness. Cheeses presented similar sensorial properties, considering the different processing parameters studied.