**I-INTERNATIONAL MEETING OF ANIMAL SCIENCE IN SEMI-ARID REGIONS**
*Universidade Federal do Agreste de Pernambuco – UFAPE*
July 03rd to 05th, 2024, Garanhuns-PE

Work area: Animal products industry and food science

# Use of oregano essential oil in the production of curd cheese

Maria Helena de O. C. Lemos*[1], Maria Manuele D. P. da Silva[1], Luciana F. P. Soares[1], Laura L. da Rocha[1], Raquel B. Jatobá[1], Luciana M. Valença[1]
[1]Universidade Federal Rural de Pernambuco, Recife/Pernambuco, Brasil. *mhelenaolivr@hotmail.com

In Brazil, curd cheese is a typical product of the Northeast region of the country and widely consumed by the population. Although consumers have recently shown some kind of concern about the use of chemical and artificial preservatives used in the production of food. With the aim to overcome this preoccupation, oregano essential oil appears as an alternative, as it contains compounds and active principles that inhibit the development of microorganisms, in addition to adding flavor and aroma. However, it is necessary to study the concentration of the essential oil for microbial control and consumer acceptability. Thus, the objective was to evaluate the sensorial characteristics and purchase intention of curd cheese with different concentrations of oregano essential oil (*Origanum vulgare*). The study was conducted at the Milk Quality Laboratory of the Animal Science Department of the Universidade Federal Rural de Pernambuco. The design used was completely randomized. Each treatment consisted of the production of curd cheese produced with pasteurized cow's milk, added oregano essential oil in different concentrations: 0, 10, 20, 30, 40, 50, 60, 70 and 80 $\mu L.kg^{-1}$ of mass. All processing steps followed the recommendations of the Technical Regulation of Identity and Quality of Curd Cheese. In the sensory analysis, a non-structured hedonic scale was used, represented by a 10 cm continuous line, anchored at the ends with terms that express the minimum and maximum of the quality characteristic to be evaluated (odor, appearance, flavour, texture and general impression). Then, the values obtained were converted to a rating scale that ranged from zero to ten points before statistical analyses. A five point scale was used to rate the intention of buying the product, in which the value is represented as numbers 1, 2, 3, 4, 5, but having the description as “would bever buy”, “would propabably not buy”, “maybe yes/maybe not buy”, “would probably buy” and “would buy” respectively. For data from sensory analysis and purchase intention, Friedman's non-parametric test was used at a 5% significance level. As a result, the organoleptic characteristics of curd cheeses that were affected ($P<0,05$) correspond to flavor, aroma and saltiness. Treatments with concentrations of up to 40 $\mu L.kg^{-1}$ of mass were accepted by the evaluators, after which the characteristics of the active ingredient of oregano (carvacrol) become very accentuated. Consequently, concentrations 10 to 40 $\mu L.kg^{-1}$ of dough had greater global acceptance and purchase intention, directly influenced by such characteristics, with the treatment with 30 $\mu L.kg^{-1}$ of mass being the most accepted among them. No differences ($P>0,05$) were found in relation to the color and texture of the curd cheese. It is concluded that curd cheeses produced with up to 40 $\mu L.kg^{-1}$ of mass can be used as additives, beijng na option for dairy companies seeking to meet the demand for healthier products, free from chemical preservatives.
**Keywords: *Origanum vulgare*, additive, food safety.**