

**TITLE:** APPLICATION OF OREGANO (*Origanum vulgare*) AND THYME (*Thymus vulgaris*) ESSENTIAL OILS IN COTTAGE CHEESE FLAVORED AS MOLD AND YEAST INHIBITORS

**AUTHORS:** SEKINE, K.H.; FRANCISCATO, L.M.S.S.; SILVA, M.R.; MORITZ, C.M.F.

**INSTITUTION:** UNIVERSIDADE ESTADUAL DE MARINGÁ, UMUARAMA, PR (AVENIDA DR. ÂNGELO MOREIRA DA FONSECA, 1800, CEP 87506-370, UMUARAMA – PR, BRAZIL)

**ABSTRACT:**

Cottage cheese is a type of cheese made from curd grains, with partially acid and salty flavor, marketed in plastic containers and presenting two to three weeks of shelf-life under refrigeration. Because it is a fresh cheese obtained by acidic coagulation of skimmed milk with salt addition in the mass, the probable microorganisms that can present intense population development in Cottage cheese are the bacteria of the group staphylococci and molds and yeasts. Due to its characteristic, there is the possibility of being commercialized seasoned, which favors the application of essential oils as flavourings and preservatives. The present work aimed to apply the essential oils of oregano and thyme in cottage cheese as inhibitors of molds and yeasts. Three formulations with different concentrations of commercial essential oils were prepared based on previous studies that determined the minimum inhibitory concentrations of the essential oils of oregano (*Origanum vulgare*) and thyme (*Thymus vulgaris*) isolated and in synergism, besides a formulation without essential oils. The treatments were denominated: treatment A as control, treatment B with 6.4  $\mu\text{L.g}^{-1}$  of oregano essential oil, treatment C with 6.4  $\mu\text{L.g}^{-1}$  of essential oil of thyme and treatment D with 0.4 and 0.8  $\mu\text{L.g}^{-1}$  of oregano and thyme essential oils, respectively. Three replicates of the process were carried out at 0, 4, 8 and 16 days of storage under refrigeration. At the time of analysis, a counting of molds and yeasts was performed. In the first two analysis times there was no difference in the counts of molds and yeasts between the treatments. However, in both the 8 and 16 days of storage, there was a reduction in these counts for treatments B, C and D when compared to treatment A (control)., Thus, was verified a preservative action with inhibition of molds and yeasts during the storage period of the flavored cottage cheese.

**Keywords:** cheese Cottage, essential oils, molds and yeasts.

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