

Abstract:

Today, due to the increasing human population, extensive research is being undertaken to examine different ways of keeping food and increasing its shelf-life. In recent years, particular attention has been paid to the use of natural preservatives in foods rather than chemical preservatives. Since herbal essences are often used for some foods as flavor generators. Protective and antimicrobial properties of a group of essential oils can also be used for this purpose. In this study, the antimicrobial activity of *Cuminum cyminum* and caraway essential oil on *Bacillus cereus*, which is one of the causes of food poisoning, At 10 ° C in sterilized milk was investigated. The *Bacillus cereus* bacterium, purchased in the form of liofilization, was recovered in a nutritious meal culture medium. Subsequently, 10³ bacteria per cc in milk were selected and into utensil milk those were added to autoclavet before that time. Then, concentrations of 0, 0.03, 0.06, 0.1, 0.2, 1 and 2 percent of essential oil of *cuminum cyminum* plant and 0, 0.03, 0.06, 0.1, 0.2, 1, 1.5 and 2 percent of the essential oil of the caraway plant, which had been extracted by the Clevenger device, was added to the sterilized milk container. The incubation was performed at the test temperature and then the study of bacterial condition was done on days 0, 1, 3, 6, 9, 12, 15, 18 and 21 by spread plate count. Then, according to the logarithm of the obtained data, analysis of variance was done by SPSS software using anova test. Based on the results, it was found that essential oil of cumin had an inhibitory effect on growth compared to essential oil of caraway.(p<0/05).

Keywords: *Bacillus cereus*, *Cuminum cyminum*, caraway, sterilized milk.



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**Compare the effect of *Cuminum
cyminum* and *Caraway* essence on
Bacillus cereus inoculated in sterilized
milk**

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