

## **Effect of Cuminum Cyminum L. Essential Oil on Staphylococcus Aureus during the Manufacture, Ripening and Storage of White Brined Cheese**

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**Abstract :** Staphylococcus aureus is a pathogen of major concern for clinical infection and food borne illness. Humans and most domesticated animals harbor S. aureus, and so we may expect staphylococci to be present in food products of animal origin or in those handled directly by humans, unless heat processing is applied to destroy them. Cuminum cyminum L. has been allocated the topic of some recent studies in addition to its well-documented traditional usage for treatment of toothache, dyspepsia, diarrhea, epilepsy and jaundice. The air-dried seed of the plant was completely immersed in water and subjected to hydro distillation for 3 h, using a clevenger-type apparatus. In this study, the effect of Cuminum cyminum L. essential oil (EO) on growth of Staphylococcus aureus in white brined cheese was evaluated. The experiment included different levels of EO (0, 7.5, 15 and 30 mL/ 100 mL milk) to assess their effects on S. aureus count during the manufacture, ripening and storage of Iranian white brined cheese for up to 75 days. The significant ( $P < 0.05$ ) inhibitory effects of EO (even at its lowest concentration) on this organism were observed. The significant ( $P < 0.05$ ) inhibitory effect of the EO on S. aureus shown in this study may improve the scope of the EO function in the food industry.

**Keywords :** cuminum cyminum L. essential oil, staphylococcus aureus, white brined cheese

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