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Title: Inhibition of *Escherichia coli* O157: H7 in Cemens with Different Garlic Levels

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Abstract: In order to determine the effect of garlic in Cemen on reduction of *Escherichia coli* O157:H7, Cemen with different garlic levels (0, 7.5, 10.0, 15.0, 20.0 and 25%) were prepared. Each batch of Cemen was contaminated with *E. coli* O157:H7 (10^7 cfu g^{-1}) and stored at 4°C for 60 days and 20°C for 60 days in sterile glass jars. *E. coli* O157:H7 counts and pH were determined at various stages of storage. It was determined that both garlic levels and storage temperatures had significant effect on *E. coli* O157:H7 count. *E. coli* O157:H7 in Cemen that was stored at 4°C were slowly inhibited than that stored at 20°C. During storage at 4°C, *E. coli* O157:H7 count dropped to below detectable level (< 100 cfu g^{-1}) at 30 days in Cemen containing 25% garlic while at 45th days in Cemens containing 10, 15 and 20% garlic. At 20°C, it dropped below detectable level (< 100 cfu g^{-1}) on the 10th days in Cemens containing 10, 15, 20 and 25% garlic. Investigating with immunomagnetic seperation (IMS), it was determined that the samples with below detectable level (< 100 cfu g^{-1}), contained *E. coli* O157:H7.

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