

ABSTRACT

Antibacterial Efficacy of *Eryngium Foetidum* (Culantro)
Against Select Food-Borne Pathogens

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There is a growing trend of consumer preference for the use of natural food preservatives either to prevent the growth of food-borne pathogens, or to delay the onset of food spoilage. In this investigation, an in-vitro screening method was used to determine the antibacterial efficacy of a 10% w/v suspension of the natural leaves of the herb culantro (*Eryngium foetidum*), against *Staphylococcus aureus*, *Bacillus subtilis*, *Escherichia coli* and *Salmonella typhimurium*.

The apparent sensitivity of the gram-positive bacteria and resistance of the gram-negative bacteria were distinct. Significant antibacterial activity was evident against *S. aureus* and *B. subtilis* but no apparent antibacterial activity was evident against *E. coli* and *S. typhimurium*. There was a 99.99% kill for both *S. aureus* and *B. subtilis*.

The results obtained from this investigation, suggest that culantro leaves can potentially be used as a natural food preservative by increasing the safety and extending the shelf life of food products.

Keywords: Sharon Homer; Natural food preservatives; Food-borne pathogens; Antibacterial efficacy; Culantro leaves; In-vitro screening method; % kill.