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Antilisterial Effect Of Vinegar Solutions In Fresh Salads Preparation

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Listeria monocytogenes, *Escherichia coli*, *Salmonella* spp., *Staphylococcus aureus*, *Campylobacter* spp. and *Yersinia* spp. are frequently involved in outbreaks of foodborne disease. The presence of *L. monocytogenes* in vegetables is of special concern due to its ability to survive and multiply at refrigeration temperatures.

Recently, there has been an increasing interest in studying the impact of natural antimicrobial agents. Vinegar-based solutions can be promising in this field, since they are commonly used as salads and appetizers dressings. However, studies on the antimicrobial activity of different types of vinegars are lacking.

In this work the effects of various vinegars solutions against different strains of *L. monocytogenes* were investigated. The vinegars used were balsamic, wine, red wine, rice, apple cider and fruit flavoured. Treatments with 50%, 25%, 10%, 5% and 1% (v/v) of vinegar were tested for their antilisterial activity. Balsamic vinegar solutions (50%, 25% and 10%) showed the best results.

The results of the present study are indicative that vinegar solutions may contribute to control *L. monocytogenes* level on vegetable products when they are used as dip treatment in households.