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BACTERIOCIN DIVERSITY AMONG LAB FROM TABLE-OLIVES

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Abstract:

The growth in brines of suitably adapted strains of *Lactobacillus* is important from a technological point of view. Bacteriocins are antimicrobial proteins that can kill spoilage and pathogenic bacteria, helping to improve table-olive's quality. Several authors consider bacteriocin production as a relevant factor in strain establishment, contributing to increase the quality and the safety of fermented foods (Ruíz-Barba et al., 1994; Leroy and De Vuyst, 1999b). Thus, the isolation and characterization of LAB (lactic acid bacteria) bacteriocin producers during fermentation improves the process's knowledge and results in the isolation of new bacteriocins that may be suitable to be used as food preservatives. A screening method that was applied to LAB isolates from different sources, spotted four isolates which bacteriocins were compared to other two that have been studied in this lab. They belong to two major types: with a broad bioactivity spectrum and very high thermal stability (activity is kept after several sterilization cycles) or showing a narrow inhibitory spectrum and lower thermal stability (activity is destroyed by sterilization or boiling). These two groups of compounds probably have different purposes in natural media and will have distinct industrial applications.