

The influence of cultivated cardoon and globe artichoke ethanolic leaf extracts on the shelf life of poultry meat

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Food additives are commonly used to prolong the shelf life of food by slowing down natural deterioration. However, synthetic additives have raised health concerns despite the European Union's strict regulations. To address this issue, researchers are exploring natural sources of compounds that can be safely used as food additives. Extracts from plants and agro-industrial by-products, such as *Cynara cardunculus* L. (cardoon), are being investigated for their potential as natural food preservatives. Cardoon leaves, the main by-product generated, are rich in antioxidants and antimicrobials, making them a promising candidate. The ethanolic extracts from cultivated cardoon and globe artichoke leaves were tested for their effectiveness in extending the shelf life of refrigerated poultry meat at a temperature of 5 °C. After different storage durations (0, 4, 8, 11, and 15 days), the samples were evaluated for lipid oxidation, moisture, colour, pH, acidity, total volatile basic nitrogen, and microbial growth.

It was found that the addition to poultry meat of cultivated cardoon leaf extract exhibited the most negligible malondialdehyde value, indicating significant antioxidant capacity and a significant delay in lipid oxidation. The extracts were also effective in retarding microbial growth once the counts remained at initial levels for all microorganisms studied. The results showed that both extracts effectively preserved the meat's quality for up to 15 days, making them a promising natural alternative to synthetic additives.

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