

INTRODUCTION & OBJECTIVES:



The *Prosopis alba* is a highly available and promising source of bioactive natural products.

The present study was carried out to:

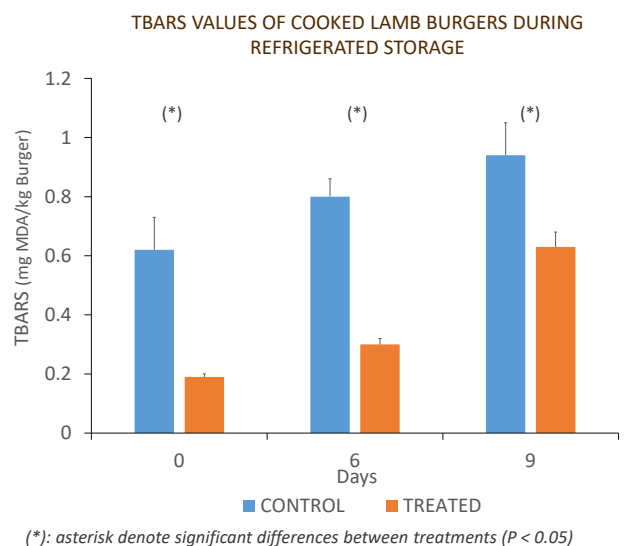
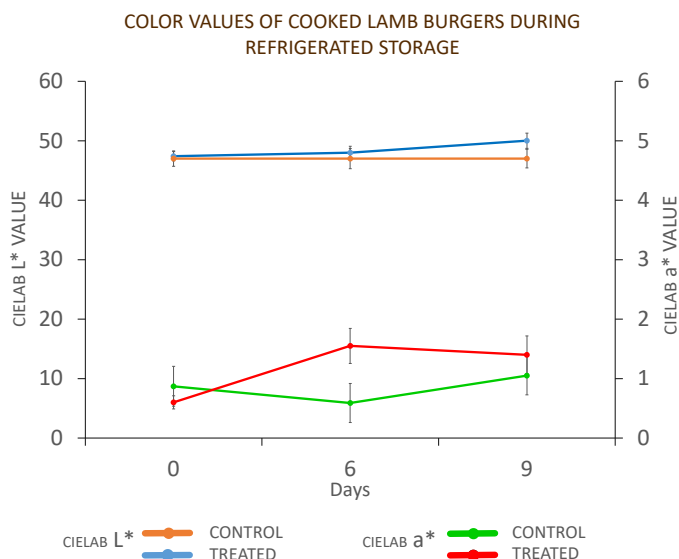
- ✓ Optimize an extraction procedure of phenolic compounds of *P. alba* leaves.
- ✓ Characterize such extract in terms of phenolic content, composition, and in vitro antioxidant activity.
- ✓ Analyze the extract showing the most intense in vitro antioxidant activity for their ability to inhibit lipid oxidation during refrigerated storage of cooked lamb burgers.

RESULTS:

- ⚠ Acetone extracts showed a higher Total Phenolic Content and a higher Antioxidant Activity than ethanolic extracts
- ⚠ *P. alba* leaves had high phenolic and tocopherols contents.
- ⚠ No significant differences were found throughout the refrigeration between control and treated burgers for CIELAB parameters.
- ⚠ The TBARS values in Treated burgers were significantly lower than in the Control counterparts in all sampling days

PHENOLIC AND TOCOPHEROL CONTENT OF *Prosopis alba* LEAVES

Total monomeric phenolics: 331.7 ± 17.0 mg /100 g dry matter
 Total procyanidins: 2319.3 ± 61.0 mg /100 g dry matter
 Total phenolic content: 2651.0 ± 44.6 mg /100 g dry matter
 α tocopherol: 1.79 ± 0.39 mg /100 g dry matter
 γ tocopherol: 0.12 ± 0.02 mg / 100 g dry matter



CONCLUSIONS: *Prosopis alba* leaf extract displayed intense antioxidant activity against lipid oxidation and could play an important role as a natural antioxidant ingredient in lamb burger patties by improving their oxidative stability and quality.

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