

ANTIOXIDANT PROPERTIES OF 'ALGARROBO BLANCO' (Prosopis alba GRISEB.) EXTRACTS AND THEIR APPLICATIONS TO LAMB BURGERS PRESERVATION.



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INTRODUCTION & OBJECTIVES:



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

The present study was carried out to:

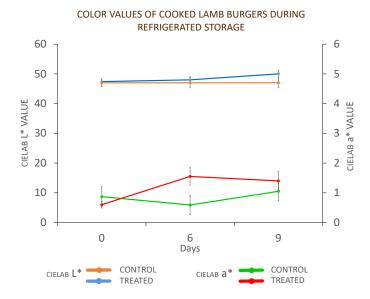
- ✓ Optimize an extraction procedure of phenolic compounds of *P. alba* leaves.
- ✓ Characterize such extract in terms of phenolic content, composition, and in vitro antioxidant activity.
- ✓ Analyze the extract showing the most intense in vitro antioxidant activity for their ability to inhibit lipid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

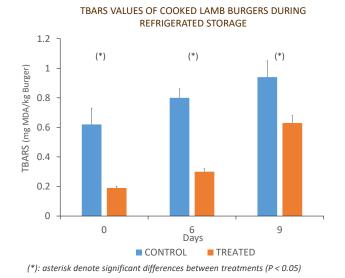
RESULTS:

- 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: $331.7 \pm 17.0\,$ mg /100 g dry matter Total procyanidins: $2319.3 \pm 61.0\,$ mg /100 g dry matter Total phenolic content $2651.0 \pm 44.6\,$ mg /100 g dry matter α tocopherol: $1,79 \pm 0,39\,$ mg /100 g dry matter Y tocopherol: $0,12 \pm 0,02\,$ mg / 100 g dry matter





<u>CONCLUSIONS</u>: *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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