



UNIVERSITY OF LIFE SCIENCES
"KING MIHAI I" FROM Timisoara
**Multidisciplinary Conference on
Sustainable Development**



25-26 May 2023

**GREEN LEMON ESSENTIAL OIL ANTIMICROBIAL ACTIVITIES
WITH ITS PRESERVATIVE EFFECT AGAINST *LISTERIA
MONOCYTOGENES* INOCULATED IN CHICKEN BREAST MEAT**

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Abstract: *The provision of safe and healthy food is one of the industry's most significant obstacles. On the growth of *Listeria monocytogenes* on chicken breast meat, the impacts of vacuum packaging, storage temperature, and green lemon essential oil (GLEO) were investigated. The combination of vacuum-packaging and green oil was also found to be highly successful in preventing the growth of *Enterobacteriaceae* in ground chicken breast meat.*

• **Introduction**

The main issues facing the chicken industry are the limited shelf life and the danger of pathogen contamination of *L. monocytogenes*. The goal of the research was to determine the effects of vacuum packaging, storage temperature, and (GLEO) application on the growth of *L. monocytogenes* in chicken breast meat.

• **Material and method**

GLEO was purchased from Hanus s.r.o. *L. monocytogenes* was obtained from the Czech Collection of Microorganisms. The chicken's breasts were purchased from a shop. On days 0., 1., 3., and 5. of holding at 4 °C, microbiological tests were conducted.

Acknowledgement: This research was funded by the grant APVV-20-0058 "The potential of the essential oils from aromatic plants for medical use and food preservation".

• **Results and discussions**

Application of GLEO (1%) inactivated *L. monocytogenes* in chicken breast meat within by day of exposure, regardless of storage temperatures. Hence, the use of GLEO can provide an adequate degree of protection against foodborne pathogens in chicken breast meat.

• **Conclusions**

With green lemon essential oil added to chicken breast meat, vacuum packaging's antimicrobial effects can be strengthened against some food pathogens.