ONLINE - Live and On-demand

EFFoST

Online event
10-12 November

2020 INTERNATIONAL CONFERENCE

Break and poster sessions

10:30 - 11:00 Wednesday, 11th November, 2020
Presentation types Poster

Welcome to the online poster session. Each poster has its own online poster 'room', hosted by the poster presenter. You can join the poster discussion with the poster author, by entering the room with your microphone and camera on (using the buttons at the bottom of the screen), for an interactive poster discussion. A maximum of 15 attendees can visit each poster at one time, so should the room you are trying to enter be full, please move on to visit another poster and return again later in the session.

Key for posters:

SOYA - Student of the Year Awards and Nominees

T1 - Engineering consumer-orientated foods

T2 - Shaping the food chain sustainability

T3 - Enhancing the endurance, diversity and resilience of the food chain

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P.T1.073 Quality changes and microbiological properties of jerkies produced from sheep

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Abstract

Sheep meat is an underestimated food commodity usually marketed as raw whole or comminuted. Due to its organoleptic properties, sheep meat is generally associated with certain meat preparation techniques, e.g. grilling or roasting. Nevertheless, it can meet the consumer food requirements since it is a highly nutritious food, produced in most cases in an ecological friendly way. The modern way of living requires food commodities that are nutritious, ready to eat and stored easily. Dehydrated meat snacks are rich in protein and can be consumed without further processing. The scope of this study was to investigate sheep jerky as a technique of production of novel, high protein snacks that are easy to produce and store. Stripes of mutton were produced from selected carcasses of animals. Meat stripes were marinated according to a traditional recipe overnight at fridge temperature and dehydrated in a desiccator. Six different desiccation times were examined (3hr, 6hr, 9 hr, 12hr, 24hr and 48hr). The best desiccation time according to texture and storage potential was 9hr, according to water activity (0.885), weight loss (57.87%) and organoleptic properties. In addition the application of a 1% chitosan film was evaluated in order to increase storage time and safety of the product. Jerkies with and without the chitosan film were stored for up to one month during which microbiological (total mesophiles, total psychrophiles, lactic acid bacteria and *Staphylococcus* spp.) and chemical properties (aw) according to the appropriate ISO methods. Two groups of stripes were spiked with a cocktail of *Listeria monocytogenes* and a cocktail of *Salmonella* Typhimurium strains in order to estimate the pathogen risk of survival and transmission. This research was co-financed by the European Union Regional Development Fund and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation (RESEARCH – CREATE – INNOVATE, code: T1EDK-05479).

Keywords

Lamb
Jerky
Chitosan