Tropentag, October 5-7, 2011, Bonn

"Development on the margin"

Use of Different Pretreatments During Drying of Eland (*Taurotragus oryx*) Meat and its Effect on Organoleptic Properties

Stepán Marek, Kucerová Iva, Jan Banout

Czech University of Life Sciences Prague, Institute of Tropics and Subtropics, Czech Republic

Abstract

World demand and consumption of animal products in human diets is growing worldwide. One of the promising species for the production of venison is eland (*Taurotragus oryx*). Domestication of eland for agricultural production in Africa was also recommended by FAO. Eland is the largest species of antelope comparable with domestic cattle, not only in size but also in terms of its peaceful nature. From the perspective of developing countries, drying appears to be low cost preservation technique in the processing of agricultural products. It is possible to obtain a product with the optimum value of moisture, which in turn provides the possibility of storage and minimising the risk of contamination by fungi, microbes, etc.

The main objective was to investigate the influence of different drying pretreatments on organoleptic properties of eland meat. In the first part of the experiment, eland meat from biceps femoris was cutted into samples and loaded into different modified marinades. Samples were dried in laboratory oven 20 hours at 50°C and weighed each hour. Ten pretreatments with the best organoleptic effect were selected by visual observation to be dryed in solar dryer. AANaCl (vinegar 4 % - 10 min., 10 % saline solution - 10 min.), AB1 (lime juice 30 ml with water 70 ml for 10 min.), AB2 (lime juice 50 ml with water 50 ml for 10 min.), AC1 (pineapple juice 50 % for 10 min.), AC2 (pineapple juice 100 % for 10 min.), M (honey solution 60°C for 10 min.), MAB (honey solution with lime 60°C for 10 min.), NaClV1 (10 % saline solution for 10 min. and red wine for 10 min.), NaClV2 (10 % saline solution for 10 min. and red wine 60°C for 10 min.), CC (control sample). Average initial and final moisture content was 75.6 % and 14.25 %, respectively. Sample NaClV1 showed the biggest moisture loss – 67.33 %, sample M showed minimal moisture loss – 50.93 %. After drying the samples will be tested by trained panelists to evaluate the influence of each pretreatment on organoleptic properties.

Keywords: Drying, eland, meat

Contact Address: Stepán Marek, Czech University of Life Sciences Prague, Institute of Tropics and Subtropics, Kamýcká 129, 165 21 Prague, Czech Republic, e-mail: mareks@its.czu.cz