MINERAL COMPOSITION OF MEAT FROM DIFFERENT SPECIES OF ANIMALS FROM SERBIA

Jasna Djinovic-Stojanovic¹, Sasa Jankovic¹, Ivana Brankovic Lazic¹, Danijela Vranic¹, Jelena Babic Milijasevic¹, Munevera Begic², Vesna Djordjevic¹

¹Institute of Meat Hygiene and Technology, Kacanskog 13, 11040 Belgrade, Serbia ²Faculty of Agriculture and Food Science, University of Sarajevo, Zmaja od Bosne 8, 71000 Sarajevo, Bosnia and Herzegovina

Summary

This study aimed to provide information on levels of magnesium (Mg), potassium (K), calcium (Ca), copper (Cu) and zinc (Zn) in 154 meat samples from six species of animals. Samples (chicken, turkey, pork, lamb, equine and beef meat) were gathered from different meat processing facilities in Serbia during 2023. The levels of macro- (Mg, K, Ca) and micro- (Cu, Zn) elements were determined by inductively coupled plasma mass spectrometry (ICP-MS). The highest significant mean content (p < 0.05) of Mg was measured in chicken meat. In terms of K and Ca levels, pork and equine meat had the highest values, respectively, and there were no significant differences between other meat species. Equine meat had the highest significant mean levels of Cu while the significantly highest Zn levels were determined in beef meat. The distribution of the elements in meat samples was examined by applying principal component analysis (PCA).

Keywords: *macro- elements; micro-elements; meat; species of animals.*