

CHEMICAL COMPOSITION OF CHICKEN MEAT IN EXTENSIVE INDOOR AND FREE RANGE REARING SYSTEM**

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** Originalni naučni rad – Original scientific paper

Abstract: The current research tackled analysing chemical composition of the white (breast muscles) and dark meat (leg muscles) of the indoor reared chickens up to 28 days of age, since when till the 56th day of age, one group of chickens was further extensive indoor reared, whereas the other was free range reared during the day. At the age of 56 days, 12 chickens randomly chosen from either rearing system, were slaughtered, the treated and cooled carcasses being cut into the basic parts. The samples taken from breast and leg muscles (thighs with drumsticks) were used for chemical analyses. The research results denoted that free range rearing mode appeared to be more favourable with respect to the significantly higher protein content and a lower fat content in white and dark chicken meat, a higher fat and somewhat lower protein content being in hen than those in cock meat.

Key words: chemical composition, chicken meat, rearing system, sex.

Introduction

Given an array of standpoints, meat quality, in a broader, and chicken meat quality, in a narrower sense, are considered highly complex. To satisfy consumer and slaughter industry needs, apart from proper randmans and a desirable carcass conformity, the fattened chickens should also have satisfactory aesthetic-sensor and dietary-nutritional characteristics. Chemical composition of the muscular tissues in more significant carcass parts is therefore of paramount importance to chicken meat quality (*Ristic, 1999; Grashorn and Clostermann, 2002; Holcman et al., 2003*).

Quality characteristics considered are said to depend on a range of factors. Of the biological ones, genotype, sex and age have the highest effect on the chicken meat quality (*Lewis et al., 1997; Bokkers and Koene 2003; Hellmeister et al., 2003*). Of the non-genetic factors profoundly influencing individual traits featuring chicken meat quality, chicken rearing system has been highlighted by numerous authors recently.

