

14th  
INTERNATIONAL  
SYMPOSIUM

MODERN  
TRENDS  
IN LIVESTOCK  
PRODUCTION



BOOK OF ABSTRACTS

4 - 6 October 2023, Belgrade, Serbia

**Institute for Animal Husbandry**  
Belgrade - Zemun, SERBIA

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Institute for Animal Husbandry  
Autoput 16, P. Box. 23,  
11080, Belgrade-Zemun, Serbia  
Tel: +381 11 2691 611; +381 11 2670 121; +381 11 2670 541;  
Fax: + 381 11 2670 164;

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**Address:**

Institute for Animal Husbandry,  
Autoput 16, P. Box 23,  
11080, Belgrade-Zemun, Serbia

**Tel:**

+381 11 2691 611

+381 11 2670 121

+381 11 2670 541

**Fax:**

+381 11 2670 164

E-mail: [biotechnology.izs@gmail.com](mailto:biotechnology.izs@gmail.com)  
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## ADAPTED QUALITY PROTEIN MAIZE IN BROILER DIETS HOLDS NUTRITIVE AND FINANCIAL ADVANTAGES

**Marija Kostadinović, Jelena Vančetović, Nenad Delić, Dragana Ignjatović Micić**

Maize Research Institute Zemun Polje, Slobodana Bajića 1, Belgrade, Serbia

Corresponding author: Marija Kostadinović, [kmarija@mrizp.rs](mailto:kmarija@mrizp.rs)

**Abstract:** Quality protein maize (QPM) can be beneficial for use in feeds as it was shown that substitution of standard maize (SM) with QPM can improve livestock performance and decrease costly dietary lysine supplementation and protein ingredients. Herein, nutritional and financial effects of QPM adapted to temperate climate in broiler diets were tested. Feeding experiment was performed on two groups of broilers – control (fed with SM) and treatment (fed with QPM). Duration of each feeding trial was 42 days, comprising three phases - starter (1-14), grower (15-35) and finisher (36-42). Diets for all growth phases were formulated based on the biochemical analysis of SM and QPM kernels. Body weight of the chickens was measured on days 1, 7, 14, 35 and 42. Feed intake (FI), body mass gain (BMG), average daily gain (ADG) and feed conversion ratio (FCR) were calculated at days 14, 35 and 42. Two trials were performed. In the first, SM was completely replaced with QPM in treatment group diets. As the results indicated better FCR in the treatment group for grower (1.49:1.54) and finisher (1.55:1.60) phases, in the second trial QPM was increased and soybean component decreased for 3%. That led to better results as FCR was even lower but in all three phases, confirming the results of the first trial and further confirming the effects of QPM on feed conversion. Moreover, significant financial reduction in feed was observed, as the price of soybean is usually two to four times higher than the price of maize.

**Key words:** broilers, feed conversion ratio, lysine, soybean, quality protein maize

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