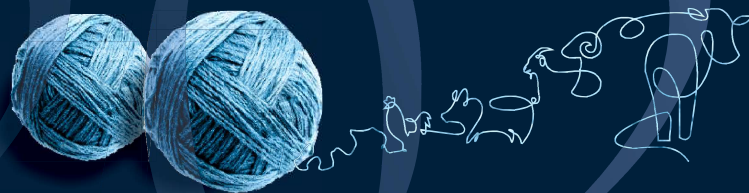


14th
INTERNATIONAL
SYMPOSIUM

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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VARIABILITY OF MORPHOMETRIC CHARACTERISTICS OF GONADS FROM BOARS OF AUTOCHTHONOUS PIG BREEDS IN SERBIA

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Abstract: The morphometric characteristics of the gonads of male autochthonous breeds of pigs in the Republic of Serbia were examined. The following breeds are included: lasasta mangulica (Swallow-Bellied Mangalitsa), Moravka and Resavka. There were 3 age categories divided by body mass within the group of Swallow-Bellied Mangalitsa. The first group are animals of average body mass 20 kg (n=11). The second group is the average body mass of 45 kg (n=9), and the third group are pigs of body mass of 100 kg (n=13). Number of Moravka male were 8, until number of Resavka was 7 adult animals. The morphometric properties that were investigated were: ZAPSAEP- Volume of testes with the epididymes; ZAPBEZEP- Volume of testes without the epididymes; ZAPEP- volume of epididymes; MASSAEP- Weight of testes with the epididymes; MASBEZEP- Weight of testes without the epididymes; MASEP- Weight of epididymes; DUŽSAEP- Length of testes with the epididymes; DUŽBEZEP- Length of testes without the epididymes; DUBBEZEP- Thickness of testes; ŠIEBEZEP- Width of testes; OBBEZEP- Circumference of testes. The characteristics of length and thickness in the youngest group of Mangalitsa had a coefficient of variation for the left and right testis of less than 30%, as well as for the group up to 45 kg of body weight. Length traits in the oldest group of Mangalitsa had smaller coefficients of variation for the left compared to the right testis (12.70; 10.86 toward 13.76; 12.22%). The absolute size of the left testicle was larger in non-castrated male of the Mangalitsa breed, as indicated by all the morphometric measurements taken on the testicles. The characteristics of testicular volume varied within the Moravka breed, in contrast to the Mangalitsa, in Moravka males, a larger volume of testicles with the epididymis on the right side compared to the left was determined, which is a consequence of the larger volume of the right epididymis. In contrast to the Moravka, lower values of the characteristics of the volume of the right testicle compared to the left were found in male Resavka. Traits of volume, length, depth, and weight in Mangalitsa males had coefficients of variation of less than 30% for left and right testis. In sexually mature animals, the correlation between morphometric measures is strong and positive, which allows us to take one measure (which is the simplest to take), to gain an objective insight into the size of the testes. The association of age and body mass at slaughter with a number of morphometric traits of the Mangalitsa breed was moderate to strong with a positive sign. The connection between the morphometric characteristics of the testicles and the production characteristics of male pigs of the Moravka breed, unlike the Mangalitsa, looking at the established correlation coefficients in the Moravka, it is not possible to draw clear conclusions when it comes to the connection of these groups of characteristics. Within the Resavka breed, of the production traits, only the average lifetime daily gain has a strong correlation with the trait of testis length without epididymis, but with a negative sign.

Key words: morphometric characteristics, gonads, autochthonous breeds, Mangalitsa, Moravka, Resavka

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