

## Poster presentation:

### **Improved welfare vs. meat quality: impact of enrichment and stocking density on broiler chicken**

G. Cieleń<sup>1</sup>, A. Ludwiczak<sup>2</sup>, P. Sztandarski<sup>3</sup>, J. Składanowska-Baryza<sup>2</sup>, K. Szulc<sup>2</sup>, A. Jaszczyk<sup>3</sup>, M. Solka<sup>3</sup>, G. Pogorzelski<sup>3</sup>, J. Horbańczuk<sup>3</sup>, J. Marchewka<sup>3</sup>, E. Sell-Kubiak<sup>1</sup>

<sup>1</sup> Poznań University of Life Sciences, Department of Genetics and Animal Breeding, Wołyńska 33, 60-637 Poznań, Poland, <sup>2</sup>Poznań University of Life Sciences, Department of Animal Breeding and Product Quality Assessment, Słoneczna 1, 62-002 Suchy Las, Poland, <sup>3</sup>Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences, Jastrzębiec, 05-552 Magdalena, Poland

The typical traits of modern fast-growing broiler chickens are high growth rates and a high proportion of breast muscles in the carcass.

This study aimed to implement access to enrichment (perches vs. no perches) and two stocking densities (41 vs. 35 kg/ m<sup>2</sup>) and its interaction with sex of the birds.

Most of the examined slaughter traits were affected by sex, as well as the interactions between sex, use of perch, and stocking density.

None of the fresh meat quality traits exhibited differences solely due to the use of enrichment. The yellowness index was greater in males compared to females ( $b^* = 10.7$  vs  $10.1$ ) and in the 41 kg/ m<sup>2</sup> group compared to 35 kg/ m<sup>2</sup> ( $b^* = 10.7$  vs  $10.2$ ). The pH thawed was higher in the 35 kg/ m<sup>2</sup> group compared to 41 kg/ m<sup>2</sup> (5.93 vs. 5.89). Males and females differed in two meat texture parameters. Sex had no effect on the chemical composition of chicken meat. The meat from enriched conditions contained more moisture and less protein compared to the control group. Males exhibited a higher incidence and greater severity of myopathies compared to females.

In conclusion, environmental enrichment and stocking density do not impact slaughter traits or myopathies but do affect certain aspects of chicken meat quality.

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