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The space allowance affects selected pork physicochemical traits of native Polish Pulawska pig breed

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The existing research on commercial pig breeds shows no or limited variation in meat physicochemical attributes caused by space allowance. The goal of our study was to examine the effect of space allowance on the native Pulawska pig.

In total 80 fatteners (males and females), were divided into 3 groups: control (CON), with a 1.0 m2/ animal; EXP1 – 1.5 m2/animal, and EXP2 – 2.0 m2/ animal. Animals were slaughtered after reaching a weight of 100-110 kg, and selected slaughter traits and meat quality traits (m. longissimus thoracis et lumborum – LTL) were examined on 42 from a total of 80 fatteners (14 per group). The average cold carcass weight was 92.9 kg (± 55.8). Females were characterized by greater leaness ($P< 0.001$), and by 7.1% heavier loins ($P= 0.039$) compared to males. The LTL of EXP1 and EXP2 pigs was characterized by a higher pH (5.87 and 5.70 vs 5.65) compared to CON. EXP1 pork had a lower EZ drip loss (1.51% vs 2.81%), and darker colour ($L^*= 47.7$ vs 50.8) compared to CON. The intramuscular fat content did not vary between groups or sexes and was 1.4 – 2.0%.

To conclude, the space allowance in Pulawska pig fatteners significantly affected the physicochemical traits of pork defining its culinary and technological usefulness. Pigs with greater than commercial space allowance, 1.5 m2/pig, characterized with dark-firm-dry abnormal quality attributes. Pigs with a space allowance of 2.0 m2/ animal were characterized by meat attributes located between the other pig groups.

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