VARIABILITY AND CORRELATION OF THE CHARACTERISTICS OF THE QUALITATIVE COMPOSITION OF THE M. LONGISSSIMUS DORSI OF YOUNG PIGS OF DIFFERENT WEIGHT CONDITIONS

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The objective was to investigate the physic-chemical properties and chemical composition of the longissimus dorsi muscle of young pigs different pre-fatten live weight, to calculate the level of correlation and to identify indicators of the variability of signs. It is established that the pH of samples of muscle tissue of young pigs, which pre-fatten live weight was equal to 100,5±0,43 kg is 5,63±0,041 units acidity, soft - 9,43±0,350 with, water-holding capacity - 60,30±1,096 %, intensity - 74,16±2,784 units ext.×1000, protein - 21,80±0,365 %, fat - 2,19±0,232 %, the content of calcium (Ca) - 0,044±0,0014 %, the content of phosphorus (P) - 0,122±0,0053 %, energy value, 118,51±2,604 kcal. A significant difference in chemical composition of muscle tissue found between animals that have pre-fatten live weight was 120,3±0,58 kg and the specified group on the protein (0,95 %; td=1,7, B>0,90), Ca (0,003 %; td=1,7, B>0,90) and energy value (9,96 kcal; td=2,11, B>0,95). The biometric analysis of indicators characterizing the variability of signs shows that they differ significantly. The minimum coefficient of variation identified with the active acidity (pH) and 2,26-3,09 % and maximum - fat – 44,95-78,68 %. The coefficient of variation of other indicators of the different animals pre-fatten live weight ranged from 7,11 (protein content, %) 18,31 % (phosphorus content). Calculations of the pair correlation coefficient indicate the presence of relationships between physicochemical properties and chemical composition of muscle tissue. The number of reliable relationships between the characteristics of the qualitative composition of the muscle tissue in young animals with pre-fatten live weight of 100,5±0,43 kg is 25,0 %. 11,1 % have reverse (tenderness × intensity), 88,9 % direct (water-holding capacity × fat content, calcium content × protein content - the content of phosphorus (P) is the energy value, fat × energy value, content of calcium (Ca) × phosphorus (P) phosphorus (P) × energy value). It is shown that 44,4 % reliable relationships are characterized by power as close, 55,6 % - per cent as average. The correlation coefficients between the physicochemical properties and chemical composition of muscle tissue in animals with pre-fatten live weight 120,3±0,58 kg are characterized by the following indicators. The
number of significant coefficients of pair correlation is 22.2 %, including direct in the
direction of 37.5 %, reverse – 62.5 %, close by the force of 12.5 %, satisfactory to -
87.5 %. The coefficients of pair correlation significant with a probability of $B > 0.90$
- $0.999$.

**Keywords:** YOUNG PIGS, WEIGHT CONDITIONS, M. LONGISSIMUS
DORSI, PHYSIC-CHEMICAL PROPERTIES, CHEMICAL COMPOSITION,
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