

VARIATIONS OF THE AMINO ACID SPECTRUM IN THE BLOOD PLASMA OF THE ROOSTER DURING THE SPERMATOGENESIS CYCLE

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Abstract

The purpose of this study is to highlight the response to experimental interventions by investigating of variations in the amino acid content in the blood plasma of roosters under the influence of biologically active compounds. The latter were obtained from the composition of sea buckthorn and red onion through techniques and methods of analysis (extraction, spectrophotometry). Blood samples from three groups of roosters were analyzed: control, experimental I and experimental II after a 30-day period of ration supplementation with biologically active compounds. Were determined 26 amino acids and their conformational states and 2 amino acid derivatives on the AAA-339 analyzer. The analysis of amino acid content in the blood plasma of roosters during the spermatogenesis cycle reveals significant changes in the amino acid profile between control and experimental groups ($p < 0.05$). Changes in concentrations of essential, non-essential and specific amino acids suggest that experimental interventions may influence amino acid metabolism. The results contribute to the understanding of some metabolic mechanisms involved in spermatogenesis of birds.

Key words: amino acids, blood plasma, reproductive potential, rooster, spermatogenesis.