

# Broiler rearing systems: a review of major fattening results and meat quality traits

S. BOGOSAVLJEVIĆ-BOŠKOVIĆ, S. RAKONJAC\*, V. DOSKOVIĆ and M.D. PETROVIĆ

Department of Animal Husbandry, University of Kragujevac, Faculty of Agronomy, Cara Dusana 34, Čačak, Serbia

\*Corresponding author: [simcepb@yahoo.com](mailto:simcepb@yahoo.com)

---

Poultry rearing systems have been the focus of scientific research for many years as a result of consumer demand for high-quality products and legal poultry welfare requirements. Given these requirements, the following study was carried out as a comparative review of the results obtained by different authors on the effect of rearing systems on productive traits (growth, feed conversion and mortality) and meat quality traits (dressing percentage, yield and percentage of primal cuts, and chemical composition of meat) in broilers.

Most authors reported a lower final body weight and poorer feed conversion efficiency in free-range systems compared to intensive rearing. Conversely, better meat quality traits, most notably in terms of chemical composition of meat, were observed in non-intensive and organic broilers. The above traits showed differences within the same rearing system, due to the effect of a range of genetic and non-genetic factors.

In view of the above, it is hoped that the following review on the use of different rearing systems in broiler meat production can serve as a tool in determining the future direction of research as well as an indicator of its practical applications.

---

**Keywords:** broilers; fattening; rearing systems; productive traits; meat quality

## Introduction

The selection of broiler chickens in the second half of the 20th century has been primarily aimed at obtaining high meat yields at minimum production costs, primarily feed costs. This has led to the development of hybrid broiler strains whose productive traits and goals include attaining maximum biological potential, *i.e.* fast growth rate, high yields of primal carcass cuts and favourable feed conversion efficiency, ensuring maximum cost-effectiveness and profitability from this type of production.

However, over the last couple of decades, poultry meat production has diversified and























