

ADAPTABILITY OF LOHMANN BROWN HYBRID TO DIFFERENT PRODUCTION SYSTEMS

M.G. Usturoi¹, R.M. Radu-Rusu¹, A. Usturoi¹, R.N. Rațu¹

¹Faculty of Food and Animal Sciences, Iasi University of Life Sciences, Romania

Abstract

By EU Directive 74/1999 a CE, from 2012 was banished exploitation of laying hens in classical batteries, in all EU states. The actual production systems agreed at European level differentiates by the conditions assured to birds (accommodation area, movement freedom, supplementary endowments, access to the external environment) and is materialized in the quality code which is given to consumption egg. After years '90 Romanian poultry units totally renounced at domestic biological material, preferring commercial hybrids provided by the great multinational firms and whose productive response depends on adaptability at specific conditions from Romania. In the current paper are presented the productive performances of Lohmann Brown hybrid exploited in 4 production systems (battery; loft; permanent layer; free-range), respecting the rearing factors described in hybrid's guide. During studied period (20-60 weeks), the best egg production (249.92 eggs/head) was realised by the hens reared in battery, those one being with 2.22% that the one of the hens reared on permanent layer, with 11.04% face to hens accommodated in loft and with 14.73% that at hens exploited in free-range system. Feed conversion index presents limits between 132.02 g n.c./egg (for hens from battery) and 162.28 g n.c./egg (at the ones reared in free-range system). Under the aspect of survival rate, the best results were at hens reared on permanent layer, with a mortality of only 4.26%, followed by the ones from free-range with 5.38%, and the ones from battery 6.41% and finally by the hens accommodated in loft with 8.72%. The study conclusion was that Lohmann Brown had a good adaptability to different rearing systems, with the remark that productive response is close to its theoretical potential when are applied intensive rearing systems, respectively in battery and on permanent layer.

Key words: Lohmann Brown, adaptability, rearing system, egg production, conversion index, viability