RESEARCH INTO THE INFLUENCE OF MOUNTAIN AREA AND FARMING SYSTEMS ON THE PRODUCTIVE PERFORMANCE OF THE BROWN CATTLE BREED

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Abstract

The research was carried out on a herd of Brown Swiss cattle, comprising a total of 223 head, namely 114 dairy cows, of which 23 were reared under extensive farming conditions and 91 under semi-intensive farming conditions, in the mountainous area of Neamț County. The aim was to investigate the influence of the mountainous area and the farming systems on the productive performance of the Brown Swiss breed. A comparative analysis of the productive performance by lineage shows that the best results were recorded for the Brown Swiss breed reared under semi-intensive conditions (6,471 kg of milk) compared with the extensive system, where the maternal grandmothers produced only 5,475 kg of milk. The average milk yield per lactation for the offspring was 6,383.26 kg in cows reared under a semi-intensive system, compared with the extensive system, where the offspring produced only 4,673 kg of milk. Furthermore, milk quality is superior in cows reared under the semi-intensive system, and the differences between the two rearing systems are distinctly significant. To maintain fat content above 3.9% and protein above 3.3%, the composition of the daily ration must ensure a perfect balance between energy, protein and digestible fibre. Increasing livestock production in cattle can be achieved by increasing the number of animals, but this is not the most cost-effective approach; therefore, the aim is to achieve higher milk production in this species by increasing the average yield per animal, which can be achieved through the combined action of genetic improvement and better farming conditions.

Key words: *cattle, Brown, milk, farming systems, performance, mountainous area*