

FORCED-MOLTING USING ALTERNATIVE FEEDS TO IMPROVE THE WELFARE OF LAYING HENS

MUDA FORÇADA UTILIZANDO ALIMENTOS ALTERNATIVOS COM BASE NO BEM-ESTAR DE GALINHAS POEDEIRAS

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Abstract

Commercial laying hens are kept in production until approximately 80 weeks of life, when the first production cycle usually ends, after which they are often discarded due to the decrease in the number of eggs produced and shell quality. However, in situations of high demand for eggs in the market, high feed prices and delays in the supply of one-day-old chicks by hatcheries lead producer to prolong the laying lifetime of birds. The technique used for this purpose is forced molting, which aims to make the reproductive system of the bird rest for a period and then regenerate its productive capacity. This can increase the useful lifetime of laying hens for another 25 to 30 weeks, in addition to improving the quality of the eggs and reducing the level of losses due to poor shell quality. This process induces the loss of feathers, with subsequent growth of new feathers and rapid resumption of egg production, which should take at most 6 to 8 weeks. The best-known forced molting procedure is the fasting method (total feed deprivation for a period of at least 9 days). Fasting as a stimulator of forced molting is a controversial practice due to animal welfare concerns, and has been widely questioned, generating criticism of the current system adopted. In this way, new techniques of forced molting have are being developed to reduce the stress generated in the birds, such as administration of alternative feeds. Therefore, the objective of this study was to compare the replacement of fasting with provision of alternative feeds, in order to improve the welfare of the birds through the use of less aggressive technique. Seventy-two heavy laying hens of the Hy-Line W-80 strain, with 105 weeks of age at the beginning of forced molting, were evaluated. The birds were distributed in a completely randomized design, divided into six treatments with 12 replications each (n=72): T1-conventional forced molting (fasting); T2- provision of standard feed ad libitum throughout the forced molting period; T3-provision of rice bran ad libitum during forced molting; T4-provision of wheat bran ad libitum during forced molting; T5- provision of coarse-grained limestone ad libitum during forced molting; and T6- provision of ground alfalfa ad libitum during forced molting. Data on the decrease in egg production during forced molting were analyzed by mixed models (SASr), including the fixed effects of treatment, day and treatment x day interaction, while the bird/animal effect was used as the random effect. Means were compared by the Tukey test (P<0.05). There were significant effects of treatment, day and treatment x day interaction. The means of treatment 2 differed significantly from all the other treatments, which did not differ from each other. We found that birds submitted to fasting (Treat 1) presented laying interruption at 7 days, followed by treatments 3 and 6 (8 days) and 4 and 5 (9 days), but treatment 2, with provision of standard feed ad libitum, did not cause laying interruption. Our results demonstrate that the substitution of alternative feeds such as rice bran (3), ground alfalfa (6), wheat bran (4) and limestone (5) can be an alternative to fasting in the forced molting period, achieving interruption of egg production within the expected period and providing better well-being than fasting.

Keywords

Fasting, heavy chickens, sustainable production.

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