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RESEARCHES REGARDING THE INFLUENCE OF BODY WEIGHT ON POPULATION OF PEARL HEN (NUMIDA MELEAGRIS) GROWN IN BIHOR COUNTY

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Abstract

Populations of guinea fowl are raised in the Northwest of the country, especially, for the production of meat and egg production is valued complementary. In the researches were studied birds in three private farms, the order Galliformes, Numida genus, species Numida meleagris gray, guinea fowl from Bihor County. Thus have been studied a number 212 females and 40 males. Male youth made a dynamic approximately linear of progression weight: 277.5 g at 3 weeks, 692.7 g at the age of 8 weeks, 1001.7 g at 12 weeks, respectively 1965.2 g at achieving sexual maturity (28 weeks). The best growth performance was observed in cockerel from the farm 3 (total increase from hatching to adult stage of 1988.4 g). In the case of chicks, character studied presented a similar trend, realizing at the debut of egged an average weight of 1795.1 g with limits of 1761.8 \pm 29.5 g (C1) and 1829.4 \pm 26.1 g (C2). Males have reached the average weight of 2245.8 g at the age of 35 weeks, 2395.0 g at the age of 50 weeks months respectively of 2536.0 g at the time of last of control weightings (65 weeks). In the case of adult females, weight gain was more subdued, knowing the fact that most of the food energetic contribution and nutrient is directed to produce eggs. Thus, average weight achieved at the end production was 2294.8 g highlighting birds at the fowl-run 23, with an average performance of 80.9 \pm 2329.7 g.

Keywords: Grey Guinea fowl, Body weight dynamics, mature males of Grey Guinea fowl, mature females of Grey Guinea fowl.

INTRODUCTION

Gray guinea-fowl comes from the African continent, where it was domesticated in ancient times. Throughout history, the livestock on the European continent were reduced in numbers, a restocking and a better spread of this species was made after 1500 AD period in which, probably, was also populated and Romania.

It is unknown exactly the multiplication time of flocks of guinea fowl in the Northwest of the country but it is known that the local population breeds these birds, along with fulmars, to get Traditional meat with special organoleptic properties.

MATERIALS AND METHODS

The study was performed on population gray guinea fowl (Numida meleagris) in three private farms in the county of Bihor. Farms were named C1, C2 and C3, as follows: in farm C1, 65 heads (10 males and 55 females),

farm C2, 99 heads (16 males and 83 females) and farm C3, 88 head (14 males and 74 females).

The biological material used in the experiments consisted of birds of both sexes at different ages (hatching, the juvenile period, at achieving sexual maturity, the active period of reproduction).

To determine weight, was used the gravimetric method, realizing individual weightings with analytical balance, made at hatching and weekly for youth category, i.e. monthly, for the adult category.

Experimental data collected in regard to the characters studied and which showed measurable and quantifiable properties were centralized and processed statistically.

RESULTS AND DISCUSSION

For cockerels the total number taken in the study was 40 individuals, distributed as follows: 10 head. - Farm 1, 16 head. - Farm 2, 14 head. - Farm 3.

In the case of pullets was analyzed an effective of 212 birds, distributed in the three farms studied: 50 head. - Farm 1, 83 head. - Farm 2, 74 head - farm 3.

Thus, there was an average weight of 30.3 g to one day cockerel value between the limits \pm 0.4 g 29.8 (C1) and 30.1 \pm 0.8 g (C2). Batches showed a very good uniformity, with a coefficient of variation of around 4.2%.

A similar situation was seen with pullets on the first day after hatching, they recorded an average weight of 27.7 g in the three farms between 27.3 ± 0.2 g and 28.1 ± 0.2 g. The populations were also in this case, homogeneous.

To young male was observed dynamic approximately linear of progression of weight: 277.5 g at 3 weeks, 692.7 g at the age of 8 weeks, 1001.7 g at 12 weeks, respectively 1965.2 g at achieving sexual maturity (28 weeks). The best growth performance was observed in the cockerel farm 2 (total increase from hatching to adult stage of 1988.4 g).

In the case of pullets, character studied presented a similar trend, realizing at the debut of egged an average weight of 1795.1 g with limits of 1761.8 ± 29.5 g (C1) and 1829.4 ± 26.1 g (C2).

The dynamics of body weight of adult birds was followed by weekly weighing during the period 29-36 weeks of age, followed by the end of egged the checks to be conducted at an interval of 2 weeks. The number of individuals analyzed was slightly lower than that appreciated in the juvenile period of birds, due to outflows from the effective.

Analyzing the data in Fig. 1 and 2.is observed that, with age of the youth of gray guinea fowl populations have become more and more heterogeneous with regard to body development (% v = ,13.7% - 17.8 to 28 weeks).



Fig. 1. Body weight dynamics of the avian female youth, Numida meleagris species



Fig.2. Body weight dynamics of the avian male youth, Numida meleagris species



Data on the evolution of the parameters studied in adult specimens are presented in Fig. 3 and 4.

Fig. 3.Body weight dynamics in the mature females, Numida meleagris species



Fig. 4. Body weight dynamics in the mature males, Numida meleagris species

The results obtained are situated under the breed standard recommended by the literature, which requires achieving weights of more than 2.12 kg for males, respectively more than 1.87 kg at females (Vancea I., 1981). In case of females, weight gain had a lower amplitude.

CONCLUSIONS

From the perspective of exterior characteristics it can be affirmed that the studied specimens have corresponded to breed standard externalizing successfully specific characters. However, it is desirable to introduce the variety of pearl color on a white background due to the possibility of obtaining carcasses with superior aesthetic properties.

The evolution of body weight in both sexes and age categories was classified under specifications from literature, the males reaching an average weight of 2.53 kg at the age of 65 weeks and females a weight of 1.79 kg at the same age (Dodu, 2010).

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