

THE MORPHOPRODUCTIVE PROPERTIES OF THE SALONTA GIANT PIGEON BREED FROM THE BIHOR COUNTY AREA

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Abstract

In this paper there are presented research on the morphoproductive properties of the Salonta Giant pigeon breed.

The researches were carried out on a number of 100 specimens (50 males and 50 females) from the pigeon population coming from five private farms in Oradea and on the territory of Bihor county.

The quality of the hatching eggs was assessed in terms of weight, shell thickness, size index and Haugh index, respectively.

Key words: Morphological and production indexes, Dynamics of the body weight in Salonta Giant pigeons youth males.

INTRODUCTION

Columbophilia has followers on every meridian, with the exception of the northwestern part of the country. However, most of the pigeon breeders from Bihor County have in their actual households more or less rich in specialized breeds for flight and play, but also for ornament.

The Salonta Giant breed is characterized by a very developed body compared to other breeds, well rounded, being bred for meat production.

MATERIALS AND METHODS

The study presents data collected from private farms as follows: 20 heads (10 males and 10 females) from the first farm, 26 heads (14 males and 12 females) from the second farm, 18 heads (10 males and 8 females) in the third farm, 24 heads (13 males and 11 females) in the fourth loft and respectively 12 heads (7 males and 5 females) in the fifth loft. Working devices and materials used for research: digital analytical and technical balances, cameras, computer equipped with spreadsheet software, depending on the experimental method approached.

All the obtained results were compared with the reference values from the specialized literature (Sauveur B., 1988; Usturoi M.G., 1999; Vacaru-Opriş I. et al., 2002).

The experimentally obtained data were centralized and statistically processed.

RESULTS AND DISCUSSION

From the morphoproductive indices made by the Salonta Giant, we determined the quality of the eggs destined for incubation (egg weight, mineral shell thickness, format index, Haugh index).

The weight of the eggs produced increased slightly, as the birds successively passed the spawning moments. From an average value of $18.0 \pm 1.4\text{g}$ / egg, at tip 1, an average value of $18.9 \pm 2.1\text{g}$ / egg was reached, at the end of the breeding season (fig.1).

The thickness of the mineral shell was in the range $0.375 \pm 0.012\text{mm}$, at the 5th tip - $0.415 \pm 0.017\text{mm}$, at the first two laying periods. The variability for this character had values between 10.1-11.3%, representing an average to weak homogeneity of the studied populations(fig.2)

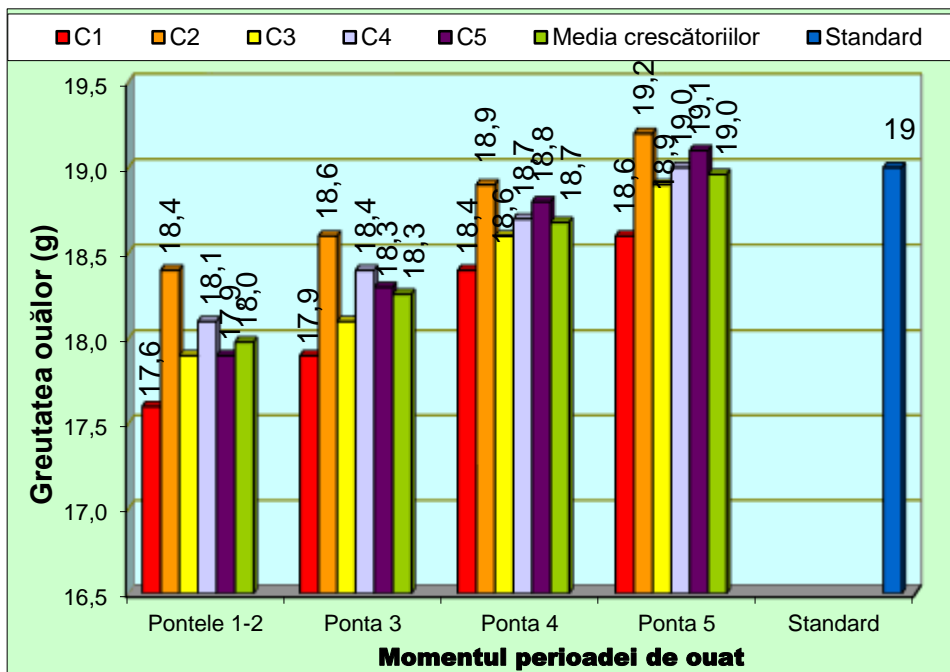


Fig. 1. – Eggs weight dynamics during the laying period, in the Salonta Giant breed females

The egg size index had values between $74.6 \pm 0.9\%$ (tips 1-2) - $75.7 \pm 1.1\%$ (tip 5), thus meeting the quality recommendations for hatching eggs to the studied species (Bessarabov, 1985, cited by Vacaru-Opriș, 2002). The data are shown in Figure 3.

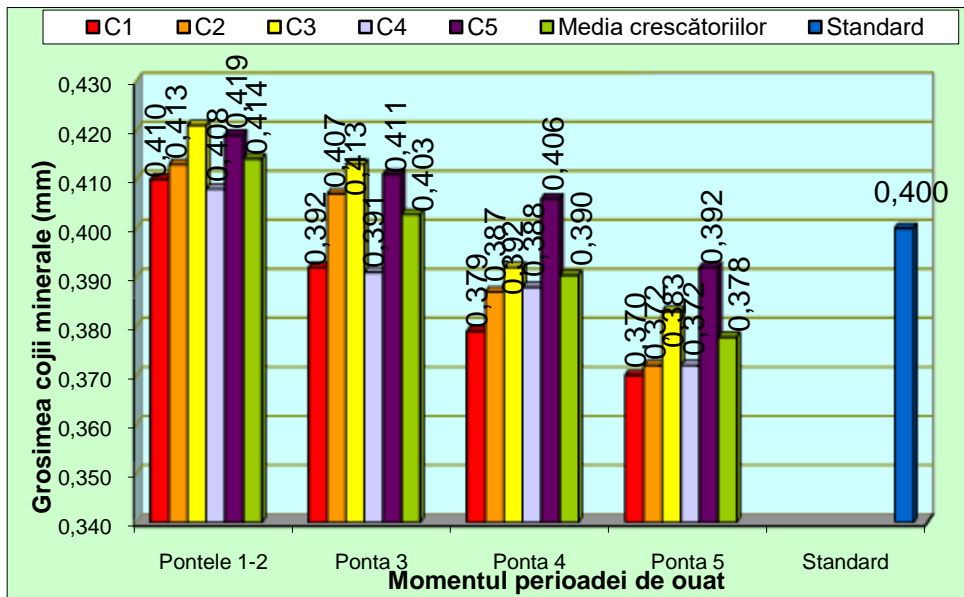


Fig. 2. – Shell thickness dynamics during the laying period, in the Salonta Giant breed females

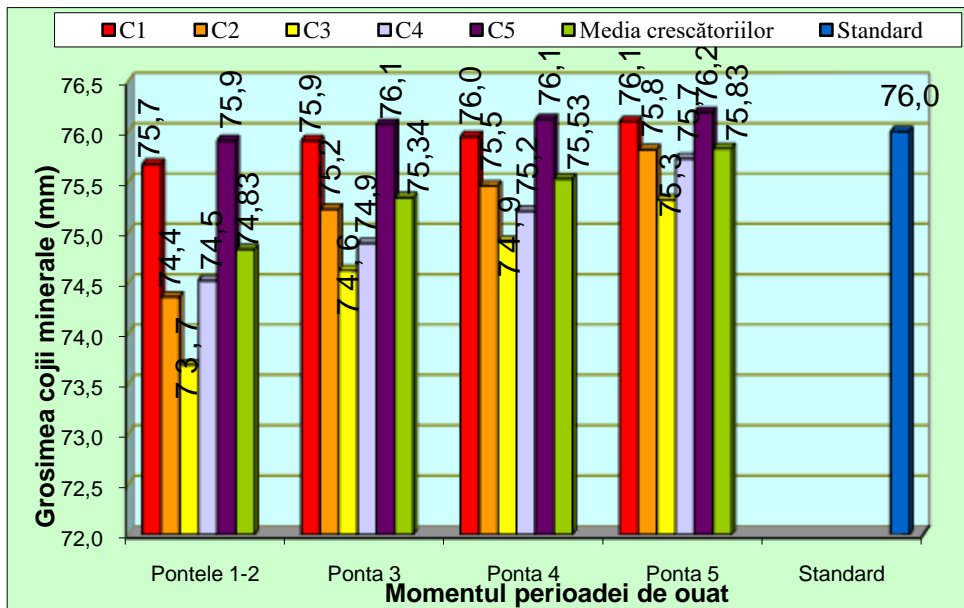


Fig. 3. – Modification of the eggs shape index, in Salonta Giant females pigeons

The Haugh index peaked at the time of the last spawning (78.7 ± 1.2 UH) and the lowest at the beginning of the breeding season (77.0 ± 1.2 UH).

The determined values were around the reference value for this parameter (fig.4)

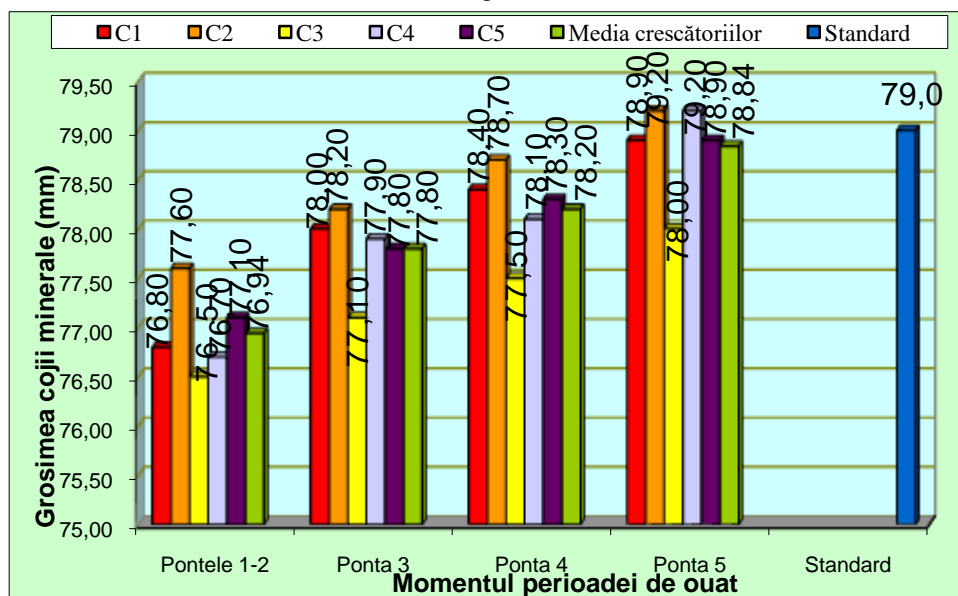


Fig. 4. – Assessment of the Haugh index, in Salonta Giant females pigeons

CONCLUSIONS

Specimens of Salonta Giant pigeons of both sexes achieved average performance below the theoretical potential of the native population: the quality of the hatching eggs was assessed in terms of weight, shell thickness, format index and Haugh index, respectively.

Experimental results indicating: egg weight from 17.9g to 18.9g, mineral shell thickness from 0.415mm to 0.384mm, format index from 74.83% to 75.83% and Haugh index from 76.94% to 78, 84%.

Following the research, we allow ourselves to formulate some recommendations: to make the selection of the studied flocks, for egg production and for breeding, the introduction, in the studied populations of valuable parents, to make the improvement of some defective characters, which produce undesirable effects, especially in the process. incubation, the use of male breeders who give a good percentage of fertility, to improve this character.

REFERENCES

1. Dodgson J.B., 2000, Integrating quantitative and molecular techniques in selection for diseases resistance. XXI World's Poultry Congress, Montréal, Canada, Aug. 20-24.
2. Dodu M., 2010, Contribuții la indentificarea și dezvoltarea fondului genetic aviar din județul Bihor. Teză de doctorat, USAMV Iași.
3. Driha A., 2000, Curs de Tehnologia creșterii păsărilor. Editura Mirton, Timișoara.
4. Gîlcă I., 1996, Aprecierea valorii de ameliorare a animalelor, Ed. Periscop, Iași
5. Grosu H., P.A. Oltenacu, 2005, Programe de ameliorare genetică în zootehnie. Ed. Ceres, București
6. Mallard J., M. Donaire, 1990, Evaluation de la selection. C.R. Acad. Agric. Fr. 76, 6 81-91
7. Mărgărint I., P.C. Boișteanu, A. Chelaru, 2002, Fiziologia animalelor domestice, Ed. Ion Ionescu de la Brad, Iași
8. Oroian T.E., A. Vlaic, 2001, Ameliorarea genetică a populațiilor de animale domestice, Ed. Academic Press, Cluj- Napoca
9. Popescu-Vifor Șt., 1990, Genetică populațiilor de animale domestice. Editura Ceres, București.
10. Sandu Gh ., 1995, Modele experimentale în zootehnie, Ed. Coral-Sanivet, București
11. Țirlea S., 1995, Considerații privind producerea și difuzarea materialului biologic avicol în Romania. Simpozionul Științific Național „Dezvoltarea zootehniei-o certitudine pentru viitor”, Iași
12. Usturoi M.G., 2008, Creșterea păsărilor. Editura Ion Ionescu de la Brad, Iași
13. Usturoi M.G., 1999, Incubația la păsările domestice, Ed. Ion Ionescu de la Brad, Iași.
14. Usturoi M.G., 2004, Producerea ouălor de consum, Ed. Ion Ionescu de la Brad, Iași.
15. Usturoi M.G., P.C. Boișteanu, I. Vacaru – Opriș, 1999, Indici de calitate pentru ouăle de prepeliță destinate incubației artificiale. Simpozion Științific de Zootehnie cu participare internațională, Iași 9-10 decembrie
16. Vacaru-Opriș I., 1993, Tehnologia creșterii păsărilor. Vol I și II. Lito, Universitatea Agronomică, Iași.
17. Vacaru-Opriș, I., 2000, 2007, Tratat de Avicultură. Vol I. Editura Ceres, București.
18. Vacaru-Opriș, I., 2002, Tratat de Avicultură. Vol II. Editura Ceres, București.

