

THE STUDY OF EGG PRODUCTION FOR PHEASANT POPULATIPON IN THE BIHOR COUNTY

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Abstract

This paper presents the partial results regarding the evolution of egg production of some birds from Galliformes order, the Phasianus genus, the Phasianus colchicus colchicus species on the territory of the Bihorcounty. The researches were carried out in three private breeders both in Oradea and in Bihor County, being analyzed 200 samples of the pheasant population, respectively 28 males and 172 females. The analyzed parameters refer to the productive indices, namely: the egg production and the curve of eggs, the quality of the hatching eggs: the weight of the eggs, the thickness of the mineral shell, the index of the format, the Haugh index. Regarding the average annual production of eggs, it was at the level of 37.8 eggs/hen, which is a rather low value for the studied species (potentially 45-50 eggs). The biological control of the incubation took place at two different moments (the days 6 and 23) during the 25 days of embryonic development. After the passing of the 25 days of embryonic development, the hatched chicks were ranked according to their weight, their overall appearance and their vitality.

Key words: Dynamics, incubation, eggs, Haugh index, fertility, hatching

INTRODUCTION

In Europe, the pheasant is spread both in the natural environment, in the hilly and flat areas, as well as in specialized farms, intended for meat production or replenishing of hunting flocks.

In the western part of the country and namely in Bihor County, the number of pheasant populations is reduced in the breeders' farms. Farmers appreciate the distinctive quality of the meat, which is tender and succulent, as well as the value of these birds as exhibition specimens. The County Forestry Directorate has a number of pheasant farms in which is obtained youth for the continuous population of the forest areas.

MATERIALS AND METHODS

The study presents only data collected from private breeders, namely: in the farm C1, 62 heads (5 males and 57 females), the farm C2, 80 heads (10 males and 70 females), the farm C3, 58 heads (8 males and 50 females) The biological material being represented by birds of both sexes at different ages (hatching, juvenile, sexual maturity, active breeding period).

The materials and devices used are: technical and analytical digital balances, calipers, petri dishes and flat glass plates, small capacity incubators (50-200 eggs / series), portable ovoscope, camera, computer equipped with spreadsheet software, depending on the approached experimental method.

The results obtained were compared with the reference values in the literature (Usturoi M.G., 2004; Vacaru-Opriș I. et al., 2002).

Thus experimental data obtained were centralized and statistically processed.

RESULTS AND DISCUSSION

The fertility of the eggs was appreciated as very good, falling in the range from 73.2% (beginning of laying) to 76.5% (on the top of laying) (Fig. 1), in the conditions in which the literature recommends a fertility index of 77-80% for this category of poultry (Bessarabov, 1985, quoted by Vacaru-Opriș, 2002).

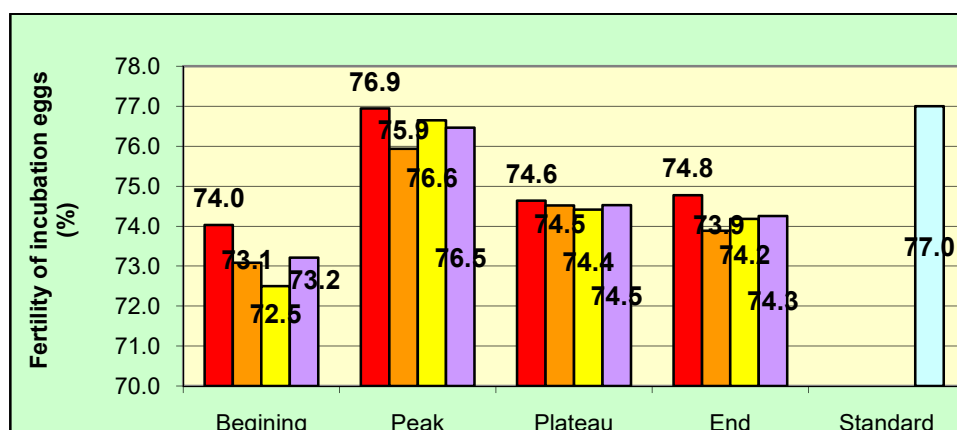


Fig. 1. Fertility of the incubation eggs, in the studied pheasant populations

The hatching recorded relatively normal values for this category of poultry, ranging from 90.1-91.6% (Figure 2). The best fertility value was obtained for eggs coming from farm 2, being recommended the use of these males for improvement of the character studied in other populations.

After the passing of 25 days of embryonic development, the hatched chicks were ranked on quality classes according to their weight, their overall appearance and the vitality they showed (Table 1).

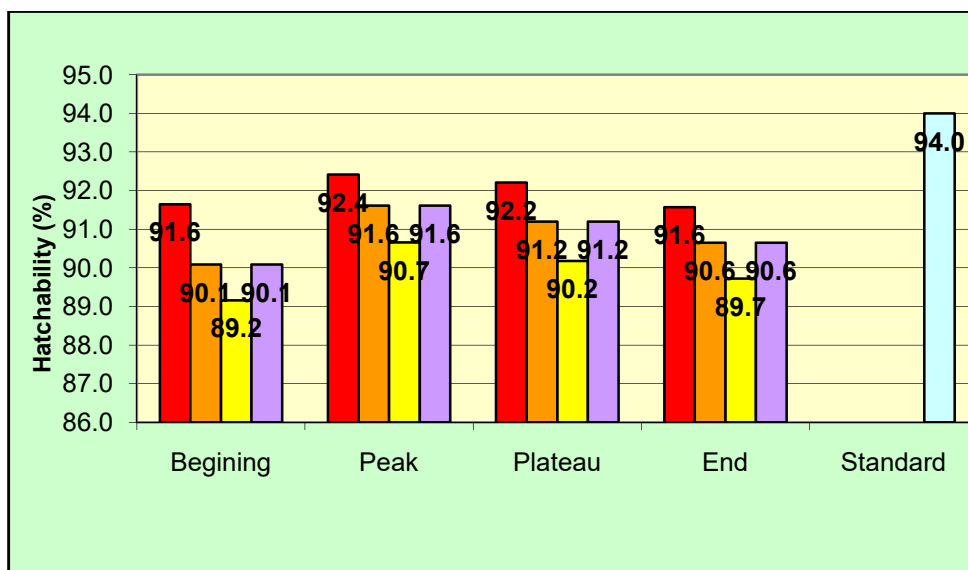


Fig. 2. Hatchability of the incubation eggs issued from the studied pheasant populations

Table 1

Day old pheasant chicks' weight and their belonging to certain quality classes

Studied pheasant population	Hatched chicks (no.)	1 st class chicks			2 nd class chicks			3 rd class chicks		
		No.	Average weight (g)	%	No.	Average weight (g)	%	No.	Average weight (g)	%
C2	1008	952	16-18 g	94,4	42	15-16 g	4,2	14	< 15 g	1,4
C3	1194	1132	16-18 g	94,8	58	15-16 g	4,9	4	< 15 g	0,4
C5	932	872	16-18 g	93,6	42	15-16 g	4,5	18	< 15 g	1,9
Total	3134	2956	-	94,3	142	-	4,5	36	-	1,2

CONCLUSIONS

The specimens of *Phasianus colchicus colchicus* species existing in private breeding in Bihor County were characterized by average annual egg production situated at the level of 37.8 eggs/hen, a pretty low value for the studied species (potentially 45-50 pieces).

The breeding perspective of hunting common pheasant herds in private farms are uncertain, especially that most of the existing herd is kept under strict control by the state breeding, which produces the majority of the biological material needed to repopulate the hunting fund.

It is recommended the selection of the valuable males identified in the study to be used to increase the percentage of fertility in other similar populations (Dodu M, 2010).

Paternal lines are introduced in the amelioration process because it generates genetic progress in the rate of growth (rather low in the populations studied), superior capitalization of nutriment, and some quality elements of the carcass (live weight, sensorial quality of meat, etc.).

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