

## ANALYSIS OF THE PRODUCTIVE INDICES OF THE DUCK POPULATION IN BIHOR COUNTY

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### RESEARCH ARTICLE

#### Abstract

*In the area of Bihor county, it was possible to carry out some studies in the framework of three breeders holding the Pekin breed in pure condition. A number of 100 individuals were analyzed, respectively 10 males and 90 females, coming from three private breeders from Oradea and from the territory of Bihor county.*

*The birds of the Pekin breed were characterized by a good dynamic of weight gain, achieving, in the adult stage, average body weight values of 3.5 Kg for males and almost 3 Kg for females, approaching the upper value of the potential of this breed.*

**Keywords:** value of laying, ducks' farm, Pekin breed,  
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### INTRODUCTION

In Romania, the official import of Pekin genetic material took place in 1982, when 2 lines from this breed (001 and 005) were brought from the company Cherry Valey, UK, which were the basis for the formation of the Romanian duck hybrid for meat, called Rora.

Being a heavy breed, it lends itself to growing for meat production or fattening for fatty liver, or, why not, as a parent for the formation of high-productivity hybrids.

A part of the flocks was used in breeding work at the former Avicola Arad, a situation that favored the spread of valuable parents among the local populations of Banat and Bihor. The population prefers the breeding of geese, there are holdings that have medium flocks of ducks of this breed. Moreover, the Pekin breed presents valuable productive indices and an amazing acclimatization capacity, lending itself to both extensive and intensive exploitation systems.

### MATERIAL AND METHOD

In the research carried out, birds from three breeders were studied in order to assess the genetic background of the Pekin duck breed.

In total, 100 specimens of the Pekin breed were studied, respectively 10 males and 90

females, distributed as follows: 35 heads (30 females and 5 males) in the first farm, 25 heads (22 females and 3 males from the second farm, 40 heads (38 females and 2 males) in the third farm. The following were used as working devices and materials for carrying out the research: digital analytical and technical balances, X-ray machines, computer equipped with spreadsheet software, depending on the experimental method approached.

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

The data obtained experimentally were centralized and statistically processed.

### RESULTS AND DISCUSSIONS

The young males of the Pekin breed achieved an average weight at the age of 18 weeks of 2852.5 g/head, starting from a one-day weight of 63.4 g/head.

A similar evolution was observed in the case of female pups, reaching, at the end of the juvenile period, an average weight of 2366 g/head, starting from the weight of 62.1 g/head, at the age of one day (figure 1).

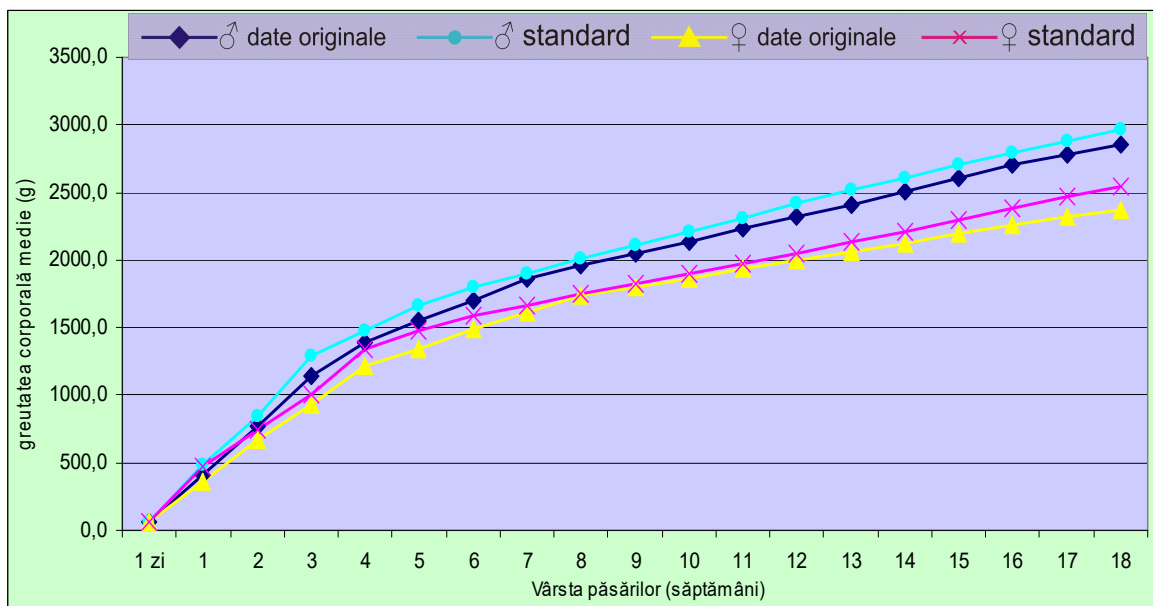


Figure 1 Body weight dynamics in duck youth, Pekin breed

In adult specimens, growth continues, at the same rate as in young birds, until the moment of 27-28 weeks of life, after which the speed of growth is reduced.

In males, an average performance of 3551.1g/head is observed, i.e. an increase of 21% compared to the weight at the end of the youth period, while in females a weight gain of 23.7 is achieved (figure 2).

At the beginning of laying, the average intensity of laying was 5.4%, following that at the peak of laying it reaches the value of 80.1% (weeks of age 30-31) and remains at a high level until reaching the age of 64-65 weeks (48.7%). The number of eggs produced/laying cycle was on average 98.9 pcs (figure 3).

These values were in accordance with the breed standard (90-120 pieces) (Vancea I., 1981)

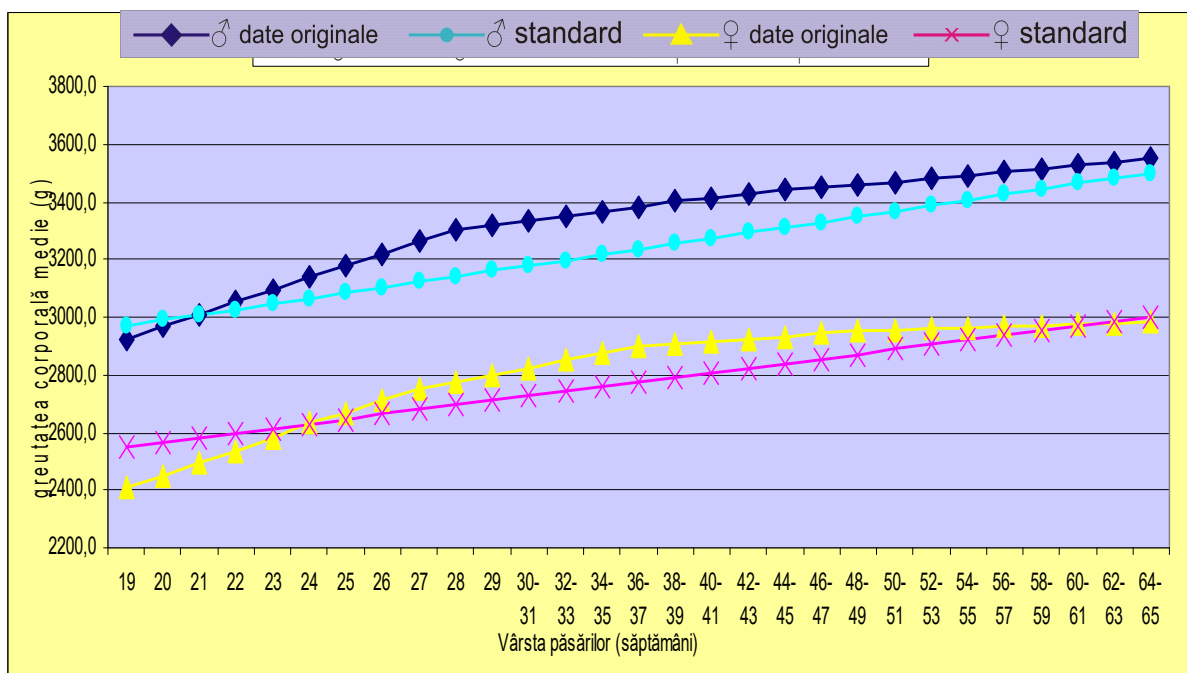


Figure 2 Body weight dynamics in mature ducks of both genders, Pekin breed

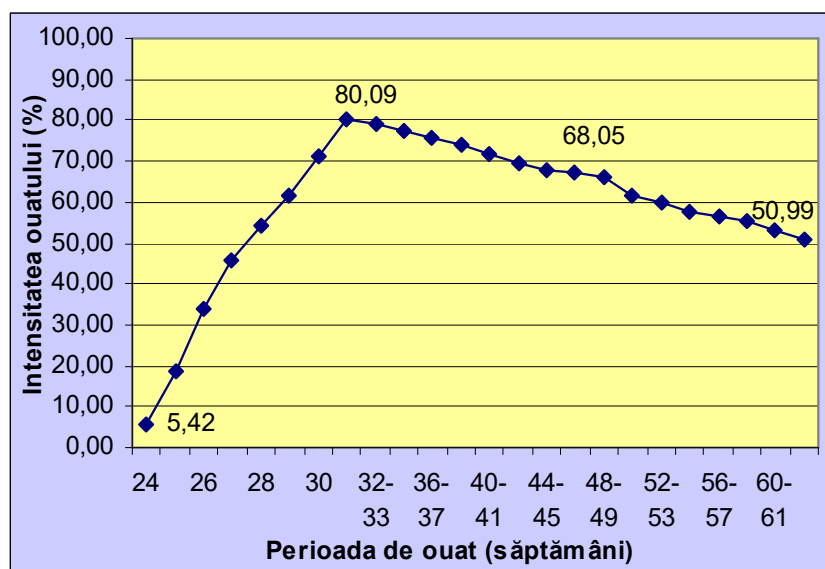


Figure 3 The average value of laying intensity in the ducks' farm, Pekin breed

## CONCLUSION

The growth prospects are optimistic, in the sense of the availability of the population of Bihor county to raise ducks for meat production and, secondarily, for egg production.

As future objectives, we want to increase the body weight of females and their selection to improve egg production (the potential of the breed can reach 200 pcs. /year). Also, the valuable specimens from the Pekin breed can be used as crosses for the formation of bilinear hybrids (Dodu M. 2010).

The improvement of meat production will also be considered, as it is known that for some basic characters in this production, such as the weight of the breast and thighs, heritability indices show high values.

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