

Weight and Morphological Properties of Eggs Selected for Experimental Incubation

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Abstract

This article provides information on the supply of poultry products, eggs and egg products, increasing the number of poultry and increasing their productivity, the selection of eggs for incubation.

Keywords: eggs, poultry, incubation, selection, products, protein, yolk, shell,

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The main part. Poultry farming is one of the most profitable sectors of animal husbandry, and many farmers and family entrepreneurs, who in recent years have begun to operate in the context of economic reforms, also prefer this sector. This is not in vain, of course. This is due to the fact that one hen lays an average of 220-250 eggs a year, and a hen produces 35-45 grams of fat per day.

Therefore, the use of new breeds, crosses, systems of livestock and poultry, their use in large-scale breeding will allow to continuously increase the productivity of agricultural poultry.

Expected results: Indicator of the visual assessment of the quality of incubation eggs is their shape. In our experiments, the eggs were elliptical and oval in shape, so the number of elliptical eggs was higher than oval in hens.

The weight of the eggs brought for incubation was measured on an electronic scale with an accuracy of 0.01 g and divided into categories. The selected eggs were placed in three trays according to their types.

Table 1

Weight of eggs selected for incubation, g, n = 10

Egg types	$X \pm S_x$	S_v
Small	28.0±0.41	1,40
Medium	29,1±0.23	1.41
Large	30,5±0.19	0.81

The table shows that the average weight of small eggs was 28.0 g, while the weight of medium and large category eggs was found to be 1.1 g and 2.5 g or 104.0% and 107.1% higher, respectively. The fact that the coefficient of variability is not so high indicates that all three categories of eggs were selected uniformly by weight.

The morphological structure of the egg consists of the shell, protein and yolk, through which the egg shell plays an important role in the metabolism of the egg, and it covers the protein and yolk parts and protects them from various external influences.

Table 2

Ratio of morphological parts of incubating eggs, n = 10

Egg types	Egg weight	Morphological structure of egg					
		protein		yolk		shell	
		G	%	g	%	G	%
Small	28.0	16.5	58.9	8.1	28.9	3.3	11.7
Medium	29.1	17.1	58.8	8.4	28.5	3.5	12.0
Large	30.5	17.6	61.0	8.7	26.8	3.4	11.1

Data on the study of the morphological composition of incubated eggs are summarized in Table 2, where the protein content in small eggs was 16.5 g, while in medium and large eggs 0.6 g or 102, respectively. 6% and 1.1 g or 105.6% more, respectively. The amount of egg yolk was found to be 8.1 g in medium-sized eggs, 0.6 g and 102.1% or 0.3 g and 101.4% higher, respectively, in small and large eggs. The weight of the shell is also the highest in the medium-sized eggs, 3.5 g, which is heavier by 0.2 g or 103.1% and 0.1 g or 101.8%, respectively, compared to the shells of small and large eggs.

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