

EVALUATION OF PARTICULAR TRAITS OF PEKIN DUCK BREED STAR 53 OF FRENCH ORIGIN EGGS DURING EGG LAYING

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Abstract. The aim of the research was to evaluate particular internal and external traits of ducks' eggs during laying. The material consisted of eggs from Pekin ducks STAR 53 of French origin. The studied eggs were obtained at the 6th, 12th, 18th and 24th weeks of laying ducks, thus at the 29th, 35th, 41st and 47th weeks of age of these birds. Each research analysis consisted of 20 eggs, so a total of 80 eggs was studied. Particular internal and external traits of eggs were evaluated. The comparison of the results of breeding was conducted for particular ages of layers. The research showed changes in egg size and their lengthening with the increasing egg production. A significant influence of age of ducks on the weight of morphological elements of eggs was not observed. The share of the shell in the whole egg was similar, the share of egg white decreased, whereas the share of egg yolk increased. The thickness of the shell in each of the three studied points decreased with the increase of egg production. The thickest shell was observed in the pointed end, a bit thinner – in the central part and the thinnest at the top of the rounded end of the egg. Out of all 4 fractions, the biggest share of the egg white had the structural white, then the outer thin white, thinner thin white, whereas the lowest share had the chalaziferous layer. The outer thin white and the inner thin white increased with age, whereas the structural white and the chalaziferous layer decreased. Acidity of egg yolks and alkalinity of egg whites grew with the increase of egg production. A constant increase in the egg fertilization from 80.7 to 94.2% and in the percentage of healthy ducklings from hatching (from 76.4 to 87.5%) were observed.

Keywords: duck, eggs, quality.