

COMPLEX INVESTIGATION OF DYNAMICS OF ACCUMULATION OF MICROORGANISMS IN POULTRY FARMS

A. L. Nechiporenko

Sumy National Agrarian University
160, G. Kondratieva str., Sumy, 40021, Ukraine

In farms where the research was conducted, diagnosed with the enzootic outbreaks of escherichia colony, and in the farm "Sumitehnokorm" of the Sumy region in 2017, the death of broilers from this disease was 0.17-9.4%, while the undercurrent method of retention was higher than that of cytotoxic study. The dynamics of the accumulation of microorganisms, including the coliform bacteria in the air of the poultry house, has shown that there is a dependence of this indicator on the age and duration of the stay of poultry in poultry houses, regardless of the system of retention.

The accumulation of escherichia higher than 1.5 % of the total number of microflora of the air environment of poultry houses with different poultry keeping system resulted in the death of broilers due to *Escherichia coli*. Thus, in the poultry house number 9 with the contents of coliform bacteria in the air of the poultry house 0.9-1.2 % (1 revolutions) and 0.5-1.2 % (2 revolutions), the death of this disease was not observed, while as in the poultry house No. 11, 9.43 % (1 turn), 6.3 % (2 turns) broilers died as a result of escherichia colitis, with bacteria coliform in the air of the poultry house 2.51-6.80% (revolutions) and 2.44 -0.5% (2 revolutions).

The most severe bacteriosis manifested in poultry 30-45 days of age. The disease was in acute form and had a tendency to stationary. The source of infection with the escherichiosis was chicken carriers of *E. coli* pathogenic serovariants, chicken and chicken embryos suffering from *Escherichia coli*. Embryos were infected due to the infection of the shell and the contents of the egg, which was collected from the chickens-carrier bacteria.

In the "Berezniaky Poultry" farm in 2016-2017, the death of eggshell lines from escherichia was estimated at 0.30-2.97% in cellular maintenance, with 4.07-46.34% in the floor area.

Diseases of chickens in most cases with the holding of poultry on the floor was observed in the summer-autumn period, and less - in winter and spring. In the case of cellular maintenance of such a trend, chickens were not observed.

In order to detect chicken carriers, the birds were examined using a blood-flowing reaction with an antigen made from local *Escherichia* strains, with a herd and

a month before collecting eggs for incubation. As a result of the allocation of bacteria, positive and doubtful reacting birds were cleared, slaughtered on a sanitary slaughter farm with the preservation of rules that eliminated the spread of infection, and path-materials were taken for bacteriological examination.

In 89.8 % of cases, the number of investigated samples (ovaries, gall bladder, bone marrow) were isolated from enterobacteria. In the comparative analysis, the incubation rates from the eggs of chickens, which were examined in the blood-flowing reaction to *Escherichia coli*, were 5.7 % higher than the egg obtained from the poultry of the unexplored herd.

Keywords: BIRD, BROILER, CHICKEN EMBRYO, BACTERIA, MICROFLORA, *ESCHERICHIA*, INFECTION, COLIFORM FORMS OF BACTERIA, AIR, OUTDOOR CONTENT, CELL CONTENT.