FATTY ACID COMPOSITION OF LIVER 14-DAILY EMBRYOS AND 1-DAILY QUAIL

V. Trach[1], V. Danchuk[2]

[1]Podilsk State Agrarian-Technical University
13, Shevchenko str., Kamyanets-Podilskyi, Khmelnytsk area, 32316, Ukraine

[2]National University of Life and Environmental Sciences of Ukraine
16, Polkovnika Potehina str., Kyiv, 03041, Ukraine

The work is devoted to research fatty acid composition 1-day Japanese quail and their 14-day embryos. Fatty acid composition of embryos birds to some extent dependent on the feeding of breeding stock, welfare and porody. There are data that egg yolk lipids contain much more linoleic acid than other tissue lipids. Need chickens in polyunsaturated fatty acids (PUFAs) at an early age depends on their use in embryonic development.

Our studies found that liver 14-day embryos and in the 1-day quail highest content of unsaturated fatty acids, with 43.9% of them in the liver of 14-day embryos and 44.2% in the liver 1-day quail - a polyunsaturated fatty acid. Established that both the liver 14-day embryos and in the 1-day quail all fatty acids highest content of oleic fatty acid 34%, followed by linoleic - 20%, and slightly less palmitic - 17%.

Although it is known that saturated fatty acids are mostly used in energy processes embryos, but their content in the liver 1- daily Quails slightly higher than embryos (within trends). Specifically established trend of rising content of palmitic, stearic and myristic acid. Interestingly parallel growth of nylon content of fatty acids in the liver 1-day-old chicks to 16.6% on 14-daily embryos. Obviously it is less used in metabolic processes in the body embryos.

The high content of linoleic, linolenic and arachidonic fatty acid in both embryos and in one daily Quails. We know that lack of these acids helps delay the growth of birds and weakening resistance to diseases.

Past studies indicate a reduction in the total content of fatty acids in the liver 1-day quail compared to their index embryos from 36.5 to 35.8 index. What does this decrease is due to reduction of unsaturated fatty acids. Unsaturated fatty acids are precursors of many biologically active substances or components of plasma membranes. Apparently so set some reduction of their content in the liver of one-day

quail in comparison with their content in the embryo. Specifically established reduction of monounsaturated and polyunsaturated fatty acids in an average of 3%.

Thus conducted studies have established liver fatty acid composition 1-day quail and their 14-day embryos. On the 14th day of incubation for 1-day old fatty acid composition in a Quails liver does not undergo significant changes, in addition to reducing the content of unsaturated fatty acids by 3.2%, and some content NLC growth of 1.3%.

Keywords: FATTY ACIDS, QUAIL, LIVER, EMBRYOS