

NEW ASPECTS OF PHOSPHOLIPIDS METABOLISM

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Introduction

There appears to be a direct correlation between rumen juice acetate and choline $r=0.98$ $p < 0.001$ (Aliyev, 1980). Sodium acetate, along with the positive effect on fat milkability, demonstrates methionine-saving and lipotropic effects in metabolism.

Results

Acetate was utilised in phospholipid synthesis, most actively in liver, pancreas and to the less extent in kidneys, muscles, duodenum, rumen wall. Labels were incorporated into choline phospholipids of sheep and ewes tissues (figure 1) and embryos, as well as birds and rumen microflora and especially fauna. The former more effectively used acetate for phosphatidyl alanine and the latter methylizing acetate converted it into choline. Probably there is a methylation route of ethanolamine with the involvement into this process of acetic methyl radical.

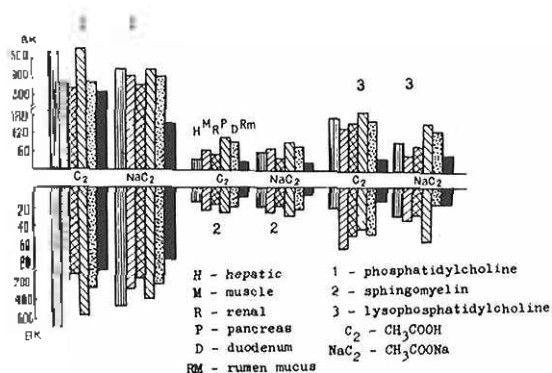


Figure 1. Incorporation of $1\text{-}^{14}\text{C}$ and $2\text{-}^{14}\text{C}$ into choline.

(Key Words: Acetate, Choline)

Literature Cited

Aliyev, A.A. 1980. Obmen lipidov i produktivnost zhvachnyh zhivotnyh. M.: 280.