EFFECTS OF DIFFERENT FAT SOURCES ON FATTY ACID COMPOSITION AND CLA CONTENT OF SOME TISSUES OF LAYING HENS

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Abstract

Effects of different fat sources on fatty acid composition and the CLA contents of some tissues of laying hens were investigated by gas chromatographic method. In this study, the control (group I), tallow (group II), the internal fat (group III) and the tail fat (group IV), obtained by diets of laying hens with abdominal fat, skin and breast meat + leg were investigated. A total of 160 units, 22-week-old laying hens Hy-line strain used. 40 chickens were used in each group. According to the plan the randomized study, for 10 replications each treatment group, and each iteration is used for the 4 chicken. 18-Hour light-dark day 6 hours' lighting program applied the trial lasted for 12 weeks, feed and water is provided. Total 30 different fatty acids were determined in fatty acid compositions of some tissues. These fatty acids were varied between C 8 - C 22. Different fat sources added that dietary has led to important differences in the of fatty acids composition in abdominal adipose tissue ($P<0.05$). Diets containing saturated fatty acids, rich oil resources abdominal adipose tissue increased the saturated fatty acid content, diets containing fat sources rich in unsaturated fatty acids increased the unsaturated fatty acid content of abdominal adipose tissue. Animal fat diets of laying hens., especially with addition of the tail fat, skin, leg and breast meat the amount of the total CLA except of amount for abdominal fat statistically significant increased. After 90 days analysing amount of CLA all of the tissues was found to be the highest.

Key words: fatty acid composition, CLA, hy-line