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CONJUGATED FATTY ACIDS AS BIOACTIVE COMPOUNDS OF BUFFALO AND GOAT MILK

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ABSTRACT

Conjugated Linoleic Acid (CLA) is one of the most important bioactive lipids in milk and its products. It have many potential health benefits .The determination of its content in two types of Egyptian milk ;mainly buffalo and goat one; was the target of this study. Thirty two samples of buffalo milk were collected and represented 4 bulk samples, while goat milk samples were eighteen, represented 3 bulk samples. All milk samples were collected in winter season from November to January as well as summer season from May to July. Gross chemical composition and total conjugated fatty acid contents express as diene (C_{18:2}) and triene (C_{18:3}) acid were estimated in all milk samples. Obtained data indicated that there were significant differences ($P \leq 0.05$) in TS, SNF,fat, protein, lactose and ash content as well as pH values in both types of milk in winter or summer season. For conjugated acids results; it could observed that there were significant differences ($P \leq 0.05$) in conjugated diene and triene contents in the two types of milk during winter and summer season. Data indicated that buffalo milk was higher than goat milk in conjugated fatty acids. These differences attributed to the breed and feeding system which reflects mainly the seasonal variations and their effect on milk composition.

Key words: bioactive lipids, buffalo milk, Chemical composition, conjugated fatty acids, goat milk.