

Considerations on goat milk biochemical composition

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Abstract. The benefits of human consumption of goat's milk are given by the presence in this milk of short-chain fatty acids (approximately 20% are short-chain fatty acids) and medium-chain fatty acids (55%), this milk being easier to digest. An important qualitative indicator of goat's milk with technological, nutritional and dietary impact is the fat content. Our data show that the percentage of milk fat increases immediately after parturition, then decreases for most of the lactation. This is due to two factors: a diluting effect, by increasing the volume of milk to the maximum level of lactation and a decreasing effect of lipid mobilization, which leads to a decrease in the plasma level of unesterified fatty acids (especially C18:0 and C18:1), with a role in lipid synthesis in the mammary gland. From the third month of lactation, the average daily amount of milking milk undergoes only slight variations. Also, the fat and protein percentage remain relatively constant during June-August. In summer there was an increase in the levels of monounsaturated, polyunsaturated fatty acids and of conjugated linoleic acids in milk, compared to spring. Our results indicate that multiparous Carpathian breed females, whose food comes mostly from grazing, produce milk during the summer with a ratio between omega-6 and omega-3 below 4.

Keywords: goat milk; fatty acids; omega 6/omega 3 ratio; conjugated linoleic acid

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