

CLA in milk dairy goats

Rogério da Silva Matos*¹, Marcelo Teixeira Rodrigues², Marco Aurélio Delmondes Bomfim³, Márcia Maria Cândido da Silva⁴, Nívea Regina de Oliveira Felisberto⁵, Simone Pedro da Silva⁶

* Professor do Instituto Federal Baiano, *campus* Valença, Bahia Brasil.

¹Instituto Federal de Educação, Ciência e Tecnologia Baiano, ² Universidade Federal de Viçosa, Viçosa- MG, ³ Empresa Brasileira de Pesquisa Agropecuária - Embrapa Caprinos/Sobral – CE, ⁴ Universidade Federal de Viçosa, Viçosa- MG, ⁵ Universidade Federal do Rio Grande do Norte, Natal – RN, ⁶ Universidade Estadual Paulista, Jaboticabal – SP.

* matoszoo@yahoo.com.br

Saturated fatty acids are associated with a range of disorders such as cardiovascular diseases, and conjugated linoleic acid (CLA), and presents proven antimutagenic and anticarcinogenic properties (Ha et al., 1987) works to reduce existing cytotoxic agents in cancer cells (Parodi, 1994). In this respect, there has been great interest from researchers in increasing the unsaturated fatty acids (UFA) and also the concentration of CLA in dairy products. The supply of oil to the diet of goats can be used to manipulate the composition of milk fat, since the fatty acids in the diet after absorbed in the duodenum can be conducted to form the mammary gland and milk fat (Gonzalez, 2001 .) It should be noted that the unsaturated oil diet when consumed by the animal arrives in the rumen bacteria and perform the biohydrogenation, which is a process that makes the unsaturated oil-in-oil saturated. When the process is stopped generates intermediate unsaturated fatty acids, for example, vaccenic acid to CLA is the precursor of the endogenous mammary gland. Was used as a strategy to improve the quality of milk fat, the association of providing the animal lipid substrate via the diet, and maintaining a low pH in the rumen through the use of diets with low fiber, which is a technique for protecting additional sources of unsaturated lipids against ruminal microbial action, reducing biohydrogenation, which enables more unsaturated fatty acids, preferably the CLA or its precursors reach the intestines where they can then be absorbed and incorporated into the fat milk (Van Nevel & Demeyer, 1996). Were used fistulated non-lactating goats fed diet with 70% concentrate and 30% hay Tifton-85 supplemented with different sources of oil (2.3% of oil in the total diet DM). Profile of dietary lipids provided the animal is not in the presence of CLA and vaccenic acid, already in omasal digesta did not produce CLA, but it was observed the presence of vaccenic acid due process occurred in the rumen biohydrogenation. There was no presence of CLA in food and omasal digesta, which has reinforced the idea of the importance of the production of the main precursor of CLA. The diet was supplemented with soybean oil produced most of the major precursor of endogenous CLA (vaccenic acid) in omasal digesta. This result justifies the research Bomfim et al. (2006) that analyzed the goat milk subjected to the same diets supplemented with two fat sources (soya and palm kernel), in which was observed the increase in the CLA content of milk with the use of soybean oil in the diet. More studies should be recommended with oils having characteristics similar to those of rapeseed oil, has presented evidence that this effect of increasing the value of vaccenic acid in the rumen. Conslui that soybean oil can be supplemented in the diet of dairy goats associated with the ruminal pH reduced with the use of more concentrate bulky compared to the diet as a strategy for increasing the excretion of CLA in milk, Since this combination provides greater efficiency in conversion of polyunsaturated fatty acids in the rumen vaccenic acid.

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