ALTERATION OF FATTY ACID PROFILE OF MILK FROM GIROLANDO COWS SUPPLEMENTED WITH FLAXSEED (*Linum usitatissimum*)

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Flaxseed has 75% of polyunsaturated acids, and some of these are conjugated linoleic acids (CLA) that have beneficial effects on human health, among them the anti-carcinogenic capacity, efficiently reducing the incidence of tumors. The addition of these compounds in the cow's diet generates a qualitative increase in the fat composition of cow's milk, decreasing the fat content and improving the lipid profile. The objective of the present study was to evaluate the milk fatty acid profile of Girolando cows (3/4 Holstein x 1/4 Gir), grazing system with Mombaça grass (*Panicum maximum cv Mombaça*) and supplemented with linseed (*Linum usitatissimum*) in the integral form. The conduction of the experiment was carried out in the Sector of Dairy Cattle of the State University of Mato Grosso do Sul / University Unit of Aquidauana. For this purpose, 6 lactating cows were used, distributed in an experimental Design in Latin Square and submitted to treatments: CT-Control (without inclusion of flaxseed); 200L- 200 grams of flaxseed; 400L- 400 grams of flaxseed; 600L- 600 grams of flaxseed; 800L- 800 grams of flaxseed and 1000L- 1.000 grams of flaxseed. Daily the animals were fed with concentrated ration, according to the milk production, supplied in two equal parts, soon after the milking of the morning and the afternoon. The collected data were submitted to Tukey test at 5% probability and regression analysis using software R. However, in this assay, the inclusion of whole flaxseed did not present significant alteration for any of the milk lipid components, although (22,61), linoleic (1,72) and linolenic acid (0.72) could be observed as a result of the increase in the quantities of linseed in the diet. Thus, it is concluded that the linseed seed in the integral form does not alter the CLA profile of the Girolando cow's milk in grazing system in the evaluated amounts.

**Keywords:** dairy cattle, conjugated linoleic acids, human health