

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## COMPOSITION OF FATTY ACIDS OF MILK FROM SUPPLEMENTED CROSSBRED COWS WITH DIFFERENT BIODIESEL CO-PRODUCTS

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The objective of this study was to evaluate the effect of the use of four co-products from the production of biodiesel in the feeding of dairy cows kept under *Panicum maximum* cv. Tanzania, on the fatty acid composition of milk. The experiment was carried out between February and May 2016, at the Paulista Agribusiness Agency (APTA), in the city of Colina/SP. Twelve crossbred cows, with an average production of 20 liters of milk day<sup>-1</sup> between 45<sup>o</sup> and 90<sup>o</sup> day of lactation, were grouped into four groups of three animals and distributed in a 4 x 4 triple quadrilateral experimental design, with four replications, where , each group received after the morning and afternoon milks concentrated ration with approximately 12% CP, differentiating only the protein ingredient, which were: soybean meal, peanut meal, cottonseed meal and sunflower meal. The amount of feed supplied was regulated according to the individual production, since for each 2.5 liters of milk the animals received 1kg of feed. In this way, dairy control was done every day. The pasture was fertilized and had an area of 4.2 hectares, divided into 24 plots of 1750 m<sup>2</sup> with occupation of 24 hours. The experiment totaled 84 days, divided in 4 cycles of 21 days. The milk samples were collected between the 18th and 21st day of each period, for further laboratory analysis. There was no significant effect of the experimental diets in the saturated, monounsaturated and polyunsaturated fatty acids, obtaining averages of 66.80, 29.78 and 2.36%, respectively, and a healthier milk was produced due to the lower proportion of fatty acid saturated. According to the statistical program SAS, using the Tukey's test (P> 0.05), the only fatty acid that presented significant difference was the vacuolic monounsaturated fatty acid (C18: 1 trans), where soybean meal expressed the highest amount in relation to the others. The foods studied have the potential to provide healthier milk production for human health by having a smaller amount of saturated fatty acids. It is concluded that the co-products used did not cause significant difference in relation to the proportions of saturated, monounsaturated and polyunsaturated fatty acids. Project funded by CNPq / Universal, process 470828 / 2013-7.

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