

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

FATTY ACIDS PROFILE OF MEAT FROM YOUNG BULLS FED SOYBEAN HULLS LEVELS AND WHOLE OR GROUND CORN

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The demand for healthy foods has stimulated the production of meat with characteristics favorable to human health. In this sense improving the quality of the beef is highly important, since it is one of the most consumed meats in the world. The objective of this study was to evaluate the effect on the fatty acid profile of meat from young bulls fed diets containing soybean hulls and corn grain whole or grounded. A total of 36 $\frac{3}{4}$ Holstein $\frac{1}{4}$ Zebu bull calves four months of age and initial average weight of 89 kg were distributed randomly in four treatments in a completely randomized design and 2 x 2 factorial arrangement (758.6 g kg⁻¹ corn grain whole or grounded plus 0 or 500.8 g kg⁻¹ of soybean hull). After 198 days feeding, the animals were slaughtered in a commercial slaughterhouse, and the *Longissimus lumborum* were separated and afterward used to determine the fatty acid profile of the meat. Data were submitted to homoscedasticity and normality tests and all variables were analyzed by variance analyses and Tukey test was used with 5% significance. The levels of myristic (P = 0.04) and palmitic (P = 0.03) acids of meat were affected by the interaction between the factors, being the lower concentration in the meat of animals fed diets of whole corn grain with soybean hulls. Stearic acid concentration was higher in diets that included soybean hulls (P = 0.02), which may be related to better ruminal pH conditions caused by their use. Among the monounsaturated fatty acids only palmitoleic acid was influenced by the analyzed factors, being inferior in the diets that included soybean hulls (P = 0.01). Although soybean hulls did not show high levels of α -linolenic acid (ω 3), its inclusion in the diet doubled the concentration in the meat (P = 0.01), which is an important aspect due to its expressive value for human health. There was interaction between the factors for the γ -linolenic acid content (P = 0.01), whose concentration was lower when the whole corn grain was associated with soybean hulls. Corn grain grounding does not alter the levels of the main fatty acids in the meat of crossbred bulls. However, soybean hulls can be used as a way to improve meat quality by raising the levels of important polyunsaturated fatty acids.

Keywords: α -linolenic acid, palmitic acid, polyunsaturated fatty acids

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