

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## **INFLUENCE OF THE DIFFERENT ZEBU CROSSBREDS, ON FECAL HYDROGENIC POTENTIAL, IN HIGH-GRAIN DIETS**

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The most used breed in Brazil is Nellore (*Bos taurus indicus*) due to its rusticity and good adaptation, but this genetic group has shown little efficiency in confinement systems with diets of high energy value, such as high grain. On the other hand, Nellore animals crossed with European breeds (*Bos taurus taurus*) have stood out for their efficiency. This way, the present study evaluated the effect of different Zebu crossbred on the hydrogenation potential (pH) of excrements, since this is an indicator that characterizes the high efficiency of the use of this type of diet. We used twenty-seven uncastrated steers with 240 kg initial body weight of Pure Nellore cattle (100% *Bos indicus*) and Nellore X Canchim (68.8% *Bos indicus*) and Nellore X Aberdeen-Angus (50% *Bos indicus*), nine of each genetic grouping. The study was carried out at the State University of Mato Grosso do Sul (UEMS), in Aquidauana/MS and the animals were confined for 98 days, in individualized stalls, in a shed of masonry. The high-grain diets were supplied twice a day and were made with 85% whole corn grain and 15% of a pelleted protein core, containing soybean meal, minerals, vitamins, alkalizing and ionophore. Fecal samples were collected at intervals of 28 days, and the samples were representative of fecal production during a 24 - hour period. To determine fecal pH, 100 mL of deionized distilled water was added to 15 g of fresh moist feces, with the introduction of a microprocessed pegboard with reading of the electrode tip. A randomized complete block design with three genetic groups, nine repetitions and three replicates (interval of 28 days) was blocked. Statistical analyzes were performed using the software R (R Core Team, 2017), and the average results were compared using Tukey test at the 5% probability level. Fecal pH was statistically significant and lower for Nellore animals (5.65), followed by Canchim (6.03) and Aberdeen-Angus (6.14), indicating that zebu genes negatively affect the efficiency of diets with high concentrate.

**Key words:** breeds, performance, pH, whole grain

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