

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

EFFECT OF CATTLE BREED ON MILK PRODUCTION AND CHEMICAL COMPOSITION OF ZEBU DAIRY COWS

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Milk is a food of great importance to the human diet. The nutritional quality and industrial yield of milk directly depend on its chemical composition. The amount of milk produced and its nutrients can be influenced by factors such as the animal breed and age, the number of lactations, the lactation stage, the diet and the climate. Zebu breeds are an excellent alternative for use in tropical milk production systems because they have good performance and adaptability to the climatic conditions of hot climate regions. The objective of this study was to evaluate the effect of the breed on the production and the constituents of the milk of zebu cows. A total of 120 samples of raw milk were collected from Gir (n=7), Guzará (n=3) and Sindi (n=10) animals. Samples were obtained from morning and afternoon milkings during the three days of *Zebu Breeds Dairy Tournament*, which took place at the Agriculture and Livestock Exhibition in the city of Parnamirim, RN, Brazil. Samples were collected in 40 mL plastic vials and packed into coolers with ice between 4 and 7°C until the analysis procedures were carried out at the Milk Quality Laboratory of the Federal University of Rio Grande do Norte. The milk samples were analyzed for percentage of fat, protein, lactose, solids non-fat and total solids according to the Infrared Absorption method (DairySpec FT®, Bentley Instruments). The following statistical procedures were performed: descriptive statistics, analysis of variance and comparison of means by the Tukey Test at 5% probability through SAS. Average daily milk yield and the percentage of fat, protein, lactose, solids non-fat and total solids were respectively: 13.36 kg/cow/day, 5.43; 3.17; 4.74; 8.64; 14.78% for Sindi cows; 17.03 kg/cow/day, 5.14; 3.12; 4.66; 8.50; 14.16% for Guzará cows; and 19.09 kg/cow/day; 4.84; 3.09; 4.63; 8.44; 13.91% for Gir cows. These values are close to those reported in the literature for these breeds. No significant statistical differences ($P>0.05$) were observed between the daily production averages and the percentage of milk constituents of the evaluated breeds. Therefore, the breed had no effects on milk production or milk constituents from zebu cows. Sindi, Guzará and Gir animals presented similar performance regarding daily production and chemical composition of the milk,

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demonstrating that they are an excellent alternative for milk production systems in warm climate regions.

Keywords: Milk constituents, milk production, zebu

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