



Factors study associated with longevity of dairy Zebu cows.

Diana Carla F. Oliveira^{*1}, Frank A. T. Bruneli², Cláudio N. Costa², Maria Gabriela C. Peixoto², Glaucyana G. Santos², Aníbal E. Vercesi Filho³, Lenira El Faro⁴ and Cristina M. Bonafé⁵

¹Mestranda pela UFVJM, Diamantina, MG, Brazil, ²Pesquisador(a) Embrapa Gado de Leite, Juiz de Fora, MG, Brazil, ³Instituto de Zootecnia(IZ), Sertãozinho, SP, Brazil, ⁴Instituto de Zootecnia(IZ), Sertãozinho, SP, Brazil, ⁵Departamento de Zootecnia,UFVJM, Diamantina, MG, Brazil.

Studies show that productivity gains have led the reduction in the efficiency of reproductive characteristics and the decline of longevity (Lagrotta et al., 2010). Longevity is a feature that is directly related to the profitability of dairy farming, mainly by reducing the replacement animals costs. However, longevity is a characteristic of late expression, direct selection for longevity may be limited due to the amount of time required to obtain this measurement (Kern et al., 2014). The objective of this study was to estimate the longevity of zebu cows from first calving to discarded (herd life) and factors associated with this trait. Were used a total 6,533 Gir and Guzará cows participants herds of Zebu breeding program with information date of birth, from birth date to discard, considered death or animal inactivity. Herds with least three cows that presented at least three births, cows with the first birth before 1985 were eliminated. Analyses were performed by least squares method using GLM procedure of SAS (2003). The contemporary group was defined including animals of the same herd, year and season of first birth. The contemporary group was included as a fixed effect and dam age at first calving (in days) as a covariate (linear and quadratic effects). The average longevity of cows were approximately 9.11 ± 3.87 years. The longevity trait were influenced by herd ($P < 0.001$), age at first calving ($P < 0.001$) and year of first calving ($P < 0.001$). According to Strandberg (2009), the herd influences the ability of a cow to function well in the environment it lives in, being reflected by the longevity. Observed that increasing age at first calving present a negative effect the longevity of cows, i.e. precocious cows have a higher chance to remain in the herd compared with more late cows. Moreover, were observed a trend in longevity reduced according to the year of birth of cows, probably because the producers have acquired greater knowledge to decision to stay or not with the animals on the property. Despite the age at first calving to affect longevity there are other factors and criteria used by the creator that directly influence this feature. However, more studies are needed on alternative measures to achieve longevity and information about the motifs of animal disposal.

Key Words: breeding zebu