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GENETIC ASPECTS OF VIGOUR AND MATERNAL ABILITY FOR NELORE AND GUZERÁ BREEDS

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Beef calf survivability is directly related to its vigour and the maternal ability. Calf vigour and maternal ability could be intrinsec to the animal, and also be dependent upon environmental conditions. The aim of this study was to evaluate the effect of breed and sire within breed, on cow and calf behaviour just after calving. The behaviour of cows and calves were recorded from calving to first suckle, or until 5 hours after calving (if suckle doesn't occur in these span). The variables related to calves' vigour were: latencies of first standing (STL); of first suckling (FSL); and time between first standing and first suckling (TSS). The behavioural variables related to maternal ability were: percent of time the cow maintained contact with her calf (TCC) and the percent of time the cow disturbed her calf, difficulting suckling (TD). The data analisys were carried out through GLM procedure (SAS, 2000), considering breed and sire within breed as fixed effects. The breed effect was analised considering data from 254 Nelore and 112 Guzerá mother-offspring pairs; the effect of sire within breed was analyzed with data from 89 Nelore and 39 Guzerá sires for maternal ability variables, and 59 Nelore and 26 Guzerá sires for calves' vigour variables. Significative breed differences ($P<0,01$) were found for STL, FSL, TSS and TCC, with Nelore breed showing more favorable calf and cow characteristics than Guzerá. This seemed, at least partly, to influence the differences in mortality rate until weaning, which was 3,6% for Nelore, and 12,5% for Guzerá. Sire differences were detected ($P<0,05$) for both breeds, affecting STL and FSL for Nelore, and STL, FSL and TD for Guzerá. The results suggested that there is genetic variation for these traits.

Index terms: neonate, maternal behaviour, suckling, mortality.