

## RELATIONSHIP BETWEEN MATERNAL DEFENSIVENESS BEHAVIOR AND PERFORMANCE OF NELLORE CALVES

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Maternal defensiveness behavior is an important aspect of maternal care. The aim of this study was to evaluate the effects of maternal defensiveness behavior (MD) on the performance of Nellore calves. A total of 735 cows were scored to MD around 24h after birth, when the newborn calves were handled for the first time (navel care, ear tattoo and weighing). MD was assessed by observing the reactions of each cow when their newborns were caught in a corral pen, scoring the animals from 1 (cow exhibited no attention to the calf and remained indifferent to the procedure) to 5 (cow displayed aggressive behaviors toward the handler, trying to attack them). The calves were weighed again at weaning (approximately at 210 days of age). Calves performance was considered as the average daily weight gain (ADG) from birth to weaning. Mixed model was used considering as fixed effects the lactation-number, MD, sire and sex of the calf. Additionally, birth weight was used as random effect and body condition score of cows as covariate. The MD tended to affect the ADG of Nellore calves ( $F = 2.15$ ,  $p = 0.073$ ). Cows that exhibited MD = 1 had calves with lower ADG (adjusted means  $\pm$  SE) ( $0.42 \pm 0.037$ ) when compared to the cows with MD = 2 and 5 ( $0.44 \pm 0.032$  and  $0.47 \pm 0.040$  kg,  $p < 0.05$ , respectively). The ADG of MD = 3 and 4 ( $0.43 \pm 0.033$  and  $0.44 \pm 0.034$ ,  $p > 0.05$ , respectively) do not differ statistically from the others. These results suggested that MD is not clearly associated with calves' performance from birth to weaning. However, due to the high risk of accidents for the handlers when working with very aggressive cows, it is recommended to implement a systematic assessment of MD in Nellore breeding herds.

Keywords: beef cattle, maternal ability, temperament