



Evaluation of the effect of weight at weaning on the subsequent growth of pure Nellore calves under grazing

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The objective of the study was to evaluate the effect of weight at weaning on the development of Nellore calves, pure of origin (PO), during the rearing phase. The trial was conducted from June 2020 to March 2021, divided in 2 phases. The first phase had 140 days (dry season) with protein-energy supplementation at 0.5% of the live weight (LW) and silage at 1% (dry matter of corn silage) of LW. The second phase had 140 days (wet season) with protein-energy supplementation at 0.4% of LW (dry matter basis). The experimental design was completely randomized with three treatments and 35 replicates. The experimental area of 20.3 ha of *Urochloa brizantha* cv. BRS Paiaguás was divided in 8 paddocks of 2.53 ha. Nellore calves (n = 105) registered at birth as PO category, aged between 6 and 8 months, were sort in 3 weaning LW treatments: 1. Light – mean LW of 213 kg; 2. Intermediate – mean LW of 245 kg; and 3. Heavy – mean LW of 278 kg. Forage samples presented mean crude protein content of 9.7 and 17.7% in dry and wet season, respectively. The proportion of leaves in the canopy of BRS Paiaguás was 45% in the wet season and 30% in the dry season, and dry matter production in dry and wet season corresponded to 35% and 65% of the total, respectively. Stocking rates were 3.4 and 6.1 UA/ha for dry and wet seasons, respectively. The average daily live weight gain (ADG) was not affected by the treatments ($P < 0.05$), since the feeding management was standardized for all weight categories. The live weight gain per area (GA) was 1,108 kg/ha, corresponding to 38.4 @/ha considering the rearing phase under grazing. The differences in LW at weaning were maintained at the end of the rearing phase, with 395, 418 and 456 kg LW for treatments 1, 2 and 3, respectively, showing the weaning weight as an important factor for the early finishing of Nellore beef cattle, reducing time and costs of the livestock cycle.

Keywords: Performance, forage, Zebu, pasture.