LEAF/STEM RATIO OF RYEGRASS MANAGED UNDER TWO GRAZING INTERVALS

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The annual ryegrass Estanzuela 284 is a cultivar from Uruguay, diploid, short cycle. It presents high productivity in the periods of June to August, great capacity of natural reseeding. However, even to grasses with high nutritional value, the defoliation management that leads to a sward structure with short leaf/ stem ratio, high proportions of stems and dead material can compromise selectivity and animal performance. This study intended to describe the leaf/stem ratio of ryegrass submitted to different grazing intervals. The experiment occurred from May to September 2016, at Instituto Federal Farroupilha Campus Alegrete. The experimental design was completely randomized with two treatments (grazing intervals) and three area replicates. Six plots (18 x 6 m) were seeded in May 2016, using sowing density of 20 kg ha⁻¹ of ryegrass cv. Estanzuela 284. The experimental animals were six Brangus heifers, with initial age and body weight of eight months and 150 ± 3.9 kg, respectively, and a variable number of heifers to regulate forage mass. The grazing intervals studied were: "Fixed" – pasture rest periods of 28 days and "LED" – pasture rest periods equivalent to 240 degree-days, corresponding to leaf expansion duration of ryegrass. The stocking rate was adjusted for the removal of 50% of the initial forage mass, in one or two days of pasture occupation. Before every grazing, the mass of leaves and stems (kg ha⁻¹ of dry matter (DM)) was estimated by three harvestings per plot. The leaf/ stem ratio was calculated by dividing the mass of leaf blades by mass of stems. The data was submitted to analysis of variance and T test, at 5% probability level, and the interaction between treatment and grazing cycle was broken down when significant at 5% level. There was interaction treatments x grazing cycle (P <0.05) for leaf/stem ratio. This variable was similar for both treatments in the first (3.29) and second (1.5) grazing cycles (P> 0.05). In the third grazing cycle, the forage managed with fixed intervals presented 12.8% shorter leaf/stem ratio than forage with management based on the leaf expansion duration (P <0.05). Possibly, the rest interval of 28 days, in the months of August and September, extrapolated the time necessary for maximum net accumulation of leaves and allowed a higher lengthening of internodes, which could compromises the herbage selectivity by heifers. In this sense, management strategies that allow a canopy structure with greater production and proportion of leaves are recommended.

Keywords: Estanzuela 284, Leaf expansion duration, Rotational grazing.