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Short term changes in tussocks distribution of *Andropogon lateralis* in native pastures submitted to intermittent stocking

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Native pastures are composed of a great variety of vegetal species, with specific compositions as a result of adaptation of these to the climatic conditions and imposed managements. However, there are still few studies that aim to study tussocks dynamics in natural pastures in order to understand the competitive processes governed by grazing intensities. The objective of this study was to verify changes in the frequency of *Andropogon lateralis* clumps and gaps in a natural pasture submitted to different management heights in intermittent stocking method. The experiment was carried out at the EPAGRI / Lages, SC, in an area with a native pasture with predominance of *Andropogon lateralis*. Pastures were grazed at four different heights (12, 20, 28 and 36 cm), based on the height of predominant species, and grazed down to 60% of pre-grazing height. The experimental design was a randomized complete block design with four replications. The relative frequencies of clumps and gaps were estimated by means of measurements along four transects of 25 meters per experimental unit. Regression analyzes were performed using SAS statistical software. The initial condition of the pastures was homogeneous with no relationship between the frequency of clumps and gaps with management heights, presenting an average frequency of 50.4% of *Andropogon lateralis* tussocks and 49.6% of gaps. Six months after the beginning of the experiment, it was already observed a positive and linear increase in tussocks frequency ($y = 1.74x + 26.09$) and a negative linear reduction in the gaps frequency ($y = -1.74x + 73.91$) with increasing grazing height (R^2 of 0.785). The mean frequency of clumps and gaps were, respectively, 42.3 and 57.7% for management with 12 cm, 68.7 and 31.3% for management with 20 cm, 73.1 and 26.9% for management with 28 cm and 87.3 and 12.7% for 36 cm. The variation observed in this study suggests the capacity of *Andropogon lateralis* to compete for resources, mainly light, due to its erect growth habit that, in higher managements, intercepts more light than the species of prostrate growth that vegetate in the spaces between clumps.

Keywords: sward height, biodiverse environments, competition, grazings management

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