SPINELESS CACTUS GENOTYPES BIOMASS FOR ANIMAL SUPPORT IN TROPICAL CLIMATE REGION (AW) WITH DRY WINTER

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The scarcity of food in tropical climate regions in the dry season is the main obstacle to animal production. The study with forage species that provide food in times of scarcity is important to provide subsidies to the rural producer. Thus, biomass production information is extremely important for quantifying the number of animals to be used. The purpose of this study was to evaluate Dry Biomass (DB) and Support Capacity (SC) of spineless cactus genotypes grown in different tropical regions (Aw) with winter dry season. The experiment was performed by a completely randomized design with seven repetitions in a factorial scheme (3 × 7). The factors corresponded to three genotypes of spineless cactus, Miúda and Baiana (*Nopalea cochenillifera*) and Orelha de Elefante Mexicana (*Opuntia stricta*) and seven locations classified with tropical climate (Aw) according to Köppen classification of 1936, with dry winter and rainy summer. The spineless cactus varieties were cultivated with a density of 66,133 plants ha^{-1}, being irrigated with 1.0 mm of water every seven days through a drip system. The experimental locations 1, 2, 3, 4, 5, 6 and 7, recorded an accumulation of available water for the plant (precipitation + irrigation) of: 935.5, 905.7, 903.9, 996.6, 873.5, 958.4 and 1000.4 mm, respectively. The cut was carried out after one year of planting, conserving the cladode matrix. In the cut, DB was obtained and the SC was determinated for sheep with an average weight of 25 kg of live weight (LW) consuming 3% of the LW x 60% weight gain in the diet based on MS, 40% concentrate. The applied formula was: SC = (DB t ha^{-1}) / (individual consumption x 90 days of confinement), where the support capacity = quantity of animals. Analysis of variance was performed and the data, when significant, were analyzed by the Scott-Knott test at the 5% level of significance. There was interaction ($P<0.05$) in relation to the genotypes and locations for DB and SC. DB ranged from 0.94 - 31.93 ± 0.83 t ha^{-1}, with the highest value recorded in the location 2 for the Baiana genotype, which also showed a higher value for SC ranging from 21 - 1182 ± 31 sheep ha^{-1}. The different locations and genotypes of spineless cactus present a difference for DB and SC. The *Nopalea cochenillifera* genotype Baiano presents higher DB and SC for location 2.

Keywords: cacti, *Nopalea, Opuntia,* production