WATER LOSS IN THE STORAGE OF GENOTYPES FORAGE CACTUS PEAR

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Forage cactus pear is a widely used crop in regions that present a shortage of animal feed. However, there are limitations regarding its use when it comes to the operability of the cut for animal supply, nevertheless post-harvest storage may be an alternative to lower costs as well as to transport the material to other locations. The objective of this study was to evaluate the loss of water in forage cactus pear genotypes submitted to storage periods. The experimental design was completely randomized in a factorial scheme (3 × 5). Three genotypes of forage cactus pear (Nopalea cochinillifera genotype Miúda and Baiana, Opuntia tuna genotype Orelha de Elefante Mexicana) and five storage periods (0, 15, 30, 45 and 60 days) were used, with ten replicates. The cactus pear were manually harvested, with a knife, preserving a residual cladodes area, and stored in a ventilated shed on wooden pallets, with a height of approximately 10 cm from the floor. After harvested, ten cladodes were randomly selected from each genotype and they were separated to be weighed, where the same cladodes were always weighed according to the storage periods. To analyze the amount of water lost by the cactus pear genotypes, a digital electronic scale was used. Water loss was found by the difference between the current weight from the previous time period. The results were submitted to analysis of variance, regression analysis (storage period), and the means were compared by the Scott-Knott test (forage cactus pear genotypes) at the level of 5% of significance. For the water loss of the genotypes of forage cactus pear, the means differed from each other (P = 0.0004), where the Baiana genotype presented higher water loss than the other genotypes, with 0.218 g per cladode. There was a linear reduction (P = 0.018) of water loss with the advance of the storage period of the forage cactus pear genotypes, and water loss was only observed after the first 15 days post-harvest. In conclusion, genotypes of forage cactus pear Miúda and Orelha de Elefante Mexicana can be stored for up to 60 days post-harvest, with reduced losses of water content.

Keywords: Cladodes, Nopalea sp., Opuntia sp.,