Changes in appearance, texture, sweetness and flavor may occur during postharvest of sweet corn as a result of increased metabolic activity rate of immature tissues, which can elevate transpiration and water loss. Inadequate handling practices at harvest, wholesale and retail may enhance these modifications and directly affect the commercial value of the fresh sweet corn. The identification of maize cultivars more resistant to quality loss under similar postharvest handling practices can be used to prevent these undesirable changes. Therefore, this study was designed to evaluate weight loss on minimally processed sweet corn cobs of different Brazilian commercial cultivars during storage. Freshly harvest and sanitized sweet corn cobs were placed on polyethylene trays, wrapped with polyvinyl chloride (PVC) commercial film and stored at 5°C up to 9 days. The weight loss was calculated at 0, 3, 6 and 9 days of storage. The experimental design was completely randomized with three treatments (cultivars) and three replicates. The resulting data was subjected to analysis of variance (ANOVA) and differences between means at each time were tested using the Tukey’s test at p=0.05. The results of mass loss were analyzed by linear regression. It was observed an increase in mass loss during storage, regardless of cultivar. After nine days of storage, sweet corn cobs of the SWB, Tropical Plus and Vivi presented mean mass loss of 3.41, 3.19 and 3.32%, respectively. These values were lower than the maximum (7%) allowed for green corn cobs stored under retail display condition.

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