

Title Some Mechanical, Physiological and Light Properties of Dragon Fruit

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Abstract

The purpose of this research was to determine some physical and physiological properties of dragon fruit. Methodology included determination of firmness, reflectance vs spectrum, total soluble solid, total acidity with respect to days after fruit setting and their associated relationship. Two varieties of concern were the white pulp (*Hylocereus undatus*) and the red pulp (*Hylocereus polyrhizus*). Five sets of sample were chosen (20, 23, 25, 27, 31 days after fruit setting) and each set consisted of ten replications. Results showed that firmness reduced linearly as the days after fruit setting. Light property in terms of reflectance ratio of the wavelength of 680 nm to that of 550 nm of the mature fruit was 4 and 8, respectively, with the white and the red varieties. Total soluble solid to total acidity ratio varied linearly as the reflectance ratio ($R^2 > 0.91$) in both varieties.