

Impact of commercial pectolytic enzymes on selected properties of white dragon fruit juice

ABSTRACT

The aim of this work was to observe the effects of commercial enzymes i.e. Pectinex Ultra SP-L and Pectinex CLEAR on the chemical composition, vitamin C and total polyphenols contents of white dragon fruit (*Hylocereus undatus*) juice. The differences of these properties in fresh fruit pulp and juices produced without enzymatic treatment were also observed. The dragon fruit juice produced after enzymation and pasteurisation has not shown significant changes in most of its major chemical parameters such as moisture, ash, fat, carbohydrate and calorie. However, enzymation using Pectinex CLEAR leads to the juice with higher yield of protein. The protein content after the treatment increased to 0.33% w/w from 0.17% w/w of the fresh juice. Phenolics amounts were slightly higher up to 15% in the enzyme samples which suggest that dragon fruit beverage is rich in antioxidant capacity than in the unprocessed fruit.

Keyword: Chemical composition; Commercial enzyme; Dragon fruit; Total polyphenols; Vitamin C