POLYPHENOLOXIDASE ACTIVITY IN COCONUT WATER FROM FRUITS HARVESTED AT DIFFERENT STAGES OF DEVELOPMENT

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The EC 1.10.3.1 polyphenoloxidase (PPO) is an oxidative enzyme and should be considered as a relevant factor in fruits, due to undesirable changes in color, flavor and nutritional value. This enzyme acts on phenolic compounds, depending on the pH. Coconut water is a beverage that is developed within the coconut from two months of development and production ceases to 12 months. The objective of this study was to monitor the activity of PPO in coconut water, fruit harvested at different stages of development. Coconut were used, cv. Dwarf Green, collected with five to nine months of development, at the end of the summer season, in the Cidade Gaúcha City, Paraná, Brazil. Analysis of PPO activity was performed by spectrophotometry UV/Vis. Were evaluated the pH value and concentration of phenolic compounds with Ciocauteau-Follin. It was observed that as time advances the development of the fruit increases the activity of PPO. The activity starts with 1.88 U mL\(^{-1}\) min\(^{-1}\) and the age of nine months was 3.19 U mL\(^{-1}\) min\(^{-1}\), an increase of 69.68% in its activity. And the pH varied from 5.55 to 5.67, and the phenolic content from 2.21 to 2.51 mg gallic acid 100 mL\(^{-1}\) for coconut water from fruits of five to nine months development. Coconut water has PPO activity to be monitored from the harvest of fruit to the water processing.