EVALUATION OF PEROXIDASE POLYPHENOLOXIDASE AND PHENOLIC COMPOUNDS IN FRUIT SPONDIAS LUTEA L. AIMING YOUR APPLICATION DEVELOPMENT IN FOOD


Spondias lutea L. known as "cajamanga" or "caja-mirim," is widely used in the preparation of juices, liqueurs and ice cream, still has some properties medicines, leaves, flowers, roots and fruits are used as natural anti-inflammatory. The objective was to understand the enzymatic activity of peroxidase (POD), polyphenol oxidase (PPO) and phenolic compounds (CF), and the stage of ripening and in different parts of the fruit. This experiment was conducted following a completely randomized design (CRD) in a 2x2 factorial, with two stages of maturation (mature and time) with 2 portions of fruit (peel and pulp) and four replications. The value of the POD activity to mature stages of maturation in varying mean 583.08 U.min⁻¹.g⁻¹ for the pulp to 918.08 U.min⁻¹.g⁻¹ for peel, while for the maturation stage once the values were 129.75 U.min⁻¹.g⁻¹ for the pulp to 267.92 U.min⁻¹.g⁻¹ for the shell, and these values were highly significant. The mean values of PPO activity for the mature stage of maturity ranged from 100.33 U.min⁻¹.g⁻¹ for the pulp to 128.08 U.min⁻¹.g⁻¹ for the shell, and these values were significant. The extraction of CF in water in the polymeric form was significant for the maturation stage of time with 76.04 mg 100g⁻¹ and the shells with 102.47 mg 100g⁻¹. It can be concluded that the enzymatic activity of POD and PPO were the means which had the highest activity in the peel and pulp of mature fruits it requires more care during the post harvest handling as related to browning and appearance of the fruit.