

THE α AND β AMYLASE ACTIVITY IN BANANA "PRATA" STORAGE AT LOW TEMPERATURE

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Starch is the main form of carbon storage in bananas and enzymes for hydrolytic starch breakdown have been identified during ripening. However, the exact contribution of each one is a matter of question. The cold has been used for the postharvest storage of bananas, but there are few studies about the effects of this treatment on their carbohydrate metabolism. The aim of this work was to evaluate the α and β amylase activity during banana "Prata" storage at low temperature. According to the results, along with the ethylene peak production and a burst in respiration, the primary product of starch breakdown in banana appears to be sucrose followed by glucose and fructose. The starch degradation in cold storage fruit was delayed in comparison to control group storage at 18°C, but the rate of mobilization was similar of both groups. It could be seen the increase in α amylase activity concomitant with the onset of starch degradation in both groups. However, the β amylase profile was different along with those groups. In control samples, the β amylase activity presented a slight increase during the ripening, while in cold storage samples the activity decrease for a short time. This suggest a distinct metabolic pathway of starch degradation during the ripening of bananas submitted to low temperature storage.

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