

II INTERNATIONAL SYMPOSIUM ON SCIENCE AND BIOTECHNOLOGY ENTREPRENEURSHIP AND INNOVATION

APPLICATION OF ORGANIC ACIDS AND SALT IN REPLACEMENT OF SODIUM METABISULFITE IN DEHYDRATED CUBE APPLES

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Abstract

Increasingly the population adopts a healthy diet and becomes demanding about the nutritional value of food, which has increased the demand for dehydrated foods as a healthy and practical option for intermediate meals. Enzymatic browning is a phenomenon that induces changes in color, taste and nutritional losses and is related to the enzyme polyphenoloxidase, which uses phenolic compounds as substrates. The objective of this work was to evaluate the application of conservative solutions containing citric acid (AC), ascorbic acid (AA) and sodium chloride (NaCl), replacing sodium metabisulfite in preserving the color of dehydrated apples. Analyzes were performed to evaluate the stability of the apples, through the pH content, soluble solids and sensorial analysis. At the end of the 10 hrs drying process, the final humidity of the apples was 3.58%. The pH levels in all solutions remained similar, decreasing as the acid concentration increased. Soluble solids contents also presented few variations, explained due to the content of soluble solids present naturally in the fruits in natura. According to the analyzes performed, it can be seen that the conservative solution containing ascorbic acid, citric acid and NaCl was effective to control enzymatic browning, serving as a potential substitute for Sodium Metabisulfite.

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