Sensory acceptance of juçara pulp processed by spray drying and lyophilization

Paula Porrelli Moreira da Silva¹, Jacqueline de Oliveira², Rafaela Rebessi Zillo², Evanilda T. Perissinotto Prospero², Marta Helena Fillet Spoto². ¹ University of São Paulo, Center of Nuclear Energy in Agriculture (CENA / USP), Av. Centenário 303, 13416-000, Piracicaba, SP, Brazil. ² University of São Paulo, "Luiz de Queiroz" College of Agriculture (ESALQ/USP), Department of Agri-food Industry, Food and Nutrition, Av. Pádua Dias 11, 13418-900, Piracicaba, SP, Brazil.

The removal of water present in foods and the use of appropriate packaging serve to protect the material factors that could cause deterioration (oxygen, light and humidity). For this purpose it makes use technologies such as spray drying and lyophilization, known to cause minimal deleterious effects on food, and promote longer shelf life and facilitate the marketing of the product over long distances. The objective was to verify the sensory acceptance of juçara pulp (Euterpe edulis) processed by spray-dryer and lyophilization. It was ensured the microbiological quality of the products. The juçara pulp powder, in both technologies was packed in polyethylene bag coated with aluminum. Sensory evaluation (acceptability test) was carried out by a fifty member untrained panel. Scoring was carried out on paper ballots using a seven-point hedonic scale where 7 = like extremely and 1 = dislike extremely for the evaluation of flavor, aroma, color, appearance, texture and overall acceptability. The sensory evaluation was performed with pulp reconstituted at 90% with water, added by 10% banana and 10% sugar. There was no statistical difference (p> 0.05) between the treatments and the attributes tested, indicating similar sense of both technologies. However, in all of the attributes, the lyophilized sample showed values higher than the dried by spray-dryer. The lyophilized sample was classified as "moderately liked" in flavor, color, appearance and overall. It was concluded that the juçara pulp lyophilized has most accepted descriptive, but does not discard the possibility of marketing the pulp processed by spray-dryer.