

[P2.1.10]

Influence of osmotic pretreatment on dried cashew apple acceptabilityP.M. Azoubel¹, R.V. Tonon², G.C. Antonio², L.E. Kurozawa², F.E.X. Murr¹
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Conventional dehydration methods based on hot-air drying are widely used but they can deteriorate the quality of the final product. Osmotic dehydration, which consists in immersing the food in hypertonic solution, is a common pretreatment used before air drying to improve its nutritional, functional and sensorial properties (1).

In this work, the influence of osmotic pretreatments on dried cashew apple acceptability was evaluated. The nuts were separated manually and the cashew apples were cut into 0.5 cm thick slices (5 cm average diameter). Osmotic dehydration in sucrose and corn syrup solids solutions was carried out at 34°C and agitation of 80 rpm for 165 min (2). Drying was carried out in a continuous flow fixed bed dryer (air velocity of 2.1 m/s) at 60°C. Dried samples with and without osmotic pretreatment was evaluated by 30 non-trained panelists for appearance, color, taste and aroma on a 9-point hedonic scale (1= "disliked extremely"; 9= "liked extremely"). Samples were randomly coded with three-digit numbers and their order of presentation was completely randomized for each panelist. Partitioned booths with fluorescent lighting were used for evaluation. Results were evaluated by the analysis of variance, followed by Tukey test ($p \leq 0.05$). Samples pretreated in corn syrup had test scores closer to the untreated dried fruit.

Products pretreated in sucrose solution had the highest scores, except for aroma. This might be due to sugar uptake (solid gain around 6% and 2% for samples immersed in sucrose and corn syrup, respectively) and the protective action of saccharides, which increases the stability of pigments during processing (3) and contributed to the reduction of typical astringency caused by tannins in fresh fruit (4). In addition, some of the acids are removed from the fruit during pretreatment (5), so a blander and sweeter product than ordinary dried fruits could be obtained.

References:

- (1) Torreggiani, D. (1993). Osmotic dehydration in fruit and vegetable processing. *Food Research International*, 26, 59-68.
- (2) Azoubel, P.M., & Murr, F.E.X. (2003). Optimisation of osmotic dehydration of cashew apple (*Anacardium occidentale* L.) in sugar solutions. *Food Science and Technology International*, 9, 427-433.
- (3) Kim, M.H. (1990). Osmotic concentration of apples and its effect on browning reaction during air dehydration. *Journal of the Korean Society of Food Nutrition*, 19, 121-126.
- (4) Nassu, R.T., Lima, J.R., & Souza Filho, M. de S.M. (2001). Consumer's acceptance of fresh and combined methods processed melon, mango and cashew apple. *Revista Brasileira de Fruticultura*, 23, 551-554.
- (5) Ponting, J. D., Walters, G. G., Forrey, R. R., Jackson, R.; & Stanley, W. L. (1966) Osmotic dehydration of fruits. *Food Technology*, 20, 125-128.

Keywords: Cashew Apple, Osmotic Dehydration, Drying, Acceptance

[P2.1.11]

Brand, price and sensory characteristics on consumer's preferencesL. Bailetti*, S. Morena, R. Pellegrini
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The study was undertaken to quantify the influence of extrinsic (price and brand) and intrinsic (sensory attributes) characteristics on consumer evaluations of Mozzarella Sibilla cheese (MS), Traditional Guaranteed Speciality of the Marche Region, versus the other regional and national competitors.

The detection and interpretation of sensory attributes is influenced by consumers' personal characteristics: the respondent's attitude is related to their personality and their culture/background.

Sensory attributes were evaluated by quantitative descriptive analysis (QDA) of 5 samples of mozzarella cheese whereas extrinsic cues were analyzed by a preference test ($n = 300$) that have taken place in 2 different locations (Marche Region and Abruzzo Region) identified as MS key marketplaces. The influence of brand and price was investigated by conjoint analysis with 2 groups of consumers coming from the same locations.

The QDA showed that there are significant differences among the samples for the texture attributes. In the 2 locations different trends have been observed, because a consumer from Marche Region involves like a consumer that doesn't care about the provenience and who buys at the retailer. The consumer from the Abruzzo Region, instead, has a long tradition of the mozzarella cheese and pays more attention to its provenience. Conjoint analysis confirms that sensory attributes and price are the most important drivers to make a choice while brand is only important for the consumers who care about the provenience.

MS is resulted the most preferred sample for the sensory characteristics, but its brand is important only for the consumers who care about the origin of mozzarella cheese.