

Research Note

PREPARATION AND FREEZING OF MASHED TANIERS

Very tasty fritters are prepared in Puerto Rico with the pulp of hand-grated taniers, to which salt and baking powder are added, fried in deep fat. Studies were conducted to determine if mashed taniers could be prepared and frozen without losing the characteristics that make them suitable for fritters.

Taniers were lye-peeled as described by Sánchez and Hernández,¹ sulfited by dipping for 1 min in a 1% solution of $K_2S_2O_5$, and diced in an Urchel Dicer, Model G.² The dice were sulfited a second time by dipping in the indicated sulfiting solution for 3 min. The sulfited dice had an SO_2 content of 522 p/m.

The dice were mashed in a Rietz disintegrator, Model RADK8, at low speed through a screen with 1/8 in perforations. The mashed taniers were packed in boilable pouches and in cardboard boxes, frozen in a plate freezer at $-40^\circ F$, and stored at $-10^\circ F$.

The particle size distribution in both hand-grated and machine-mashed pulp prepared as described was determined using screens of different mesh sizes. In the hand-grated taniers, 75% of the pulp was retained on an 8-mesh screen, while in the taniers mashed in the Rietz disintegrator, smaller particle sizes predominated. Even though the mashed taniers were smoother in texture than the hand-grated, fritters of very good quality could be prepared from either.

In another experiment, the taniers were mashed after lye-peeling in a Fitzpatrick comminuting mill, with the hammers in forward operation and at middle speed, using a screen with 1/2 in perforations. Although large size taniers had to be cut in pieces before feeding into the mill, the machine operated efficiently, and a good quality pulp was obtained. The mashed taniers were sulfited by adding a solution of $K_2S_2O_5$ to a level of 170 p/m SO_2 . Although the taniers were not sulfited before mashing, no browning was observed during processing, packaging, and freezing.

One of the problems encountered in using the frozen mashed taniers packed in cardboard boxes is the time required for thawing. It was

¹ Sánchez Nieva, F., and Hernández, I., Lye peeling of taniers, *J. Agric. Univ. P.R.* 61 (3): 345-53, 1977.

² Trade names are used in this publication solely for the purpose of providing specific information. Mention of a trade name does not constitute a guarantee or warranty of equipment or materials by the Agricultural Experiment Station of the University of Puerto Rico or an endorsement over other equipment or materials not mentioned.

found that when mashed taniers are packed in cardboard boxes containing about 1 lb of product, it takes about 5.5 h at room temperature (80° F) for complete thawing. At refrigerator temperature thawing time approaches 24 h. On the other hand, when the product is packed in boilable pouches, thawing by immersion in hot water takes only about 25 min. It is suggested that to facilitate the home use of mashed taniers, the product be packed in boilable pouches.

Shelf life studies showed no change in the quality of fritters prepared from pulp stored for 3.5 mo at -10° F.

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