

Development of Production Technology for Different Yam-Based Flakes and Allied Production and Evaluation of Their Physicochemical and Nutritional Properties

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Abstract

This research focuses on the popularize the consumption of commercial and traditional yams through developing a yam flakes product as a preservation method and formulating allied products. Investigated production technology for yam-based flakes. Three varieties of yams, Potato, Higurala, and Dandila (Purple yams) were made into flakes by dehydrator, freeze-drying, hot air pump-drying and vacuum-drying in this report. Samples prepared by vacuum drying and freeze drying were in good condition. However, the cost of freeze-drying was high. Therefore, potato flakes, Dandila (purple yam) flakes, and Higurala flakes were dried by vacuum drying. Finally, were made flakes by the vacuum dry method. They were made soup mixture, pittu mixture, sausages, string hoppers, and breakfast mixture by yam flakes. The Higurala flakes having high moisture content than Dandila and potato flakes. Potato flakes having high ash content than dandila and Higurala flakes. Dandila flakes having high protein content than Higurala and potato flakes. Dandila flakes having high fiber content than potato and Higurala flakes, and Dandila flakes having high fat content than potato and Higurala flakes and Potato flakes having high carbohydrate content than Dandila and Higurala flakes. Higurala flakes having high water activity percentage than Dandila and potato flakes and potato flakes having high rehydrate ratio percentage than Dandila and Higurala flakes.

Keywords: Dandila, Flakes, Higurala, Potato, Yam