

The Search for an Effective Cassava Peeler

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ABSTRACT

Nigeria is widely acclaimed as the largest producer of cassava in the world, thus when Nigeria succeeds in cassava production or processing it would be a global success. The federal government in Nigeria opened up the market and challenges of cassava production, processing and export in 2004, since then there has been the need to improve the concept and methods of production/processing of cassava. One of the major challenges of cassava processing is peeling. To this end, the International Institute of Tropical Agriculture (IITA) Ibadan, Nigeria and The Federal University of Technology Akure (FUTA) initiated a technical collaboration to develop an effective cassava peeler. The collaboration was in conjunction with some private fabricators A&H Nig. Ltd in Iwo and Fataroy Nigeria Limited, Ibadan, Nigeria. Several efforts, meetings and technical sessions resulted in the design and fabrication of improved automated cassava peeling machines. This study presents the features, prospects, performance evaluation and limitations of the various models of cassava peeling machines. Results show appreciable improvement in the design and performance of the cassava peeling machines. The peel retained on the tubers with each model of the cassava peeler was influenced by peeler speed. Minimum peel retention were 5.7%, 6%, 11%, 0% and 0% respectively, for A&H, FUTA, Fataroy, Hand Fed Model and manual method. The capacity of the machines is between 0.25 and 1 ton/h.

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