

Modification of exiting rice noodles process line (IPHT) to reduce the cost of production

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Institute of post harvest Technology (IPHT) has a 100% rice noodles manufacturing process from rice varieties grown in Sri Lanka using an improved technology developed by the People's Republic of China. There was a big demand for rice noodles produced by the IPHT in the past years, as it is an instant and nutritionally superior to the similar products available in the market. However, in last two years period low price low quality rice noodles and wheat flour blended rice flour noodles come to market and as a result, the demand for the IPHT rice noodles decreased due to its comparatively high price it is required to reduce the price of noodles to increase the demand. The present production process of noodles in IPHT has number of unit operation and more wastage of input materials. Therefore, the cost of production has increased. A research project was conducted to reduce the number of unit operations in the process line to reduce the cost of production maintaining the quality of the noodles as the previous.

IPHT exiting process to prepare rice flour is that rice is bins conveyed to the factory with water and keeps for soaking. Then the soaked rice is ground in wet grinders giving a rice liquid as an output. Rice liquid tank on the vacuum, dewatered by pump, and then in to the trough under the roller, the rice liquid is spread on the surface of the roller while it rotates. Vacuum dewater absorbs water in rice liquid before scraper scrapes the flour. The wet flour will be dried with hot air when it passes though the drying channel. After drying, dried rice flour is conveyed for granules formation. In that process the vacuum dewater or vacuum dryer is an inefficient one and gives a less output. Hence, this is bottle neck point of the process and reduces the final out-turn of the product. The tests have conducted to produce noodles starting from granules formation with water mixed rice flour which was milled with FFC-45 Disk mill and those were successful. And the final product quality had shown more acceptability than the existing process noodles. And also the modified method has following advantages than existing process. The out-turn of noodles was in covered from 75%, to 90%. Water consumption was reduced by 50% . Fuel

consumption for boilers was reduced by 30% while electrical power consumption of the factory was reduced by 25%. And the labour requirement for cleaning maintenance cost and depreciation cost. The above advantages lead to reduce the cost of production of noodles by 20%.