



## RESEARCH PAPER

# Optimization of process parameters for quick cooking rice

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**Abstract :** Instant rice is prepared by soaking followed by precooking and dehydration. Instant rice is rice that has been fully cooked and then dried down to below 12% moisture. Instant rice can then be recooked by the consumer in 2-5min compared to 20min required to cook the polished raw rice. The present research is carried out with soaking time (5, 10, 15 and 20 min) and soaking temperature (45, 50, 55, 60, 65 and 70o C), cooking methods (electric cooker and pressure cooker), cooking duration (4, 8 and 12 min) and drying methods (microwave oven and hot air oven) on the three varieties of long-grain, medium-grain and short grain rice. The cooking is being carried out by pressure cooker, electric for 3, 5 and 8 min and dried by microwave oven. The cooked rice is dried by hot air oven and by microwave in such a way as to leave the desired degree of porosity and fissuring in the final product. It was observed that the rice samples of short grain variety (BPT 5204) were cooked for 8 min by both electric cooker and pressure cooker and the reconstitution time varying from 7 min- 8 min were found to be having good texture compared to other samples. The long grain rice cooked for 8 min was comparatively of better quality when compared to the rice samples at other cooking durations of 4 and 12 min. But the reconstitution time of instant rice was observed to be more compared to other two varieties. The best quality of instant rice was found in Short grain rice (BPT 5204) followed by Medium grain rice (Sona Masuri 1768) and then Long Grain rice (NLR 145).

**Key Words :** Instant rice, Quick cooking rice, Reconstitution rice

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