

Scope of incorporating fruits for the development of pasta

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■ **ABSTRACT :** The present study focused on the incorporation of fruits, jackfruit (Koozha) papaya, banana along with other ingredients such as green gram flour, wheat flour and tapioca starch for the production of pasta. The ultimate aim of the study was to utilize locally available low cost fruits for the development of pasta. In the present study, different proportion of various ingredients such as wheat flour, green gram flour, tapioca starch and selected fruit pulps were worked out for the development of pasta. Five proportions of each, banana incorporated pasta, papaya incorporated pasta and jackfruit incorporated pasta was worked out as well as four proportions of mixed fruit pasta were developed. From each group best proportion was taken for further analysis. The proportions of fruit pulp and wheat flour were constantly changed in each proportion. The quantity of green gram flour and tapioca starch maintained constant in each proportion. Replication of each proportion was done. The extrusion behaviour of pasta was assessed. Mass flow rate (MFR) was the commonly used criterion for analyzing the extrusion behaviour. Based on the mass flow rate, best four proportions were selected from each fruit such as banana pasta, papaya pasta, jackfruit pasta and mixed fruit pasta. The MFR values ranged from 0.52 to 2.72. The least MFR value was shown by jackfruit incorporated pasta (0.52). Papaya pasta shown greater MFR value (2.72), followed by mixed fruit pasta (2.11) and banana pasta (1.79). These selected proportions were again subjected to further analysis of physical characteristics. The statistical interpretation showed that each proportion was significantly different from each other. Among the four proportions, papaya incorporated pasta showed best in MFR and also in physical characteristics. The well accepted pasta products that were developed in the study can be scaled up for potential commercialization and marketing. The underutilized fruits also can be utilized for development of products which will improve the nutritional value and reduce the cost.

■ **KEY WORDS:** Jackfruit, Papaya, Banana, Pasta

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