

Development of Raw Jackfruit Bulb Flour and Seed Flour Based Noodles

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Jackfruit is a commonly consumed fruit in Sri Lanka and has a high percentage of postharvest loss during the season. The aim of this study was to evaluate the potential of producing jackfruit bulb flour (JBF) and jackfruit seed flour (JSF) based noodles in order to reduce the high postharvest loss and develop some value-added products from jackfruit. Five samples were prepared using the composite flour mixture by mixing the refined wheat flour (WF), JBF and JSF in different ratios of 50:10:40, 50:20:30, 50:25:25, 50:30:20, 50:40:10 and the control sample by using 100% WF. Cooking characteristics of the noodle samples were analyzed with respect to cooking time, cooking loss and water absorption. Physicochemical characteristics such as bulk density, swelling index, yield ratio, color, adhesiveness, firmness, elastic recovery, hardness, moisture content and ash content were analyzed using some developed methods. There was no significant difference among all the developed jackfruit noodles samples for yield ratio ($F_{5,6}=0.92$, $df=11$, $P>0.05$), firmness ($F_{5,12}=2.20$, $df=17$, $P>0.05$) and elastic recovery ($F_{5,12}=0.57$, $df=17$, $P>0.05$). Sample prepared from flour ratio of 50:40:10 (WF: JBF: JSF) showed the lowest cooking loss ($6.37 \pm 0.55\%$) and highest swelling index (1.77 ± 0.17). Sample prepared from flour ratio of 50:25:25 showed the highest cooking time (10.05 ± 0.00 min) and the highest water absorption ($134.67 \pm 9.87\%$) values. Noodles samples prepared from flour ratio of 50:20:30 showed the highest bulk density (0.26 ± 0.01 g/cm³) and yield ratio (1.13 ± 0.01). The control sample showed the highest firmness ($89.47 \pm 0.95\%$) and highest elastic recovery ($56.95 \pm 4.32\%$) values than the other samples. According to the sensory evaluation data, noodles sample prepared from flour ratio of 50:10:40 showed the highest preference and the noodles samples of 50:40:10 showed the least preference.

Key words: Jackfruit bulb flour, Jackfruit seed flour, Noodles

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