

EFFECT OF VARIETY AND DEGREE OF BRAN REMOVAL ON QUALITY OF RICE FLOUR AND RICE FLOUR BASED PRODUCTS

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The study was conducted to determine the effect of variety and degree of bran removal on quality of rice flour and rice based products, with the aim of selecting the suitable variety and bran removal for manufacturing rice flour based products.

Rice varieties of BG 358 and BG 359 and bran removal level of 4%, 6%, 8%, and 10% were selected. Nutrient qualities, cooking qualities and eating qualities were measured after removal of bran. Nutrition quality parameters; crude protein content, crude fiber content, crude fat content, total ash content and starch content were measured according to AOAC method. Cooking qualities measured were particle size distributions of flour, string continuity in string hoppers, gelatinization temperature and water absorption content. String hoppers were prepared as an extruded product. Eating quality characters of rice flour were measured by using sensory evaluation with a 5 point hedonic scale using 15 trained panelists.

Protein, fiber, fat, starch, gelatinization temperature, water absorption, string continuity, were not significantly different ($\alpha = 0.05$) between the two varieties. But ash and moisture contents varied significantly ($\alpha=0.05$) between the two varieties. Fat and ash contents did not change significantly with bran removal levels. Proteins, fiber, starch and moisture contents, water absorption, gelatinization temperature, string continuity were significantly different with bran removal levels. All the nutrients qualities except starch content decreased with increase in bran removal. But string

continuity increased with increase in bran removal. The lowest nutrient content was observed at the 8% and 10% bran removal except starch content. Nutritional qualities of Bg 359 were better than the Bg 358. According to the above results Bg 359 with 6% bran removal is the best for manufacturing rice flour base products.

Key words: Variety, Bran removal