

Characterisation of Polishing Frequency for Three Varieties of Sorghum Grain in Java, Indonesia

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Abstract	<p>To determine the suitability of different sorghum cultivars (grown in Indonesia) for the manufacturing of acceptable food products, their properties must first be characterised. During sorghum processing, polishing may affect the final nutritional value and quality of the product. This study is aimed at determining the effects of sorghum variety and polishing frequency on nutritional value. This was achieved by using a factorial randomised block design with two factors: sorghum variety (Bioguma, Numbu, and Super) and polishing frequency (once, twice, or thrice). Tannin content, antioxidant capacity, levels of dietary fibre and resistant starch, and fat, ash, and carbohydrate content varied according to sorghum cultivar. Compared to other sorghum varieties, the Super cultivar contained the highest levels of antioxidants, dietary fibre, fat content, protein, resistant starch, and tannins (although high tannin content could be lowered by polishing grains up to three times). The frequency of polishing affected tannin and ash levels in all three sorghum varieties. Polishing frequency also affected the antioxidant capacity of polished sorghum grains. The findings from this study should be considered when determining appropriate applications for various sorghum-based food products.</p>
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