

Identification of the Physical, Chemical, and Functional Properties of Pandanwangi, IR42, and White Glutinous Rice Flours

Salsa Oktavia Kurnia Dewi

Clinical Nutrition Program

Department of Health

ABSTRACT

Rice flour is one of the rice-based processed products with the potential to be developed as a raw material for functional foods. Differences in rice varieties are believed to influence the physical, chemical, and functional characteristics of the resulting flour. This study aims to identify the physical, chemical, and functional characteristics of pandanwangi, IR42, and white glutinous rice flours. This study employed a quantitative descriptive method. Rice samples were processed into flour, and the analysis included physical properties (syneresis and gelatinization viscosity), chemical properties (moisture content, ash, protein, fat, carbohydrates, amylose, amylopectin, and dietary fiber), and functional properties (WHC, OHC, and swelling power). The results showed that Pandanwangi rice flour had the lowest syneresis value (6.22%), IR42 rice flour had the highest gelatinization viscosity (6,182 cP) and the highest amylose content (20.81%), while white glutinous rice flour had the lowest amylose content (3.17%) and the highest amylopectin content. The moisture content of all samples still met the requirements of SNI 6128:2020. It can be concluded that differences in rice varieties affect the physical, chemical, and functional properties of rice flour, making them potentially useful for the development of various food products based on the characteristics of each variety.

Keywords: rice flour, pandanwangi, IR42, white glutinous rice, physicochemical characteristics, functional properties.