Analysis Of Functional Properties and Bioactive Components of Local Edamame Flour as a Raw Material for Functional Food

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ABSTRACT

This study aimed to analyze the functional properties and bioactive components of local edamame flour (Glycine max L.) from two varieties, Biomax 1 and Biomax 2, as raw materials for functional food. Parameters analyzed included functional characteristic (Water Holding Capacity (WHC), Oil Holding Capacity (OHC), Swelling Power and Bioactive component (zinc, iron, resistant starch, and isoflavones and antioxidant). The results showed that the Biomax 1 exhibited higher antioxidant activity (74.40%), isoflavone content (354 mg/100 g), iron (5.66 mg/100 g), and resistant starch (5.24%), while Biomax 2 excelled in WHC (262.27%), OHC (134.28%), and swelling power (433.94%).. Both varieties demonstrate strong potential as functional food raw materials suited to a wide range of food product applications.

Keywords: *edamame, flour, functional food, functional properties, bioactive components, isoflavones, antioxidants*