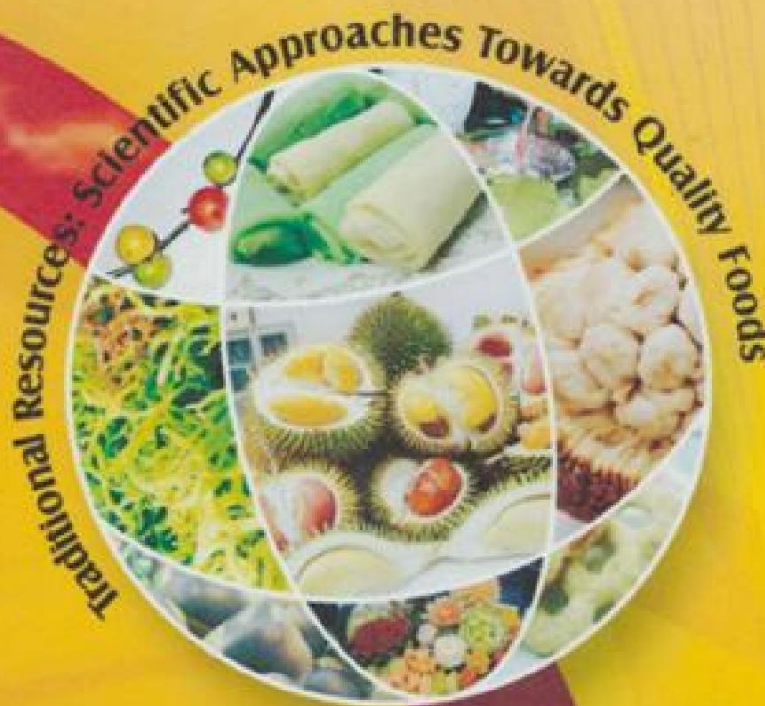




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MODIFICATION OF RESISTANT STARCH RICE WITH LOW INDEX GLYCEMIC VALUE FOR DIEBETICS AND DIETERS

Tati Sukarti¹, Dwi Punomo¹, Wisnu Broto², Fetriyuna¹ and Ermi Sukasih²

¹Faculty of Agroindustrial Technology University Padjadjaran Indonesia

² Ministry of Agriculture Indonesia

Faculty of Agroindustrial Technology - University Padjadjaran
Jalan Jatinangor Km. 21 Kabupaten Sumedang, West Java Indonesia

Corresponding author: tatymaycy@yahoo.com

Choosing the right food could be done through food glycemic index (GI) approach. Food GI is the level of food according it's effect to blood glucose level. Food with high GI means it can raise glucose level in blood quickly. Rice is often avoided by diabetes mellitus patient due to its characteristic on increasing rapidly blood glucose level. Reducing GI of rice could be done by performing rice starch retrogradation thus obtained resistant starch. The purpose of this research was to find out factors in retrogradation process thus obtained the optimum resistant starch and also to know the effects in rice characteristics and the products in acceptability by consumer. The research method performed in this research was the descriptive method (explanatory research). The treatment in this research were rice storage in 5^oC temperature for 0, 4, 8, 12, 16, and 20 days. All treatments were replicate two times, duplo for each replication. The result of this research showed that the longer the time of sample storage in 5^oC temperature could reduce the value of glycemic index. The best treatment by cooling storage (5^oc) in 8 day which could decreased glycemic index. The value in glycemic index for both of that variety are 63,23 for ciherang variety dan 69.5 for mekongga variety, The moisture content of dried rice in this treatment was 10,42 % for ciherang and 10,87% for mekongga, and glucose content of 1,893% for ciherang and 2,323% for mekongga.

Keywords : Rice, retrogradation, glycemic index

Introduction

Increased levels of welfare for the people of Indonesia a positive impact on the ability for the fulfillment of necessary nutrients, but on the other hand the lack of adequate nutrition knowledge resulted in the emergence of the negative effects of a case of degenerative diseases such as obesity and diabetics. Obese/overweight requires them to adjust his diet one of them through