

ABSTRACT

Glycemic Index Comparison of Steamed Black-Rice (*Oryza sativa* L. Var. black) and Steamed IR-64 Rice (*Oryza sativa* L. Var. IR-64) in Rabbit

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Generally, diabetic people still considered rice as a hyperglycemic food, in fact different rice varieties have wide range of glycemic index (GI) value. GI value influenced by several factors including carbohydrate types, dietary fiber and etc. Most of Indonesian people consumed rice var. IR-64, while there are some other rice varieties such as black rice which is considered good for diabetic diet. Aims of this study are to determine and compare GI of two different rice varieties, which are steamed black-rice and steamed IR-64 rice. The samples were analyzed for their moisture content, insoluble dietary fiber and reducing sugar content. In this experiment, reducing sugar content was measured using *Luff-Schoorl* method, while moisture content and insoluble dietary fiber content was determined using gravimetric method. GI of each food was determined in rabbit (*Oryctolagus cuniculus*) using glucose as standard food. The subjects were given the tested foods after overnight fasting (10 hours). Blood glucose was measured immediately before consumption (0 min) and 15, 30, 60, 90, 120 min after consumption of tested foods. The results showed that steamed black-rice contains 30,03% moisture, 3,53% insoluble dietary fiber, 20,83% reducing sugar and GI = 27, while steamed IR-64 rice contains 37,64% moisture, 1,45% insoluble dietary fiber, 25,39% reducing sugar and GI = 93. In conclusion, the GI of steamed black-rice and steamed IR-64 rice are significantly different ($p < 0,05$), where the steamed black-rice has lower GI than steamed IR-64 rice and belongs to low-GI category ($GI < 55$). This result might useful as an alternative food for diabetics.

Key words: Black rice, rice var. IR-64, glycemic index

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SKRIPSI

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PERBANDINGAN INDEKS GLIKEMIK NASI DARI BERAS (*Oryza sativa* L.) VARIETAS HITAM DAN NASI DARI BERAS VARIETAS IR-64 PADA KELINCI

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