IMA KARIMAH. Glycemic Index Values of Instant Porridge Prepared from Cassava Starch and Cassava Resistant Starch. Under Direction of RIMBAWAN.

Resistant starch is a starch that indigestible by enzymes. Resistant starch has health benefits effect, one of which has a slow effect in increasing level of glucose in the blood. Several researchs have shown association between resistant starch content in foods with glycemic index. The objective of this study is to observe the glycemic index value of foods prepared from cassava starch and cassava resistant starch. Cassava resistant starch was made using one and three autoclaving-cooling cycles. Four instan porridges were used in this study namely cassava starch porridge, cassava modification starch prepared using one autoclaving-cooling cycle (one cycle) porridge, cassava modification starch prepared using three autoclaving-cooling cycle (three cycle) porridge, and cassava modification starch porridge with added protein and fat from soy protein isolate, vegetable oil, and eggwhite. The results of analyses showed that resistant starch content of cassava starch porridge, one cycle cassava modification starch porridge, three cycle cassava modification starch porridge, and cassava modification starch porridge with added protein and fat were 4.46% db, 7.09% db, 8.00% db and 5.09% db respectively while the in vitro starch digestibility of those porridges were 83.76% db, 77.94% db, 76.63% db, and 79.32% db respectively. Glycemic index value of cassava starch porridge, one cycle cassava modification starch porridge, three cycle cassava modification starch porridge, and cassava modification starch porridge with added protein and fat were 97.74, 93.69, 106.09, and 93.96 respectively. All porridges can be classified as high index glycemic index food product. Statistical test showed that resistant starch manufacturing process does not affect the glycemic index value (p>0.05).

Keyword: Resistant starch, glycemic index, porridge instant