Nutritional Evaluation of Resistant Starch of Crackers Made of Four Kinds of Starch

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Abstract

In this research, resistant starch content of crackers (=kerupuk) made of corn starch, cassava starch, sago starch and mungbean starch has been studied. Nutritional evaluation of crackers was conducted in experimental rats. It was found that starch content, amylose content and resistant starch content of sago starch were the highest, while those of mungbean starch were the lowest. Bioassay with rats revealed that starch flour diets had no effect on the water content of digesta, but these diets increased the weight, volume, concentration and pooled of the short chain fatty acid (SCFA) of digesta and decreased pH of digesta especially in rats fed sago crackers. Molar ratio of acetate and propionate were highest in rats fed sago crackers, while molar ratio of butyrate was highest in rats fed cassava crackers, therefore it has positive effect on human colon health.

Key words : resistant starch, corn starch, cassava starch, sago starch, mungbean starch, crackers