

RESEARCH AND DEVELOPMENT OF
WHEY PROTEIN PUDDING

CHAN XIANG BIN

B. Sc. (HONS.) FOOD SCIENCE AND NUTRITION
SCHOOL OF APPLIED SCIENCES
UNIVERSITY COLLEGE SEDAYA INTERNATIONAL
2007

ABSTRACT

Whey protein contains excellent nutritional and functional properties. In the world, the volume of disposed whey protein is massive. Besides that, the market tends to produce functional food to meet customer demands. Therefore, the objective of this study was to develop whey protein pudding as functional food with good sensory acceptability in order to improve whey protein usage. Different percentages of whey protein (5%, 10%, 15% and 20%) were substituted into milk. Milk pudding was used as a control. The sensory evaluation, moisture content, water activity, pH, Brix, protein content, and microbiological test were carried out on the samples. A total of 100 panelists were involved in 9 points hedonic rating and ranking test. Results showed that the color, flavor, sweetness, aroma, texture, and overall acceptability of developed samples were not significantly different from the control samples ($P>0.05$). Among the four samples, 20% whey protein pudding had lower mean values in all attributes than others. Besides that, ranking test showed that 5%, 10%, and 15% samples did not have significant difference compared to the control. Apart from that, the moisture content, water activity, protein content, Brix and microbiological test of developed samples did not have significant differences compared to the control. However, the pH of developed samples was significantly different from the control. Besides that, 80% of panelists stated that they are willing to purchase the developed puddings. The 15% sample have the highest potential for commercialization among the developed samples due to its non significant different in sensory and proximate profile compared to the control. Moreover, 15% sample has a lower production cost due to its low milk content. Thus, the objectives of the study were achieved and further development of pudding is needed.