



Effect of hydrocolloids on physicochemical properties of Thai northern style sausages

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Thai northern style sausage (sai-ou) is originally cuisine made of chilli paste, pork and lard. It is always served with curry paste, vegetable and rice. The meat and lard ingredients used can be substituted by Shiitake mushroom (*Lentinus edodes*) and King oyster (*Pleurotus eryngii*) mushroom (50:50 w/w) which is suitable for all people, especially vegetarians. However, the texture of mushroom added sai-ou had no homogenous texture due to no adhesiveness property of mushroom. Therefore, the aim of this research was to study the ratio of hydrocolloids (konjac flour (0-100%), konjac gel (0-100%) and Citri-fi®100 FG (0-2%)) on the physicochemical properties of mushroom added sai-ou. The mixture design was applied by using Minitab 16 software for the experiments. According to such experimental design nine formulas were obtained for the test. The values of moisture content and water activity of nine formulas were in the ranges of 66.25-72.17% and 0.96-0.97. The pH values were 5.44-5.89. The ratio of konjac flour, konjac gel and Citri-fi®100 FG (74.75:24.75:0.5 (w/w)) yielded the highest hardness, cohesiveness, gumminess and chewiness) at 24.57, 0.84, 21.30 and 13.84 N as well as color parameters (L*, a* and b*). Sensory results showed the product having konjac flour, konjac gel and Citri-fi®100 FG in the ratio of 24.75: 74.75: 0.5 (w/w) had the highest acceptability scores in terms of overall liking with the level of “like moderately” (5.9 on 7 point hedonic scale). The mushroom type sai-ou sausage could be an alternative food for health-conscious consumers.

Keywords: Thai northern style sausages; konjac flour; konjac gel