EDIBLE COATINGS FROM CELLULOSE DERIVATIVES TO REDUCE OIL UPTAKE SANGYOD RICE CRACKER

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Abstract- Edible coatings from methylcellulose (MC) and hydroxypropyl methyl cellulose (HPMC) were used to reduce oil uptake in Sangyod rice (Thailand's local rice variety) cracker. Sangyod rice flour was mixed together with some ingredients. It was steamed at 100°C for 4 h, dried with hot air oven at 50°C for 5 hours and fried in palm oil at 150°C for 20 seconds. The studied parameters were the concentrated edible coatings (1 - 2 %) and methods of coating (coating before or after drying process). Uncoated sample was used as a control group. Results of this study showed that the edible coatings significantly reduced oil uptake and increased moisture content of rice cracker more than the control. Coating before drying process with 2% MC decreased oil uptake by 39.74% and increased moisture loss content by 1.26% compared to the control group. Textural analysis of the rice cracker showed that hardness was not different from the control group. In addition, sensory evaluation (color, odor, taste, and texture) showed that the coated sample with 2% MC and coating before drying had no difference for overall acceptability compared to the control sample.

Keywords- Edible Coatings, Methylcellulose, Hydroxypropyl Methyl Cellulose, Oil Uptake, Sangyod Rice