



SALEP MUCILAGE COATING USAGE FOR STUCK-POT RICE BASED ON POTATO AND EVALUATION THE EFFECTS OF FRYING OIL CONDITION

Kosar Mahmood-babooi¹, Mohammad Ekrami², Parisa Sadighara¹, Mohammadreza Rostami¹,
Ebrahim Molaee-aghaee^{1,3✉}

¹ Division of Food Safety & Hygiene, Department of Environmental Health Engineering, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

² Department of Food Science, Technology and Engineering, Faculty of Agricultural Engineering and Technology, University of Tehran, Tehran, Iran

³Department of Food Science and Technology, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran
✉emolaeeaghaee@tums.ac.ir

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ABSTRACT

Coating hydrocolloids are appropriate barriers against carbon dioxide, oxygen and lipids, therefore the amount of absorbed oil can be decreased. Salep as a hydrocolloid source cultivated in western and northwestern Iran is known as a food and pharmaceutical substance. In the present research, Salep mucilage (SaM) was studied as a coating agent with the aim of declining oil absorption and increasing the amount of moisture of stuck-pot rice based on potato (SpP) by using a central-composite design. Salep mucilage concentration (0.75, 1 and 1.25% w/w), frying time (3, 4.5, 6 min) and frying temperature (160, 170 and 180°C) were the examined parameters of this research. The effects of frying oil type (Sunflower oil, corn oil, rice bran oil, canola oil, palm olein oil and hydrogenated vegetable oil as the frying media) and blanching (85°C, 3.5 min in hot water) were examined only at the optimum point. According to the results, optimal conditions for coating and frying processes obtained from RSM were 1.24% (w/w) SaM concentration, 3.6 min frying time at 162°C frying temperature. Salep mucilage can be used as a promising agent to coat deep-fat fried potatoes.
