ABSTRACT

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EFFECTS OF TYPE AND CONCENTRATION OF FILLER AND BINDER ON WHITE OYSTER MUSHROOM (Pleurotus ostreatus) MEATBALL PHYSICOCHEMICAL CHARACTERISTICS
(xvi + 65 pages: 12 tables, 17 figures, and 17 appendices)

White oyster mushroom (Pleurotus ostreatus) is one of the nutritious mushrooms cultivated in Indonesia but the consumption is still low, therefore it is necessary to diversify the product. The objective experimental was to diversify the white oyster mushroom into meatballs analog product to improve human consumption of fiber by determining the type and concentration of filler and binder. Effect of type of filler (cornstarch, tapioca flour, rice flour and wheat flour), filler concentration (5%, 10%, 15%, and 20% per total mass of oyster mushroom), type of binder (egg, isolate soy protein and wheat gluten), and binder concentration (1%, 2%, 3%, 4%, and 5% per total mass of oyster mushroom) on the white oyster mushroom meatballs was observe in this study. The results showed that the best treatment for white oyster mushroom meatballs made by 20% tapioca flour and 5% wheat gluten. White oyster mushroom meatballs from these treatments had greater cooking yield, water holding capacity, intensity of springiness, intensity of cohesiveness, preference of springiness, preference of cohesiveness, and overall acceptance, and also contained 3.13% soluble fiber and 8.62% insoluble fiber. Formulation for the best white oyster mushroom meatballs consisting of 300 g white oyster mushroom, 60 g tapioca flour, 15 g wheat gluten, 15 g vegetable oil, 6 g salt, 3 g sugar, 0.6 g pepper, and 0.3 g MSG.

Keywords: binder, filler, meatball, oyster mushroom
References: 43 (1992-2013)