

The Influence of the Types of Smoke Powder and Storage Duration on Sensory Quality of Balinese Beef and Buffalo Meatballs

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Abstract : This study aims to examine the sensory quality of meatballs made from Balinese beef and buffalo meat after the addition of smoke powder prior to storage at the temperatures of 2-5°C for 7 days. This study used meat from Longissimus dorsi muscle of male Balinese cattle aged 3 years and of male buffalo aged 5 years as the main raw materials, and smoke powder as a binder and preservative in making meatballs. The study was based on completely randomized design (CRD) of factorial pattern of 2 x 3 x 2 where factors 1, 2 and 3 included the types of meat (cattle and buffalo), types of smoke powder (oven dried, freeze dried and spray dried) with a level of 2% of the weight of the meat (b/b), and storage duration (0 and 7 days) with three replications respectively. The parameters measured were the meatball sensory quality (scores of tenderness, firmness, chewing residue, and intensity of flavor). The results of this study show that each type of meat has produced different sensory characteristics. The meatballs made from buffalo meat have higher tenderness and elasticity scores than the Balinese beef. Meanwhile, the buffalo meatballs have a lower residue mastication score than the Balinese beef. Each type of smoke powders has produced a relatively similar sensory quality of meatballs. It can be concluded that the smoke powder of 2% of the weight of the meat (w/w) could maintain the sensory quality of the meatballs for 7 days of storage.

Keywords : Balinese beef meatballs, buffalo meatballs, sensory quality, smoke powder

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