

Effect of Addition Oyster Mushroom Powder on The Storage Stability of Frozen Beef Burger

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This study was performed to evaluate the effect of dried mushroom powder (DMP) at different levels (5, 10, 15 and 20%) in addition control to benefit of oyster mushroom in the preparation of some functional food products and keeping quality characteristics of prepared beef burger during frozen storage at -18 °C for 90 days. Effect of contribution of DMP on quality attributes of burger as chemical composition, chemical characteristics, physical characteristics, sensory characteristics and microbiological criteria were studied. Chemical composition indicated that there were significant differences of burger samples at zero time and 45, 90 days of frozen storage as moisture, protein, lipids and total carbohydrate contents but no significant differences of ash contents. All the examined burger samples showed gradual increases in their values of total volatile basic- nitrogen (TVB-N) and thiobarbituric acid (TBA) with increase DMP percentage during frozen storage period up to 90 days. Cooking loss is greater with increase DMP % than control burger. Data showed that there were acceptances in some sensory properties for the quality of all burger samples with additives from 5 till 10% DMP. Microbiological characteristics of beef burger samples treated with DMP were nearly that of control samples, and that could be due to the presence of phenolic and tannin compounds in oyster mushroom which could act as antimicrobial substances.

Key Words: Oyster mushroom (OM), dried mushroom powder (DMP), functional food products, Beef burger, TVBN, Thiobarbituric acid (TBA), Cooking loss, Microbiological characteristics, Sensory quality.