

**SENSORY EVALUATION OF LOW FAT
CHICKEN MEATBALL ADDED WITH
GUAR GUM, CARRAGEENAN AND
WHEY POWDER**

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ABSTRACT

This study was carried out to determine the sensory characteristics and cooking properties on developing low fat chicken meatball. This low fat chicken meatball had been reduced its fat below 2.5% after cooking by substituting the removal fat with different binders. Binders added are 4% of guar gum, 4% of carrageenan and 4% of whey powder. Sensory evaluation of samples by both the trained and untrained panelists was conducted. Hedonic test was conducted by 100 untrained panelists from students and staffs of UCSI. By comparison in between sample that made of lentil flour, LC scored the highest in terms of appearance and flavour at 5.53 and 5.35 and LGG was lowest at 4.91 and 3.01. For elasticity and chewiness, LWP was highest with score at 4.74 and 5.03 while LGG was lowest at score of 2.16 and 2.20. LC was highest in juiciness with score of 4.60 and LGG was lowest at 2.61. LWP has highest acceptability at score 4.91 and LGG was lowest in acceptability at score 2.23. In comparison between sample made of green bean flour, GBC has the highest score at 5.71 and GBGG was lowest at 4.67 in terms of appearance. GBWP score the highest in flavour (5.72), elasticity (5.19), chewiness (5.27), juiciness (5.10) and overall acceptance (5.50) while GBGG scored lowest for those attributes with score of 2.65, 1.90, 1.92, 2.31 and 1.99. The 10 trained panelists were chosen through a few screening tests and trained to recognize and differentiate the attributes tested. GBGG has highest score in juiciness with 2.92 while GB has lowest at 1.93. In hardness, GB has highest score at 6.00 and LGG was lowest at 2.35. GBWP has highest score at 7.26 and LGG has lowest score at 2.54 for the grittiness. Finally, GB has highest number of chews at 42.33 while LGG has lowest at 22.33. In cooking yield, LGG has highest cooking yield with 96.48% while L has lowest at 94.43%. LGG retained highest moisture at 67.60% and GB retained the least moisture at 62.69%. In fat retention, GBGG have the ability to retain highest fat with 82.14% and L retained the least with 60.40%. GB was highest in diameter reduction with -2.66% while LGG was lowest with -8.29%.

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