# GREEN GRAM FLOUR (*Vigna radiata*) INCORPERATED OVO-VEGGIE BALLS

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Use of plant protein sources as ingredients in manufacturing meat alternative products has increased steadily due to increased vegetarian food consumption over last few decades. This study was carried out to develop a ready to eat ovo-veggie ball with the use of vegetables and green gram flour. In preliminary trials ovo-veggie balls were formulated with different main ingredients of carrot, leeks, boiled potatoes, eggs and rusk powder as the binding agent. Trial and error method was used to select the best levels of these ingredients. Rusk powder used in the formulated recipe was replaced with 8% ($T_1$), 12% ($T_2$) and 16% ($T_3$) of green gram flour. The best level of green gram flour to be incorporated in veggie ball was selected by sensory evaluation, using five point hedonic scale with the help of 30 untrained panelists. The selected best product was stored at -18 $^0$C for one month and pH, moisture, fat, protein, ash contents, and microbiological properties (total plate count and *Escherichia coli*) were measured at weekly intervals. The production cost per 100 g of the best product was calculated. Non parametric data were analysed by Friedman test and parametric data were analysed using an ANOVA. Highest estimated median values for colour, odour, taste, texture and overall acceptability were observed in $T_2$; hence it was selected as the best treatment. $T_2$ consisted of 17.5% carrot, 4% leeks, 12.5% boiled potatoes, 20% eggs and 12% green gram flour. Chemical composition of $T_2$ was 12.5% protein, 0.8% fat, 2.4% ash and 47.6% moisture. After one month of storage $T_2$ was negative for *Escherichia coli.* pH of $T_2$ has significantly decreased ($p<0.05$) after two weeks of storage. The cost of 100 g of $T_2$ was 22.05 LKR.

***Key words*:** Green gram flour, Ovo-veggie ball, Vegetarian