**Traditional Red Rice Flour (*Oryza sativa*) and Mung Bean(*Vigna radiate L*) Flour as Alternatives for Soy Protein Binder in Pork Sausage**

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Binders are the substances used to improve flavor, cooking yield, emulsion stability and textural characteristics of sausage. Isolate Soy Protein (ISP) is the common ingredient used as sausage binder in meat processing industry. Sausage processors faced huge problems due to high cost of soy protein. Hence, more attention has been given to find alternative compounds to replace ISP with low costs. The focus of the present study was to evaluate the suitability of Mung Bean Flour (MBF) and traditional Red rice Flour (RF) as potential replacers of ISP. Two levels of treatment ( 3 % and 6%) of MBF and RF were tested in reference to ISP (2%) in pork sausage making. Proximate composition, water holding capacity, emulsion stability, cooking loss, pH and sensory attributes of formulated sausages were tested. The moisture and ash contents were not significantly (p>0.05) different among treatments. The highest crude protein content (19.27%) was found in ISP added sausages followed by 6% MBF (17.72%). while slightly increased fat (23.01%) was noticed in 6% MBF treatment. The addition of MBF produced sausage with high fiber. The highest Water Holding Capacity (WHC) was found in the control followed by 6% MBF treated sample and the lowest in RF treated samples. Sausages with lowest cooking loss was exhibited from 6% MBF treatment. The addition of 3% RF resulted in the highest Total Fluid Release (TFR) and Fat Loss (FL) indicating weaker emulsion stability among the tested treatments. pH values ranged from 6.0-6.4 for the tested sausages. MBF significantly reduced the pH and this was more at 6% MBF treatment. Sensory data analysis performed with 30 untrained panelists using five- point hedonics scale indicated that there were significant differences in color, flavor, texture and overall acceptability among the tested samples. In overall evaluation of physical and sensory attributes it can be concluded that product with 3% MBF gave the most desirable quality characteristics over the control and thus could be considered as an potential alternative for ISP.

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