

# The Effect of dry powder, prehydration and gelation starch on the meat production

H. Moradiannejad<sup>1</sup> and T. Foster<sup>1</sup>

<sup>1</sup> Division of Food Science, School of Bioscience, University of Nottingham

**Abstract-** Protein-hydrocolloid interactions play an important role in textural and mechanical properties of food. The main objective of this work was to evaluate the effects of dry, pre-hydration and gelation of unmodified wheat starch on meat batter. The researcher used post-rigor beef semimembranous muscle from the local butcher; the meats were pre-weighted and frozen at 20 degrees. The results from texture analysis and SPSS showed that the maximum hardness, gumminess and chewiness was related to 7.4 % dry unmodified starch with 65% meat, maximum cohesiveness and resilience was also related to 3 % dry unmodified wheat starch with 65 % meat. Confocal laser scanning microscopy images showed that the droplets can be seen to decrease in mean size depending on the level of starch added. Differential scanning calorimetry thermograms indicated that the major denaturation peak was attributed to 7.4 % dry starch with 65% meat. In terms of the Rheomertiric test, results showed that in all of the experiments, G' was larger than G. The influence of the starch addition to meat sausages properties is that it changes the textural properties, and microstructure.

**Key words:** interaction-meat- starch

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