

# **Konjac-based oil bulking system for development of improved-lipid pork patties: Technological, microbiological and sensory assessment**

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## **Abstract**

Improved-lipid pork patties were manufactured following two different reformulation strategies: fat reduction by replacement of pork backfat with konjac gel (KG), and fat reduction/lipid improvement by replacement of pork backfat with an improved oil combination (olive, linseed and fish oils) bulking system based on konjac gel (O-KG). Technological, microbiological and sensory properties were analyzed as affected by the type of formulation and by chilled storage (9 days, 2 °C). Fat was reduced by between 30 and 86%. In the cases where OKG was incorporated, 12 and 41% of total fat in patties came from the oil combination. There was no observable effect on color parameters in samples with O-K. Higher KG levels produced harder cooked patties. Animal fat replacement in patties promoted an increase in lipid oxidation, which was more pronounced in samples with an oil combination. In general, during chilled storage no major changes were observed in the studied properties as a result of the different treatments.