

Potentialities of Hargel (*Solenostemma argel*) Extract as a Preservative for Processed Meat

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ABSTRACT

This study was conducted to assess the effect of hargel (*Solenostemma argel*) extract (HE) as a natural preservative in processed meat. Minced meat was processed by the addition of 0%, 5% and 10% hargel extract, packed in polyethylene bags, refrigerated and assessed objectively and subjectively at 0, 3 and 7 days post – processing. Data were collected on pH, peroxide value (PV) and moisture, protein and fat content, total viable bacterial count (TVC), total coliform (TC), *Escherichia coli*, *Staphylococcus aureus* and psychrotrophic bacteria (PS). Minced meat without HE (0%) had the highest ($P \leq 0.05$) moisture content, pH, TVC, TC, *E. coli*, *S. aureus* and PS. On the other hand, minced meat with 10% HE had the lowest PV, TVC, TC, *E. coli*, *S. aureus* and PS. Generally, the bacterial counts decreased with increase in HE concentration. The treated minced meat, particularly with 10% HE, showed all the indices of shelf life extension. Incorporation of hargel enhanced processed meat quality in terms of microbial safety and fat stability, probably HE contains antimicrobial and antioxidant compounds. More studies are needed to ascertain these findings and assess consumer acceptability of meat products treated with hargel.

Key words: Hargel; extract; meat; preservative natural; antimicrobial; antioxidant