

Abstract

Keells Food Products Limited is the number one processed meat producer in Sri Lanka. Their main processed meat products are various types of sausages, meat balls, hams and bacons. The Krest Factory is for battered and crumbed products. Quality is one of the key areas that Keells people looking for and it is proven by obtaining ISO 9001 and HACCP certificate for its products.

During the in-plant training, most of the factory operations are familiarized and experiment was conducted to formulate an empirical formula for shelf of the final marketable product that expressed the shelf of the final marketable product store under specific environmental conditions. (Freeze, chill and store in room temp)

Two types of meat products, a luncheon meat slices, and chicken sausages were vacuum packed. All types were divided into 3 groups. One group was stored at a freeze temperature (-15.6°C). Another group stored at chill condition (8.6°C). The last group was stored at alternating temperature at freeze and chill condition (-7.6°C).

The empirical formula describing shelf life in meat products was expressed as:-

$Y = 63.211 - 4.89 x_1 - 0.00000795 x_2$. This equation puts in mathematical form the fact that Y is a storage time (weeks), x_1 is a temperature, x_2 such as initial total plate count. Shelf life was assessed by sensory evaluations, supplemented with microbiological analyses.