ABSTRACT

In the current situation of Sri Lanka, most of mothers show an increasing trend to buy infant foods from market for their babies without preparing them at home and simultaneously since the crude birth rate is increasing at 1.3% annually, the demand is also increasing.

The above phenomenon demands infant foods to be imported from other countries both by government and private sectors to fulfil the market requirements. The situation has mainly arisen, due to lack of production of infant foods in Sri Lanka.

Corn, pumpkin, soya bean, and potato are some broadly cultivated crops in Sri Lanka with constant yields through out the year and contain lots of nutrients in the form of vitamins and minerals which are important to growth and development of infant.

The present research was conducted to utilize, tender corn to produce a semisolid base which contain 79.32% of moisture, 12.98% of carbohydrate, 4.6% of protein, 0.4% of fat, 2.0 % of fiber, 0.7% of ash. The 85% of semisolid base was formulated from 8.7% of pumpkin, 2% of potato and 4% of soya bean oil to reach the nutritional level up to Food and Drug Administration standards.

The major raw material of this product is tender corn which is harvested before contamination with aflatoxin hence the product is free from hazards of *Aspergillus*.

The product shelf life was evaluated at 4^0C-5^0C for three weeks with two types of packaging materials namely Triple Laminated Aluminium Foil and Polypropylene by the aerobic total plate count.

According to statistical analysis results (paired t test) Triple Laminated Aluminium Foil was selected as suitable packaging materials at 4^0C-5^0C for three weeks under Sri Lanka Standard 651(1989) Specification for Infants Formula.

The safety of the product for consumer was tested through determination of Coliform and *Salmonella* under SLS: 651, 1989. The results showed that the product is free from Coliform and *Salmonella* at 4^0C-5^0C for 3 weeks shelf life.

According to the trials and findings finally a good quality infant food was developed with 78.09% of moisture, 11.04% of carbohydrate, 4.06% of protein, 4.4% of fat, 1.76% of fiber and 0.65% of ash.