DEVELOPMENT OF HEALTHY PARSTEURIZED MILK FOR DIEBETES PATIENTS USING SKIM MILK. (Eleusine coracana, Theobroma cacao and Cinnanomum zeylaxicum)

W.M.A.N.J.Bandara¹, N.R.V. Abesinghe², A.Colonne¹ and Asoka Gunawardane¹

¹Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Amuradhapura, Sri Lanka, ²Mileo Pvt Ltd, Digana, Sri Lanka,

Diabetes has become an unstoppable epidemic disease in Sri Lanka, and the patients have deviated from the dairy products due to its high content of dietary caloric level. Researchers have investigated value added food with medicinal values to satisfy the needs of various patients. There is a potential to produce healthy dairy products for diabetic patients. It has found that Finger millet, Cocoa and Cinnamon contain beneficial effects on diabetes. Therefore this study aim to develop a low fat, sugar free, finger millet containing cocoa and cinnamon flavored pasteurized milk. The best level from each treatment was determined based on the results of the sensory evaluation carried out by using 15 panelists with five point hedonic scale. The selected two recipes from the preliminary trials were again tested for sensory acceptability.

Acording to the results, the treatment containing 1% finger millet with cinnamon flavor was selected as the best recipe. The selected product was used for further storage studies with a plain pasteurized milk sample as the control. Titratable acidity, pH, Total Plate Count (TPC) and Ecoli form were evaluated daily for 10 days period under refrigerated conditions (10°C). Data from the storage study were analyzed using pooled "t test". The product quality was compatible with the Sri Lanka Standards (SLS 181:1983) specified for milk and milk products. Slight increase in acidity and decrease in pH were observed in the developed product than plain pasteurized milk. The study revealed that 1% of finger millet containing cinnamon flavored pasteurized milk could be effectively used to produce premium quality flavored pasteurized milk. The developed product could be effectively stored under refrigerated condition (10°C) for 10 days with minimum quality deterioration.

Key words: Cinnamon, Cocoa, Finger millet, Milk, Pasteurization