

Development of a set yoghurt by incorporating cow's and soy milk

¹Lakmini GWAS, ²Rajapaksha RPNP and ¹Ranadheera CS

¹Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Sri Lanka; ²Board of Study of Food Science and Technology, Post Graduate Institute of Agriculture, University of Peradeniya, Peradeniya, Sri Lanka

Corresponding author: lakminiws@gmail.com

Yoghurt is one of the popular traditional milk products produced by fermenting milk with lactic acid bacteria which is responsible for the development of typical yoghurt flavor. There is growing interest in developing soy milk based fermented products due to nutritional value, health benefits and vegetarianism. Therefore present study was conducted to develop set yoghurt from various proportions of cow milk and soy milk. Four yoghurt samples were prepared with different proportions of soy and cow's milk. Percentages of soy milk in four treatments were: T1; 25 %, T2; 50 %, T3; 75 % and T4; 0 % (control). Rest of the proportion was compensated with adding cow milk to develop 100 % yoghurt mixture. Titratable acidity (%) and pH were measured at three days intervals during 15 days of storage period at 4 °C. Yeast and mould counts were enumerated on 1st, 8th and 15th day. Sensory evaluation was conducted with 30 untrained panellists using a five point hedonic scale at the days of 1st, 8th and 15th. Results of the sensory evaluation revealed that T1 was the most preferred product among soymilk added yogurt samples. During the storage period pH and titratable acidity of T1 samples fell within 4.87 ± 0.01 to 4.6 ± 0.005 and 0.8 ± 0.1 to 1.1 ± 0.05 respectively. According to the Sri Lankan standards, yeast and mould counts were within the acceptable limits for 15 days in all treatments. Therefore it can be concluded that, incorporation of soy milk in to cow milk is possible in order to produce yoghurt with acceptable qualities and the product can be stored for two weeks in refrigerated conditions without major quality deterioration.

Keywords: Cow Milk, Set yoghurt, Soy milk