

ABSTRACT

Nutritional quality changes in whole buffalo milk were studied after boiling for different periods (2,4,6 hrs) and storage for different time periods (1,2,3 months). The Parameters studied were, nutritional aspects (pH, titratable acidity, Lactose, fats, total nitrogen, non-casein nitrogen, non-protein nitrogen, moisture, ash, and hydroxymethyl furfural contents. The chemical composition of UHT processed buffalo milk were studied after boiling for different time periods . A significant decrease in pH and an increase in titratable acidity was observed after boiling whole buffalo milk. Decrease in casein nitrogen alongwith an increase in non-protein and non casein nitrogen was observed to various extents on boiling. After 6 hrs boiling of milk decrease in casein nitrogen was 18.18-21.77% whereas increase in non-protein nitrogen and non-casein nitrogen was 114-165% and 60-81% respectively. However, total nitrogen contents of whole buffalo milk remained unchanged during boiling process. Similarly, decrease in lactose contents was also observed during boiling of buffalo milk. Fat and ash contents of buffalo milk did not change as a result of boiling. A significant increase in hydroxymethyl furfural (HMF) values was noted due to degradation of lactose after boiling process.

The physicochemical properties of UHT processed buffalo milk during storage for different time periods (1,2,3 months) were carefully studied. The pH and titratable acidity was observed ,there was no remarkable increase in two months storage of UHT Processed buffalo milk .At 40 ° C pH changes from 6.73 to 6.10 and titratable acidity increased from 0.15 to 0.26. There is a drastic change in nitrogenous component of buffalo milk after storage at 40°C decrease in casein nitrogen was 28.75% whereas