SUMMARY

In the present study 50 milk samples were collected to detect the various milk adulterants during period of study. Individual raw milk samples were collected from different local vendors of Guwahati city. The milk samples were tested by using a standard milk adulteration kit manufactured by HIMEDIA laboratories for the following adulterants – formalin, urea, starch, neutralizers (NaHCO3, Na2CO3, NaOH and Ca(OH)2 etc., detergents, sodium chloride, skim milk powder, sucrose, glucose/dextrose, hydrogen peroxide and acidity and heat stability.

The adulterants to be detected were grouped into three classes for analysis as given below:

Group I: Starch, Sucrose, Glucose and Skim Milk Powder.

Group II: Acidity/Alkalinity, Neutralizers, Sodium Chloride and Urea.

Group III: Formalin, Hydrogen Peroxide and Detergents .

It was observed from the Group 1 analyses that all samples were found negative for starch. Forty four percent of the samples were found to be positive for glucose and skim milk powder and 2% of the samples were positive for sucrose. In Group 11 category forty percent of the samples were found to be positive for acidity and alkanity and 32% were positive for sodium chloride while neutralizers and urea were found to be negative in all the samples.

The analyses of Group 111 category showed that detergents were present in 30% of the samples whereas formalin and hydrogen peroxide were found to be negative in all the samples.

CONCLUSION

Milk is an important component of human diet, especially of growing children, pregnant women and patients. Milk is a perfect food, readily digested and absorbed. It is a sole natural food for infants and children. But these days it is being adulterated with harmful substances which enhance its quantity and characteristics but reduces its quality. Through our survey and tests it's clear that milk is not as it should be there for the consumers. It is being adulterated with glucose, skim milk powder, sucrose, detergents, shampoo and sodium chloride, which may have harmful impact on human health. Thus, adulteration of milk poses a serious threat. In this preliminary study, some. of the milk samples from in and around Guwahati were found to be non-conforming to the standards laid down by FSSAI, though the adulterants used by the milk vendors are somewhat tolerable than the adulterants used by vendors across the globe as reported by various authors in their studies. The only remedy to this persistent problem is to create awareness among consumers regarding their rights. The consumer can get milk (food) analyzed, as per section 40 and 42 of Food Safety and Standards Acts, 2006 and Section 2.2.4 of the Food safety and Standards Rules, 2011.

Consumers are unaware of this and government is doing very less to bring it into notice. But with proper awareness among the people understanding the criticality of the issue, adulteration can be prevented. If consumers know about the adulteration practices and proper techniques to avoid them, the practice of adulteration would itself be minimized.