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## Studies on recent techniques in detection of adulterants in milk

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Milk is a product of biological origin and can accommodate any additive without apparent changes in its appearance. Milk is almost the perfect food that supplies all necessary nutrients; hence its quality is needed to be checked for adulteration. In the present investigation, milk samples were collected from local dairy farmers (cow and buffalo breed) and analyzed in the laboratory for quality testing, specifically adulteration in milk. The received raw milk samples were tested in laboratory for electrical conductivity and refractive index as control (T0) and then adulterated with water, sugar, starch, urea and salt of the concentration as treatment T1 (1%), T2 (2%), T3 (3%), T4 (4%), and T5 (5%), of the milk sample each respectively. The efforts were made to detect adulterants as to render the values of electrical conductivity and refractive index for these adulterants. The existing methods also were used to confirm these adulterants. Lots of tests are generally carried out to test the various adulterants hence lots of rupees are also spent. The cost of production can be minimized by testing electrical conductivity and refractive index. If sample showing lower or higher electrical conductivity or refractive index means it is adulterated. Therefore only suspected samples should be separated and tested for specific test. In this way one can save cost of production and time on milk processing. From the present investigation, it is concluded that various cow and buffalo breed milk has a specific value of electrical conductivity and refractive index, and the electrical conductivity and refractive index of milk changes due to the adulteration with water, starch, sugar, urea and salt.

### Biography

Dande K G has earned his MSc (Agri) in Animal Husbandry and Dairying in 1982, MPhil in Zoology (1997) and PhD in Dairy Science in 2012. Presently, he is working as an Associate Professor and Head of Department of Dairy Science. His research areas include livestock nutrition and management, dairy science, histological, histochemical and epidemiological studies in arthropod insects and parasites. He is the Ex-honorary Animal Welfare Officer, Animal Welfare Board of India, Ministry of Environment and Forest, Government of India. He was the member of Academic Council and member and Chairman of Board of Studies in Dairy Science SRTM University. He is a frequent reviewer of national, international and indexed journals, and has published 10 research papers in national and 14 in international journals till date.

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