

COMPARATIVE STUDY ON ANTIOXIDANT CAPACITY, OXIDATIVE CHANGES AND *in vitro* DIGESTIBILITY OF SPRAY DRIED CAMEL, GOAT AND COW MILK POWDER DURING ACCELERATED STORAGE

Apekshaben G. Sonara, Somnath Sahu, Sonali L. Parekh, Dhartiben B. Kapadiya, Amit Kumar Jain and Bhavbhuti M. Mehta

Dairy Chemistry Department, SMC College of Dairy Science, Kamdhenu University, Anand, Gujarat, India

ABSTRACT

The antioxidant capacity, oxidative changes and rate of digestibility of camel milk powder were compared with that of goat and cow milk powder. The average antioxidant capacity of all milk powder varied range from 14.27 to 33.13 per cent inhibition. Among all powder samples, camel milk powder was found to have higher antioxidant capacity while the lowest antioxidant capacity was observed in cow milk powder. The initial values of free fatty acids varied from 1.93 to 2.60, 1.80 to 3.22 and 2.17 to 2.60 per cent oleic acid for camel, goat and cow milk powder, respectively. The peroxide and TBA value of all the samples increased at the end of the storage. Camel milk powder had higher rate of digestion as compared to goat and cow milk powder.

Key words: Antioxidant capacity, camel, cow, goat, *in vitro* digestibility, milk powder, oxidative changes