

ANTIOXIDANT PROFILE OF RAW MILK OF INDIGENOUS CATTLE AND BUFFALO BREED OF RAJASTHAN, INDIA

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Abstract

The presence of antioxidants helps to neutralize the reactive species as they prevent the formation of free radicals and inhibit the lipid per oxidation, thus reducing the severity of oxidative stress. Therefore, the present study was designed to evaluate the anti-oxidant capacity of milk samples from different indigenous cattle and buffalo breed of Rajasthan. The oxygen radical absorbance capacity of these breeds was estimated by using Ferric Reducing Antioxidant Power (FRAP) and 1, 1-diphenyl-2-picrylhydrazyl radical (DPPH) inhibition assay. Total 675 raw milk samples were collected from Rajasthan University of Veterinary and Animal Sciences (RAJUVAS) university animal farm. The results depicted that the raw milk from Gir breed has the highest antioxidant capacity which is followed by Tharparkar, Kankrej, Sahiwal, Rathi and HF. In buffalo total antioxidant capacity of Surti is higher than Murrah. Kankrej and Surti showed the highest free radical scavenging activity among the cattle and buffalo breeds respectively.

Keywords

Raw Milk, Indigenous breed, Total Antioxidant Capacity, Scavenging Activity, FRAP assay, DPPH assay.